



Llywodraeth Cymru
Welsh Government

ARFARNIAD CYNALIADWYEDD INTEGREDIG O 'LLWYBR NEWYDD - STRATEGAETH DRAFNIDIAETH NEWYDD I GYMRU' - DRAFFT YMGYNGHORI

HYDREF 2020

Incorporating

EC HARRIS
BUILT ASSET
CONSULTANCY



RHEOLI FERSIYNAU

Fersiwn	Dyddiad	Awdur	Gwirydd	Newidiadau
0.1	Hydref 2020	JE	ST/AP	Drafft cyntaf i'w adolygu gan LIC
0.2	Hydref 2020	JE	ST	Fersiwn gymeradwy i'w chyfieithu

Paratowyd yr adroddiad hwn, dyddiedig 26 Hydref 2020 ar gyfer Llywodraeth Cymru a Trafnidiaeth Cymru (y “Cleient”) yn unol â'r telerau ac amodau penodi, (y “Penodiad”) rhwng y Cleient ac **Arcadis (UK) Limited** (“Arcadis”) at y dibenion a bennir yn y Penodiad. Er mwyn osgoi amheuaeth, ni chaiff unrhyw berson arall ddefnyddio na dibynnu ar yr adroddiad hwn na'i gynnwys, ac nid yw Arcadis yn derbyn unrhyw gyfrifoldeb am unrhyw ddefnydd neu ddibyniaeth o'r fath gan unrhyw drydydd parti arall.

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ATODIAD A CYNLLUNIAU, RHAGLENNI AC AMCANION DIOGELU AMGYLCHEDDOL A ADOLYGWYD

ATODIAD B DATA LLINELL SYLFAEN A MATERION A CHYFLEOEDD ALLWEDDOL

ATODIAD C COFNOD YMATEBION I'R YMGYNGHORIAD CWMPASU

ATODIAD D CANLYNIADAU ASESU

TALFYRIADAU

yACA	Ymgeisydd Ardal Cadwraeth Arbennig
UE	Undeb Ewropeaidd
ACI	Arfarniad Cynaliadwyedd Integredig
CDLI	Cynllun Datblygu Lleol
AGEHI	Ardal Gynnyrch Ehangach Haen Is
NTS	Crynodeb Annhechnegol
AGAp	Ardal Gwarchodaeth Arbennig Posibl
ACI	Arfarniad Cynaliadwyedd Integredig
AAS	Asesiad Amgylcheddol Strategol
DU	Y Deyrnas Unedig
CCUHP	Confensiwn y Cenhedloedd Unedig ar Hawliau'r Plentyn
WHIASU	Uned Gymorth Asesu Effaith ar Iechyd Cymru
MALIC	Mynegai Amddifadedd Lluosog Cymru
SDC	Llwybr Newydd – Strategaeth Drafnidiaeth Newydd i Gymru

CRYNODEB ANNHECHNEGOL

Diben y Crynodeb Annhechnegol

Mae'r ddogfen hon yn grynodeb mewn iaith annhechnegol o'r Arfarniad Cynaliadwyedd Integredig (ACI) o 'Llwybr Newydd - Strategaeth Drafnidiaeth Newydd i Gymru - Drafft Ymgynghori' (SDC) Llywodraeth Cymru. Mae rhagor o fanylion ar gael yn Adroddiad yr ACI.

Beth yw 'Llwybr Newydd – Strategaeth Drafnidiaeth Newydd i Gymru'?

- 1.1.1 Dogfen statudol yw SDC sy'n ofynnol o dan Ddeddf Trafnidiaeth (Cymru) 2006 (y Ddeddf). Mae'r Ddeddf yn ei gwneud yn ddyletswydd ar Weinidogion Cymru i baratoi a chyhoeddi SDC yn nodi ei pholisïau a sut y byddant yn cael eu cyflawni. Mae SDC yn nodi blaenoriaethau strategol a chanlyniadau dymunol Llywodraeth Cymru; mae SDC yn rhoi sylw i bob dull trafndiaeth, gan gynnwys cerdded, beicio, trafndiaeth gyhoeddus, cerbydau trydan a'r car preifat.
- 1.1.2 Mae Llywodraeth Cymru yn bwriadu datblygu'r SDC newydd er mwyn darparu gweledigaeth hirdymor ar gyfer trafndiaeth dros y 25 mlynedd nesaf, gan gydnabod nifer o newidiadau diweddar a gyda'r nod o roi sylw i gyfleoedd a heriau'r dyfodol. Bydd SDC yn darparu'r fframwaith strategol y bydd angen gwneud penderfyniadau am opsiynau buddsoddi yn y dyfodol yn unol ag ef. Ni fydd yn nodi nac yn cyflwyno prosiectau, cynlluniau, mentrau nac ymyriadau penodol, gan y bydd y rhain yn cael eu nodi yn y Cynllun Cyflawni Cenedlaethol ar gyfer Trafnidiaeth manwl 5 mlynedd ac mewn Cynlluniau Trafnidiaeth Lleol.

Beth yw'r Arfarniad Cynaliadwyedd Integredig?

- 1.1.3 Proses o arfarnu cynnwys SDC, fel y mae wedi'i hysgrifennu, yw'r ACI, yn erbyn cyfres o amcanion cynaliadwyedd er mwyn helpu i hybu datblygu cynaliadwy a phrofi SDC cyn iddi ddod i rym. Cynhaliwyd yr ACI trwy gydol y gwaith o baratoi SDC ac mae wedi gallu bwydo argymhellion yn ôl i wella perfformiad datblygu cynaliadwy cymharol SDC. Mae'r ACI yn cynnwys asesiadau sy'n ofynnol yn statudol a chan Lywodraeth Cymru ac mae'n bodloni gofynion cyfreithiol y Gyfarwydddeb Asesu Amgylcheddol Strategol (AAS) Ewropeaidd. Mae'r ACI yn lefel uchel ac yn ystyried effeithiau cadarnhaol a negyddol SDC. Diben hyn yw helpu i sicrhau bod defnyddiau tir yn y dyfodol yng Nghymru dros yr 20 mlynedd nesaf yn gynaliadwy.
- 1.1.4 Un o'r 'ffyrdd o weithio' sy'n rhan o egwyddor datblygu cynaliadwy Llywodraeth Cymru yw'r angen i fabwysiadu dull integredig ar gyfer yr hyn yr ydym yn ei wneud. Mae'r ACI, felly, yn cynnwys nifer o asesiadau statudol ac anstatudol eraill. Mae hyn yn caniatáu i ni gymryd golwg fwy cyflawn ar y goblygiadau a'r cyfleoedd cynaliadwyedd sy'n deillio o SDC. Mae'r ACI yn integreiddio'r asesiadau a'r gofynion deddfwriaethol canlynol: Arfarniad Cynaliadwyedd; AAS; Deddf Llesiant Cenedlaethau'r Dyfodol (2015); Mesur y Gymraeg (Cymru) 2011; Asesiad o'r Effaith ar Gydraddoldeb; Asesiad o'r Effaith ar Hawliau Plant; Rheoli Adnoddau Naturiol yn Gynaliadwy a'r Polisi Adnoddau Naturiol (Deddf yr Amgylchedd (Cymru) 2016). Mae'r ACI hefyd yn cymryd i ystyriaeth ofynion anneddfwriaethol asesiadau yn ymwneud â Phrawfesur Gwledig; Effeithiau Iechyd; Newid Hinsawdd; a Datblygiad Economaidd.
- 1.1.5 Mae integreiddio'r asesiadau hyn yn sicrhau bod dull cydweithredol yn cael ei fabwysiadu ar wahanol faterion, gan rannu gwybodaeth a chydabod cysylltiadau rhwng pynciau mewn ffordd gyson a thryloyw.

Prosesau'r ACI a'r FfDC Hyd yn Hyn

- 1.1.6 Dechreuodd y gwaith o baratoi SDC gyda phroses o gasglu tystiolaeth ac ymgysylltu â rhanddeiliaid ddechrau 2020. Ymgynghorwyd ar fersiwn ddrafft o Adroddiad Cwmpasu'r ACI rhwng 05 Mai a 31 Gorffennaf 2020. Hefyd, cynhaliwyd gweithdy ddechrau mis Mai gyda rhanddeiliaid sy'n cynrychioli'r

ystod o brosesau asesu i'w hintegreiddio i'r ACI. Cyflwynwyd Adroddiad Cwmpasu'r ACI i randdeiliaid statudol ar gyfer sylwadau, yn ogystal â rhanddeiliaid perthnasol neu â buddiant eraill.

- 1.1.7 Ym mis Medi 2020, aseswyd fersiwn gynnar o SDC yn yr ACI. Bwydwyd canlyniadau'r broses hon yn ôl i dîm llunio SDC er mwyn helpu i hysbysu eu proses o wneud penderfyniadau ac i sicrhau bod ystyriaethau amgylcheddol a chynaliadwyedd yn cael eu hintegreiddio i SDC o'r cychwyn.
- 1.1.8 Ym mis Hydref 2020, paratowyd drafft diwygiedig o SDC a hwn oedd canolbwynt yr Adroddiad ACI hwn. Rhagwelir y bydd SDC yn cael ei chyhoeddi ar gyfer ymgynghori yn ddiweddarach yn 2020, wedi'i hategu gan yr Adroddiad ACI hwn, ac y byddai'r ymatebion a dderbynnir yn cael eu hystyried wedi hynny a SDC a'r ACI hwn yn cael eu diwygio yn unol â hynny.

Sut y cynhaliwyd yr ACI

- 1.1.9 Ysgogwyd cwmpas daearyddol yr ACI gan gwmpas daearyddol SDC, h.y. Cymru gyfan. Bwriedir i SDC fod yn weithredol am 25 mlynedd ar ôl ei mabwysiadu. Adlewyrchwyd yr amserlen hon yn yr ACI. Bwriad yr ACI oedd galluogi egwyddorion datblygu cynaliadwy i gael eu hymwreiddio mewn SDC o'r cychwyn.

Fframwaith yr ACI

- 1.1.10 Un o allbynnau allweddol Cam Cwmpasu'r ACI oedd Fframwaith yr ACI. Fframwaith yr ACI yw'r prif ddull asesu a ddefnyddiwyd yn ystod yr ACI ac mae'n cynnwys cyfres o 13 o Amcanion ACI yn cynnwys materion cymdeithasol, economaidd, diwylliannol ac amgylcheddol a nodwyd yn ystod Cam Cwmpasu'r ACI. Rhestrir Amcanion yr ACI yn Nhabl NTS-1. Defnyddiwyd yr Amcanion ACI hyn i brofi perfformiad SDC trwy arfarnu pob elfen o SDC ar gyfer ei heffeithiau tebygol ar bob Amcan ACI.
- 1.1.11 Mae Fframwaith yr ACI yn galluogi dull integredig o asesu effeithiau'r FfDC trwy ddod â'r gwahanol asesadau o effaith a restrir uchod yn un fframwaith arfarnu unigol.

Tabl NTS-1: Amcanion yr ACI yn Fframwaith yr ACI, yr arferir SDC yn eu herbyn

Rhif	Amcan yr ACI
1	Cyfrannu at welliant i iechyd a llesiant corfforol, meddyliol a chymdeithasol pawb, gan gynnwys cyfrannu at leihau anghydraddoldebau iechyd ledled Cymru
2	Creu'r amodau lle gellir sicrhau gwelliant i gydlyniant cymdeithasol a chydraddoldeb
3	Cefnogi datblygiad economaidd cynaliadwy ac amrywiaeth
4	Diogelu a hybu diwylliant Cymru a gwella mynediad at fannau diwylliannol a hamdden
5	Annog camau i ddiogelu a hybu'r Gymraeg
6	Lleihau allyriadau nwyon tŷ gwydr o drafnidiaeth
7	Galluogi cydnerthedd yn erbyn y newid yn yr hinsawdd
8	Diogelu a gwella ansawdd aer
9	Diogelu a gwella nodweddion unigryw lleol ein tirweddau a'n trefluniau
10	Hybu camau i warchod a gwella asedau treftadaeth
11	Hybu camau i warchod a gwella bioamrywiaeth a geoamrywiaeth
12	Sicrhau'r defnydd cynaliadwy o adnoddau naturiol
13	Galluogi camau i ddiogelu ardaloedd tawel ac atal llygredd sŵn a golau

Arfarniad o SDC

- 1.1.12 Mae SDC wedi'i strwythuro yn y ffordd ganlynol:

- 1. Gweledigaeth

- *Yn nodi beth yw'r FfDC, sut y mae'n cyd-fynd â pholisi ehangach Llywodraeth Cymru a strwythur system gynllunio Cymru.*
- 2. Ein Huchelgeisiau Hirdymor ar gyfer Trafnidiaeth yng Nghymru
 - *O ddaioni i bobl a chymunedau*
 - *O ddaioni i'r amgylchedd*
 - *O ddaioni i'r economi a lleoedd yng Nghymru*
 - *O ddaioni i ddiwylliant ac iaith Cymru*
- 3. Ein Blaenoriaethau 5 Mlynedd
 - *Blaenoriaeth 1: Cynllunio ar gyfer gwell cysylltedd*
 - *Blaenoriaeth 2: Gwasanaethau trafnidiaeth gyhoeddus y gall pobl eu defnyddio, y maent eisiau eu defnyddio ac y maent yn eu defnyddio*
 - *Blaenoriaeth 3: Seilwaith trafnidiaeth diogel, hygyrch, wedi'i gynnal a'i gadw'n dda*
 - *Blaenoriaeth 4: Newid ymddygiad*
 - *Blaenoriaeth 5: Mabwysiadu dulliau arloesi sy'n cynnig dewisiadau trafnidiaeth mwy cynaliadwy*
- 4. Yr Hyn y Byddwn yn ei Fesur;
- 5. Sut y Byddwn yn Cyflawni;
- 6. Y Pum Dull o Weithio; a
- 7. Cynlluniau Cryno: Dulliau a Sectorau Trafnidiaeth
 - *Cynllun Cryno ar gyfer Teithio Llesol;*
 - *Cynllun Cryno ar gyfer Bysiau;*
 - *Cynllun Cryno ar gyfer Rheilffyrdd;*
 - *Cynllun Cryno ar gyfer Ffyrdd, Strydoedd a Pharcio;*
 - *Cynllun Cryno ar gyfer Sectorau Trafnidiaeth Cymunedol a Di-elw;*
 - *Cynllun Cryno ar gyfer Tacsis a Cherbydau Hurio Preifat;*
 - *Cynllun Cryno ar gyfer Cludo Nwyddau a Logisteg;*
 - *Cynllun Cryno ar gyfer Porthladdoedd a Thrafnidiaeth Forol;*
 - *Cynllun Cryno ar gyfer Hedfanaeth.*

1.1.13 Mae'r arfarniad yn yr ACI wedi canolbwyntio ar Benodau 1 (Gweledigaeth), 2 (Uchelgeisiau), 3 (Blaenoriaethau), a 7 (Cynlluniau Cryno). Ystyriwyd Pennod 4 (Yr Hyn y Byddwn yn ei Fesur) yn rhan o ddatblygiad y fframwaith monitro.

Canlyniadau Asesu

1.1.14 Mae adroddiad yr ACI a'i atodiadau yn cyflwyno'r canlyniadau asesu llawn a manwl ar gyfer SDC. Darperir crynodeb o'r canlyniadau hyn yn Nhabl NTS-2.

Tabl NTS-2: Crynodeb o'r effeithiau a nodwyd yn ystod yr ACI o ddrafft mis Hydref (2020) SDC

Crynodeb o'r effeithiau ar gyfer pob Amcan yn yr ACI
<p>1. Cyfrannu at welliant i iechyd a llesiant corfforol, meddyliol a chymdeithasol pawb, gan gynnwys cyfrannu at leihau anghydraddoldebau iechyd ledled Cymru</p> <p>Byddai SDC yn helpu i wneud trafnidiaeth gyhoeddus yn fwy hygyrch i amrywiaeth ehangach o bobl, yn enwedig o ganlyniad i'r Uchelgeisiau, Blaenoriaethau 1, 2, 3 a 5 yn ogystal â'r Cynlluniau Cryno ar Deithio Llesol, Bysiau a Rheilffyrdd. Byddai gwell mynediad at opsiynau trafnidiaeth gyhoeddus o ansawdd uwch sy'n cludo pobl i'r lleoedd y maen nhw angen mynd iddynt, a phryd y maen nhw angen cyrraedd yno, yn helpu i sicrhau y gall mwy o bobl gael mynediad gwell at gyfleusterau iechyd a gofal cymdeithasol, cyfleoedd ymarfer corff a hamdden yn ogystal ag amrywiaeth eang o gynefinoedd lled-naturiol. Mae trafnidiaeth gyhoeddus hefyd yn helpu i fynd i'r afael â'r perygl o ynysigrwydd cymdeithasol trwy gynnig dull o ryngweithio cymunedol anffurfiol â chymdogion lleol. Nid yw rhyngweithio cymdeithasol yn bosibl pan fo pobl yn ddibynnol ar geir ar gyfer y rhan fwyaf o'u teithiau. Gall ffyrdd, a ffyrdd prysur yn benodol, hefyd arwain at rannu cymunedau o bobtu'r ffordd.</p> <p>Nod SDC yw sicrhau bod datblygiadau newydd yn gynyddol hygyrch trwy sicrhau bod seilwaith trafnidiaeth wedi'i leoli yn agos at gartrefi a bod datblygiadau yn hygyrch trwy gerdded a beicio. Caiff hyn ei atgyfnerthu trwy gydol yr Uchelgeisiau yn SDC yn ogystal â'r Cynlluniau Cryno ar Deithio Llesol, Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol. Mae'n debygol felly y gall yr holl bobl leol gael mynediad at gyfleusterau cymunedol newydd, mannau hamdden yn ogystal â chyfleusterau iechyd newydd a mannau agored, yn effeithlon ac yn gynaliadwy.</p> <p>Gallai'r Uchelgeisiau, y Blaenoriaethau a'r Cynllun Cryno ar Deithio Llesol hwyluso cyfraddau sylweddol uwch o gerdded a beicio i bobl yng Nghymru, sydd wedi bod yn ddisymud yn y blynyddoedd diwethaf. Cerdded a beicio yw'r dull mwyaf cynaliadwy o deithio ond mae hefyd yn cynnig manteision iechyd sylweddol, er enghraifft oherwydd ymarfer corff a'r rhyngweithio cymunedol cynyddol. Gallai gwelliannau i gysylltiadau teithio llesol fod yn arbennig o fuddiol i grwpiau penodol o gymdeithas, gan gynnwys yr henoed, y rhai nad oes ganddynt fynediad at gar, a phlant sy'n teithio yn ôl ac ymlaen i'r ysgol.</p> <p>Byddai SDC yn sicrhau bod y rhwydwaith ffyrdd strategol yn cael ei gynnal, yn unol â rhwymedigaethau cyfreithiol y Llywodraeth. Ei nod fyddai sicrhau bod gwasanaethau a chyfleusterau newydd yn agos, neu mewn lleoliadau hygyrch, ar gyfer pobl sydd angen eu defnyddio (e.e. gweler Blaenoriaeth 1). Byddai hyn yn galluogi amseroedd teithiau mwy effeithlon a chyflymach i bobl, gan roi mwy o amser rhydd iddynt y tu allan i'w teithio neu eu cymudo, i ddilyn eu diddordebau personol eu hunain. Gallai hyn fod o fudd mawr i iechyd a llesiant pobl.</p> <p>Mae llygredd aer yn aruthrol o niweidiol i iechyd pobl, a chredir fod deunydd gronynnol a llygredd nitrogen deuocsid yn gysylltiedig â thua 2,700 o farwolaethau yng Nghymru bob blwyddyn¹. Y sector trafnidiaeth sy'n gyfrifol am gyfran fawr o'r mathau hyn o lygredd. Byddai SDC yn annog ac yn hwyluso cyfraddau uwch o deithio llesol a defnyddio trafnidiaeth gyhoeddus a fyddai'n debygol o leihau nifer y cerbydau llygredd uchel ar y ffordd a thrwy wneud hynny, byddai'n helpu i leihau cyfradd y marwolaethau yng Nghymru sy'n gysylltiedig â llygredd aer.</p> <p>O'u cyfuno, byddai'r gwelliannau i gysylltiadau trafnidiaeth gyhoeddus a theithio llesol, ynghyd â rhoi gwasanaethau mewn lleoliadau hygyrch ac ansawdd aer gwell, yn gwneud cyfraniad sylweddol at greu effaith synergddol i fynd i'r afael ag anghydraddoldebau iechyd ac yn helpu i sicrhau bod y system drafnidiaeth yn hwyluso gwelliannau i iechyd a llesiant corfforol a meddyliol pobl.</p> <p>Yn sgil gwelliannau i dechnoleg ddigidol, mae mwy o bobl yn gweithio gartref yn rheolaidd. Mae'r pandemig a'r cyfyngiadau symud yn 2020 wedi cynyddu'n sylweddol nifer y bobl sy'n gweithio gartref ac, i lawer o bobl, efallai y bydd hyn yn dod yn arferol o 2021 ymlaen. Mae SDC yn cydnabod bod angen gwelliannau i seilwaith digidol er mwyn hwyluso hyn. Mae'r daith yn ôl ac ymlaen i'r gwaith yn gyfle allweddol i ymarfer corff trwy gerdded a beicio, a chan fod pobl yn cymudo llai, mae SDC yn cydnabod y bydd yn gynyddol bwysig sicrhau bod y mannau eraill y mae pobl angen mynd iddynt (e.e. siopau, gwasanaethau, amwynderau, mannau diwylliannol) yn hygyrch trwy gerdded a beicio. Dylid nodi, er bod gweithio gartref yn cynnig cyfleoedd sylweddol o ran lleihau'r angen i bobl deithio a lleihau nifer y ceir ar y ffyrdd, y gall fod yn berygl i lesiant meddyliol pobl gan eu bod yn methu cyfleoedd ar gyfer teithio llesol yn ogystal â chyfleoedd i ryngweithio'n gymdeithasol ac yn gymunedol.</p>
<p>2. Creu'r amodau lle gellir sicrhau gwelliant i gydlyniant cymdeithasol a chydraddoldeb</p>
<p>Byddai Uchelgeisiau a Blaenoriaethau SDC, yn ogystal â'r Cynlluniau Cryno ar Deithio Llesol, Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol, yn helpu i fynd i'r afael ag anghydraddoldebau cymdeithasol ac economaidd trwy ddatblygu system sy'n hygyrch i holl aelodau cymdeithas, ac yn cael ei defnyddio ganddynt, beth bynnag fo'u cefndir, eu rhyw, eu hoedran a'u hanabledd. Byddai gwneud hynny yn gwella cyfle cyfartal o ran mynediad at wasanaethau, cyflogaeth a chyfleusterau hamdden ac addysg.</p>

¹ 'Estimating the mortality burden of air pollution in Wales' <http://www.wales.nhs.uk/sitesplus/888/opendoc/317890>

Crynodeb o'r effeithiau ar gyfer pob Amcan yn yr ACI

Byddai defnyddio dulliau digidol arloesol, yn unol â'r Blaenoriaethau, yr Uchelgeisiau a'r Cynllun Cryno ar gyfer Rheilffyrdd, a sicrhau bod safbwyntiau defnyddwyr y system drafnidiaeth yn cael eu cymryd i ystyriaeth, yn helpu i sicrhau bod anghenion amrywiol poblogaeth gynyddol Cymru yn cael eu diwallu. Byddai trafnidiaeth gyhoeddus sy'n gallu cael ei defnyddio gan bawb beth bynnag fo'u cefndir, ac sy'n cael ei defnyddio ganddynt, yn helpu i wella cydlyniant cymdeithasol. Mae SDC yn cydnabod y rhwystr y gall iaith ei greu, yn enwedig i'r rhai nad ydynt yn siarad Saesneg (e.e. gweler yr Uchelgaais 'O Ddaioni i Ddiwylliant ac Iaith Cymru' yn ogystal â'r Blaenoriaethau a'r Cynlluniau Cryno), ac mae'n debygol y bydd y rhwystrau hyn yn cael eu herydu yn gynyddol o ganlyniad i SDC ac y byddai defnyddwyr tair iaith swyddogol Cymru (Cymraeg, Iaith Arwyddion Prydain a Saesneg) yn gallu gwneud defnydd cyfartal o'r system drafnidiaeth (gan gynnwys teithio llesol, trafnidiaeth gyhoeddus a'r rhwydwaith ffyrdd) i'r un graddau.

Mae mynediad at drafnidiaeth gyhoeddus a chysylltiadau teithio llesol yn arbennig o gyfyngedig mewn cymunedau gwledig. Er y gallai fod mynediad da at lwybrau troed cyhoeddus mewn ardaloedd gwledig, mae'r rhain yn annhebygol o fod yn opsiynau ymarferol ar gyfer teithio yn ôl ac ymlaen i wasanaethau a chyfleusterau. Mae SDC yn cydnabod bod ffyrdd a gyrru yn hanfodol i gymunedau gwledig a byddai'n bwriadu cynnal a gwella'r rhwydwaith ffyrdd i gynnal cysylltedd cymunedau gwledig a mynd i'r afael â'r ynysigrydd cymdeithasol a all fod yn gyffredin yma.

Mae SDC yn cydnabod pwysigrwydd gwella diogelwch y system drafnidiaeth i'r holl ddefnyddwyr, a sicrhau ei bod yn croesawu pawb. Byddai'r Uchelgeisiau, Blaenoriaethau 2 a 3 yn ogystal â'r Cynlluniau Cryno ar Fysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol yn arbennig o fuddiol i aelodau cymdeithas a allai deimlo'n llai diogel, neu aelodau agored i niwed mewn cymdeithas sy'n llai diogel yn ystadegol, wrth ddefnyddio cysylltiadau teithio llesol neu drafnidiaeth gyhoeddus.

3. Cefnogi datblygiad economaidd cynaliadwy ac amrywiaeth

Byddai SDC yn cael effaith gadarnhaol gyfunol ar ddatblygiad ac economi Cymru. Byddai gwell cysylltiadau teithio llesol ac opsiynau trafnidiaeth gyhoeddus, a fyddai'n cael eu gwneud yn gynyddol hygrych i bawb a phob cymuned, yn helpu i sicrhau mynediad mwy teg at gyfleoedd addysg a chyflogaeth, yn enwedig oherwydd yr Uchelgeisiau o ran Cymuned a'r Economi, Blaenoriaeth 1 a'r Cynlluniau Cryno ar Fysiau a Thrafnidiaeth Gymunedol.

Gan y byddai pobl yn gallu teithio'n fwy effeithlon ac yn fwy rhydd, gallai fod cynnydd i nifer yr ymwelwyr ag ardaloedd economaidd pwysig, a fyddai'n rhoi hwb i'r economïau lleol. Byddai hyn yn arbennig o wir lle caiff cysylltiadau teithio eu gwella gan y byddai cyfraddau uwch o gerdded a beicio. Byddai hyn yn rhoi mynediad i fusnesau at gronfa ehangach o ddarpar gyflogeion.

Gallai SDC helpu i amrywio'r farchnad gyflogeion a lleihau anghydraddoldeb o ran cyflogaeth rhwng ardaloedd gwledig a threfol trwy hyrwyddo gweithio gartref, yn enwedig oherwydd Blaenoriaeth 1 a'r Cynlluniau Cryno ar Fysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol.

Mae'r defnydd o drafnidiaeth gyhoeddus yn mynd law yn llaw ag economi gryfach, oherwydd gwariant ar y gwasanaeth trafnidiaeth ei hun ac ar wasanaethau atodol (fel siopau bwyd a diod) yn yr ardal. Trwy annog y defnydd o drafnidiaeth gyhoeddus felly, gallai SDC arwain at dwf economaidd.

Byddai gwella rhwyddineb mynediad at ganol trefi a'r stryd fawr, yn ogystal â digwyddiadau diwylliannol mawr ac asedau hanesyddol ac amgylcheddol (yn unol â Blaenoriaethau 2 a 3 a'r Cynlluniau Cryno ar Fysiau a Thrafnidiaeth Gymunedol), hefyd yn helpu i ysgogi'r economi.

Gallai SDC gael effaith gadarnhaol ar economi Cymru trwy annog datblygiad 'canolfannau gwaith' newydd.

Byddai amseroedd teithiau mwy effeithlon, trwy lwybrau mwy croesawgar a diogel, yn unol â Blaenoriaethau 4 a 5 a'r Cynlluniau Cryno ar Fysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol, yn gwella profiad y cwsmer wrth deithio ac yn golygu, i'r rhai sy'n cymudo yn ôl ac ymlaen i'r gwaith, eu bod yn cyrraedd y gwaith dan lai o straen ac yn gallu gweithio'n fwy cynhyrchiol, gan fod o fantais i economi Cymru drwy hynny.

Byddai amseroedd teithiau mwy effeithlon hefyd o fudd sylweddol i symudiad nwyddau a gwasanaethau ledled Cymru, yn enwedig i gysylltiadau busnes i fusnes a symud nwyddau. Byddai hyn yn cael ei wneud trwy leihau nifer y ceir ar y ffyrdd, rhwydwaith ffyrdd wedi'i gynnal a'i gadw yn dda, llwybrau mwy diogel, a thrwy fanteisio ar ddulliau technolegol arloesol yn y sector cludo nwyddau a logisteg yn unol â Blaenoriaethau 4 a 5 a'r Cynlluniau Cryno ar gyfer Ffyrdd, Cludo Nwyddau a Logisteg, Hedfanaeth a Phorthladdoedd a Thrafnidiaeth Forol.

Byddai Cymru fwy cysylltiedig sydd â llwybrau mwy effeithlon, mwy deniadol a mwy diogel, (o ganlyniad, er enghraifft, i'r Uchelgeisiau, Blaenoriaethau 2, 3 a 5 yn ogystal â'r Cynllun Cryno ar gyfer Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol wedi'u cyfuno) o fudd sylweddol i'r sector twristiaeth, gan roi mwy o allu i bobl gael mynediad diogel ac effeithlon at Gymru o dramor, neu i deithio drwy Gymru gyfan. Gallai gwelliannau i'r seilwaith teithio llesol yng Nghymru hefyd gynyddu pa mor ddeniadol yw'r sector twristiaeth gweithgareddau, fel heicio neu feicio mynydd.

Bydd newid hinsawdd yn effeithio ar yr economi dros gyfnod 25 mlynedd SDC. Yn unol â Blaenoriaeth 3 a'r Cynlluniau Cryno, nod SDC yw sicrhau bod y system drafnidiaeth yn barod ar gyfer y dyfodol ac yn wydn i effeithiau perygl llifogydd, digwyddiadau tywydd eithafol neu erydu arfordirol. Byddai hyn yn helpu i sicrhau bod manteision economaidd SDC yn gynaliadwy ac yn gydnherth.

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4. Diogelu a hybu diwylliant Cymru a gwella mynediad at fannau diwylliannol a hamdden

Mae SDC yn hyrwyddo ac yn ceisio darparu mynediad mwy cynaliadwy, cydnerth a theg i bawb at fannau diwylliannol a hamdden, yn enwedig oherwydd effeithiau cyfunol yr Uchelgeisiau, Blaenoriaethau 2, 3 a 5 yn ogystal â'r Cynlluniau Cryno ar gyfer Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol.

Byddai mynediad mwy effeithlon a chynaliadwy at y mannau hyn, gan gynnwys i bobl leol a thwristiaid, yn gwella hyfywedd a bywiogrwydd economaidd i ganiatáu manteision parhaus i bobl leol dros gyfnod SDC.

Mae SDC yn cydnabod y straen y gall digwyddiadau diwylliannol a thwristiaeth graddfa fawr, fel digwyddiadau chwaraeon mawr, ei rhoi ar y system drafndiaeth. Trwy Flaenoriaethau 1, 3 a 5, yn ogystal â'r Cynlluniau Cryno ar Fysiau a Rheilffyrdd, mae SDC yn ceisio sicrhau y gall y digwyddiadau hyn barhau i gael eu cynnal a pharhau i gael effaith gadarnhaol iawn ar economi, cymdeithas a diwylliant Cymru.

Mae'n debygol, mewn rhai ardaloedd, y gallai'r gwelliannau i gysylltiadau teithio llesol diogel a deniadol wella amgylchedd neu gymeriad yr ardal leol. O'u cyfuno â gostyngiad i nifer y cerbydau ar y ffyrdd, a all gael effaith niweidiol ar lonyddwch mannau hamdden neu ddiwylliannol oherwydd llygredd sŵn, aer a golau, byddai gwelliannau yn helpu i wella ansawdd a natur ddeniadol mannau diwylliannol a hamdden.

5. Annog camau i ddiogelu a hybu'r Gymraeg

Mae Uchelgeisiau SDC, yn ogystal â'r Cynlluniau Cryno, yn ceisio sicrhau bod y system drafndiaeth yn annog defnydd rheolaidd o'r Gymraeg yn rhan o system sy'n "hygyrch i bawb".

Byddai gwella cysylltiadau teithio llesol a thrafnidiaeth gyhoeddus ledled Cymru yn debygol o arwain at fynediad mwy teg at gyfleoedd addysg i bobl beth bynnag fo'u cefndir. Byddai gwneud hynny yn hwyluso mynediad mwy teg at gyfleoedd dysgu Cymraeg, naill ai yn rhan o'u dysgu yn yr ysgol neu gan fod yr ysgol yn gyfleuster cyfrwng Cymraeg.

6. Lleihau allyriadau nwyon tŷ gwydr o drafndiaeth

Mae'n debygol y byddai cynigion yn SDC mewn cyfuniad yn arwain at ostyngiadau sylweddol i'r allyriadau nwyon tŷ gwydr sy'n gysylltiedig â sector trafndiaeth Cymru. Byddai hyn yn cael ei gyflawni'n bennaf o ganlyniad i annog a hwyluso cyfraddau uwch o gerdded, beicio a defnydd o drafndiaeth gyhoeddus yn arwain at ostyngiadau dilynol i nifer y ceir ar y ffyrdd, yn unol â'r Uchelgeisiau, Blaenoriaethau 1-5 a'r Cynlluniau Cryno ar gyfer Teithio Llesol, Bysiau a Ffyrdd.

Byddai manteisio ar ddulliau technolegol arloesol a sicrhau bod gwasanaethau a chyfleusterau yn agos at y lleoedd y mae pobl yn byw ynddynt, yn unol â'r Uchelgeisiau, Blaenoriaeth 1 a'r Cynllun Cryno ar gyfer Rheilffyrdd, yn lleihau ymhellach yr angen i bobl deithio ac yn caniatáu iddynt deithio'n fwy effeithlon pan fyddant yn gwneud hynny.

Gallai teithiau mwy effeithlon ar gyfer symud nwyddau helpu i fynd i'r afael ag ôl troed carbon sector cludo nwyddau Cymru.

Byddai SDC yn sicrhau y byddai bod yn berchen ar gerbyd trydan neu gerbyd glanach yn opsiwn mwy ymarferol yn hytrach na cherbyd petrol neu ddiesel trwy gefnogi technolegau fel trydaneiddio a hydrogen fel tanwydd, yn ogystal â gosod mwy o bwyntiau gwefru cerbydau trydan, a fyddai'n cyfrannu at leihau allyriadau. Mae SDC hefyd yn hyrwyddo trydaneiddio trafndiaeth gyhoeddus. Byddai hyn yn cael ei gyflawni yn bennaf trwy gyfuniad o Flaenoriaethau 1- 5 yn ogystal â'r Cynlluniau Cryno ar gyfer Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol.

Fodd bynnag, er y byddai SDC yn debygol o hwyluso gostyngiadau sylweddol i allyriadau nwyon tŷ gwydr sy'n gysylltiedig â symudiadau ar y rhwydwaith ffyrdd, ceir perygl y byddai hyn yn cael ei danseilio i ryw raddau gan y diwydiant hedfanaeth, a hefyd oherwydd y boblogaeth fawr o bobl sy'n byw yng nghefn gwlad y mae cyfleoedd teithio llesol neu drafndiaeth gyhoeddus yn annhebygol o wella'n sylweddol ar eu cyfer.

Mae SDC wedi ymrwymo i gynnal sector hedfanaeth iach yng Nghymru ar gyfer ei fanteision economaidd sylweddol. Mae'r Cynllun Cryno ar gyfer Hedfanaeth yn cydnabod y bydd heriau i'r sector hedfanaeth wrth geisio bodloni cyllidebau carbon Cymru. Mae'n ceisio sicrhau, er enghraifft, bod Maes Awyr Caerdydd yn cyflwyno strategaeth ddatgarboneiddio gadarn a bod pobl yn mynd i feysydd awyr ar drafndiaeth gyhoeddus yn hytrach na mewn ceir i helpu i fantoli'r allyriadau hyn. Fodd bynnag, byddai'r mesurau a ddisgrifir yn SDC a'r Cynllun Cryno ar gyfer hedfanaeth, fel y strategaeth ddatgarboneiddio neu gynnydd i fynediad trafndiaeth gyhoeddus meysydd awyr, yn annhebygol o fantoli'r allyriadau sy'n gysylltiedig â hedfanaeth mewn gwirionedd. Mae ceir a cherbydau nwyddau trwm yn ffynhonnell llawer mwy o allyriadau nwyon tŷ gwydr yng Nghymru na hedfanaeth ar hyn o bryd, ac felly ni fyddai'r ymrwymiad i 'sector hedfanaeth iach' yn arwain at effaith niweidiol gyffredinol ar Amcan hwn yr ACI o ganlyniad i SDC, ond byddai'n debygol o atal gostyngiad sylweddol cyffredinol i allyriadau nwyon tŷ gwydr, neu o leiaf yn gwneud hynny'n fwy anodd.

Pobl wledig yw ychydig dros un rhan o dair o boblogaeth Cymru ac er mwyn iddynt gael mynediad at wasanaethau a chyfleusterau allweddol mae angen iddynt deithio pellteroedd mwy na'r rhai sy'n byw mewn ardaloedd trefol. Byddai SDC yn annhebygol o ddatrys y problem hon. Er y byddai rhai gwelliannau i'r rhwydwaith ffyrdd gan alluogi teithiau mwy effeithlon, mwy o gefnogaeth i gerbydau trydan, a gwelliannau i wasanaethau trafndiaeth gymunedol sy'n arbennig o bwysig mewn ardaloedd gwledig, byddai'n

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annhebygol o alluogi pobl sy'n byw mewn ardaloedd gwledig i deithio mor effeithlon, mor gynaliadwy gydag allyriadau isel fel y rhai sy'n byw mewn ardaloedd trefol. Nid yw'n eglur i ba raddau y byddai'r allyriadau sy'n gysylltiedig â symudiadau trafnidiaeth pobl sy'n byw mewn ardaloedd gwledig yn cael eu lleihau yn weladwy o ganlyniad i SDC. Dylid ystyried unrhyw ostyngiad i allyriadau nwyon tŷ gwydr yng nghyd-destun cyllidebau carbon Cymru, sy'n ceisio gostyngiad o 80% i allyriadau nwyon tŷ gwydr sylfaenol erbyn y flwyddyn 2050. Bydd SDC ar waith am 25 mlynedd, ac felly byddai angen iddi helpu i sicrhau bod y cyllidebau carbon hyn yn cael eu bodloni. Mae'n annhebygol bod 'sector hedfanaeth iach', neu barhad o'r sefyllfa lle nad yw tua un rhan o dair o boblogaeth Cymru yn gallu dibynnu ar deithio llesol neu drafnidiaeth gyhoeddus, wir yn cydymffurfio â'r cyllidebau carbon hyn, nac yn cyfrannu at eu bodloni'n llwyddiannus.

Er y byddai'r cynigion yn SDC yn debygol o arwain at ostyngiad net i allyriadau nwyon tŷ gwydr, sy'n hynod gadarnhaol, mae'n ansicr i ba raddau y byddai hyn yn cael ei danseilio gan sector hedfanaeth iach a dibyniaeth barhaus y boblogaeth wledig ar ddefnyddio ceir personol. Mae'n ymddangos yn annhebygol y byddai'r mesurau yn SDC yn lleihau allyriadau nwyon tŷ gwydr ar y cyflymder sy'n ofynnol i'r sector trafnidiaeth gydymffurfio â chyllidebau carbon Cymru a'r argyfwng hinsawdd, er y gallai'r mesurau hyn fod yn fwy amlwg yn y cynlluniau cyflawni a ddatblygir o ganlyniad i SDC.

7. Galluogi cydnherthedd yn erbyn y newid yn yr hinsawdd

Nod SDC yw gwella cynaliadwyedd y broses o reoli a diogelu seilwaith presennol ar gyfer y dyfodol, a fydd yn helpu i wneud y system drafnidiaeth yn fwy cydnherth i effeithiau posibl y newid yn yr hinsawdd, yn enwedig o ganlyniad i'r Uchelgeisiau a'r Cynlluniau Cryno. Byddai Blaenoriaethau 2 a 3, yn ogystal â'r Cynlluniau Cryno ar gyfer Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol, yn arwain at wella trafnidiaeth gyhoeddus o ran ei hyblygrwydd a'i gweithdrefnau brys i amddiffyn rhag llifogydd a digwyddiadau annisgwyl eraill.

Gallai cysylltiadau cerdded a beicio newydd a gwell, a hyrwyddir drwy'r Uchelgeisiau, y Blaenoriaethau a'r Cynllun Cryno ar gyfer Teithio Llesol, arwain at gynydd i'r gorchudd seilwaith gwyrdd ar hyd y llwybrau hyn, sy'n helpu i reoli dŵr wyneb ffo ac i liniaru perygl llifogydd.

Trwy greu system drafnidiaeth sydd yr un mor hygyrch i holl aelodau cymdeithas, dylai SDC gydnabod a mynd i'r afael â'r anghydraddoldebau sy'n bodoli o ran mynediad at drafnidiaeth mewn digwyddiadau tywydd eithafol; byddai hyn yn helpu i gynyddu cydnherthedd y system drafnidiaeth i'r newid yn yr hinsawdd ac yn lleihau anghydraddoldebau rhwng ardaloedd trefol ac ardaloedd mwy gwledig, ar wahân. Mae SDC yn annog y defnydd o ddulliau trafnidiaeth mwy cynaliadwy, carbon isel, fel teithio llesol a thrafnidiaeth gyhoeddus, yn hytrach na cherbydau preifat, a fyddai'n helpu i leihau allyriadau nwyon tŷ gwydr o'r sector trafnidiaeth ac yn sgil hynny yn cyfyngu cyfraniad Cymru at newid hinsawdd.

8. Diogelu a gwella ansawdd aer

Mae llygredd aer yn aml yn deillio o'r un gweithgareddau â'r rhai sy'n cyfrannu at newid hinsawdd. Mae'r sector trafnidiaeth, ac yn enwedig ceir, cerbydau nwyddau trwm, awyrennau a thrafnidiaeth sy'n gysylltiedig â phorthladdoedd, yn ffynonellau sylweddol o allyriadau nwyon tŷ gwydr a llygredd aer.

Nod SDC yw gwneud gostyngiad sylweddol i ddibyniaeth pobl ar geir i deithio. Byddai'n gwneud hynny trwy wella'r seilwaith ledled Cymru y mae dulliau trafnidiaeth allyriadau isel yn dibynnu arno, fel trafnidiaeth gyhoeddus a theithio llesol, yn unol â'r Uchelgeisiau, Blaenoriaethau 1 - 5 a'r Cynlluniau Cryno ar gyfer Bysiau a Theithio Llesol. Byddai'r gostyngiad net i nifer y ceir yn helpu i leihau'r llygredd aer sy'n gysylltiedig â'r sector trafnidiaeth yng Nghymru, yn enwedig mewn ardaloedd mwy trefol lle mae ansawdd aer yn sylweddol waeth nag ardaloedd mwy gwledig.

Drwy'r Uchelgeisiau a Blaenoriaethau 2 - 5, mae SDC yn ceisio cefnogi'r newid parhaus i gerbydau glanach, cerbydau trydan a dulliau trafnidiaeth eraill sy'n mabwysiadu technolegau arloesol fel hydrogen. Byddai hyn yn helpu i sicrhau bod allyriadau'r ceir hynny sy'n dal i fod ar y ffyrdd ac yn cael eu defnyddio yn aml yn cael eu lleihau. Byddai gwell cynnal a chadw a rheolaeth o'r rhwydwaith ffyrdd presennol, yn unol â Blaenoriaeth 3 a'r Cynllun Cryno ar gyfer Ffyrdd, hefyd yn debygol o ganiatáu teithiau mwy effeithlon sy'n arwain at lai o lygredd, gan gynnwys o ganlyniad i lai o dagfeydd a segura. Mae'n debygol y byddai rheolaeth a chynnal a chadw o'r fath yn cynnig cyfleoedd i wella seilwaith gwyrdd ar hyd coridorau ffyrdd, sy'n helpu i hidlo llygryddion aer allan a'u hymneilltuo.

Fodd bynnag, fel y disgrifir uchod o ran Amcan 6 yr ACI ar allyriadau nwyon tŷ gwydr, mae SDC wedi ymrwmo i gynnal sector hedfanaeth iach yng Nghymru ar gyfer ei fanteision economaidd sylweddol. O ganlyniad, mae llygredd aer sy'n gysylltiedig â sector hedfanaeth Cymru yn annhebygol o leihau yn weladwy dros gyfnod SDC.

Mae'r broblem bosibl o ran y boblogaeth yng Nghymru sy'n byw mewn lleoliadau gwledig, lle nad oes ganddynt ddewis yn aml ond dibynnu ar ddefnyddio ceir personol ar gyfer cael mynediad at wasanaethau neu amwynderau, hefyd yn annhebygol o gael ei datrys. Mae'n annhebygol felly y bydd y llygredd aer sy'n gysylltiedig â symudiadau pobl sy'n byw yng nghefn gwlad yn cael ei leihau'n sylweddol.

Oherwydd y broblem sydd heb ei datrys o lygredd aer yn gysylltiedig â hedfanaeth a'r ddibyniaeth uchel ar ddefnyddio ceir i bobl sy'n byw yng nghefn gwlad, ystyrir yn gyffredinol y byddai SDC yn gwneud cyfraniad bach yn hytrach na mawr (sylweddol) at Amcan hwn yr ACI.

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9.	<p>Diogelu a gwella nodweddion unigryw lleol ein tirweddau a'n trefluniau</p> <p>Mae Gweledigaeth SDC yn cydnabod pwysigrwydd diogelu a gwella tirweddau a threfluniau unigryw Cymru. Byddai'r gostyngiad tebygol i nifer y ceir ar y ffyrdd, wedi'i gyflawni yn bennaf drwy'r Uchelgeisiau, y Blaenoriaethau a'r Cynlluniau Cryno ar gyfer Teithio Llesol a Bysiau, yn helpu i osgoi'r effeithiau niweidiol y gall ffyrdd eu cael ar gymeriad tirweddau a threfluniau, a sicrhau eu bod cyn lleied â phosibl, gan gynnwys trwy lygredd sŵn, aer a golau yn ogystal â thrwy fod â gwerth amwynder gweledol isel. Byddai hyn o fudd arbennig i ganolfannau aneddiadau hanesyddol yn ogystal â'r tirweddau naturiol unigryw sy'n gyffredin yn ardaloedd mwy gwledig Cymru.</p> <p>Nod SDC yw gwella'r broses o reoli a chynnal a chadw seilwaith trafndiaeth presennol, yn unol â Blaenoriaethau 2 a 3, a allai gynnwys glendid gwell a mesurau gwella a fyddai o fudd i dirweddau a threfluniau.</p> <p>Yn unol â'r Uchelgeisiau, y Blaenoriaethau a'r Cynlluniau Cryno, mae SDC hefyd yn ceisio sicrhau bod yr amgylchedd hanesyddol a naturiol yn cael ei warchod a'i wella a bod yr egwyddor hon yn cael ei hymwreiddio ym mhob seilwaith trafndiaeth newydd. Mewn llawer o achosion, mae trefluniau a thirweddau unigryw Cymru o werth hanesyddol a/neu fioamrywiaeth sylweddol. Drwy warchod ac, mewn rhai achosion, wella'r gwerth hwn, byddai'n debygol o fod o fudd i gymeriad trefluniau a thirweddau lleol.</p>
10.	<p>Hybu camau i warchod a gwella asedau treftadaeth</p> <p>Mae Gweledigaeth, Blaenoriaethau ac Uchelgeisiau SDC yn cydnabod bod angen gwarchod a gwella asedau treftadaeth ac ardaloedd hanesyddol Cymru. Ledled Cymru, mae rheilffyrdd, twnelau a llwybrau hanesyddol o werth treftadaeth sylweddol. Mae'n debygol, mewn llawer o achosion, y byddai'r buddsoddiad sy'n cael ei gyfeirio at drafndiaeth yn helpu i ddiogelu a gwella'r asedau hyn drwy sicrhau nad ydynt yn mynd i gyflwr gwael neu'n segur.</p> <p>Yn yr un modd â chymeriad tirweddau a threfluniau, byddai'r gostyngiad i nifer y ceir ar y ffyrdd wedi'i achosi gan yr Uchelgeisiau, y Blaenoriaethau a'r Cynlluniau Cryno ar Deithio Llesol, Rheilffyrdd a Bysiau, a'r gallu dilynol i osgoi ymyriadau sŵn, aer, golau ac ymyriadau gweledol eraill, a sicrhau eu bod cyn lleied â phosibl, yn helpu i ddiogelu amgylchedd asedau treftadaeth ac ardaloedd hanesyddol.</p> <p>Mae'n debygol y byddai'n ofynnol i waith cynnal a chadw a rheoli seilwaith trafndiaeth presennol, a'r ddarpariaeth o unrhyw seilwaith trafndiaeth newydd ystyried yr effeithiau posibl ar unrhyw asedau treftadaeth ac ardaloedd hanesyddol cyfagos, ac ymgorffori elfennau sy'n helpu i wella eu hamgylchedd.</p> <p>Mae diogelu a gwella bioamrywiaeth yn ddull sydd wedi'i ymwreiddio drwy SDC a allai fod o fudd posibl i amgylchedd asedau treftadaeth ac ardaloedd hanesyddol oherwydd amwynder gweledol uchel seilwaith gwyrdd a chynefinoedd lled-naturiol, yn ogystal â'i swyddogaeth o ran sgrinio ardaloedd rhag effeithiau gweledol datblygiad newydd.</p> <p>Byddai gwella cysylltedd trafndiaeth gyhoeddus a theithio llesol lleoedd ledled Cymru yn debygol o helpu i wella hygyrchedd ardaloedd hanesyddol ac asedau treftadaeth i bawb o bob cefndir, gan gynnwys pobl leol a thwristiaid. Byddai hyn yn helpu i hyrwyddo pwysigrwydd yr asedau a'r ardaloedd hyn a gallai arwain yn sgil hynny at fuddsoddiad newydd, fel cynnydd yn nifer yr ymwelwyr, a fyddai'n helpu i ddiogelu'r asedau a'r ardaloedd hyn i genedlaethau'r dyfodol eu mwynhau.</p>
11.	<p>Hybu camau i warchod a gwella bioamrywiaeth a geoamrywiaeth</p> <p>Wedi'i hymwreiddio trwy SDC mae dealltwriaeth o'r angen i ddiogelu a gwella bioamrywiaeth, geoamrywiaeth ac ecosystemau a cheisio sicrhau bod y system drafndiaeth yn mabwysiadu strategaethau rheoli tir cynaliadwy sy'n cynnwys cydnheredd ecosystemau mewn gweithrediadau trafndiaeth. Ar ei ffurf bresennol, gall y sector trafndiaeth beri bygythiadau sylweddol i gynefinoedd a rhywogaethau, gan gynnwys gwahanu cynefinoedd, ynysu rhywogaethau, a gall arwain at lefelau o lygredd sy'n uwch na llwythi critigol cynefinoedd sensitif. Mae ymyriadau sŵn a golau o'r sector trafndiaeth yn hynod niweidiol i rai rhywogaethau hefyd.</p> <p>Mae SDC yn canolbwyntio ar gynnal y rhwydwaith ffyrdd presennol gan wella cysylltiadau teithio llesol, yn unol â'r Weledigaeth, yr Uchelgeisiau a'r Blaenoriaethau a'r Cynllun Cryno ar gyfer Ffyrdd. Mae'n debygol y byddai effeithiau niweidiol ar gynefinoedd, wedi'u hachosi gan ffyrdd newydd yn eu gwahanu ac yn ynysu rhywogaethau, yn cael eu hosgoi yn gyffredinol. Gall cynlluniau ffyrdd newydd beri risg i geoamrywiaeth oherwydd y gwaith helaeth sy'n ofynnol i baratoi'r pridd, ac felly gall osgoi unrhyw ffyrdd newydd fod yn fodd effeithiol o warchod asedau geoamrywiaeth pwysig Cymru. Ceir elfen o ansicrwydd yma gan ei bod yn aneglur o dan ba amgylchiadau yn union y byddai SDC yn caniatáu cynlluniau ffyrdd newydd.</p> <p>Byddai'r newid i ddulliau teithio allyriadau isel, gan gynnwys teithio llesol, trafndiaeth gyhoeddus, a thrydaneiddio, yn unol â'r Weledigaeth, y Blaenoriaethau a'r Cynlluniau Cryno ar Fysiau, Rheilffyrdd a Theithio Llesol, yn helpu i osgoi effeithiau niweidiol ar gynefinoedd sy'n sensitif i ansawdd aer, a sicrhau bod yr effeithiau hyn cyn lleied â phosibl, yn enwedig lle mae lefelau eisoes yn uwch na'u llwythi critigol.</p> <p>Mae'n debygol y byddai cynnal a chadw a rheoli seilwaith trafndiaeth presennol yn cynnig cyfleoedd i gynnwys elfennau sy'n cynyddu eu gwerth bioamrywiaeth, fel gosod seilwaith gwyrdd ar hyd coridorau ffyrdd. Lle caiff llwybrau cerdded a beicio newydd eu gosod, byddai'r rhain yn cynnig cyfle i gynnwys elfennau seilwaith gwyrdd sy'n fioamrywiol ond hefyd yn cynnig buddion ehangach i'r ecosystem gan gynnwys coridorau bywyd gwyllt, gwelliannau i ansawdd aer, hidlo dŵr, dal a storio carbon a gwelliannau i dirweddau a</p>

Crynodeb o'r effeithiau ar gyfer pob Amcan yn yr ACI

threfluniau. Mae'n ymddangos bod SDC yn mynd ar drywydd cysylltiadau cerdded a beicio o'r natur hwn, er bod elfen o ansicrwydd ynghylch i ba raddau y byddent yn cael eu darparu.

12. Sicrhau'r defnydd cynaliadwy o adnoddau naturiol

Mae SDC yn annog y defnydd o ddulliau trafndiaeth mwy cynaliadwy, carbon isel, fel trafndiaeth lesol a chyhoeddus, yn hytrach na cheir preifat, yn ogystal â thrydaneiddio trafndiaeth, a fyddai'n debygol o gael effaith gadarnhaol ar ymdrechion i leihau'r defnydd o adnoddau naturiol fel tanwyddau ffosil. Wedi'i hymwreiddio trwy SDC, fel y disgrifir yn y Weledigaeth, mae'r ymdrech i sicrhau system drafndiaeth gynaliadwy sy'n annog y defnydd o ddeunyddiau ailgylchu a chynaliadwy wrth ddatblygu seilwaith trafndiaeth pan fo'n bosibl. Gallai hyn helpu i leihau'r defnydd o ddeunyddiau, a chynhyrchu gwastraff, sy'n gysylltiedig â'r sector trafndiaeth. Mae'r Uchelgeisiau, Blaenoriaethau 1 a 2 a'r Cynllun Cryno ar gyfer Ffyrdd yn gwneud ymdrech bendant i leihau gwastraff a chadwyn gyflenwi fwy cynaliadwy. Mae'n bosibl y byddai SDC yn arwain at lai o gynlluniau ffyrdd newydd, gan annog y defnydd o ddeunyddiau sy'n cynyddu oes gwasanaeth, sy'n golygu bod angen llai o ddeunyddiau ac yn galluogi cwrpas ehangach i ddefnyddio deunyddiau ailgylchu, yn unol â Blaenoriaethau 1-5. Fodd bynnag, byddai cynnal a chadw seilwaith trafndiaeth presennol, a'r ddarpariaeth o wasanaethau trafndiaeth gyhoeddus a chysylltiadau teithio llesol gwell, yn ei gwneud yn ofynnol i ddefnyddio adnoddau naturiol i ryw raddau. Byddai SDC yn arwain at lai o geir ar y ffyrdd. Byddai hyn yn arwain at ostyngiad yn y llygryddion o bibellau gwacáu neu ollyngiadau yn syrthio ar y tarmac; yna ceir llai o siawns y bydd dŵr wyneb ffo yn cludo'r llygryddion hyn i mewn i'r pridd, i ddŵr daear ac i ddŵr wyneb, gan wella eu hansawdd o bosibl. Gall traul teiars ceir ar ffyrdd fod yn ffynhonnell sylweddol o lygredd plastig yn yr amgylchedd naturiol, gan gynnwys yn yr amgylchedd dŵr, ac mae'n debygol y byddai hyn yn cael ei leihau i ryw raddau gan gynigion trwy SDC oherwydd y symudiad tuag at deithio llesol a thrafndiaeth gyhoeddus.

13. Galluogi camau i ddiogelu ardaloedd tawel ac atal llygredd sŵn a golau

Byddai SDC yn cynyddu'r niferoedd sy'n manteisio ar ddulliau trafndiaeth cyhoeddus a llesol, yn enwedig oherwydd yr Uchelgeisiau, Blaenoriaethau 1, 2 a 3 a'r Cynlluniau Cryno ar Fysiau, Rheilffyrdd a Theithio Llesol, gan leihau'r defnydd o geir; byddai hyn yn debygol o arwain at effeithiau cadarnhaol ar ddiogelu ardaloedd tawel oherwydd gostyngiad mewn sŵn ac ymyriadau gweledol. Trwy ei chefnogaeth i gerbydau trydan, yn unol â Blaenoriaethau 3, 4 a 5 a'r Cynllun Cryno ar gyfer Ffyrdd, sy'n llawer mwy tawel na cherbydau petrol a diesel, mae'n debygol y byddai SDC yn helpu i leihau ymyriadau sŵn sy'n gysylltiedig â thrafndiaeth.

Sut mae'r ACI wedi Dylanwadu ar y FfDC

- 1.1.15 Mae arbenigwyr ACI wedi gweithio yn agos gyda'r tîm cynllunio yn Llywodraeth Cymru ers camau cynnar iawn y broses o lunio SDC. Trwy broses ailadroddol, mae arbenigwyr ACI wedi rhannu canlyniadau ac argymhellion asesu gyda'r cynllunwyr i gynorthwyo gyda'r gwaith o ddod i benderfyniadau. Mae hyn wedi chwarae rhan bwysig i helpu'r rhai a oedd yn llunio'r cynllun i ystyried perfformiad cynaliadwyedd gwahanol opsiynau y gallent fod yn ystyried eu cynnwys yn SDC, yn ogystal â'r gwahanol fesurau y gallent ystyried eu mabwysiadu a fyddai'n helpu i sicrhau bod cymaint o effeithiau cadarnhaol â phosibl neu i osgoi effeithiau negyddol neu sicrhau eu bod cyn lleied â phosibl.

Osgoi, lleihau neu liniaru effeithiau negyddol a sicrhau bod effeithiau cadarnhaol mor fawr â phosibl – crynodeb o'r argymhellion

- 1.1.16 Yn ystod proses ailadroddol yr ACI, mae SDC wedi ymgorffori amrywiaeth o argymhellion sydd wedi helpu i wella perfformiad cynaliadwyedd cyffredinol cynigion SDC. Trwy gydol yr arfarniad o bolisïau'r FfDC, gwnaed argymhellion ar gyfer pob polisi yn erbyn pob Amcan yr ACI, pan fo'n briodol, er mwyn helpu i osgoi neu liniaru effeithiau negyddol ac i helpu i sicrhau bod effeithiau cadarnhaol mor fawr â phosibl. Ar y cyfan, gwnaed nifer fawr o argymhellion yn yr ACI hyd yn hyn ac fe'u cyflwynir yn llawn ym mhrif Adroddiad yr ACI.

Canfyddiadau'r Asesiad Rheoliadau Cynefinoedd a sut y mae'r rhain wedi cyfrannu at yr asesiad

- 1.1.17 Bydd proses Asesiad Rheoliadau Cynefinoedd ar wahân yn ategu ac yn hysbysu proses gwneud penderfyniadau SDC. Proses ailadroddol rhwng arbenigwyr ecolegol a llunwyr cynlluniau yw Asesiad Rheoliadau Cynefinoedd, i benderfynu a yw'n bosibl y gallai cynllun gael effeithiau niweidiol ar ardaloedd o werth bioamrywiaeth uchel sydd wedi'u gwarchod ar lefel ryngwladol. Cyfeirir at y dynodiadau bioamrywiaeth hyn gyda'i gilydd fel safleoedd Natura 2000/ Ramsar, y ceir llawer ohonynt yng Nghymru. Bydd canlyniadau asesu ac argymhellion yn yr ACI yn cyd-fynd ag unrhyw ganlyniadau o'r broses Asesiad Rheoliadau Cynefinoedd ar wahân, pan fyddant ar gael.

Monitro effeithiau arwyddocaol

- 1.1.18 Mae'r ACI wedi nodi effeithiau tebygol SDC ar Amcanion yr ACI dros y byrdymor, y tymor canolig a'r hirdymor. Rhoddwyd dynodiad o sicrwydd yr effeithiau hyn hefyd. Fodd bynnag, ceir perygl bod effeithiau cynaliadwyedd SDC, gan gynnwys effeithiau polisïau penodol neu effeithiau cyfunol polisïau mewn cyfuniad, yn wahanol i'r rhai a ragwelwyd, er enghraifft oherwydd amgylchiadau na ellid eu rhagweld. Mae'n elfen hanfodol o ddarparu datblygu cynaliadwy felly i fonitro effeithiau SDC o ran yr effeithiau a ragwelir. Mae monitro rheolaidd yn galluogi'r awdurdodau perthnasol i ddiwygio cynlluniau yn ôl yr angen wedyn, os bydd effeithiau negyddol annisgwyl yn codi neu os na fydd effeithiau cadarnhaol disgwyledig yn codi.
- 1.1.19 Cyflwynir fframwaith monitro, yn gynnwys yr effeithiau hynny y ceisir eu monitro, yn Adroddiad yr ACI sy'n nodi amrywiaeth o ddangosyddion i'w monitro sy'n berthnasol i effeithiau tebygol SDC. Yn ogystal â monitro i ba raddau y mae SDC yn arwain at yr effeithiau a nodir yn yr ACI, mae'r fframwaith monitro yn cynnig dynodiad o effeithiau SDC ar y llinell sylfaen amgylcheddol yng Nghymru a gellir cymharu hyn â thueddiadau'r llinell sylfaen hon yn y dyfodol.

Y Camau Nesaf

- 1.1.20 Disgwylir y byddai yr Adroddiad ACI hwn yn cael ei gyhoeddi ar gyfer ymgynghoriad ochr yn ochr â SDC. Bydd yr ymatebion a ddaw i law yn ystod yr ymgynghoriad yn cael eu hadolygu a'u hystyried, a bydd yr ACI yn cael ei ddiweddarau yn unol â hynny. Bydd unrhyw fersiwn a phob fersiwn o SDC yn y dyfodol yn cael ei ategu gan fersiynau wedi'u diweddarau o'r ACI hwn.

1 CYFLWYNIAD

1.1 Beth yw 'Llwybr Newydd – Strategaeth Drafnidiaeth Newydd i Gymru'?

- 1.1.1 Dogfen statudol yw Llwybr Newydd – Strategaeth Drafnidiaeth Newydd i Gymru (SDC) sy'n ofynnol o dan Ddeddf Trafnidiaeth (Cymru) 2006 (y Ddeddf). Mae'r Ddeddf yn cyflwyno dyletswydd ar Weinidogion Cymru i baratoi a chyhoeddi SDC yn nodi ei pholisïau a sut y byddant yn cael eu cyflawni. Mae SDC yn nodi blaenoriaethau strategol a chanlyniadau dymunol Llywodraeth Cymru; mae SDC yn rhoi sylw i bob dull trafnidiaeth, gan gynnwys cerdded, beicio, trafnidiaeth gyhoeddus, cerbydau trydan a'r car preifat.
- 1.1.2 Mae Adran 2(3) yr un Ddeddf yn ei gwneud yn ofynnol i Weinidogion Cymru adolygu SDC yn barhaus ac mae'n rhoi'r gallu i'w diwygio o bryd i'w gilydd.
- 1.1.3 Cyhoeddwyd Strategaeth Drafnidiaeth flaenorol Cymru (Cymru'n Un: Cysylltu'r Genedl) yn 2008. Mae llawer wedi newid yn ystod y degawd diwethaf, gan gynnwys datganoli mwy o bwerau i Gynulliad Cymru a chyhoeddi deddfwriaeth ychwanegol (yn nodedig, Deddf Llesiant Cenedlaethau'r Dyfodol (Cymru) a Deddf yr Amgylchedd (Cymru)). Rhagwelir newidiadau pellach trwy ddiwygiadau Llywodraeth Leol; cyllid a chysylltiadau ar ôl Brexit; datganoli rhagor o gyfrifoldebau cysylltiedig â thrafnidiaeth; yn ogystal â newidiadau yn deillio o effaith COVID-19.
- 1.1.4 Yn erbyn y cefndir hwn mae Llywodraeth Cymru yn bwriadu datblygu'r SDC newydd, er mwyn darparu gweledigaeth hirdymor ar gyfer trafnidiaeth dros y 25 mlynedd nesaf, gan gydnabod nifer o'r newidiadau diweddar hyn a gyda'r nod o roi sylw i gyfleoedd a heriau'r dyfodol. Bydd y Strategaeth yn darparu'r fframwaith strategol y bydd angen gwneud penderfyniadau am opsiynau buddsoddi yn y dyfodol yn unol ag ef. Ni fydd yn nodi nac yn cyflwyno prosiectau, cynlluniau, mentrau nac ymyriadau penodol, gan y bydd y rhain yn cael eu nodi yn y Cynllun Cyflawni Cenedlaethol ar gyfer Trafnidiaeth manwl 5 mlynedd ac mewn Cynlluniau Trafnidiaeth Lleol.

1.2 Beth yw'r Arfarniad Cynaliadwyedd Integredig?

- 1.2.1 Mae Llywodraeth Cymru wedi ymrwymo i wella llesiant cymdeithasol, economaidd, amgylcheddol a diwylliannol Cymru nawr ac yn yr hirdymor. Un o'r dulliau allweddol o gyflawni hyn yw mabwysiadu dull integredig o ddatblygu strategaethau a pholisïau. Proses ar gyfer rhagweld ac arfarnu effeithiau cymdeithasol, economaidd ac amgylcheddol tebygol cynllun yw Arfarniad Cynaliadwyedd Integredig, a'i nod yw sicrhau bod datblygu cynaliadwy yn ganolog i'r broses o lunio cynllun. Gellir hefyd ei ddefnyddio i ddarganfod effeithiau diwylliannol, sy'n galluogi iddo fod yn gyson â'r pedair elfen o ddatblygu cynaliadwy yng nghyfraith Cymru.
- 1.2.2 Mae Asesiad Amgylcheddol Strategol (AAS) yn un o ofynion sawl darn o ddeddfwriaeth gan gynnwys Cyfarwyddeb Ewropeaidd 2001/42/EC ar asesu effeithiau cynlluniau a rhaglenni penodol ar yr amgylchedd (y Gyfarwyddeb Asesu Amgylcheddol Strategol)², a droswyd yn uniongyrchol i gyfraith Cymru drwy'r Rheoliadau AAS³. Proses systematig yw AAS ar gyfer arfarnu canlyniadau amgylcheddol cynlluniau a rhaglenni i sicrhau bod materion amgylcheddol yn cael eu hintegreiddio a'u hasesu mor gynnar â phosibl yn y broses gwneud penderfyniadau. Mae Erthygl 1 y Gyfarwyddeb AAS yn nodi mai'r nod yw:

² Cyfarwyddeb 2001/42/EC Senedd Ewrop a'r Cyngor ar 27 Mehefin 2001 ar asesu effeithiau cynlluniau a rhaglenni penodol ar yr amgylchedd

³ Rheoliadau Asesiadau Amgylcheddol o Gynlluniau a Rhaglenni (Cymru) (OS 2004/1656 (W/170)) ac yn Lloegr, 'Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004/1633)'

'provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development'.

- 1.2.3 Asesiad o effeithiau economaidd, amgylcheddol a chymdeithasol Cynllun yw Arfarniad Cynaliadwyedd (AC), a gynhelir ar ddechrau'r broses o lunio'r Cynllun i sicrhau y gwneir penderfyniadau sy'n cyd-fynd ag egwyddorion datblygu cynaliadwy. Mae AC yn broses systematig ac ailadroddol sy'n nodi ac yn adrodd i ba raddau y bydd gweithredu'r cynllun yn cyflawni'r amcanion amgylcheddol, cymdeithasol ac economaidd y gellir eu defnyddio i ddiffinio datblygu cynaliadwy ac mae'n nodi cyfleoedd i wella perfformiad y cynllun yn gysylltiedig â'r rhain.
- 1.2.4 Mae'n arfer gorau integreiddio AC ac AAS yn un broses gydlynol. Yn rhan o hyn, mae'r Gyfarwydddeb AAS yn nodi pynciau penodol yn Atodiad 1(f) y mae'n ofynnol eu hystyried drwy'r AAS ac a fydd yn elfen allweddol o'r ACI hwn. Mae hyn yn cynnwys:
- Bioamrywiaeth;
 - Poblogaeth;
 - Iechyd pobl;
 - Ffawna;
 - Fflora;
 - Pridd;
 - Dŵr;
 - Aer;
 - Ffactorau hinsoddol;
 - Asedau perthnasol;
 - Treftadaeth ddiwylliannol gan gynnwys treftadaeth bensaernïol ac archeolegol;
 - Tirwedd; a'r
 - Rhyngberthynas rhwng y ffactorau uchod.
- 1.2.5 Yn ogystal â'r pynciau penodol hyn, mae Llywodraeth Cymru wedi penderfynu integreiddio sawl asesiad effaith arall gyda'r AC/AAS i lunio ACI. Yn ogystal ag AC/AAS, mae'r ACI hefyd yn cymryd gofynion deddfwriaethol y canlynol i ystyriaeth:
- AC, fel sy'n ofynnol o dan Ddeddf Prynu Gorfodol 2004⁴ fel y'i diwygiwyd gan Ddeddf Cynllunio (Cymru) 2015⁵, ac fel sy'n ofynnol o dan Bolisi Cynllunio Cymru 2018 (rhifyn 10)⁶;
 - Asesiad Amgylcheddol Strategol (AAS), fel sy'n ofynnol o dan Gyfarwydddeb 2001/42/CE Senedd Ewrop a'r Cyngor, dyddiedig 27 Mehefin 2001 ar asesu effeithiau cynlluniau a rhaglenni penodol ar yr amgylchedd (y Gyfarwydddeb AAS)⁷, y mae eu gofynion wedi'u trosi i gyfraith Cymru trwy Reoliadau Asesiadau Amgylcheddol o Gynlluniau a Rhaglenni (Cymru) 2004 (y Rheoliadau AAS)⁸;
 - Mesur y Gymraeg (Cymru) 2011 a Safonau'r Gymraeg;
 - Asesiad o'r Effaith ar Hawliau Plant, fel sy'n ofynnol o dan Fesur Hawliau Plant a Phobl Ifanc (Cymru) 2011⁹;
 - Asesiad o'r Effaith ar Gydraddoldeb, fel sy'n ofynnol o dan y Ddeddf Cydraddoldeb (2010)¹⁰
 - Deddf Llesiant Cenedlaethau'r Dyfodol (2015)¹¹; a

⁴ Ar gael ar-lein yn: <https://www.legislation.gov.uk/ukpga/2004/5/contents> [Gwelwyd 06.08.20]

⁵ Ar gael ar-lein yn: <http://www.legislation.gov.uk/cy/anaw/2015/4/contents/enacted/welsh> [Gwelwyd 06.08.20]

⁶ Ar gael ar-lein yn: <https://llyw.cymru/sites/default/files/publications/2018-12/polisi-cynllunio-cymru-rhifyn-10.pdf> [Gwelwyd 06.08.20]

⁷ Ar gael ar-lein yn: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32001L0042> [Gwelwyd 06.08.20]

⁸ Ar gael ar-lein yn: <http://www.legislation.gov.uk/cy/wsi/2004/1656/contents/made/welsh> [Gwelwyd 06.08.20]

⁹ Ar gael ar-lein yn: <http://www.legislation.gov.uk/cy/mwa/2011/2/contents/enacted/welsh> [Gwelwyd 06.08.20]

¹⁰ Ar gael ar-lein yn: <https://www.legislation.gov.uk/ukpga/2010/15/contents> [Gwelwyd 06.08.20]

¹¹ Ar gael ar-lein yn: <http://www.legislation.gov.uk/cy/anaw/2015/2/contents/enacted/welsh> [Gwelwyd 06.08.20]

- Rheoli Adnoddau Naturiol yn Gynaliadwy a'r Polisi Adnoddau Naturiol, fel sy'n ofynnol o dan Ddeddf yr Amgylchedd (Cymru) (2016)¹².

- 1.2.6 Mae'r ACI hefyd yn cymryd i ystyriaeth ofynion anneddfwriaethol asesiadau yn ymwneud â Phrawfesur Gwledig; Effeithiau Iechyd; Newid Hinsawdd; a Datblygiad Economaidd.
- 1.2.7 Mae'r angen i fabwysiadu dull integredig yn annatod i egwyddorion datblygu cynaliadwy. Mae integreiddio'r asesiadau eraill hyn yn sicrhau bod dull cydweithredol yn cael ei fabwysiadu ar gyfer gwahanol faterion, gan rannu gwybodaeth a chydabod cysylltiadau rhwng pynciau mewn ffordd gyson a thryloyw. Mae hyn yn cynnig dull cadarn a thrylwyr ar gyfer nodi problemau a chyfleoedd, asesu effeithiau gan gynnwys effeithiau cyfunol ac anuniongyrchol a gwneud gwaith monitro mewn ffordd gyfannol. Ar y cyfan, bydd yr ACI yn hwyluso golwg fwy cytbwys ar y goblygiadau cynaliadwyedd a'r cyfleoedd sy'n deillio o SDC.
- 1.2.8 Mae Cyfarwydddeb 92/43/EEC y Cyngor Ewropeaidd ar gadwraeth cynefinoedd naturiol a fflora a ffawna gwyllt (y 'Cyfarwydddeb Cynefinoedd') yn ei gwneud yn ofynnol bod unrhyw gynllun neu raglen sy'n debygol o gael effaith sylweddol ar safle Natura 2000 (Ardaloedd Cadwraeth Arbennig (ACA), ymgeisydd Ardaloedd Cadwraeth Arbennig (yACA), Ardaloedd Gwarchodaeth Arbennig (AGA), Ardaloedd Gwarchodaeth Arbennig posibl (AGAp a safleoedd Ramsar), nad yw'n ymwneud yn uniongyrchol â rheoli'r safle at ddibenion cadwraeth natur, yn destun Asesiad Priodol. Cafodd y Gyfarwydddeb ei throsi i gyfraith y DU drwy gyfrwng y Rheoliadau Cynefinoedd¹³. Cyfeirir at y broses yn ei chyfarwydd fel Asesiad Rheoliadau Cynefinoedd. Ar ôl ymgynghori â Cyfoeth Naturiol Cymru, bydd SDC yn destun proses Sgrinio yr Asesiad Rheoliadau Cynefinoedd. Bydd canlyniad y broses hon yn cael ei gyhoeddi ochr yn ochr â SDC ac Adroddiad yr ACI.

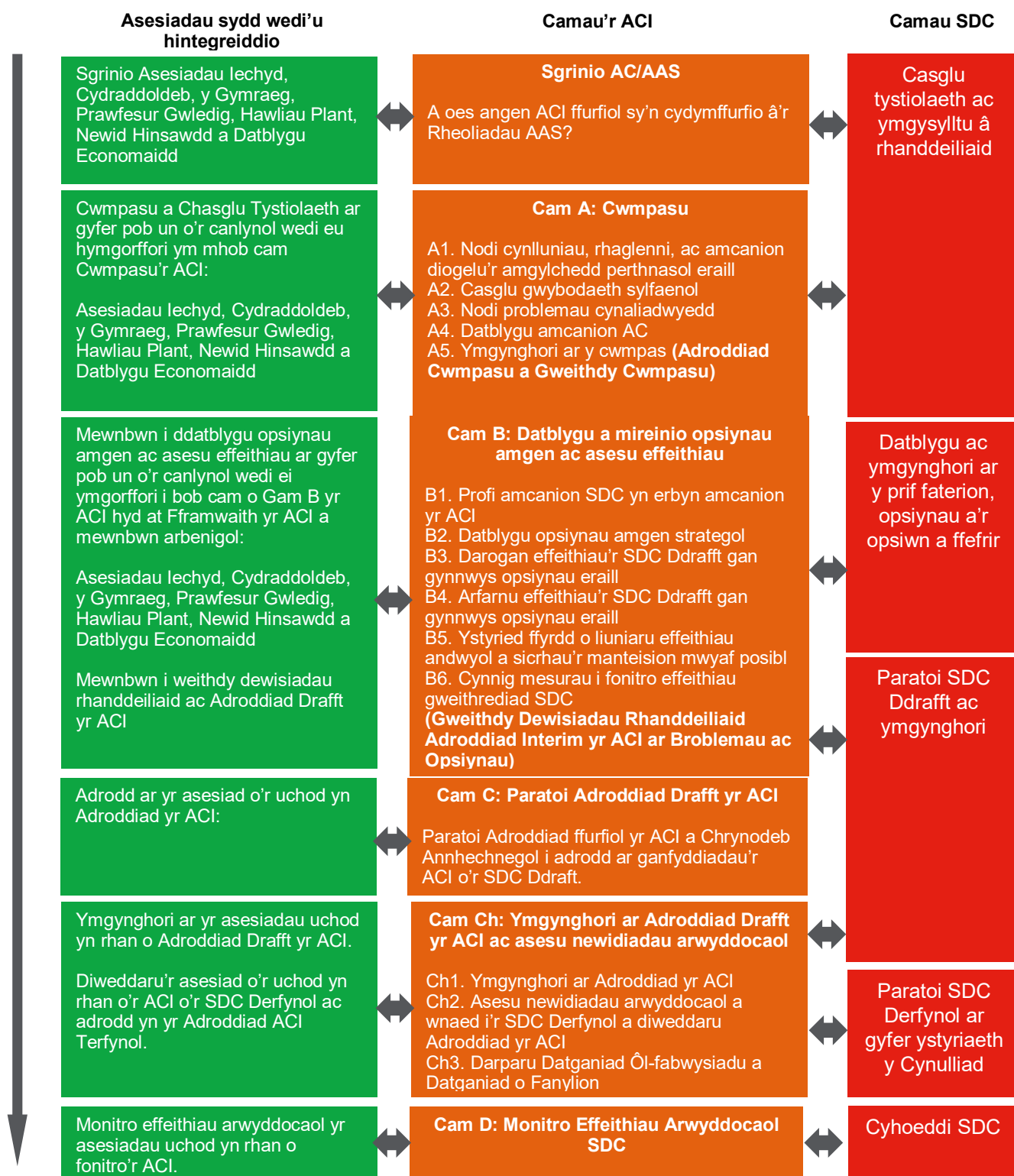
1.3 Diben yr Adroddiad ACI hwn

- 1.3.1 Yr Adroddiad ACI hwn yw Camau B ac C proses yr ACI gweler Ffigur 1-1). Diben yr adroddiad hwn yw egluro'r broses asesu ailadroddol a sut y mae hyn wedi llunio SDC o'r fersiwn wreiddiol hyd at y fersiwn ddiweddaraf. Mae'n cyflwyno effeithiau cadarnhaol a negyddol posibl yr SDC Ddrafft, i hysbysu'r broses ymgynghori.
- 1.3.2 Mae cwmpas yr asesiad o SDC yn seiliedig ar y fframwaith asesu amcanion, a ddatblygwyd ac a fireiniwyd yn ystod cam Cwmpasu'r ACI (gweler Atodiadau A a B). Mae'r asesiad yn un lefel uchel sy'n adlewyrchu cylch gwaith cenedlaethol SDC a'i diben. Mae'r asesiad wedi cymryd i ystyriaeth yr hyn y gallai SDC ei gyflawni o bosibl, a'i chwmpas cenedlaethol. Felly mae'n cydnabod swyddogaeth a dylanwad rhanddeiliaid eraill, fel darparwyr addysg neu fyrdau iechyd, o ran cyflawni nodau cyffredin. Mae Ffigur 1-2 yn cynnig trosolwg o'r asesiadau effaith a integreiddiwyd i'r ACI hwn.
- 1.3.3 Mae'r ACI yn dangos y broses dryloyw a chadarn o wneud penderfyniadau, a fabwysiadwyd wrth ddatblygu SDC. Mae datblygiad cydredol yr ACI a SDC wedi bod yn ailadroddol, a chynhaliwyd trafodaethau rheolaidd rhwng timau'r ACI a SDC. Gwnaed argymhellion ar gyfer gwelliannau neu ddewisiadau amgen trwy arfarnu fersiwn gynnar o SDC. Yr Adroddiad ACI hwn yw ail gam yr asesiad llawn. Mae'r broses gydweithredol o weithio wedi cynnwys cyfarfodydd gydag amrywiaeth eang o adrannau yn Llywodraeth Cymru, yn ogystal â chamau adolygu anffurfiol, i drafod y materion datblygol. Felly mae proses yr ACI wedi gallu darparu gwybodaeth gywir, gadarn a thryloyw i Lywodraeth Cymru am gynaliadwyedd yr opsiynau (gan gynnwys yn unigol ac yn gyfunol), sydd wedi chwarae rhan fawr ym mhroses gwneud penderfyniadau'r Llywodraeth am yr hyn i'w gynnwys yn SDC. Fodd bynnag, nodir na chyflwynir unrhyw ddewisiadau amgen rhesymol ffurfiol yn yr Adroddiad ACI hwn. Trafodwyd datblygiad 'dewisiadau amgen rhesymol' yn faith gyda thîm SDC, gan ystyried gwahanol gyfeiriadau a phosibiliadau. Ar hyn o bryd, ni roddwyd ystyriaeth i 'dewisiadau amgen' i'r dulliau yn y cynllun, am resymau sy'n cynnwys y diffyg elfennau gofodol yn SDC. Esbonnir hyn ymhellach yn adran 2.4 yr adroddiad hwn.

¹² Ar gael ar-lein yn: http://www.legislation.gov.uk/anaw/2016/3/pdfs/anaw_20160003_we.pdf [Gwelwyd 06.08.20]

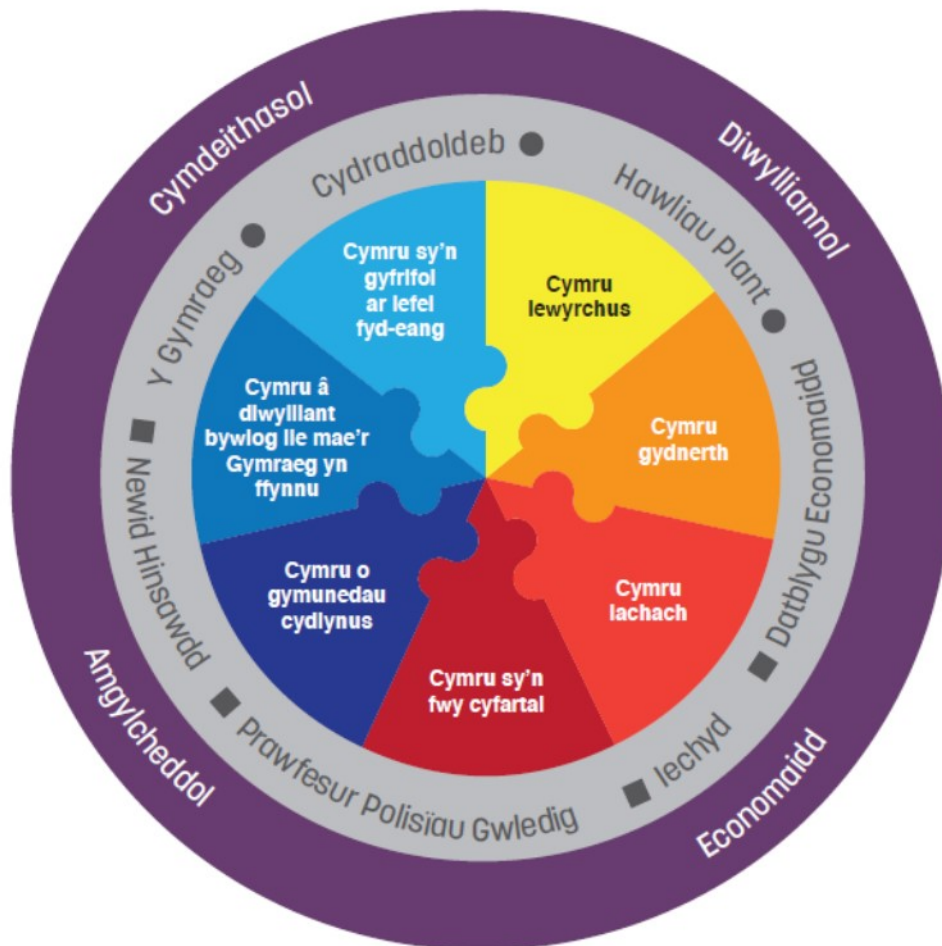
¹³ Rheoliadau Gwarchod Cynefinoedd a Rhywogaethau 2010 (OS 2010/490)

Ffigur 1-1: Camau yn y Broses ACI (addaswyd o ODPM 2005¹⁴) a Chamau Datblygu SDC



¹⁴ ODPM (2005) Canllaw Ymarferol i'r Gyfarwydddeb Asesu Amgylcheddol Strategol ar gymhwysu Cyfarwydddeb Ewropeaidd 2001/42/EC ar asesu effeithiau cynlluniau a rhaglenni penodol ar yr amgylchedd

Asesiadau Effaith Integredig



Allwedd:

- Llywodraeth
- Statudol



Nodau Llesiant

Asesiadau Effaith Integredig

Cydrannau Datblygu Cynaliadwy

1.4 Deddf Llesiant Cenedlaethau'r Dyfodol (Cymru)

- 1.4.1 Mae Deddf Llesiant Cenedlaethau'r Dyfodol (Cymru) 2015, a gymeradwywyd gan y Cynulliad Cenedlaethol ym mis Mawrth 2015, yn ceisio gosod Cymru ar lwybr cynaliadwy i wella llesiant. Mae Deddf Llesiant Cenedlaethau'r Dyfodol yn ei gwneud yn ofynnol i gyrff cyhoeddus gynnal datblygiadau cynaliadwy, fel y diffinnir isod:
- “ystyr “datblygu cynaliadwy” yw'r broses o wella llesiant economaidd, cymdeithasol, amgylcheddol a diwylliannol Cymru drwy weithredu, yn unol â'r egwyddor datblygu cynaliadwy (gweler adran 5), gan anelu at gyrraedd y nodau llesiant.”***
- 1.4.2 Mae Adran 2 Deddf Cynllunio (Cymru) 2015 yn nodi diffiniad datblygu cynaliadwy ar gyfer y system gynllunio ac mae'n cyfeirio'n uniongyrchol at y diffiniad yn Neddf Llesiant Cenedlaethau'r Dyfodol.
- 1.4.3 Ffordd o wneud pethau yw datblygu cynaliadwy, yn hytrach na diben ynddo'i hun; mae'r Ddeddf yn cyfarwyddo cyrff cyhoeddus ar sut y dylent weithredu i'w sicrhau. Datblygu cynaliadwy yw'r broses y gellir ei defnyddio i wella llesiant. Mae'n cydnabod bod llawer o bethau sy'n penderfynu ansawdd bywyd unigolyn (ei llesiant), ac y gellir categorioeddio'r rhain i gyd yn fras yn ffactorau amgylcheddol, economaidd, cymdeithasol a diwylliannol. Mae'r rhain wedi'u cynnwys yn y nodau llesiant. Felly gall gwella ansawdd ein hamgylchedd, ein heconomi, ein cymdeithas a'n diwylliant wella llesiant unigolion a llesiant Cymru yn ei chyfanrwydd. Ni ellir gwahanu'r nodau llesiant hyn oddi wrth ei gilydd (gweler Tabl 1.1).
- 1.4.4 Bydd gan SDC ran bwysig i'w chwarae o ran cyfrannu at gyflawni nodau llesiant dros y cyfnod o 25 mlynedd, a bydd yr ACI yn helpu Llywodraeth Cymru i ddeall lle gall SDC sicrhau bod y cyfraniad hwnnw mor fawr â phosibl. Mae'r nodau llesiant wedi bod yn rhan annatod o baratoad yr ACI, gan gynnwys yr adolygiad o dystiolaeth, gwybodaeth sylfaenol, nodi materion cynaliadwyedd allweddol a strwythur y Fframwaith ACI.

Tabl 1-1: Saith Nod Llesiant Deddf Llesiant Cenedlaethau'r Dyfodol (2015)

Nod Llesiant	Disgrifiad
Cymru lewyrchus.	Cymdeithas arloesol, gynhyrchiol, carbon isel sy'n cydnabod y terfynau sydd ar yr amgylchedd byd-eang ac sydd, o ganlyniad, yn defnyddio adnoddau mewn modd effeithlon a chymesur (gan gynnwys gweithredu ar newid yn yr hinsawdd); ac sy'n datblygu poblogaeth fedrus ac addysgedig mewn economi sy'n cynhyrchu cyfoeth ac yn cynnig cyfleoedd cyflogaeth, gan ganiatáu i bobl fanteisio ar y cyfoeth a gynhyrchir drwy gael gafael ar waith addas.
Cymru gydnerth.	Cenedl sy'n cynnal ac yn gwella amgylchedd naturiol bioamrywiol gydag ecosystemau iach gweithredol sy'n cynnal cydnerthedd cymdeithasol, economaidd ac ecolegol ynghyd â'r gallu i addasu i newid (er enghraifft newid yn yr hinsawdd).
Cymru iachach.	Cymdeithas lle mae llesiant corfforol a meddyliol pobl cystal â phosibl a lle deallir dewisiadau ac ymddygiadau sydd o fudd i iechyd yn y dyfodol.
Cymru sy'n fwy cyfartal.	Cymdeithas sy'n galluogi pobl i gyflawni eu potensial ni waeth beth fo'u cefndir neu eu hamgylchiadau (gan gynnwys eu cefndir a'u hamgylchiadau economaidd-gymdeithasol).
Cymru o gymunedau cydlynus.	Cymunedau atyniadol, hyfyw a diogel sydd â chysylltiadau da.
Cymru â diwylliant bywiog lle mae'r Gymraeg yn ffynnu.	Cymdeithas sy'n hyrwyddo ac yn gwarchod diwylliant, treftadaeth a'r Gymraeg ac sy'n annog pobl i gyfranogi yn y celfyddydau, a chwaraeon a gweithgareddau hamdden.

Nod Llesiant	Disgrifiad
Cymru sy'n gyfrifol ar lefel fyd-eang.	Cenedl sydd, wrth iddi wneud unrhyw beth i wella llesiant economaidd, cymdeithasol, amgylcheddol a diwylliannol Cymru, yn ystyried a allai gwneud peth o'r fath gyfrannu'n gadarnhaol at lesiant byd-eang.

1.5 Dulliau o Weithio

- 1.5.1 Mae'r egwyddor o ddatblygu cynaliadwy a ddiffiniwyd gan Ddeddf Llesiant Cenedlaethau'r Dyfodol yn rhan annatod o sut y mae'n rhaid i gyrff cyhoeddus - gan gynnwys Llywodraeth Cymru - weithredu bellach. Mae'n rhaid iddynt weithredu mewn ffordd sy'n ceisio sicrhau bod anghenion y presennol yn cael eu diwallu heb beryglu gallu cenedlaethau'r dyfodol i ddiwallu eu hanghenion eu hunain. Mae'r egwyddor hon wedi'i chyfansoddi o bump 'dull o weithio' y mae'n ofynnol i gyrff cyhoeddus eu dilyn er mwyn sicrhau'r cyfraniad mwyaf posibl at ddatblygu cynaliadwy. Dyma'r pum dull o weithio:
- Edrych i'r **hirdymor** fel nad yw Llywodraeth Cymru yn peryglu gallu cenedlaethau'r dyfodol i ddiwallu eu hanghenion eu hunain;
 - Mabwysiadu dull **integredig** fel bod cyrff cyhoeddus yn ystyried yr holl nodau llesiant wrth benderfynu ar eu hamcanion llesiant;
 - **Cynnwys** amrywiaeth o'r boblogaeth yn y penderfyniadau sy'n effeithio arnynt;
 - **Cydweithio** ag eraill mewn ffordd gydweithredol i ddod o hyd i atebion cynaliadwy cyffredin;
 - Deall yr achosion sydd wrth wraidd problemau i'w **hatal** rhag digwydd.
- 1.5.2 Mae'r pum dull o weithio yn rhan annatod o'r broses o baratoi SDC ac felly, trwy gysylltiad, yr ACI. Yn ystod y gwaith a wnaed gan Arcadis a Llywodraeth Cymru, rydym wedi ystyried sut y mae'r dulliau o weithio yn llunio'r hyn yr ydym yn ei wneud. Mae Tabl 1.2 yn cynnig trosolwg o'n dull ni.

Tabl 1.2: Dulliau o Weithio a'r ACI

Edrych i'r hirdymor	
Datblygiad SDC	I sicrhau ein bod yn ystyried yr hirdymor, bydd SDC yn cael ei datblygu i ddarparu gweledigaeth 25 mlynedd ar gyfer trafniadaeth yng Nghymru. Yn bwysig iawn, bydd SDC hefyd yn cefnogi syniadau y tu hwnt i 2040 pan fo'n bosibl, gan ddefnyddio tystiolaeth a thueddiadau a cheisio deall canlyniadau dros yr amserlenni hiraf sydd ar gael. Er bod polisïau mwy byrdymor o ddiddordeb i SDC ac y gallent hysbysu ei dull mewn rhai meysydd, yn y pen draw mae SDC yn cefnogi dull nad yw wedi'i gyfyngu gan anghenion byrdymor yn unig.
Swyddogaeth yr ACI	Swyddogaeth yr ACI yw cefnogi gwaith llunio polisi hirdymor yn SDC. Mae'n nodi ac yn ystyried amrywiaeth eang o dystiolaeth gymdeithasol, amgylcheddol ac economaidd. Mae'r adolygiad o gynlluniau a rhaglenni sylfaenol, a'r broses o nodi materion a chyfleoedd yn manteisio ar gorff manwl o dystiolaeth sy'n ystyried y byrdymor, y tymor canolig a'r hirdymor. Profodd y fframwaith brofi bolisi sy'n dod i'r amlwg ac mae'n asesu ei allu i gyflawni'r amcanion hirdymor. Bydd yr opsiynau a ddatblygwyd ac a brofwyd drwy'r ACI yn ystyried yn benodol y ddarpariaeth o newid strategol hirdymor. Mae Atodiad B yr ACI yn nodi'r dystiolaeth sylfaenol sy'n ystyried tueddiadau byrdymor, tymor canolig a hirdymor. Mae Adran 4, er enghraifft, yn dangos y tueddiadau hirdymor o ran amcanestyniadau poblogaeth. Mae hyn yn cyfrannu at y broses o nodi materion a chyfleoedd allweddol i SDC roi sylw iddynt ac yn llunio Fframwaith yr ACI ar gyfer asesu SDC.
Cymryd dull integredig	
Datblygiad SDC	Bydd SDC yn darparu strategaeth genedlaethol sy'n rhoi sylw i faterion economaidd, cymdeithasol, amgylcheddol a diwylliannol. Bydd SDC yn gyson â'r ddarpariaeth o bolisïau Llywodraeth Cymru, gan gynnwys y Strategaeth Genedlaethol: Ffyniant i Bawb, y Cynllun Gweithredu ar yr Economi a'r Fframwaith Datblygu Cenedlaethol, ac yn cefnogi'r ddarpariaeth hon. Bydd SDC yn darparu'r fframwaith strategol y bydd angen gwneud penderfyniadau am opsiynau buddsoddi yn y dyfodol yn

	<p>unol ag ef. Ni fydd yn nodi nac yn cyflwyno prosiectau, cynlluniau, mentrau nac ymyriadau penodol; bydd y rhain yn cael eu nodi yn y Cynllun Cyflawni Trafnidiaeth Genedlaethol manwl 5 mlynedd a Chynlluniau Trafnidiaeth Lleol Cyffredin.</p> <p>Bydd ei pholisïau yn integredig, gan sicrhau'r cyfraniad mwyaf posibl at y nodau llesiant, ac yn cael eu datblygu trwy broses asesu fanwl yn seiliedig ar dystiolaeth. Yr ACI fydd yr offeryn y byddwn yn ei ddefnyddio i brofi'r integreiddio hwn a sicrhau bod y cyfraniad at fodloni'r nodau llesiant mor fawr â phosibl.</p>
Swyddogaeth yr ACI	<p>Yr ACI yw'r dull integredig o ddatblygu SDC ac asesu ei pholisïau sy'n dod i'r amlwg. Mae'n sicrhau y dilyni'r dull cyfannol, gan rannu gwybodaeth a chydabod cysylltiadau rhwng y gwahanol feysydd pwnc ac felly'r nodau. Roedd proses yr ACI yn cynnwys adolygiad o gynlluniau, rhaglenni ac amcanion amgylcheddol perthnasol ar raddfa genedlaethol i ryngwladol. Galluogodd hyn i Lywodraeth Cymru fanteisio ar synergeddau posibl, i nodi cyfleoedd ac i ymdrin ag unrhyw anghysondebau a chyfyngiadau. Yn rhan o'r ACI, cynhaliwyd asesiad cydweddoldeb o'r Fframwaith asesu hefyd i sicrhau bod unrhyw achosion o wrthdaro yn cael eu hamlygu, eu datrys a'u rheoli fel sy'n angenrheidiol.</p> <p>Sicrhodd yr ymgynghoriad a'r gweithdy ACI ategol gyda rhanddeiliaid allweddol fod amrywiaeth o safbwyntiau ar Adroddiad Cwmpasu drafft yr ACI wedi'u casglu, gan gynnwys y Fframwaith drafft a dull integredig arfaethedig. Mae hyn hefyd yn sicrhau bod synergeddau ac achosion o wrthdaro yn cael eu nodi'n gynnar, gan sicrhau dull cadarn o gynnal yr asesiad.</p> <p>Mae dull trawslywodraethol yn cael ei fabwysiadu o ran sefydlu Gweithgor ACI. Mae hwn yn cynnwys arweinwyr polisi arbenigol ar gyfer datgarboneiddio, trafndiaeth, cynllunio morol, adnoddau naturiol, cadwraeth natur, tueddiadau'r dyfodol ac ystadegau. Sefydlwyd y Gweithgor i gefnogi proses yr ACI trwy gydol datblygiad SDC.</p> <p>Bwriedir y bydd dull cydweithredol yn esblygu trwy gydol y broses i lenwi bylchau data, i wneud gwaith monitro ac i gynyddu'r ymgysylltiad â grwpiau fel Byrddau Gwasanaethau Cyhoeddus.</p>
Cynnwys pobl	
Datblygiad SDC	<p>Byddwn yn cynnwys rhanddeiliaid allweddol yn natblygiad SDC.</p> <p>Bydd ymgysylltu ar y strategaeth ddrafft yn cael ei wneud fel a ganlyn:</p> <ul style="list-style-type: none"> • mewnbwn rhanddeiliaid i'r strategaeth ddrafft, gan gynnwys ymgynghori mewnol ac allanol gyda rhanddeiliaid allweddol yn ogystal â swyddfeydd y Comisiynwyr. • ymgynghori ac ymgysylltu ar ddogfen y strategaeth ddrafft. • cofnodi allbynnau o'r ymgynghoriad â rhanddeiliaid. • dadansoddi adborth a llunio adroddiad ymgynghori. • mewnbwn rhanddeiliaid i fireinio SDC. <p>Dyma amcanion yr ymgysylltu:</p> <ol style="list-style-type: none"> 1. Gwneud cynulleidfaoedd yn ymwybodol o ddatblygiad Llwybr Newydd - Strategaeth Drafndiaeth Newydd i Gymru, blaenoriaethau a chanlyniadau, a cheisio eu safbwyntiau ar y rhain. 2. Sicrhau bod y cyhoedd a rhanddeiliaid yn cael cyfle i gynnig sylwadau ar gynigion ar gyfer newid, fel y gellir defnyddio adborth i hysbysu'r broses gwneud penderfyniadau. 3. Gwneud yn siŵr bod yr ymgynghoriad yn gynhwysol ac yn cynnig cyfleoedd i amrywiaeth eang o rhanddeiliaid a'r cyhoedd gymryd rhan. 4. Sicrhau lefel uchel o ymwybyddiaeth a dealltwriaeth o ran pam mae newidiadau yn cael eu cynnig.
Swyddogaeth yr ACI	<p>Rhoddodd yr ACI gyfle pwysig i bobl gymryd rhan yn y broses o lunio SDC wrth iddi ddatblygu. Mae'n broses sy'n adrodd hanes y cynllun gan gynorthwyo dealltwriaeth o'i ddatblygiad.</p> <p>Mae gwaith yr ACI wedi cynnwys gwahanol sefydliadau ac unigolion i sicrhau bod amrywiaeth eang o safbwyntiau yn dal i gael eu casglu ac yn cyfrannu at ddatblygiad SDC. Roedd yr ACI yn ymgorffori gwaith o hyrwyddo a diogelu iaith genedlaethol Cymru.</p>
Cydweithio ag eraill	

Datblygiad SDC	<p>Ni fydd SDC yn gallu mynd i'r afael â'r heriau trafnidiaeth allweddol ar ei phen ei hun. Ei swyddogaeth yw cyflwyno'r blaenoriaethau strategol a'r canlyniadau dymunol gan ddarparu cysylltiad â blaenoriaethau ehangach yn ogystal â chynlluniau ar lefel awdurdodau lleol a rhai rhanddeiliaid trafnidiaeth eraill. Ei swyddogaeth yw nodi'r hyn y gall ei wneud yn uniongyrchol ac mewn cydweithrediad ag eraill. Ceir cyfle i SDC hwyluso camau gan eraill ac i sicrhau bod cymaint o gyfleoedd â phosibl i gefnogi cyflawniad nodau cyffredin, i sicrhau cymaint o ganlyniadau cadarnhaol â phosibl ac i helpu i fodloni'r nodau llesiant.</p> <p>Yn bwysig, mae gan SDC ddiddordeb mewn cefnogi darpariaeth ar bob lefel drwy'r system gynllunio. Yn ogystal â chynlluniau mawr ac untro, bydd SDC yn ceisio hwyluso darpariaeth sawl prosiect llai, a all helpu gyda'i gilydd i sicrhau newid dros yr hirdymor.</p> <p>Bydd gan SDC swyddogaeth o ran cydgysylltu'r ddarpariaeth o fuddsoddiad a strategaethau ar draws y Llywodraeth; bydd yn gweithio gyda llunwyr cynlluniau rhanbarthol a lleol; busnesau; rhanddeiliaid; ac amrywiaeth eang o fuddiannau.</p>
Swyddogaeth ACI	<p>Bydd yr ACI, trwy adolygu cynlluniau, rhaglenni ac amcanion amgylcheddol a thystiolaeth sylfaenol yn helpu i nodi'r materion cynaliadwyedd allweddol ac yn nodi cyfleoedd i SDC (Tabl 2.2); ar ôl ymgysylltu ac ymgynghori, mae'r dystiolaeth, y cynlluniau a'r rhaglenni ac ati wedi cael eu diweddarau a'u diwygio. Mae hyn wedi arwain at ddatblygiad Fframwaith yr ACI, y cafodd polisïau a chynigion SDC eu profi yn ei erbyn er mwyn helpu i sicrhau cymaint o gyfleoedd i gydweithredu â phosibl a sicrhau bod SDC mor gynaliadwy â phosibl.</p>
Atal	
Datblygiad SDC	<p>Y strategaeth drafnidiaeth yw un o ysgogiadau'r Llywodraeth i nodi canlyniadau'r dyfodol a mesurau i fonitro llwyddiant. Bydd SDC yn nodi gweledigaeth strategol hirdymor Llywodraeth Cymru ar gyfer trafnidiaeth wedi'i hategu gan gyfres o ganlyniadau i wireddu'r weledigaeth honno, yn ogystal â mesurau i olrhain cynnydd. Bydd hyn yn cynnig sail eglur ar gyfer cynllunio buddsoddiad a datblygiad y rhwydwaith yn y ffordd sy'n cyd-fynd orau â gwireddu blaenoriaethau cyfunol, ac i leihau effeithiau trafnidiaeth. Bydd SDC yn darparu ar gyfer diogelu ac amddiffyn grwpiau difreintiedig a lleiafrifol yng Nghymru.</p> <p>Bydd SDC yn seiliedig ar dystiolaeth. Bydd yn destun rhaglen o fonitro ac adolygu, i ddarganfod ei chynnydd tuag at gyflawni ei chanlyniadau.</p>
Swyddogaeth yr ACI	<p>Mae'r ACI yn seiliedig ar dystiolaeth sy'n bwydo drwy'r Adroddiad Cwmpasu ac yn llunio Fframwaith yr ACI. Nododd yr adolygiad o'r dystiolaeth hon faterion allweddol a chyfleoedd i SDC roi sylw iddynt a sicrhau bod SDC yn atal canlyniadau negyddol ac yn gwella canlyniadau cadarnhaol pan fo'n bosibl (Tabl 2.2). Bydd nodi'r materion a'r tueddiadau hyn ar y cam cynnar hwn yn helpu datblygiad SDC trwy lunio amcanion a chwestiynau Fframwaith yr ACI. Mae proses yr ACI yn sicrhau y bydd SDC yn cael ei monitro i sicrhau bod SDC yn cael ei gweithredu'n llwyddiannus ac yn cyflawni ei hamcanion. Bydd unrhyw faterion a amlygir yn cyfrannu at yr adolygiad o SDC.</p>

1.6 Asesiadau o'r Effaith Ddeddfwriaethol

Asesiad Amgylcheddol Strategol

- 1.6.1 Proses strwythuredig a systematig o gefnogi penderfyniadau yw'r AAS, fel sy'n ofynnol o dan y Gyfarwydddeb AAS a'r Rheoliadau AAS. Bwriedir iddi helpu i sicrhau bod agweddau amgylcheddol yn cael eu hystyried yn effeithiol yn ystod y broses o lunio cynllun. Diffinnir y broses gan gamau a thasgau penodol i'w cwblhau er mwyn bodloni gofynion y Gyfarwydddeb AAS. Mae Tabl 1.3 yn nodi lle mae'r gofynion amrywiol hyn wedi'u bodloni, neu y byddant yn cael eu bodloni, yn yr ACI.

Tabl 1.3: Gofynion ar gyfer Adroddiad Amgylcheddol AAS ac a yw'r rhain wedi'u bodloni neu a fyddant yn cael eu bodloni

Cwestiwn	Do/Naddo/Ble
Cyfarwyddeb 2001/42/EC Senedd Ewrop a'r Cyngor, dyddiedig 27 Mehefin 2001, ar asesu effeithiau cynlluniau a rhaglenni penodol ar yr amgylchedd (y Gyfarwyddeb AAS) Atodiad I – Gwybodaeth y cyfeirir ati yn Erthygl 5(1)	
(a) amlinelliad o'r cynnwys, prif amcanion y cynllun neu'r rhaglen a'r berthynas â chynlluniau a rhaglenni perthnasol eraill	Adroddiad Cwmpasu yr ACI, Adrannau 1.1, 2.1 ac Atodiad A yn yr Adroddiad hwn
(b) yr agweddau perthnasol ar gyflwr presennol yr amgylchedd a'i esblygiad tebygol heb weithredu'r cynllun neu'r rhaglen;	Adroddiad Cwmpasu yr ACI ac Adran 2.2 ac Atodiad B yn yr adroddiad hwn
(c) y nodweddion amgylcheddol y mae'n debygol y bydd effaith arwyddocaol arnynt;	Adroddiad Cwmpasu yr ACI a Thabl 2.2 ac Atodiad B yr adroddiad hwn
(d) unrhyw broblemau amgylcheddol presennol sy'n berthnasol i'r cynllun neu'r rhaglen gan gynnwys, yn benodol, y rhai sy'n ymwneud ag unrhyw ardal o bwys amgylcheddol penodol, megis ardaloedd sydd wedi eu dynodi yn unol â Chyfarwyddebau 79/409/EEC a 92/43/EEC;	Adroddiad Cwmpasu yr ACI ac Atodiad B yr adroddiad hwn
(e) amcanion diogelu'r amgylchedd, a sefydlir ar lefel ryngwladol, Gymunedol neu Aelod-wladwriaeth, sy'n berthnasol i'r cynllun neu'r rhaglen a'r modd y mae'r amcanion hynny ac unrhyw ystyriaethau amgylcheddol wedi'u cynnwys wrth ei baratoi;	Adroddiad Cwmpasu yr ACI ac Atodiad A yr adroddiad hwn
(f) yr effeithiau sylweddol tebygol (1) ar yr amgylchedd, gan gynnwys materion fel bioamrywiaeth, poblogaeth, iechyd pobl, ffawna, fflora, pridd, dŵr, aer, ffactorau hinsoddol, asedau materol, treftadaeth ddiwylliannol gan gynnwys treftadaeth bensaernïol ac archeolegol, y dirwedd a'r rhyngberthynas rhwng y ffactorau uchod;	Pennod 3 ac Atodiad C yr adroddiad hwn
(g) y camau a ragwelir i atal, lleihau a gwrthbwysu cymaint â phosibl unrhyw effeithiau negyddol sylweddol ar yr amgylchedd yn sgil gweithredu'r cynllun neu raglen;	Pennod 3 ac Atodiad B yr adroddiad hwn
(h) amlinelliad o'r rhesymau dros ddewis yr opsiynau amgen yr ymdriniwyd â nhw, a disgrifiad o sut y cynhaliwyd yr asesiad gan gynnwys unrhyw anawsterau (fel diffygion technolegol neu ddiffyg gwybodaeth) a geir wrth gasglu'r wybodaeth ofynnol ynghyd;	Adran 2.4 yn yr adroddiad hwn
(i) disgrifiad o'r camau a ragwelir ynghylch monitro yn unol ag Erthygl 10;	Tabl 3.5 yn yr adroddiad hwn
(j) crynodeb annhechnegol o'r wybodaeth a ddarperir o dan y penawdau uchod.	Rhan gyntaf yr adroddiad hwn

Deddf yr Amgylchedd (Cymru)

- 1.6.2 Mae Deddf yr Amgylchedd (Cymru) 2016 yn cyflwyno Rheoli Adnoddau Naturiol yn Gynaliadwy ac yn nodi fframwaith ar gyfer cyflawni hyn yn rhan o'r broses o wneud penderfyniadau. Amcan Rheoli Adnoddau Naturiol yn Gynaliadwy yw *'defnyddio adnoddau naturiol mewn modd ac ar gyfradd sy'n... cynnal a gwella cydnerthedd ecosystemau a'r manteision a gynigir ganddynt ac, wrth wneud hynny, ddiwallu anghenion y cenedlaethau presennol o bobl heb beryglu gallu cenedlaethau'r dyfodol i ddiwallu eu hanghenion hwythau, a chyfrannu at gyrraedd y nodau llesiant.'* Mae Polisi Cynllunio

Cymru yn trosi egwyddorion Rheoli Adnoddau Naturiol yn Gynaliadwy i'w defnyddio yn y system gynllunio.

- 1.6.3 Mae gofynion Deddf yr Amgylchedd, gan gynnwys y blaenoriaethau a nodwyd gan y Polisi Adnoddau Naturiol, wedi'u cynnwys yn fframwaith yr ACI a bydd yn llywio datblygiad SDC. Mae'r rhain yn rhoi pwyslais ar adnoddau naturiol Cymru, ac mae SoNaRR¹⁵ yn darparu asesiad o reoli adnoddau naturiol yn gynaliadwy ac mae'r Polisi Adnoddau Naturiol yn ceisio nodi'r blaenoriaethau cenedlaethol o ran rheoli adnoddau naturiol yn gynaliadwy yng Nghymru.
- 1.6.4 Mae SDC, trwy fynd i'r afael â materion a chyfluoedd cymdeithasol, economaidd, amgylcheddol a diwylliannol, yn defnyddio dull hollgynhwysol o sicrhau datblygu cynaliadwy pan fo penderfyniadau ar anghenion byrdymor a hirdymor a chost a buddion yn dod at ei gilydd. Mae'r ACI yn helpu i sicrhau'r canlyniadau hyn drwy nodi lle gellir darparu buddion lluosog yn rhan o'r cynllun ac osgoi neu leihau effeithiau negyddol cymaint â phosibl.
- 1.6.5 Dyma nodweddion allweddol y dull Rheoli Adnoddau Naturiol yn Gynaliadwy, y gall y system gynllunio gyfrannu atynt:
- Gwella cydnherthedd ecosystemau a rhwydweithiau ecolegol;
 - Cynnal a gwella bioamrywiaeth;
 - Cynnal a gwella seilwaith gwyrdd ar sail ceisio buddion i'r ecosystem ac atebion lluosog;
 - Sicrhau dewisiadau cydnherth ar sail lleoliad ar gyfer seilwaith a datblygu adeiledig, gan ystyried, pan fo hynny'n bosibl, gyflenwadau dŵr, ansawdd dŵr a lleihau llygredd aer a sŵn a risgiau amgylcheddol fel y rhai a achosir gan risg o lifogydd, newid arfordirol, halogi tir ac ansefydlogrwydd;
 - Cymryd camau tuag at economi fwy cylchol yng Nghymru; a
 - Hwyluso'r symudiad i ddatgarboneiddio'r economi.
- 1.6.6 Cydnabyddir sut y mae trosi Rheoli Adnoddau Naturiol yn Gynaliadwy i'r system gynllunio yn rhan annatod o gydrannau hanfodol lleoedd cynaliadwy, trwy annog dulliau sy'n seiliedig ar nodi a sicrhau canlyniadau sy'n cyflawni buddion lluosog i ecosystemau. Mae SDC yn ceisio mynd i'r afael â'r nodweddion allweddol hyn ac mae'r ACI yn nodi sut y cyflawnir hyn.

Cydraddoldebau

- 1.6.7 Mae'n bosibl y gallai SDC gael effaith ar gydraddoldebau a hawliau dynol. Mae Fframwaith yr ACI a chwestiynau cynorthwyo penderfyniad cysylltiedig wedi sicrhau y rhoddwyd sylw i'r dyletswyddau yn Neddf Cydraddoldeb 2010 ac y byddant yn parhau i gael sylw drwy'r ACI a SDC.
- 1.6.8 O dan y ddyletswydd cydraddoldeb (a nodir yn Adran 149 Deddf Cydraddoldeb 2010), mae'n rhaid i awdurdodau cyhoeddus fel Llywodraeth Cymru, roi 'sylw dyledus' i'r angen i ddileu gwahaniaethu anghyfreithlon, aflonyddu ac erledigaeth yn ogystal â hybu cyfle cyfartal a meithrin perthynas dda rhwng pobl sy'n rhannu nodwedd warchodedig (gan gynnwys oedran, anabledd, ailebennu rhywedd, hil, crefydd neu gred, rhyw, cyfeiriadedd rhywiol, priodas a phartneriaeth sifil a beichiogrwydd a mamolaeth) a'r rheini nad ydynt yn eu rhannu.
- 1.6.9 Rhoddir sylw i'r gofyniad ar gyfer yr Asesiad o'r Effaith ar Gydraddoldebau trwy Amcanion 1 a 2 yr ACI yn bennaf.

Asesiad Effaith	Amcanion yr ACI
Cydraddoldebau	1, 2

¹⁵ Ar gael ar-lein yn: <https://naturalresources.wales/evidence-and-data/research-and-reports/the-state-of-natural-resources-report-assessment-of-the-sustainable-management-of-natural-resources/?lang=cy> [Gwelwyd 06.08.20]

Y Gymraeg

- 1.6.10 Mae Mesur y Gymraeg (Cymru) 2011 a Safonau'r Gymraeg yn ei gwneud yn ofynnol ystyried yr effeithiau canlynol:
- Pa effaith, os o gwbl, y byddai SDC yn ei chael ar gyfleoedd i bobl eraill ddefnyddio'r Gymraeg, neu i beidio â thrin y Gymraeg yn llai ffafriol na'r Saesneg;
 - Sut y gallai SDC arwain at effeithiau cadarnhaol neu fwy o effeithiau cadarnhaol ar gyfleoedd i bobl eraill ddefnyddio'r Gymraeg, neu i beidio â thrin y Gymraeg yn llai ffafriol na'r Saesneg; a
 - Sut y gellid datblygu SDC fel bod effeithiau negyddol y byddai'r penderfyniad polisi yn eu cael ar gyfleoedd i bobl eraill ddefnyddio'r Gymraeg neu i beidio â thrin y Gymraeg yn llai ffafriol na'r Saesneg yn cael eu lleihau.
- 1.6.11 Mae'n bosibl y gallai SDC gael effaith ar y Gymraeg. Felly mae Amcan 5 yr ACI yn cwmpasu'r Gymraeg i sicrhau ei bod yn cael ei chynnwys yn Fframwaith yr ACI. Bydd hyn yn sicrhau bod cyfleoedd i hybu'r Gymraeg, i hwyluso ei defnydd, i ddiogelu ei dyfodol a gweld yr iaith yn ffynnu, yn cael eu hystyried a'u nodi pan fo'n bosibl drwy'r gwaith hwn. Mae gan Lywodraeth Cymru rwymedigaeth statudol i ystyried yn llawn effeithiau ei gwaith ar y Gymraeg. Mae'n rhaid i ddatblygiad pob polisi, prosiect, darn o waith ymchwil, deddfwriaeth, grant a gwasanaeth gael ei ategu gan ystyriaeth briodol o'r Gymraeg, pobl sy'n siarad Cymraeg a chymunedau Cymraeg; mae hyn yn cynnwys plant a phobl ifanc.
- 1.6.12 Mae'n rhaid i Lywodraeth Cymru chwilio am gyfleoedd i hybu'r Gymraeg a hwyluso ei defnydd i ddiogelu ei dyfodol a gweld yr iaith yn ffynnu. Asesiad o'r Effaith ar y Gymraeg yw'r broses a ddilynir i sicrhau y cyflawnir y dyletswyddau hyn.
- 1.6.13 Mae Fframwaith yr ACI a'r cwestiynau cysylltiedig sy'n cynorthwyo penderfyniadau yn sicrhau bod yr effeithiau ar y Gymraeg wedi cael sylw wrth i SDC gael ei hasesu, gan gydnabod effeithiau uniongyrchol ac anuniongyrchol.
- 1.6.14 Rhoddir sylw i'r gofynion ar gyfer yr Asesiad o'r Effaith ar y Gymraeg trwy Amcan 5 yr ACI yn bennaf:

Asesiad Effaith	Amcan yr ACI
Y Gymraeg	5

Asesiad o'r Effaith ar Hawliau Plant

- 1.6.15 Rhoddir dyletswydd ar Weinidogion Cymru i roi sylw dyledus i Gonfensiwn y Cenhedloedd Unedig ar Hawliau'r Plentyn (CCUHP) wrth arfer unrhyw un o'u swyddogaethau. Mae'r asesiad o'r effaith ar hawliau plant yn offeryn sy'n helpu i ddangos sut y mae Gweinidogion Cymru yn bodloni'r gofyniad cyfreithiol.
- 1.6.16 Daeth y gwaith cwmpasu i'r casgliad y bydd SDC yn cael effaith bosibl ar hawliau plant. Adolygwyd yr Erthyglau yn y Confensiwn a nodwyd yr erthyglau canlynol fel y rhai mwyaf perthnasol ar y cam hwn – 6, 12, 23, 24, 27, 28, 31 a 36. Ar gyfer yr Erthyglau hyn ac argymhellion 2016 a wnaed gan Bwyllgor y Cenhedloedd Unedig ar Hawliau'r Plentyn, mae Fframwaith yr ACI yn cynnwys amcanion sy'n cwmpasu'r meysydd hyn. Mae'r Datganiad o Gyfranogiad Cyhoeddus yn amlinellu manylion yr ymgynghoriad ar SDC a'r dull o ymgysylltu. Bydd plant a phobl ifanc yn parhau i gael eu cynnwys i sicrhau y clywir eu llais wrth ddatblygu SDC.
- 1.6.17 Mae Fframwaith yr ACI a'r cwestiynau cysylltiedig sy'n cynorthwyo eu penderfyniadau yn sicrhau bod yr erthyglau perthnasol yn y Confensiwn yn cael sylw wrth asesu SDC; mae hyn yn cydnabod yr effeithiau uniongyrchol ac anuniongyrchol y gall y system gynllunio eu cael ar blant a phobl ifanc. Bydd yn helpu i sicrhau bod SDC yn effeithio'n gadarnhaol ar blant trwy, er enghraifft, y gallu i gael addysg; creu cyfleoedd sy'n golygu y gellir lleihau anghydraddoldeb ar sail oedran; creu cyfleoedd i

sicrhau y gall plant ymlacio a chwarae ac ymuno mewn amrywiaeth eang o weithgareddau; a chreu cyfleoedd i'r amgylchedd adeiledig gael ei gynllunio mewn modd sy'n hygyrch i bawb. Mae'r Asesiad o'r Effaith ar y Gymraeg yn ystyried sut y bydd SDC yn effeithio ar bob aelod o gymdeithas wrth ddysgu a defnyddio'r Gymraeg, gan gynnwys plant a phobl ifanc.

- 1.6.18 Rhoddir sylw i'r gofynion ar gyfer yr asesiadau Hawliau Plant trwy Amcanion 1, 2, 3, 4, a 5 yr ACI yn bennaf:

Asesiad Effaith	Amcanion yr ACI
Hawliau Plant	1, 2, 3, 4, a 5

Asesiad Rheoliadau Cynefinoedd

- 1.6.19 Mae Cyfarwydddeb 92/43/EEC y Cyngor Ewropeaidd ar gadwraeth cynefinoedd naturiol a fflora a ffawna gwyllt (y 'Gyfarwydddeb Cynefinoedd') yn ei gwneud yn ofynnol bod unrhyw gynllun neu raglen sy'n debygol o gael effaith sylweddol ar safle Natura 2000 (Ardaloedd Cadwraeth Arbennig (ACA), ymgeisydd Ardaloedd Cadwraeth Arbennig (yACA), Ardaloedd Gwarchodaeth Arbennig (AGA)), nad yw'n ymwneud yn uniongyrchol â rheoli'r safle at ddibenion cadwraeth natur, yn destun Asesiad Priodol. Cafodd y Gyfarwydddeb ei throsi i gyfraith y DU drwy gyfrwng y Rheoliadau Cynefinoedd. Cyfeirir at y broses yn ei chyfanrwydd fel Asesiad Rheoliadau Cynefinoedd. Mae Ardaloedd Gwarchodaeth Arbennig posibl (AGAp) a safleoedd Ramsar hefyd wedi eu cynnwys fel safleoedd Natura 2000 at ddibenion Asesiad Rheoliadau Cynefinoedd ym mholisi'r Llywodraeth, ond nid yw hyn wedi'i gynnwys yn y gyfraith.
- 1.6.20 Nid yw'r adroddiad ACI hwn yn bodloni gofynion Asesiad Rheoliadau Cynefinoedd. Mae'r Asesiad yn broses ar wahân, ac mae adroddiadau ar gael i'r cyhoedd. Bydd arfarniadau a gynhelir yn yr ACI yn cael eu llywio gan ganlyniadau proses Sgrinio'r Asesiad Rheoliadau Cynefinoedd, pan fyddant ar gael.

1.7 Asesiadau Effaith Anneddfwriaethol

Prawfesur Gwledig

- 1.7.1 Bydd SDC yn cael effaith bosibl ar gymunedau gwledig, ac felly mae'r amcanion sy'n ymwneud ag agweddau ar fywyd gwledig fel y gallu i gael gafael ar wasanaethau a'r economi wedi'u cynnwys yn Fframwaith yr ACI. Bydd hyn yn helpu i sicrhau y rhoddir sylw i'r effeithiau uniongyrchol ac anuniongyrchol posibl y gall y system drafndiaeth eu cael ar ardaloedd a chymunedau gwledig.
- 1.7.2 Mae sut a lle yn yr ACI y bodlonwyd gwahanol ofynion ar gyfer prawfesur gwledig yn bennaf fel a ganlyn:

Asesiad Effaith	Amcanion yr ACI
Prawfesur Gwledig	1, 2, 3, 4, 5, 9, a 13

Newid yn yr Hinsawdd

- 1.7.3 Bydd SDC yn cael effaith bosibl ar y newid yn yr hinsawdd. Felly mae amcanion perthnasol wedi cael eu cynnwys yn Fframwaith yr ACI, i sicrhau bod achosion a chanlyniadau newid hinsawdd yn cael eu hystyried a'u nodi pan fo'n bosibl.
- 1.7.4 Mae Fframwaith yr ACI a'r cwestiynau cysylltiedig sy'n cynorthwyo penderfyniadau yn sicrhau y rhoddir sylw i'r effeithiau ar newid hinsawdd, gan gynnwys addasu, lliniaru a chydnerthedd wrth i SDC gael ei hasesu, gan gydnabod yr effeithiau uniongyrchol ac anuniongyrchol y gall y system gynllunio eu cael ar y meysydd hyn.

1.7.5 Mae'r asesiadau sy'n ymwneud â'r newid yn yr hinsawdd wedi cael eu hymgorffori yn bennaf trwy:

Asesiad Effaith	Amcanion yr ACI
Newid yn yr Hinsawdd	6, 7, ac 11

Iechyd

- 1.7.6 Mae'n bosibl y gallai SDC gael effaith ar iechyd pobl, gan gynnwys iechyd a llesiant corfforol a meddyliol. Seiliwyd yr Asesiad o'r Effaith ar Iechyd ar y dull bras, cyfranogol a chynhwysol a hyrwyddir yng Nghymru ac a ddisgrifir yn 'Asesu'r Effaith ar Iechyd: Canllaw Ymarferol' (WHIASU, 2012) ac mae wedi defnyddio'r penderfyniadau iechyd ehangach fel fframwaith ar gyfer trafodaeth. Mae Fframwaith yr ACI yn cynnwys amcanion iechyd sy'n adlewyrchu dangosyddion iechyd Cyhoeddus Cymru.
- 1.7.7 Mae Fframwaith yr ACI a'r cwestiynau cysylltiedig sy'n cynorthwyo penderfyniadau yn sicrhau y rhoddir sylw i'r effeithiau ar iechyd, gan gynnwys llesiant, iechyd corfforol a meddyliol a phenderfyniadau iechyd ehangach wrth i SDC gael ei hasesu, gan gydnabod effeithiau uniongyrchol ac anuniongyrchol y gall y system gynllunio eu cael ar y meysydd hyn.
- 1.7.8 Mae sut a lle yn yr ACI y bodlonwyd gwahanol ofynion Asesu'r Effaith ar Iechyd yn bennaf fel a ganlyn:

Asesiad Effaith	Amcanion yr ACI
Iechyd	1 a 2

Datblygu Economaidd

- 1.7.9 Bydd SDC yn cael effaith bosibl ar yr economi. Mae amcanion economaidd wedi'u cynnwys yn Fframwaith yr ACI i sicrhau bod materion a chyfleoedd yn cael eu hystyried a'u nodi pan fo'n bosibl.
- 1.7.10 Mae Fframwaith yr ACI a'r cwestiynau cysylltiedig sy'n cynorthwyo penderfyniadau yn sicrhau y rhoddir sylw i'r effeithiau ar ddatblygu economaidd, gan gynnwys cynyddu cyfleoedd cyflogaeth, hybu cynhwysiant economaidd a thwf, amrywiaeth a chystadleurwydd economaidd, yn ogystal â chyfleoedd trydydd sector wrth i SDC gael ei hasesu, gan gydnabod yr effeithiau uniongyrchol ac anuniongyrchol y gall y system gynllunio eu cael ar y meysydd hyn.
- 1.7.11 Mae sut a lle yn yr ACI y bodlonwyd y gwahanol ofynion ar gyfer asesiadau o'r effeithiau ar yr economi yn bennaf fel a ganlyn:

Asesiad Effaith	Amcan yr ACI
Datblygu Economaidd	3

1.8 Prosesau'r ACI a SDC

- 1.8.1 Fel y disgrifiwyd yn gynharach, mae proses yr ACI yn dilyn yr hyn a nodir yn Ffigur 1-1. Yr adroddiad hwn yw Cam C y broses hon, Adroddiad Drafft yr ACI.

Casglu Tystiolaeth, Cwmpasu'r ACI ac Ymgysylltu â Rhanddeiliaid

- 1.8.2 Dechreuodd Cam A yr ACI (Cwmpasu) ddechrau 2020, ac roedd yn cynnwys mwy o gasglu tystiolaeth a dadansoddi materion a chyfleoedd cynaliadwyedd, a gyd-blethwyd â thystiolaeth SDC. Yr Adroddiad Cwmpasu drafft ar gyfer yr ACI o SDC oedd un o'r camau cyntaf o ran ymgysylltu a

chydweithio ar gyfer SDC. Cynhaliwyd ymgynghoriad ar yr Adroddiad Cwmpasu drafft rhwng 05 Mai a 31 Gorffennaf 2020. Hefyd, cynhaliwyd gweithdy ddechrau mis Mai 2020 gyda rhanddeiliaid yn cynrychioli'r amrywiaeth o brosesau asesu sydd i'w cynnwys yn yr ACI. Cyflwynwyd Adroddiad Cwmpasu yr ACI i rhanddeiliaid statudol i gael eu sylwadau, yn ogystal â rhanddeiliaid eraill perthnasol neu rai â buddiant.

- 1.8.3 Roedd Cam A, 'Pennu'r Cyd-destun a'r Amcanion, Nodi'r Llinell Sylfaen a Phenderfynu ar y Cwmpas' yn cynnwys y bum dasg ganlynol:
- A1: Nodi polisiau, cynlluniau a rhaglenni perthnasol eraill ac amcanion yr ACI;
 - A2: Casglu gwybodaeth sylfaenol;
 - A3: Nodi materion a phroblemau cynaliadwyedd;
 - A4: Datblygu Fframwaith yr ACI; ac
 - A5: Ymgynghori ar gwmpas yr ACI.
- 1.8.4 Yr Adroddiad Cwmpasu Terfynol (Hydref 2020)¹⁶ yw cam cychwynnol yr ACI. Mae'n dilyn dull integredig a luniwyd trwy ymgysylltu a chynnwys rhanddeiliaid ac yn dilyn y dull a nodir yn y canllawiau cyhoeddus¹⁷, sy'n:
- Pennu cwmpas a lefel manylder yr ACI;
 - Nodi cynlluniau, polisiau, rhaglenni a mentrau perthnasol a fydd yn hysbysu proses yr ACI a SDC;
 - Nodi gwybodaeth berthnasol am amodau cymdeithasol, economaidd, diwylliannol, ac amgylcheddol presennol ac a ragwelir yn y dyfodol yng Nghymru ar raddfa genedlaethol;
 - Nodi materion a chyfleoedd cynaliadwyedd allweddol; a
 - Chyflwyno fframwaith ar gyfer yr ACI, yr arfarnwyd SDC yn ei erbyn.
- 1.8.5 Mae ymatebion i'r sylwadau a gafwyd a sut y maent wedi dylanwadu ar y diwygiadau i'r ACI, wedi eu nodi yn Atodiad C.

1.9 Sut y cynhaliwyd yr ACI

Cwmpas Daearyddol

- 1.9.1 Ysgogwyd cwmpas daearyddol yr ACI gan gwmpas daearyddol SDC h.y. Cymru gyfan a hyd at bwynt isaf cymedrig y gorllanw. Mae Cynllun Morol Cenedlaethol Cymru yn gosod y cyd-destun polisi o bwynt uchaf cymedrig y gorllanw. Mae'r berthynas rhwng cynlluniau morol a chynlluniau defnydd tir o dan Ddeddf y Môr¹⁸ yn dangos gorgyffwrdd cyffredin yn y parth rhynglanwol. Mae maint daearyddol materion sylfaenol penodol yn golygu y bydd cysylltiad agos rhyngddynt ag ardaloedd cyfagos o Loegr ac o bosibl ag Iwerddon yn ogystal â'r amgylchedd morol. Mae hyn hefyd yn golygu bod effeithiau daearol a morol yn bosibl ac y bydd angen eu hystyried.

Cwmpas Amser yr ACI

- 1.9.2 Bwriedir i SDC bennu gweledigaeth 25 mlynedd mwy hirdymor ar ôl ei chyhoeddi yn 2020. Adlewyrchir yr amserlen hon yn yr ACI. Os yw'n debygol y bydd unrhyw effeithiau cynaliadwyedd o SDC a fyddai'n para yn hwy na hyn, mae'r rhain wedi cael eu hystyried.

Fframwaith yr ACI

¹⁶Mae Adroddiad Cwmpasu'r ACI ar gael ar-lein yn: <https://llyw.cymru/strategaeth-drafnidiaeth-cymru-adroddiad-cwmpasu> [Gwelwyd 20.10.20]

¹⁷(2005) ODPM Canllaw Ymarferol i'r Asesiad Amgylcheddol Strategol ar gymhwyso Cyfarwydddeb Ewropeaidd 2001/42/EC "ar asesu effeithiau cynlluniau a rhaglenni penodol ar yr amgylchedd"

¹⁸Deddf y Môr a Mynediad i'r Arfordir 2019 (Deddf y Môr) <http://www.legislation.gov.uk/cy/ukpga/2009/23/contents> (gwelwyd 17.06.19)

- 1.9.3 Un o allbynnau allweddol Cam Cwmpasu'r ACI oedd Fframwaith yr ACI. Er nad yw'r Gyfarwydddeb AAS yn ei gwneud yn ofynnol defnyddio amcanion cynaliadwyedd, maent yn offeryn cydnabyddedig ar gyfer cynnal ACI. Fframwaith yr ACI (Tabl 2.3) yw'r prif offeryn asesu a ddefnyddiwyd yn ystod yr ACI ac mae'n cynnwys cyfres o 13 o Amcanion sy'n rhoi sylw i faterion cymdeithasol, economaidd, diwylliannol ac amgylcheddol. Defnyddiwyd yr Amcanion hyn i brofi perfformiad SDC o ran cynaliadwyedd. Mae pob Amcan yn cysylltu â'r wybodaeth sylfaenol, materion a chyfleoedd cynaliadwyedd allweddol yng Nghymru, a chynlluniau, rhaglenni a strategaethau perthnasol eraill syn berthnasol i SDC. Sefydlwyd y rhain yn ystod y cam cwmpas a dyma sail yr asesiad ers hynny. Mae Fframwaith yr ACI hefyd yn ymgorffori gofynion yr holl asesiadau integredig eraill.
- 1.9.4 Mae Atodiad 1(f) y Gyfarwydddeb AAS yn rhestru'r deuddeg pwnc canlynol y mae angen eu hystyried mewn unrhyw AAS, yn ogystal â'r rhyngberthynas rhwng y pynciau hyn.

Y Gyfarwydddeb AAS (Atodiad 1) Gofynion i ystyried problemau a phynciau amgylcheddol yn ystod AAS

Mae'r wybodaeth i'w darparu mewn AAS yn cynnwys:

"(d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC; ...

(f) the likely significant effects (1) on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors;..."

- 1.9.5 Cafodd y pynciau a restrir yn Atodiad 1(f) eu cynnwys yn Amcanion yr ACI a nodir yn Fframwaith yr ACI (gweler Tabl 2.3). Mewn rhai achosion, caiff sawl pwnc eu cynnwys mewn un Amcan ACI, fel cynnwys pynciau bioamrywiaeth, ffawna a fflora yn Amcan 11 yr ACI 'Hyrwyddo cadwraeth a gwelliant bioamrywiaeth a geoamrywiaeth'. Mewn achosion eraill, mae Amcanion yr ACI yn canolbwyntio mwy ar un pwnc AAS penodol, fel Amcan 8 yr ACI 'Diogelu a gwella ansawdd aer', sy'n canolbwyntio ar bwnc ansawdd aer Atodiad 1(f). Mae'r pwnc 'asedau perthnasol' yn amrywiol ac ystyrir ei fod yn cynnwys yr holl asedau naturiol ac adeiledig yng Nghymru, fel seilwaith trafndiaeth, seilwaith adeiledig ac adeiladau. Mae elfennau amrywiol asedau perthnasol yn bresennol ym mhob un, bron â bod, o Amcanion yr ACI. Pan fo Atodiad 1(f) yn gwneud y 'rhyngberthynas rhwng y ffactorau uchod' yn ofynnol, caiff hyn ei gynnwys yn yr asesiad o'r effeithiau cyfunol a synergyddol ym Mhennod 2 yn ogystal ag yn fwy cyffredinol yn yr holl asesiadau, fel pan fo asesiadau yn nodi effeithiau posibl ar ansawdd aer yn sgil datblygu a goblygiadau hyn i iechyd pobl neu fioamrywiaeth (e.e. gallai datblygiad newydd arwain at gynnydd yn y traffig ar y ffyrdd, a allai waethygu ansawdd yr aer, a gallai hyn gael effaith andwyol bosibl ar iechyd pobl ac unrhyw gynefinoedd cyfagos sy'n sensitif i waddodi nitrogen atmosfferig).
- 1.9.6 Mae Amcanion yr ACI yn mynd y tu hwnt i bynciau AAS ac yn cymryd i ystyriaeth hefyd elfennau cymdeithasol ac economaidd nad ydynt yn cael sylw o bwys yn y Gyfarwydddeb AAS ond sy'n elfen allweddol o'r AC ac asesiadau effaith deddfwriaethol ac anneddfwriaethol eraill sydd wedi'u cynnwys yn yr ACI.
- 1.9.7 Bwriad yr ACI yw galluogi egwyddorion datblygu cynaliadwy i gael eu hymwreiddio yn SDC o'r cychwyn cyntaf. Bwriedir bod y fframwaith arfarnu amcanion a'r cwestiynau sy'n cynorthwyo penderfyniadau yn ymwreiddio egwyddorion datblygu cynaliadwy yng nghyd-destun yr hyn y gallai SDC ei gyflawni o bosibl. Cyflawnwyd pob cam o'r ACI gan ddefnyddio proses ailadroddol, gydag adborth a chyfathrebu rhwng timau SDC a'r ACI. Mae'r broses hon yn ei gwneud yn bosibl i SDC ddilyn cyfeiriad mwy cynaliadwy o ran ei datblygiad. Mae'r arfarniadau yn feintiol yn bennaf ac fe'u cynhelir gan ymarferwyr ACI proffesiynol.
- 1.9.8 Mae'r dull yn adlewyrchu gofynion y Rheoliadau AAS ac AC, yn ogystal â gofynion yr asesiadau effaith statudol ac anneddfwriaethol eraill sydd wedi'u cynnwys yn yr ACI (fel y disgrifir uchod yn Adranau 1.4 a 1.5).

Dull

1.9.9 Mae'r dull a fabwysiadwyd o arfarnu SDC wedi cynnwys y camau canlynol (gweler Ffigur 1-1):

- B1: Profi amcanion y cynllun yn ôl amcanion yr AC;
- B2: Datblygu opsiynau'r cynllun;
- B3: Darogan effeithiau (gan gynnwys effeithiau cyfunol ac eilaidd) opsiynau ac opsiynau amgen y cynllun;
- B4: Arfarnu effeithiau (gan gynnwys effeithiau cyfunol ac eilaidd) opsiynau ac opsiynau amgen y cynllun;
- B5: Ystyried ffyrdd o liniaru effeithiau negyddol a sicrhau'r effeithiau cadarnhaol mwyaf posibl; a
- B6: Cynnig mesurau i fonitro effeithiau arwyddocaol gweithredu'r cynllun.

1.9.10 Profwyd Gweledigaeth ac Uchelgeisiau SDC i ganfod a ydynt yn cyd-fynd â Fframwaith yr ACI er mwyn nodi bylchau posibl neu achosion posibl o wrthdaro (B1). Aseswyd y Blaenoriaethau a'r Cynlluniau Cryno yn SDC yn fanwl (B3 a B4) ar gyfer eu heffeithiau posibl ar bob un o Amcanion yr ACI.

1.9.11 Mae Tabl 1.4 a Thabl 1.5 yn nodi'r dull sgorio ar gyfer pob un o'r asesiadau a gyflwynir yn yr adroddiad hwn.

1.9.12 Mae asesiadau yn yr ACI yn dilyn dull integredig. Mae'n dibynnu'n bennaf ar Fframwaith yr ACI, sy'n nodi 13 o Amcanion yr ACI sydd, gyda'i gilydd, yn dod â'r gwahanol asesiadau effaith ynghyd. Mae'r asesiadau yn darogan ac yn arfarnu effeithiau cadarnhaol a negyddol mân a sylweddol (gan gynnwys effeithiau uniongyrchol, anuniongyrchol a chronnol) pob un o Amcanion yr ACI. O'u rhoi yng nghyd-destun y saith nod llesiant, mae'r gwahanol feysydd i'w hystyried yn rhoi sylw i agweddau cymdeithasol, economaidd, amgylcheddol a diwylliannol Cymru nawr ac yn y dyfodol.

Tabl 1.4: Allwedd Asesu ar gyfer Polisiâu ac Opsiynau Amgen Rhesymol yr SDC Ddrafft

Sgorio Asesiad	
++	Cadarnhaol cryf – yn debygol o arwain at gynnydd tuag at yr amcan (arwyddocaol)
+	Cadarnhaol mân – yn debygol o arwain at gynnydd cyfyngedig iawn tuag at yr amcan
0	Canlyniad niwtral
+/-	Ystod o ganlyniadau cadarnhaol a negyddol posibl
?	Canlyniad ansicr
-	Negyddol mân – yn debygol o fod yn niweidiol iawn i gyflawni'r amcan
--	Negyddol cryf – yn debygol o fod yn niweidiol iawn i gyflawni'r amcan (arwyddocaol)

Tabl 1.5: Diffiniadau o Effeithiau Eilaidd, Cyfunol a Synergyddol

Math o Effaith	Diffiniad
Eilaidd (neu anuniongyrchol)	Effeithiau nad ydynt yn ganlyniad uniongyrchol i'r cynllun (SDC) ond sy'n digwydd i ffwrdd o'r effaith wreiddiol neu o ganlyniad i lwybr cymhleth.

Math o Effaith	Diffiniad
Cyfunol	Effeithiau sy'n codi, er enghraifft, pan fo sawl datblygiad i gyd yn cael effeithiau ansylweddol ond yn cael effeithiau sylweddol gyda'i gilydd; neu pan fo sawl effaith unigol y cynllun (e.e. swm, llwch a gweledol) yn cael effaith gyfunol.
Synergyddol	Effeithiau yn rhyngweithio i gynhyrchu cyfanswm effaith sy'n fwy na swm yr effeithiau unigol.

Ffynhonnell: Canllaw Ymarferol i'r Asesiad Amgylcheddol Strategol, ODPM

2 Cam Cwmpasu'r ACI

2.1 Y berthynas rhwng SDC a Chynlluniau a Rhaglenni eraill

Y Gyfarwydddeb AAS (Atodiad 1) Gofynion ar gyfer nodi cynlluniau perthnasol eraill

Dylai nodi Cynlluniau perthnasol eraill gymryd y canlynol i ystyriaeth:

“(a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes; ...

(e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation; ...”

2.1.1 Cynhaliwyd adolygiad o gynlluniau a rhaglenni eraill a allai effeithio ar baratoad SDC er mwyn cyfrannu at ddatblygiad yr ACI a SDC. Cyflwynir y canlyniadau llawn yn Atodiad A. Mae SDC yn ddogfen genedlaethol felly bydd y cynlluniau a'r rhaglenni eraill sy'n berthnasol yn canolbwyntio ar lefel genedlaethol, y DU neu ryngwladol yn bennaf. Bydd SDC, yn ei thro, yn ceisio dylanwadu ar gynllunio lefel is-genedlaethol yng Nghymru. Nododd Adroddiad Cwmpasu'r ACI restr helaeth o gynlluniau a rhaglenni perthnasol a sut y dylai SDC a'r ACI gymryd y rhain i ystyriaeth.

2.1.2 Roedd hyn yn cynnwys:

- Nodi unrhyw amcanion cymdeithasol, amgylcheddol, diwylliannol neu economaidd y dylid eu hadlewyrchu ym mhroses yr ACI.
- Nodi unrhyw ddata sylfaenol sy'n berthnasol i'r ACI.
- Nodi unrhyw ffactorau a allai ddylanwadu ar baratoi'r ddogfen, er enghraifft materion cynaliadwyedd.
- Nodi unrhyw amcanion neu nodau a fyddai'n cyfrannu'n gadarnhaol at ddatblygiad SDC.
- Penderfynu a oes achosion posibl o wrthdaro neu heriau eglur rhwng cynlluniau, rhaglenni neu amcanion amgylcheddol eraill a'r SDC newydd.

2.1.3 Mae llawer o'r cynlluniau, y polisiâu a'r rhaglenni a nodwyd yn berthnasol i SDC a'r ACI. Mae'r dogfennau canlynol, y mae SDC yn rhannu nodau ac amcanion cyffredin â nhw, o bwysigrwydd arbennig yn genedlaethol:

- Fframwaith Datblygu Cenedlaethol newydd Cymru;
- Symud Cymru Ymlaen 2016-2021;
- Ffyniant i Bawb: Y Strategaeth Genedlaethol;
- Ffyniant i Bawb: Cymru Carbon Isel;
- Ffyniant i Bawb: Cymru sy'n Effro i'r Hinsawdd.
- Polisi Cynllunio Cymru – Rhifyn 10;
- Llywodraeth Cymru (2020): Cynllun Hyrwyddo Cydraddoldeb rhwng y Rhywiau yng Nghymru¹⁹
- Polisi Adnoddau Naturiol Cymru, sy'n cynnwys egwyddorion Rheoli Adnoddau Naturiol yn Gynaliadwy;
- Y Cynllun Gweithredu Adfer Natur; a
- Chynllun Morol Cenedlaethol Cymru²⁰.

¹⁹ <https://llyw.cymru/sites/default/files/publications/2020-03/cynllun-hyrwyddo-cydraddoldeb-rhwng-y-rhywiau.pdf>

²⁰ <https://llyw.cymru/cynllunio-morol>

2.1.4 Mae natur ailadroddol yr ACI yn caniatáu i gynlluniau, polisiâu a rhaglenni newydd a gyhoeddir wrth i SDC ddatblygu gael eu cymryd i ystyriaeth, gan gynnwys Fframwaith Datblygu Cenedlaethol newydd Cymru (a fydd yn cael ei ailenwi yn “Cymru'r Dyfodol – y Cynllun Cenedlaethol 2040”).

2.1.5 Ceir crynodeb o'r dogfennau a adolygwyd, a'r prif ganfyddiadau, yn Nhabl 2.1.

Tabl 2.1: Crynodeb o'r mathau o ddogfennau a adolygwyd. Cyflwynir y canlyniadau llawn yn Atodiad A.

Lefel	Crynodeb
Cynlluniau a Rhaglenni Rhyngwladol ac Ewropeaidd	Cynhaliwyd adolygiad o Gonfensiynau Rhyngwladol a Chyfarwydddebau Ewropeaidd allweddol a allai ddylanwadu ar ddatblygiad SDC a'r ACI. Caiff Cyfarwydddebau Ewropeaidd eu trosi i ddeddfwriaeth genedlaethol ym mhob Aelod-wladwriaeth unigol ac, felly, dylai fod effaith ddiferu o'r egwyddorion allweddol a chymhwysiad i'r dogfennau cynllunio cenedlaethol perthnasol.
Cynlluniau a Rhaglennu DU Gyfan	Cynhaliwyd adolygiad o gyhoeddiadau perthnasol gan sefydliadau sy'n cynnwys, er enghraifft, yr Adran Drafnidiaeth, yr Adran Busnes, Ynni a Strategaeth Ddiwydiannol, ac Adran yr Amgylchedd, Bwyd a Materion Gwledig. Mae'r cyhoeddiadau hyn yn amlinellu'r cynlluniau gweithredu a'r strategaethau ar draws ystod o feysydd pwnc, er enghraifft y Strategaeth Ansawdd Aer ar gyfer Cymru, Lloegr, yr Alban a Gogledd Iwerddon a Chynllun Gweithredu Effeithlonrwydd Ynni Cenedlaethol y DU yn ogystal â dogfen <i>UK Climate Change Risk Assessment 2017 Evidence Report</i> y Pwyllgor ar Newid Hinsawdd (2017) (yn enwedig y Crynodeb i Gymru). Mae angen ystyried amcanion y cynlluniau hyn, yn ogystal â rhai o'r heriau y maent yn eu codi, fel sy'n briodol.
Cynlluniau a Rhaglenni Cymru	<p>Cynhaliwyd adolygiad o gynlluniau a luniwyd ar y lefel genedlaethol yng Nghymru. Caiff llawer o'r rhain eu llunio gan Lywodraeth Cymru ac maent yn rhoi sylw penodol i faterion strategol fel yr economi; trafnidiaeth; iechyd; diogelwch; cymunedau cynaliadwy; tai; cyflogaeth; y Gymraeg; a diogelwch amgylcheddol.</p> <p>Mae Deddf Llesiant Cenedlaethau'r Dyfodol (Cymru) (2015) yn nodi saith nod llesiant i Gymru. Ym mis Tachwedd 2016, cyhoeddodd Llywodraeth Cymru ei hamcanion llesiant cychwynnol, y bwriedir iddynt sicrhau bod ei chyfraniad at y saith nod llesiant mor fawr â phosibl. Mae cyrff cyhoeddus penodedig eraill hefyd wedi cyflwyno eu hamcanion llesiant ar gyfer cyfrannu at y nodau llesiant.</p> <ul style="list-style-type: none"> Mae'r Adroddiad ar Sefyllfa Adnoddau Naturiol gan Cyfoeth Naturiol Cymru yn 2016, ynghyd â'r Polisi Adnoddau Naturiol, wedi cael eu cynnwys. Mae'r ddau'n canolbwyntio ar adnoddau naturiol Cymru, ac mae'r Adroddiad ar Sefyllfa Adnoddau Naturiol yn cynnig asesiad o reoli adnoddau naturiol yn gynaliadwy a'r Polisi Adnoddau Naturiol yn ceisio cyflwyno'r blaenoriaethau cenedlaethol o ran rheoli adnoddau naturiol yn gynaliadwy yng Nghymru. Mae'r dogfennau hyn, yn arbennig, yn ddogfennau graddfa genedlaethol allweddol y bydd SDC yn eu defnyddio. Maent yn cynnwys nodau cyffredin a rhennir amrywiaeth o dystiolaeth rhyngddynt. Dylai'r cynlluniau hyn gynnwys prif ddylanwadau cynlluniau lefel ryngwladol a'r DU gyfan drwy'r 'effaith ddiferu'. Dylent hefyd gynnig pwyslais strategol i Gymru. Trwy nodi'r themâu hyn a'u cynnwys yn SDC gellir sicrhau synergeddau gyda dogfennau perthnasol eraill. Nodir y cyhoeddwyd Adroddiad ar Sefyllfa Adnoddau Naturiol interim yn 2019, sy'n nodi sut y bydd yr ail Adroddiad ar Sefyllfa Adnoddau Naturiol yn datblygu yn 2020. Mae'r Cynllun Hyrwyddo Cydraddoldeb rhwng y Rhywiau yng Nghymru (2020) yn gwneud ymrwymiad i gydnabod y ffyrdd presennol y mae strwythurau pŵer, ar sail ffactorau fel rhywedd, hil, rhywioldeb, anabledd, dosbarth, oedran a ffydd yn rhyngweithio â'i gilydd, ac yn creu anghydraddoldeb, camwahaniaethu a gormes. Bydd angen i SDC sicrhau bod trafnidiaeth yng Nghymru yn hwyluso annibyniaeth economaidd pawb gan gynnwys menywod a phobl anneuaid, gan gydnabod pob math o waith di-dâl ac â thâl; yn hwyluso rhyddid menywod i fyw eu bywydau fel y maent yn dewis; yn herio unrhyw strwythurau pŵer presennol a allai fod yn rhoi menywod dan anfantais; wedi ymrwmo i ganlyniadau cyfartal i bob menyw, dyn a pherson anneuaid; yn gwneud safbwynt rhywedd yn ganolog i'r broses o wneud penderfyniadau; yn agored, yn dryloyw ac yn croesawu craffu trwy lens rhywedd; yn monitro cynnydd tuag at gydraddoldeb; ac yn arwain drwy esiampl i sicrhau cydraddoldeb. Mae'r Cynllun Gweithredu Adfer Natur yn nodi sut y bydd Cymru yn rhoi sylw i Gynllun Strategol ar gyfer Bioamrywiaeth y Confensiwn ar Amrywiaeth Fiolegol a'r targedau bioamrywiaeth Aichi²¹ cysylltiedig yng Nghymru.

²¹ <https://www.biodiversitywales.org.uk/Nature-Recovery-Action-Plan>

Lefel	Crynodeb
	Mae'r Cynllun Gweithredu Adfer Natur yn nodi camau y gellir eu cymryd yn y byrdymor ac yn pennu trywydd i gyflawni ymrwymadau tymor hwy y tu hwnt i 2020. Mae'r ymrwymadau a'r camau hyn yn berthnasol i Arfarniad Cynaliadwy Integredig SDC ac wedi hysbysu Amcanion Fframwaith yr ACI.

2.2 Amodau Sylfaenol a Materion a Chyfleoedd Cynaliadwyedd Allweddol

Y Gyfarwydddeb AAS (Atodiad I) Gofynion ar gyfer data sylfaenol a materion cynaliadwyedd allweddol
<p>Mae'r gofyniad i nodi problemau a materion cynaliadwyedd yn deillio o'r Gyfarwydddeb AAS, lle dylai'r Adroddiad Amgylcheddol sy'n ofynnol o dan y Gyfarwydddeb gynnwys y canlynol:</p> <p><i>“(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;</i></p> <p><i>(c) the environmental characteristics of areas likely to be significantly affected;</i></p> <p><i>(d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EE...”</i></p>

- 2.2.1 Mae adolygu a dadansoddi'r amodau sylfaenol (gan gynnwys amodau cymdeithasol, economaidd, amgylcheddol a diwylliannol) yn nodi'r materion cynaliadwyedd allweddol. Mae deall amodau sylfaenol hefyd yn hanfodol er mwyn gallu darogan, arfarnu a monitro effeithiau SDC yn gywir. Er enghraifft, mae'n bosibl darogan ac arfarnu effeithiau SDC ar yr amgylcheddol naturiol dim ond pan fo dealltwriaeth eglur o gyflwr presennol yr amgylchedd naturiol.
- 2.2.2 Gan fod SDC yn ddogfen ar raddfa genedlaethol, mae gwaith casglu tystiolaeth sylfaenol wedi canolbwyntio ar ddata ar raddfa genedlaethol gyda rhai data ar raddfa is-genedlaethol ychwanegol pan fo'n briodol. Mae'n cynnwys yr elfennau canlynol:
- Disgrifio cyflwr presennol llesiant amgylcheddol, cymdeithasol, diwylliannol ac economaidd Cymru;
 - Deall tueddiadau yn y dyfodol yn seiliedig ar dueddiadau cyfredol ac amcanestyniadau ar gyfer y dyfodol a allai effeithio ar lesiant economaidd, cymdeithasol, amgylcheddol a diwylliannol Cymru; a
 - Defnyddio'r wybodaeth hon i nodi problemau a chyfleoedd presennol y gallai SDC ddylanwadu arnynt.
- 2.2.3 Disgrifiwyd y llinell sylfaen amgylcheddol, cymdeithasol, economaidd a diwylliannol drwy'r dulliau canlynol:
- Adolygiad o gynlluniau, strategaethau a rhaglenni rhyngwladol, DU a chenedlaethol (Cymru) perthnasol;
 - Ymchwil data yn seiliedig ar gyfres o setiau data sylfaenol a ddatblygwyd gan Lywodraeth Cymru, canllawiau, argymhellion ymgynghori blaenorol o ACau tebyg a'r data sydd ar gael ar gyfer Cymru; a
 - Dangosyddion Cenedlaethol Cymru²², sy'n darparu data ar raddfa genedlaethol ar draws 44 o ddangosyddion o gynnydd yn erbyn y saith nod llesiant.
- 2.2.4 Un ffynhonnell allweddol o wybodaeth yw'r Adroddiad ar Sefyllfa Adnoddau Naturiol a luniwyd gan Cyfoeth Naturiol Cymru yn 2016. Cyhoeddwyd Adroddiad ar Sefyllfa Adnoddau Naturiol interim yn 2019, sy'n nodi sut y bydd yr ail Adroddiad ar Sefyllfa Adnoddau Naturiol yn datblygu yn 2020. Mae

²² <https://llyw.cymru/plant-theuluoedd>

ffynonellau eraill yn cynnwys, er enghraifft, y Swyddfa Ystadegau Gwladol a Stats Cymru. Cyflwynir canlyniadau llawn yr adolygiad o ddata sylfaenol a nodi'r materion cynaliadwyedd allweddol yn Atodiad B ac fe'u crynhoir yn Nhabl 2.2.

Tabl 2.2: Materion a Chyfleoedd Cynaliadwyedd Allweddol yng Nghymru a nodwyd yn ystod yr adolygiad o amodau sylfaenol. Diweddarwyd y rhain yng ngoleuni'r ymatebion a dderbyniwyd wrth ymgynghori ar Adroddiad Cwmpasu yr ACI (Mai - Gorffennaf 2020)

Nodau Llesiant	Crynodeb o Faterion Allweddol	Cyfleoedd i SDC Roi Sylw Iddynt
1. Cymru lewyrchus	<p>Mae economi Cymru wedi'i halinio'n agos ag economi gweddill y DU. Bu rhywfaint o symudiad at gyflogaeth sector gwasanaethu a dirywiad i ddiwydiant trwm; mae gan Gymru sector gweithgynhyrchu amrywiol o hyd.</p> <p>Ceir gwahaniaethau daearyddol eglur mewn gweithgarwch cyflogaeth yng Nghymru gyda phocedi o amddifadedd uwch na'r cyfartaledd yng nghymoedd y de ac yn rhai o drefi arfordirol y gogledd.</p> <p>Ymysg y rhesymau allweddol am berfformiad economaidd gymharol wael mae:</p> <ul style="list-style-type: none"> • Lefelau sgiliau cymharol isel a lefelau cyrhaeddiad addysgol gwael (er eu bod yn gwella), yn enwedig yn yr ardaloedd mwy difreintiedig o'r wlad. • Mae natur wledig y wlad i raddau helaeth yn arwain at ardaloedd trefol cymharol fach y byddai ganddynt gysylltiad cryfach ag effeithiau cydgrynhui fel arall. • Ceir cyfran gymharol uchel o bobl hŷn sydd o oedran ymdddeol. • Ceir lefelau uchel o dagfeydd sy'n cael effeithiau economaidd negyddol gan gynnwys yr effaith ar gynhyrchiant a chludo nwyddau. <p>Mae'r ddogfen <i>UK Climate Change Risk Assessment 2017: Evidence Report</i> yn tynnu sylw at nifer o risgiau a chyfleoedd allweddol sy'n wynebu Cymru o ran busnes. Gallai'r rhain gael effeithiau ar nifer o ffactorau gan gynnwys iechyd a llesiant, cyflogaeth a'r economi. Gellir crynhoi materion o'r fath sy'n wynebu Cymru fel risgiau i fusnesau o lifogydd, colli lleoliadau arfordirol, prinder dŵr, llai o fynediad at gyfalaf, llai o gynhyrchiant oherwydd tarfu ar seilwaith, tarfu ar gadwyni cyflenwi a newidiadau i'r galw am nwyddau a gwasanaethau. Dylid cymryd y rhain i gyd i ystyriaeth yn SDC gan y byddant i gyd yn dylanwadu ar arferion defnyddwyr trafndiaeth.</p> <p>Mae'r cynllun addasu i newid hinsawdd, 'Ffyniant i Bawb: Cymru sy'n Effro i'r Hinsawdd', yn nodi ymrwymadau i ymateb i effeithiau newid hinsawdd yr ydym eisoes yn eu gweld a'r rhai yr ydym yn disgwyl eu gweld yn y dyfodol. Mae'r cynllun yn ategu'r camau sy'n cael eu cymryd i ddatgarboneiddio economi Cymru a bydd yn cael ei gymryd i ystyriaeth wrth baratoi SDC a'r Arfarniad Cynaliadwyedd Integredig.</p> <p>Ceir problemau o ran darparu fynediad at ysgolion a chyflogaeth, yn enwedig gan fod y cyfleusterau hyn yn llawer mwy anodd eu cyrraedd trwy unrhyw fodd ac eithrio</p>	<p>Mae gan SDC ran i'w chwarae wrth sicrhau twf cytbwys a chynaliadwy, a'r newid i economi defnydd adnodd isel (gan gynnwys carbon isel) i ganiatáu i'r boblogaeth fyw o fewn terfynau amgylcheddol. Mae hyn yn cynnwys y cyfle i hybu trafndiaeth nwyddau gynaliadwy.</p> <p>Mae SDC yn cynnig cyfle i'r economi gael ei llywio tuag at ddyfodol mwy cynaliadwy. Gall hyn fod trwy hybu seilwaith teithio cynaliadwy a gwella mynediad at ganolfannau cyflogaeth. Gall hefyd gynnig fframwaith sy'n fwy ymatebol i anghenion yr economi a chefnogi sectorau newydd sy'n dod i'r amlwg a chefnogi newid rhai presennol trwy greu a gwella rhwydweithiau. Hefyd, gall helpu i lywio'r broses o greu amgylchedd sy'n ddeniadol i fewnffuddsoddiad ac yn annog mynediad cynaliadwy at swyddi. Yn yr un modd, gall SDC hwyluso gwelliannau i fynediad at addysg.</p> <p>Gallai SDC geisio helpu i fynd i'r afael â materion sy'n ymwneud â thlodi ac anghydraddoldeb trwy fynediad at well addysg, gwell cysylltedd rhwng cymunedau a mynediad at swyddi a'r farchnad swyddi.</p> <p>Ar y cyfan, gallai SDC helpu i sicrhau'r cydbwysedd pwysig o welliant economaidd a chymdeithasol sydd hefyd yn gynaliadwy ac yn parchu amgylchedd naturiol a diwylliannol gwerthfawr y wlad.</p> <p>Ceir cyfle i SDC gefnogi cyflogaeth trwy hyrwyddo a chefnogi twristiaeth gweithgareddau, gan gynnwys dynodi'r Rhwydwaith Beicio Cenedlaethol fel cyfleuster trafndiaeth strategol i annog twristiaeth gweithgareddau.</p> <p>Ceir cyfle i hybu'r defnydd o deithio llesol i ysgolion cynradd ac uwchradd trwy gynlluniau cerdded i'r ysgol.</p> <p>Ceir cyfle hefyd trwy well cynlluniau trafndiaeth gyhoeddus i alluogi pobl i gael mynediad at amrywiaeth ehangach o opsiynau cyflogaeth ac addysg.</p>

Nodau Llesiant	Crynodeb o Faterion Allweddol	Cyfleoedd i SDC Roi Sylw Iddynt
	car preifat yng Nghymru wledig. Dylid nodi, yn unol ag Atodiad B, bod bylchau data o ran gwybodaeth fanwl am fynediad at ysgolion.	Ceir cyfle i SDC leihau tagfeydd trwy hybu teithio llesol a thrafnidiaeth gyhoeddus trwy ail-neilltuo lle ar y ffyrdd a dulliau trafndiaeth cynaliadwy integredig.
2. Cymru gydnerth	<p>Ansawdd Aer</p> <ul style="list-style-type: none"> Mae ansawdd aer yng Nghymru yn dda iawn yn gyffredinol, gan adlewyrchu i raddau helaeth ei natur wledig a'i hamgylchedd naturiol o ansawdd uchel. Fodd bynnag, ceir diffyg cydymffurfiaid â thargedau ar gyfer nifer o lygryddion allweddol sy'n peri risg i iechyd pobl ac i'r amgylchedd naturiol. Mae hyn yn digwydd yn fwyaf amlwg mewn ardaloedd trefol sy'n agos i ffyrdd prysur. Mae 90% o gynefinoedd lled naturiol yng Nghymru sy'n sensitif o ran nitrogen yn destun gwaddodi nitrogen ar lefel sy'n uwch na chyfyngiadau llwyth critigol; mae trafndiaeth yn ffynhonnell sylweddol o lygredd nitrogen. Mae trafndiaeth ar y ffyrdd yn gyfrifol am bron un rhan o dair o'r holl allyriadau NO₂ yn y DU a thrafnidiaeth yw'r ffynhonnell fwyaf o lygredd aer yn y DU (Cynulliad Cenedlaethol Cymru, 2018). <p>Llygredd Sŵn</p> <ul style="list-style-type: none"> Mae sŵn ffyrdd wedi'i ganolbwyntio o gwmpas yr M4 yn y de a'r ffyrdd 'A' cyfagos. Mae'r A55 a'r ffyrdd 'A' cyfagos yn y gogledd, a'r A483 yn y canolbarth, hefyd yn cyfrannu at lefelau uchel o lygredd sŵn. Mae llygredd sŵn o reilffyrdd yn bresennol yn y de o gwmpas Caerdydd yn bennaf (data o 2018). <p>Bioamrywiaeth, Fflora a Ffawna a Chydnerthedd Ecosystemau</p> <ul style="list-style-type: none"> Mae gan Gymru amgylchedd naturiol cyfoethog ac amrywiol gan gynnwys cynrychiolaeth eang o gynefinoedd a rhywogaethau pwysig. Fodd bynnag, mae cyflwr nodweddion rhywogaeth mewn safleoedd dynodedig Ewropeaidd yng Nghymru a chyflwr cynefinoedd â blaenoriaeth yng Nghymru yn dal i fod yn anffafriol ar y cyfan. Mae bioamrywiaeth ddaearol, dŵr croyw a morol dan fygythiad o ddatblygiad seilwaith trafndiaeth, llygredd a newid hinsawdd, ac mae pob un o'r rhain yn effeithiau a all ddod o'r rhwydwaith trafndiaeth. Gall hyd yn oed golled cynefin cymharol fach, darnio ac effeithiau uniongyrchol prosiect ffordd unigol, o'u hychwanegu at effeithiau prosiectau a gweithgareddau eraill o'r gorffennol, y presennol ac yn y dyfodol y gellir eu rhagweld yn rhesymol, gyfrannu at effeithiau sylweddol mewn ardal. Dylid 	<p>Ansawdd Aer</p> <ul style="list-style-type: none"> Mae'r system drafndiaeth yn cyfrannu'n sylweddol at lygredd aer ar hyn o bryd. Mae cyfle i leihau'r effaith negyddol hon ar ansawdd aer o bosibl drwy leihau'r pellter sy'n cael ei deithio ac annog moddau trafndiaeth mwy cynaliadwy. Gallai polisïau dylunio a thirweddau cynaliadwy helpu i gynnig cyfleoedd ar gyfer amsugno rhai llygryddion. <p>Llygredd Sŵn</p> <ul style="list-style-type: none"> Gall SDC gael effaith ar lygredd sŵn trwy sicrhau bod penderfyniadau yn seiliedig ar yr egwyddor o leihau allyriadau trwy newid i weithredu'r hierarchaeth trafndiaeth gynaliadwy. Gallai polisïau dylunio a thirweddau cynaliadwy helpu i leihau effaith sŵn ac effaith bosibl trafndiaeth ar ardaloedd tawel. <p>Bioamrywiaeth, Fflora a Ffawna a Chydnerthedd Ecosystemau</p> <ul style="list-style-type: none"> Gall SDC fod o fudd i fioamrywiaeth a'i gwella trwy lywio lleoliad datblygiad seilwaith trafndiaeth newydd a'r modd y mae'n digwydd. Mae'n cynnig cyfleoedd i sicrhau bod bioamrywiaeth yn cael ei diogelu a'i gwella drwy'r system drafndiaeth, nid yn unig o ran safleoedd gwarchodedig ond hefyd o ran bioamrywiaeth a chysylltedd yn gyffredinol. Gallai manteision eraill gynnwys rheoli cynefinoedd yn well; strwythurau newydd (e.e. gallai pontydd a thwnelau ddarparu cynefinoedd i rai rhywogaethau, fel ystlumod); a chreu cynefin. Ceir cyfle i SDC hybu seilwaith gwyrdd ychwanegol yn rhan o gynigion trafndiaeth yn y dyfodol i gynorthwyo gwaith creu lleoedd yn ogystal â bioamrywiaeth, fflora a ffawna. <p>Hinsawdd, Perygl Llifogydd ac Erydu Arfordirol</p>

Nodau Llesiant	Crynodeb o Faterion Allweddol	Cyfleoedd i SDC Roi Sylw Iddynt
	<p>ystyried pob math perthnasol o brosiect a gweithgaredd yn y dyfodol (h.y. nid prosiectau ffyrdd eraill yn unig) gan gynnwys datblygiad a ysgogir.</p> <p>Hinsawdd, Perygl Llifogydd ac Erydu Arfordirol</p> <ul style="list-style-type: none"> Mae effeithiau newid hinsawdd yn cynyddu ac mae addasu a sicrhau cydnherthedd yn erbyn ei effeithiau yn rheidrwdd cynyddol. Yn nodedig, mae perygl llifogydd yn broblem sylweddol yng Nghymru gan gynnwys llifogydd arfordirol, afonol a dŵr wyneb a allai effeithio ar seilwaith trafndiaeth. Caiff hyn ei waethgu gan gynydd yn nifer y digwyddiadau tywydd eithafol, sy'n golygu bod eiddo a busnesau mewn perygl cynyddol. Gall tarfu effeithio'n anghymesur ar gymunedau â llai o opsiynau trafndiaeth ac sy'n llai cydnherth. Bydd newid hinsawdd yn effeithio ar Gymru mewn ffyrdd eraill, nid llifogydd yn unig, fel digwyddiadau tywydd mwy eithafol, cynnydd mewn tywydd stormus, tymreddau uchaf ac isaf uwch ac is, sychderau mwy difrifol a chyfraddau gwaeth o erydu arfordirol. Bydd newid hinsawdd hefyd yn effeithio ar gynefinoedd a rhywogaethau ledled Cymru. <p>Daeareg a Phriddoedd</p> <ul style="list-style-type: none"> Yn y dyfodol, gallai peryglon daearegol newid fel ymateb i newid hinsawdd. Gallai'r rhain gynnwys, er enghraifft, erydu arfordirol, tirlithriadau a llygredd o hen safleoedd cloddio. Mae hyn yn peri risgiau sylweddol i'r system drafndiaeth. Mae'r priddoedd o'r ansawdd gorau a mwyaf cynhyrchiol yn adnodd prin a chyfyngedig yng Nghymru ac mae ansawdd pridd wedi dirywio dros amser ym mhob cynefin. Dim ond 30% o arwynebedd pridd mawn Cymru a ystyrir i fod mewn 'cyflwr da'. Mae hyn yn bwysig ar gyfer bioamrywiaeth, cymeriad tirwedd, twristiaeth, cynhyrchiant amaethyddol a chydnerthedd yn erbyn newid hinsawdd. Mae uwchbridd, yn enwedig priddoedd mawnog yng Nghymru yn ddalfa garbon fawr y mae angen eu diogelu. <p>Amgylchedd Dŵr</p> <ul style="list-style-type: none"> Nid yw ansawdd cyrff dŵr Cymru yn bodloni gofynion y Gyfarwydddeb Fframwaith Dŵr o hyd, a dim ond 42% oedd o statws ecolegol da yn 2014. Gall gweithgareddau trafndiaeth gyfrannu at ansawdd dŵr gwael. Yn llawer o afonydd Cymru, mae llifoedd yn arbennig o agored i newid hinsawdd gan eu bod yn tueddu i godi a gostwng yn gyflym mewn ymateb i'r glaw. Gallai llifoedd cynyddol yn ystod y gaeaf hefyd roi mwy o bwysau ar 	<ul style="list-style-type: none"> Mae gan SDC ran sylweddol i'w chwarae o ran addasu i newid hinsawdd a chydnerthedd yn ei erbyn. Mae llifogydd ac erydu arfordirol yn feysydd allweddol lle caiff effeithiau newid hinsawdd eu teimlo'n lleol a gall SDC helpu i gynnig cyfarwyddyd ar leoliad a dyluniad datblygiad seilwaith i helpu i sicrhau bod y risg mor isel â phosibl. Mae hefyd yn gyfle i weithio ymhellach gyda phartneriaid fel Cyfoeth Naturiol Cymru ac awdurdodau lleol i ddatblygu cynlluniau rheoli ac amddiffyn rhag llifogydd fel rhan o annog rheolaeth gynaliadwy o dir ac ecosystemau, gan gynnwys y cyfle i gynnwys Systemau Draenio Cynaliadwy (SDCau) i leihau effaith cynlluniau newydd ar berygl llifogydd. <p>Daeareg a Phriddoedd</p> <ul style="list-style-type: none"> Ceir cyfle i SDC lywio'r defnydd cynaliadwy o ddaeareg a phriddoedd Cymru yn y system drafndiaeth o ran eu defnydd i adeiladu seilwaith trafndiaeth. Gallai SDC helpu i osgoi risgiau yn y dyfodol trwy reoli neu osgoi peryglon daearegol trwy gynllunio'r system drafndiaeth. Mae chwilio am ffynonellau confensiynol ac anghonfensiynol o olew a nwy yn dal i fod yn bosiblirwydd yng Nghymru hefyd a bydd ystyried hynny yn rhan o Strategaeth Ynni newydd Llywodraeth Cymru. <p>Amgylchedd Dŵr</p> <ul style="list-style-type: none"> Gall SDC helpu i lywio datblygiad newydd o seilwaith trafndiaeth a llwybrau trafndiaeth mewn modd sy'n ceisio osgoi llygru cyrff dŵr. Dylai hefyd fod yn ymwybodol o gyfyngiadau posibl y cyflenwad dŵr a dylai hybu mesurau i leihau'r defnydd o ddŵr mewn datblygiadau. <p>Mwynau a Gwastraff</p> <ul style="list-style-type: none"> Mae gan SDC ran i'w chwarae o ran y galw am fwynau (trwy eu defnydd i adeiladu seilwaith trafndiaeth), eu cynllunio a'u rheoli. Gall helpu i lywio'r defnydd cynaliadwy o adnoddau o'r fath trwy ei pholisïau. <p>COVID-19</p>

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	<p>systemau carthffosiaeth a draenio a llygredd gwasgaredig (a allai ddod o ddŵr ffo arwyneb ffyrdd).</p> <ul style="list-style-type: none"> Er y tybir bod Cymru yn gyfoethog o ran dŵr, mae eisoes yn wynebu heriau o ran cyflenwad a gall adnoddau dŵr fod yn gymharol brin yn ystod tywydd cynnes a sych estynedig. Gall dŵr ffo o ffyrdd a gollyngiadau ar ffyrdd ac wrth adeiladu i gyd arwain at lygredd mewn dyfroedd wyneb, dyfroedd daear ac amgylcheddau morol (o gwmpas porthladdoedd). <p>Mwynau a Gwastraff</p> <ul style="list-style-type: none"> Mae gan Gymru adnoddau sylweddol. Fodd bynnag, mae angen rheoli gwaith cloddio yn gynaliadwy ar gyfer gweithgarwch parhaus neu yn y dyfodol. Weithiau hefyd gall diogelu mwynau wrthdaro â mathau eraill o ddatblygiad e.e. ffyrdd newydd. Efallai y bydd gofynion deunydd uchel ar gyfer adeiladu seilwaith trafndiaeth sy'n rhoi straen pellach ar yr adnoddau cyfyngedig. <p>COVID-19</p> <ul style="list-style-type: none"> Mae pandemig COVID-19 wedi cael yr effaith fwyaf ar yr unigolion mwyaf agored i niwed a'r cymunedau mwyaf difreintiedig. Nid yw effeithiau hirdymor y pandemig yn hysbys ar hyn o bryd, ac er y bu rhai effeithiau buddiol anuniongyrchol, gan gynnwys gwell ansawdd aer a mwy o ddibyniaeth ar deithio llesol, dylai'r dull adfer hybu cydraddoldeb cymdeithasol, iechyd ac economaidd. 	<ul style="list-style-type: none"> Mae gan SDC ran i'w chwarae yn yr adferiad yn sgil COVID-19, yn enwedig o ran mynd i'r afael â newidiadau i symudedd. Dylai SDC fynd i'r afael ag anghydraddoldebau sydd wedi cael eu gwaethgu gan COVID-19 a dylai hybu adferiad estynedig a chyfartal.
3. Cymru iachach a Chymru sy'n fwy cyfartal	<ul style="list-style-type: none"> Yn gyffredinol, mae ystadegau iechyd ar gyfer Cymru yn gwella wrth i ddisgwyliad oes gynyddu a llai o bobl yn adrodd am iechyd gwael dros y degawd diwethaf. Fodd bynnag, nid yw enillion iechyd wedi'u dosbarthu'n gyfartal ar draws y wlad ac yn benodol mae mynediad at wasanaethau yn amrywiol, gan ei fod yn well mewn ardaloedd mwy trefol, a'r de yn arbennig, ond yn gymharol wael ar draws llawer o Gymru wledig. Er gwaethaf hyn, mae iechyd y rhai sy'n byw mewn cymunedau gwledig yn gyffredinol dda o'i gymharu ag iechyd y rhai sy'n byw mewn amgylcheddau trefol. Mae'r ffactorau sy'n benodol i amgylchedd gwledig o'u cymharu â rhai amgylchedd trefol a all effeithio ar iechyd yn fwy sylweddol ac arwain at anghydraddoldebau ac iechyd gwaeth yn cynnwys pellter o wasanaethau cyhoeddus a chymorth, y drafndiaeth sydd ar gael, a'r boblogaeth sy'n heneiddio. Gall mynediad at ofal iechyd yn benodol fod yn gyfyngedig mewn 	<ul style="list-style-type: none"> Yn gyffredinol, gallai SDC helpu i gyflawni'r cydbwysedd pwysig o welliant economaidd a chymdeithasol sy'n parchu amgylchedd naturiol a diwylliannol gwerthfawr y wlad. Gallai SDC gydnabod y potensial i fannau gwyrdd naturiol fel lleoedd ar gyfer iechyd a hamdden, gan gysylltu cynefinoedd a chefnogi rhyngweithio cymunedol. Gallai gwella'r mynediad at fannau gwyrdd ac agored, gan gynnwys Parciau Cenedlaethol, annog ffyrdd llawer mwy iach o fyw a gallai poblogaeth iachach alluogi pobl (gan gynnwys plant) i wireddu eu potensial a gwneud Cymru yn gymdeithas fwy cyfartal.

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	<p>llawer rhan o Gymru wledig. Mae trafndiaeth gyhoeddus yn bwysig i gynaliadwyedd ac annibyniaeth cymunedau gwledig.</p> <ul style="list-style-type: none"> • Er bod pobl yn byw'n hirach a bod cyfraddau rhai clefydau yn lleihau, gall heriau fel yr amgylchedd byw a'r dulliau cyfoes o fyw gyfrannu at lefelau cynyddol o glefydau cronig fel diabetes, problemau cymalau, clefyd y galon a rhai mathau o ganser a all arwain wedyn at anabledd a mwy o alw am y gwasanaethau iechyd. Hefyd, gall iechyd meddwl gwael fod yn ffactor sy'n sail i nifer o glefydau corfforol a ffyrdd o fyw nad ydynt yn iach. Gall ansawdd aer gwael, sŵn a llygredd golau yn ogystal â damweiniau traffig ffordd gael effaith uniongyrchol ar iechyd corfforol a meddyliol y boblogaeth. • Gallai'r system drafndiaeth gael ei rhoi o dan straen oherwydd y cynnydd a ragwelir i fudo net yn bennaf o'r tu mewn i'r DU, a rhagwelir y bydd y cynnydd mwyaf mewn ardaloedd trefol. • Gallai lefelau cynyddol o bobl 65 oed a hŷn greu pwysau ar draws y wlad (yn dibynnu ar a yw disgwyliad oes iach yn parhau i olrhain disgwyliad oes cyffredinol). Gallai'r problemau gynnwys darparu gwasanaethau priodol ar gyfer poblogaeth sy'n heneiddio, a all gynnwys trafndiaeth. • Mae problemau i bobl ifanc yn ymwneud â'u symudiad o ddibyniaeth i annibyniaeth, gan fod trafndiaeth yn chwarae rhan bwysig ar adegau pwysig fel symud o'r ysgol gynradd i'r ysgol uwchradd, ac yna symud o addysg i gyflogaeth. • Mae anghydraddoldebau iechyd yn adlewyrchu anghydraddoldebau gofodol yn y dosbarthiad o ffactorau fel mynediad at drafndiaeth, addysg a chyfleoedd gwaith, a gall pob un o'r rhain effeithio ar iechyd. • Gall anabledau a/neu namau symudedd fod yn rhwystrau corfforol a meddyliol i ddefnyddio'r rhwydwaith trafndiaeth ar draws bob modd. Mae'n bwysig bod y system drafndiaeth yn cydymffurfio â'r Model Cymdeithasol o Anabledd lle mae dylunio gwael sy'n rhwystr i fynediad pobl at drafndiaeth gyhoeddus yn cael ei osgoi a'i waredu. • Gall trafndiaeth ar y ffyrdd arwain at bum maes effaith ar iechyd y cyhoedd: llygredd aer, anweithgarwch corfforol, diogelwch ar y ffyrdd, sŵn a'r ynysigrwydd a wynebier gan bobl agored i niwed oherwydd ofnau ynghylch perygl ar y ffyrdd (sy'n eu hatal rhag manteisio ar gyfleoedd cyflogaeth neu addysgol, rhwydweithiau cymdeithasol, amwynderau lleol a gwasanaethau (gan gynnwys gofal iechyd) ac felly yn ychwanegu at y perygl o salwch meddyliol a chorfforol). 	<ul style="list-style-type: none"> • Mae diogelu a gwella seilwaith gwyrdd ledled Cymru gyfan yn gyfle i wella mynediad pobl at fannau gwyrdd ac agored. Mae mynediad at amrywiaeth eang o gynefinoedd lled naturiol a naturiol, yn ogystal â darparu lle ar gyfer ymarfer corff ac ymgysylltu cymunedol awyr agored, yn hanfodol i lesiant corfforol a meddyliol. • Mae gan SDC gyfraniad pwysig i'w wneud at wella iechyd pobl trwy well mynediad at gyfleusterau iechyd, pwyslais ar leihau allyriadau llygredd aer, diogelwch ar y ffyrdd ac annog teithio llesol er mwyn gwella iechyd a llesiant a lleihau anghydraddoldebau. (Dylid nodi bod llawer o deithio llesol yn digwydd yng nghyd-destun cadwyno teithiau, pan fo pobl yn gwneud trefniadau i stopio sawl gwaith ar daith, fel mynd â'r plant i'r ysgol, yna mynd i'r siopau, ac yna mynd i'r gwaith ac ati). • Yn gyffredinol, gall SDC helpu i fynd i'r afael â phroblemau sy'n ymwneud â phoblogaeth sy'n heneiddio trwy hwyluso'r ddarpariaeth o wasanaethau trafndiaeth hygyrch wedi eu cefnogi gan seilwaith cysylltiol i ddiwallu anghenion twf poblogaeth lleol ac anghenion grwpiau unigol. • Gall Cymru gyfartal alluogi pobl i wireddu eu potensial llawn gan fynd i'r afael ag anghydraddoldeb cymdeithasol, economaidd, diwylliannol ac amgylcheddol. Gallai SDC gynnig cyfle i leihau ynysigrwydd ac annog datblygiad cymunedau integredig y gellir byw ynddynt trwy ddarparu trafndiaeth gyhoeddus gynhwysol. • Dylai'r system drafndiaeth sicrhau y gall pob grŵp gael mynediad at drafndiaeth gyhoeddus a'r rhwydwaith trafndiaeth yn gyfartal heb ofn na rhagfarn. • Gellir sicrhau llai o anghydraddoldeb trwy gynyddu mynediad i'r mwyaf difreintiedig yn hytrach na'r lleiaf difreintiedig a chadw'r lleiaf difreintiedig yn gyson; byddai unrhyw ffurf arall yn golygu lleihau mynediad i'r naill grŵp neu'r llall neu'r ddau, felly ni ddylai fod yn nod i SDC. • Gellir mynd i'r afael ag anghydraddoldebau iechyd trwy bolisïau a seilwaith i hybu teithio llesol, gan gynyddu gweithgarwch corfforol a lleihau llygredd a sŵn. Dylid

Nodau Llesiant	Crynodeb o Faterion Allweddol	Cyfleoedd i SDC Roi Sylw Iddynt
	<ul style="list-style-type: none"> Gall materion sy'n ymwneud â menywod yn benodol fod yn gysylltiedig ag ofni trosedd ar drafnidiaeth gyhoeddus, yn ogystal â dibyniaeth wahaniaethol ar drafnidiaeth gyhoeddus ar gyfer symudedd. Gall hygyrchedd corfforol trafnidiaeth gael effaith ar allu pobl anabl i ddefnyddio trafnidiaeth gyhoeddus. Mae rhwystrau eraill a allai fod yn atal mynediad at drafnidiaeth gyhoeddus yn cynnwys rhai sy'n seiliedig ar iaith (gan gynnwys i ddefnyddwyr y tair iaith swyddogol yng Nghymru: Cymraeg, Saesneg ac Iaith Arwyddion Prydain). Ceir perygl uchel o hyd o anafiadau ar y ffyrdd ymhlith pobl iau. Ceir gwahaniaeth mawr o hyd rhwng nifer y trwyddedau gyrru y mae menywod a dynion yn meddu arnynt. Mae gan fenywod lawer llai ac mae hyn yn ei gwneud yn fwy anodd i fenywod gael yr un mynediad at gyfleusterau ac amwynderau â dynion. Mae pobl â salwch cronig neu bobl anabl yn eithriadol o sensitif i lygredd sŵn neu aer yn eu hamgylchedd lleol, ac mae'r effeithiau yn amrywio o darfu ar gwsg i bwysedd gwaed uchel. Mae pobl ag incwm isel (defnyddir byw mewn ardal o amddifadedd fel procsi ar gyfer incwm isel) nad oes ganddynt gar yn debygol o gerdded ymhellach. Gall eu diffyg opsiynau trafnidiaeth, a allai gynnwys fforddiadwyedd trafnidiaeth gyhoeddus, gyfyngu ar gyfleoedd bywyd a gwaith. Gall pobl sy'n byw mewn ardaloedd o amddifadedd fod yn arbennig o agored i niwed o ddigwyddiadau traffig ffordd. Gall y grŵp hwn hefyd ddioddef lefelau uwch o straen a gellir ystyried bod amgylchedd ffisegol gwael yn rhwystr i deithio llesol. Mae grwpiau pobl dduon ac Asiaidd a lleiafrifoedd ethnig (BAME) yn fwy tebygol o fyw mewn cartref heb gar ac felly byddant yn fwy dibynnol ar drafnidiaeth gyhoeddus. Mae tystiolaeth yn dangos y bu 77 o droseddau ar sail hiliol ar reilffyrdd Prydain dros dair blynedd. Mae menywod a grwpiau lleiafrifol yn fwy tebygol o deithio ar fws, ond mae mwy o fuddsoddiad yn cael ei wneud mewn rheilffyrdd fel dull trafnidiaeth gyhoeddus. Mae'n rhaid i SDC ddarparu ar gyfer Cymru sy'n fwy cyfartal trwy wneud y buddsoddiad angenrheidiol yn y drafnidiaeth gyhoeddus a ddefnyddir fwyaf gan y grwpiau hyn neu gael gwared ar unrhyw rwystrau posibl i fathau eraill o drafnidiaeth i'r grwpiau hyn. 	<p>canolbwyntio mesurau teithio llesol ar ardaloedd o amddifadedd i leihau anghydraddoldebau.</p> <ul style="list-style-type: none"> Gall yr ACI helpu i sicrhau bod SDC yn cymryd y Model Cymdeithasol o Anabledd i ystyriaeth. Gall yr ACI helpu i sicrhau bod SDC yn helpu i osgoi neu ddileu rhwystrau i fynediad at drafnidiaeth gyhoeddus, gan gynnwys i ddefnyddwyr y tair iaith swyddogol yng Nghymru (Cymraeg, Saesneg ac Iaith Arwyddion Prydain). Gall SDC helpu i sicrhau bod dynion a menywod sy'n gweithio i'r system drafnidiaeth yn cael eu talu'n gyfartal am wneud yr un swydd.

Nodau Llesiant	Crynodeb o Faterion Allweddol	Cyfleoedd i SDC Roi Sylw Iddynt
	<ul style="list-style-type: none"> Mae lefelau llygredd sŵn o gwmpas ffyrdd allweddol yng Nghymru yn uchel. Gall sŵn gael effeithiau hynod amrywiol, gan gynnwys ar dderbynyddion tirwedd, adnoddau ecolegol ac iechyd pobl. Mae'r bwlch cyflog cyffredinol rhwng y rhywiau yn cynyddu yng Nghymru. 	
4. Cymru o gymunedau cydlynus	<ul style="list-style-type: none"> Mae prisiau tocynnau bws yn cynyddu ar gyfradd uwch na chwyddiant; gallai fforddiadwyedd eithrio rhai pobl neu gymunedau o'r math hwn o drafnidiaeth. Mae nifer y marwolaethau ar y ffyrdd yn parhau'n gyson o un flwyddyn i'r llall pan ddylai fod yn gwella; dylid gwneud mwy o ymdrech i sicrhau diogelwch gyrrwyr a defnyddwyr eraill y ffyrdd cymaint â phosibl. Mae lefelau llygredd sŵn o gwmpas ffyrdd allweddol yng Nghymru yn uchel. Gall sŵn gael effeithiau hynod amrywiol, gan gynnwys ar dderbynyddion tirwedd, adnoddau ecolegol ac iechyd pobl. Gall ynysigrwydd ac unigrwydd gwledig arwain at broblemau iechyd meddwl. Gall y rhain gael eu hachosi gan system drafnidiaeth lai hygyrch yn lleihau mynediad at gymunedau, ond gall traffig sy'n gwahanu cymunedau o bobtu'r ffordd gynyddu ynysigrwydd hefyd. Pan fydd pobl yn teithio, dylent allu gwneud hynny yn ddiofn a heb deimlo dan fygythiad trosedd. 	<p>Gallai SDC gynorthwyo'r broses o greu cysylltiadau rhwng ac o fewn cymunedau diogel sydd wedi eu cynnal yn dda trwy gyfleoedd trafnidiaeth gyhoeddus a theithio llesol gan gynnwys llwybrau troed a beicio. Gallai SDC gynllunio ar gyfer lleihau'r angen i deithio a chynnig cyfleoedd i gael mynediad at ddatblygiad a gwasanaethau newydd a phresennol trwy amrywiaeth o foddau teithio cynaliadwy a / neu welliannau i gysylltedd digidol. Trwy leihau nifer y teithiau mewn ceir sydd â'r gyrrwr ynddynt yn unig, gellid lleihau'r perygl i ddefnyddwyr anafodur a lleihau'r broblem o ynysigrwydd.</p> <p>Gallai SDC ystyried cynigion trafnidiaeth strategol o ran y cyfleoedd y maent yn eu cynnig i annog cydraddoldeb rhanbarthol yn ogystal â gwella iechyd pobl, tirwedd a chadwraeth natur trwy leihau llygredd sŵn a golau.</p>
5. Cymru â diwylliant bywiog lle mae'r Gymraeg yn ffynnu	<p>Y Gymraeg</p> <ul style="list-style-type: none"> Bu tuedd ar i fyny ers yr 1990au o ran nifer y bobl sy'n defnyddio'r Gymraeg, gan nodi amrywiadau rhanbarthol mawr; ceir cyfleoedd i gynyddu lefelau rhuglder. Mewn rhai achosion, mae cyfleoedd i ddefnyddio'r Gymraeg wrth ddefnyddio trafnidiaeth gyhoeddus yn brin, er enghraifft oherwydd y ffaith nad yw staff gwasanaeth cwsmeriaid yn siarad Cymraeg. <p>Cymeriad Tirwedd a Threflun</p> <ul style="list-style-type: none"> Mae Cymru yn adnabyddus am ei thirweddau o ansawdd uchel ac mae dros 50% o'r arwynebedd tir yn cael ei werthfawrogi'n genedlaethol am ansawdd a chymeriad ei olygfeydd. Mae Parciau Cenedlaethol ac Ardaloedd o Harddwch Naturiol Eithriadol (AHNEau) yn Dirweddau Dynodedig a gydnabyddir yn rhyngwladol ac yn gorchuddio 25% o Gymru. Mae gan hyn oblygiadau i ddatblygiad seilwaith trafnidiaeth newydd yn yr ardaloedd hyn, gydag un o heriau allweddol rheoli cynaliadwy i alluogi lefelau priodol o dwf gan gadw 	<p>Y Gymraeg</p> <ul style="list-style-type: none"> Mae gan SDC y cyfle i ddiogelu'r Gymraeg a hybu'r defnydd ohoni drwy annog ei defnydd ar arwyddion ac ymhlith cyflogeion gorsafoedd bysiau a rheilffordd. Gallai SDC geisio sicrhau bod mynediad at gyfleusterau addysg cyfrwng Cymraeg yn cael ei dargedu yn rhan o'r nod hwn, i gefnogi'r strategaeth sy'n ceisio ehangu'r ddarpariaeth o addysg cyfrwng Cymraeg. Gallai SDC geisio cefnogi seilwaith economaidd-gymdeithasol cymunedau Cymraeg eu hiaith trwy ei pholisïau. Bydd hyn yn helpu i gefnogi'r nod o ddatblygu pwyslais rhanbarthol newydd i ddatblygu economaidd i helpu pob rhan o Gymru i elwa o ffyniant a chynorthwyo pob ardal i ddatblygu ei hunaniaeth unigryw ei hun. Bydd cyfleoedd yn SDC i hybu'r Gymraeg trwy ei defnyddio mewn cyhoeddiadau mewn gorsafoedd, ar arwyddion

Nodau Llesiant	Crynodeb o Faterion Allweddol	Cyfleoedd i SDC Roi Sylw Iddynt
	<p>nodweddion unigryw lleoedd a thirweddau. Mae'n rhaid i hyn gydnabod hefyd bod elfennau naturiol a hanesyddol tirwedd yn bwysig i le a gwerth diwylliannol tirwedd.</p> <ul style="list-style-type: none"> Gallai colli amwynder a chymeriad gweledol gael effeithiau ar bobl leol a thwristiaid. Gall traffig modurol, parcio ac effeithiau cysylltiedig ddifetha cymeriad tirweddau a threfluniau. <p>Amgylchedd Hanesyddol, Treftadaeth Ddiwylliannol ac Asedau</p> <ul style="list-style-type: none"> Mae gan Gymru gyfoeth o asedau hanesyddol a diwylliannol sy'n elfennau pwysig o hunaniaeth ddiwylliannol genedlaethol. Mae llawer o asedau o'r fath mewn perygl, er enghraifft, o ddirywiad, ffactorau hinsoddol, esgeulustod a datblygiad amhriodol. Yn yr un modd â ffactorau amgylcheddol eraill, mae diogelu a darparu mynediad teg at asedau treftadaeth ddiwylliannol yn her allweddol ar gyfer cynllunio'r system drafndiaeth yn gynaliadwy. Gall datblygiad newydd gael amrywiaeth o effeithiau uniongyrchol ac anuniongyrchol ar asedau treftadaeth y mae angen eu hosgoi neu eu lliniaru. Mae hyn yn cynnwys effeithiau o lygredd sŵn ac aer o adeiladu llwybrau traffig prysur yn agos at ardaloedd o arwyddocâd diwylliannol a allai eu gwneud yn llai deniadol i ymweld â nhw neu leihau eu hamwynder gweledol (effeithiau anuniongyrchol); mae hefyd yn cynnwys cael gwared ar asedau treftadaeth yn ffisegol gan y gallai hyn fod yn ofynnol ar gyfer datblygu seilwaith teithio newydd. Gall effeithiau ar yr amgylchedd hanesyddol gynnwys dwysáu traffig presennol neu adeiladu ffyrdd neu reilffyrdd newydd. Gall lefelau cynyddol o dagfeydd effeithio ar drefi a dinasoedd hanesyddol a chefn gwlad, a gall datblygu seilwaith trafndiaeth newydd effeithio ar dirweddau hanesyddol a gallai achosi difrod uniongyrchol i asedau treftadaeth. 	<p>ffordd ac ar arwyddion mewn gorsafoedd rheilffordd a bysiau.</p> <p>Cymeriad Tirwedd a Threflun</p> <ul style="list-style-type: none"> Mae gan y system drafndiaeth ran fawr i'w chwarae o ran sut y bydd datblygiad seilwaith trafndiaeth yn y dyfodol yn effeithio ar dirwedd, treflun, a synnwyr o le yn gyffredinol. Ceir cyfle ar gyfer gwella mynediad at dirweddau, trefluniau a safbwyntiau a werthfawrogir, gan gynnwys trwy foddau teithio cynaliadwy a llesol i leihau effaith traffig modurol. Mae gan SDC y cyfle i ddarparu cysylltiadau trafndiaeth o ansawdd uchel i Barciau Cenedlaethol ac AHNEau i dwristiaid/ymwelwyr ac i ddefnyddwyr hamdden lleol, yn ogystal â gwella'r rheolaeth o deithio mewn ardaloedd twristiaeth. <p>Amgylchedd Hanesyddol, Treftadaeth Ddiwylliannol ac Asedau</p> <ul style="list-style-type: none"> Yn yr un modd â thirwedd, mae gan SDC ran fawr i'w chwarae o ran diogelu a gwella treftadaeth ddiwylliannol, yn ogystal â hygyrchedd asedau treftadaeth, trwy ganllawiau i'r system drafndiaeth. Gallai hyn gynnwys cydnabod bod asedau treftadaeth heb eu dynodi hefyd yn rhan bwysig o gyfansoddiad hunaniaeth ddiwylliannol a synnwyr o le a bod effeithiau anuniongyrchol ar leoliad asedau hefyd yn ystyriaethau pwysig e.e. llygredd sŵn ac aer o draffig. Mae cyfleoedd yn bodoli i SDC hybu ymwybyddiaeth o dreftadaeth ddiwylliannol ac annog gwell mynediad at ganolfannau addysg diwylliannol. Dylai SDC geisio nodi a diogelu seilwaith trafndiaeth a allai fod o werth treftadaeth ynddo'i hun. Mae gan SDC y cyfle i gyfrannu at reolaeth effeithlon y system drafndiaeth yn ystod digwyddiadau mawr, gan gynnwys gweithgareddau chwaraeon a hamdden a digwyddiadau diwylliannol.

Nodau Llesiant	Crynodeb o Faterion Allweddol	Cyfleoedd i SDC Roi Sylw Iddynt
6. Cymru sy'n gyfrifol ar lefel fyd-eang	<ul style="list-style-type: none"> Mae'n rhaid lleihau ôl-troed ecolegol Cymru a pheidio â'i beryglu trwy ddatblygiadau trafndiaeth. Mae'n rhaid cymryd mesurau i sicrhau diogelwch cerddwyr a beicwyr ar y ffordd er mwyn eu hybu fel modd ymarferol o deithio. <p>Allyriadau carbon</p> <ul style="list-style-type: none"> Cafodd argyfwng newid hinsawdd ei ddatgan gan Lywodraeth Cymru yn 2019. Mae allyriadau nwyon tŷ gwydr wedi bod yn gostwng yn raddol yng Nghymru; mae llawer i'w wneud o hyd i fodloni'r targedau allyriadau. Mae'r gostyngiad hwn yn rhannol o ganlyniad i'r symudiad graddol o ran cynhyrchu ynni i danwyddau adnewyddadwy a glanach ynghyd â gwelliannau technolegol ac effeithlonrwydd mewn diwydiant. Fodd bynnag, mae heriau eto i gynnal y tueddiadau cadarnhaol hyn. Mae'r ddogfen <i>UK Climate Change Risk Assessment 2017: Evidence Report</i> yn tynnu sylw at nifer o risgiau a chyfleoedd allweddol sy'n wynebu Cymru o ran trafndiaeth, gan gynnwys yr angen i symud tuag at gerbydau allyriadau isel a gwell opsiynau teithio llesol. Mae ôl-troed byd-eang amcangyfrifedig Cymru yn uchel o'i gymharu â gwledydd datblygedig eraill. Ceir her i leihau hyn a hefyd i hwyluso datblygiad newydd a thwf economaidd. 	<p>Mae SDC yn canolbwyntio ar leihau allyriadau nwyon tŷ gwydr o drafnidiaeth yn sylweddol, trwy hybu moddau trafndiaeth mwy cynaliadwy fel trafndiaeth gyhoeddus a theithio llesol.</p> <p>Mae gan SDC gyfle i helpu i hybu moddau trafndiaeth carbon isel a gwell safonau o effeithlonrwydd ynni mewn seilwaith trafndiaeth.</p> <p>Dylai SDC geisio lleihau twf traffig modurol.</p> <p>Mae'n rhaid i SDC hybu moddau trafndiaeth cynaliadwy (gan gynnwys teithio llesol a Cherbydau Allyriadau Isel lawn hefyd, fel dewis yn hytrach na phetrol/diesel).</p> <p>Mae SDC yn cynnig cyfle i leihau'r angen i deithio yn anghynaliadwy:</p> <ul style="list-style-type: none"> Trwy ehangu a hybu dewisiadau teithio mwy cynaliadwy, a Thrwy wneud gwell defnydd o'r rhwydwaith trafndiaeth presennol.

2.3 Fframwaith yr ACI

- 2.3.1 I brofi perfformiad SDC, sefydlwyd Fframwaith yr ACI sy'n cynnwys 13 o amcanion ACI (yn rhoi sylw i faterion cymdeithasol, economaidd, amgylcheddol a diwylliannol). Caiff SDC ei harfarnu yn erbyn holl Amcanion yr ACI yn unigol ac yn gyfannol. Grwpwyd meysydd pwnc yn seiliedig ar ddyfarniad proffesiynol at ddibenion eglurder, ond yn ymarferol bydd yr asesiad yn cwmpasu'r rhyng-gysylltiadau rhwng pob un o'r amcanion ac yn llywio cwestiynau, pan fyddant yn berthnasol i'r asesiad.
- 2.3.2 Er mwyn helpu i fesur perfformiad elfennau SDC yn erbyn Amcanion yr ACI, caiff y rhain eu hategu gan gyfres o gwestiynau. Crynhowyd data sylfaenol ar y raddfa genedlaethol ac is-genedlaethol (gweler Atodiad B), gan fod y rhain yn cynnig modd o ddarganfod perfformiad cyfredol ledled Cymru a mesur faint o ymyrraeth neu faint o waith sydd ei angen i sicrhau cyfeiriad cadarnhaol o ran cyflawni datblygu mwy cynaliadwy.
- 2.3.3 I grynhoi, nododd yr adolygiad o gynlluniau, rhaglenni ac amcanion yn Atodiad A amrywiaeth o themâu allweddol. Fel man cychwyn, cynlluniwyd Amcanion yr ACI i adlewyrchu'r themâu allweddol hyn. Yn dilyn yr adolygiad o ddata amgylcheddol sylfaenol yn Atodiad B lle nodwyd materion cynaliadwyedd allweddol (gweler Tabl 2.2), mireiniwyd Amcanion yr ACI i sicrhau eu bod yn cymryd y materion cynaliadwyedd allweddol hyn i ystyriaeth h.y. i sicrhau y byddai bodloni Amcanion yr ACI yn helpu i fynd i'r afael â'r materion cynaliadwyedd allweddol yng Nghymru.
- 2.3.4 Mae Tabl 2.3 yn cyflwyno Amcanion yr ACI a'r cwestiynau a ddefnyddiwyd. Nodir y nodau llesiant cyfatebol yn y tabl. Datblygwyd Amcanion yr ACI gan ddefnyddio'r canlynol:
- Adolygiad o gynlluniau, rhaglenni ac amcanion perthnasol, gan gynnwys, er enghraifft, y nodau llesiant cenedlaethol ac amcanion llesiant Llywodraeth Cymru.
 - Adolygiad o wybodaeth sylfaenol, problemau a chyfleoedd.
 - Mewnbwn o'r ffrydiau arfarnu eraill a nodir yn Adran 1 yr adroddiad hwn, ac yn nodedig: Iechyd, Cydraddoldebau, y Gymraeg, Prawfesur Gwledig, Hawliau Plant, Newid yn yr Hinsawdd a Datblygu Economaidd.
 - Profiad o ddatblygu Amcanion AC eraill yng Nghymru a thu hwnt.
 - Diwygiadau a wnaed yng ngoleuni'r ymatebion a ddaeth i law yn ystod ymgynghoriad Mai - Gorffennaf 2020 ar Adroddiad Cwmpasu yr ACI.
- 2.3.5 Mae'r cwestiynau cynorthwyo penderfyniadau a ddefnyddir i lywio'r asesiad yn erbyn pob amcan yn seiliedig ar brofiad ACI arbenigol ac arfer gorau. Ni ddefnyddir yr holl gwestiynau llywio yn rhan o'r asesiad ar bob cam; bydd hyn yn dibynnu ar yr hyn sy'n cael ei asesu a'r perthnasedd ar yr adeg honno.
- 2.3.6 Nid yw Amcanion yr ACI mewn unrhyw drefn benodol ac nid yw eu lleoliad a'u rhif o fewn Fframwaith yr ACI yn ddynodiad o drefn pwysigrwydd neu ffafriaeth. Asesir SDC yn erbyn holl Amcanion yr ACI i'r un lefel o fanylder.

Tabl 2.3 Amcanion a Chwestiynau yr ACI

Fframwaith yr ACI ar gyfer asesu SDC		
Amcanion yr ACI	Cwestiynau cynorthwyo penderfyniad A fydd Strategaeth Drafnidiaeth Cymru yn....?	Nod llesiant
1. Cyfrannu at welliant i iechyd a llesiant corfforol, meddyliol a chymdeithasol pawb, gan gynnwys cyfrannu at leihau anghydraddoldebau iechyd ledled Cymru	<ul style="list-style-type: none"> • Cyfrannu at welliant i fynediad at wasanaethau iechyd a gofal cymdeithasol yn enwedig mewn ardaloedd ynysig/gwledig? • Cyfrannu at wella hygyrchedd gwasanaethau iechyd a lles cyfrwng Cymraeg? • Cyfrannu at leihau anghydraddoldebau iechyd ymhlith gwahanol grwpiau yn y gymuned gan gynnwys plant a phobl hŷn yn benodol? • Hybu ffyrdd iach o fyw trwy fentrau cynllunio trafnidiaeth a hybu teithio llesol? • Lleihau effaith seilwaith trafnidiaeth ar gyfyngu cysylltedd o fewn cymunedau trwy eu gwahanu o bobtu'r ffordd? • Lleihau perygl o draffig ar y ffyrdd, yn enwedig i grwpiau agored i niwed a blaenoriaeth? • Lleihau straen i yrwyrr a straen posibl i ddefnyddwyr eraill y ffyrdd? • Lleihau effeithiau iechyd trafnidiaeth, gan gynnwys effeithiau ansawdd aer a sŵn, fel iechyd a straen anadlol a chardiofasgwlaidd? • Cyfrannu at wella mynediad at fannau agored gan gynnwys cyfleoedd i chwarae a mynediad at Barciau Cenedlaethol trwy fodd trafnidiaeth hygyrch nad yw'n ddrud? • Sicrhau y gall plant ddatblygu'n iach, a chael mynediad at ofal iechyd o ansawdd da? • Cyfrannu at leihau unigrwydd ac ynysigrwydd cymdeithasol? 	Cymru lewyrchus Cymru iachach Cymru sy'n fwy cyfartal Cymru o gymunedau cydlynus
2. Creu'r amodau lle gellir sicrhau gwelliant i gydlyniant cymdeithasol a chydraddoldeb	<ul style="list-style-type: none"> • Creu amodau i leihau lefelau trosedd a'r ofn o drosedd? • Gwellu hygyrchedd ac argaeledd trafnidiaeth gyhoeddus, fel bod mynediad yn deg? • Gwellu hygyrchedd llwybrau cerdded a beicio, fel bod mynediad yn deg? • Gwellu diogelwch, hwylustod a hygyrchedd llwybrau cerdded a beicio fel bod cerdded a beicio yn cael eu hystyried yn opsiynau realistig, diogel a deniadol i bobl o bob oedran, cefndir a gallu? • Creu'r amodau lle gellir sicrhau gwelliant i foddhad pobl gyda'u cymdogaethau fel lleoedd i fyw? • Creu'r amodau lle gellir gwella cydraddoldebau yn seiliedig ar gefndir neu amgylchiadau? • Creu'r amodau lle gellir lleihau anghydraddoldeb rhwng y rhywiau? • Creu'r amodau lle gellir lleihau anghydraddoldeb ar sail oedran? • Creu'r amodau lle gellir gwella anghydraddoldebau yn seiliedig ar anabledd, yn unol â'r Model Cymdeithasol o Anabledd? • Annog a chefnogi cynnydd i lefelau cyfranogiad a chyrhaeddiad mewn addysg i bob aelod o gymdeithas trwy fwy o hygyrchedd? • Cefnogi'r darparwyr trafnidiaeth trydydd sector a chymunedol a nodi cyfleoedd ar gyfer twf er mwyn lleihau anghydraddoldeb rhwng cymunedau trefol, gwledig a lled-wledig? 	Cymru o gymunedau cydlynus Cymru lewyrchus Cymru iachach
3. Cefnogi twf economaidd	<ul style="list-style-type: none"> • Cefnogi mynediad teg at gyfleoedd gwaith, addysg a hyfforddiant? • Annog mynediad cynaliadwy at gyfleusterau ac atyniadau i dwristiaid? 	Cymru lewyrchus Cymru sy'n fwy cyfartal

Fframwaith yr ACI ar gyfer asesu SDC		
Amcanion yr ACI	Cwestiynau cynorthwyo penderfyniad A fydd Strategaeth Drafnidiaeth Cymru yn....?	Nod llesiant
cynaliadwy ac amrywiaeth	<ul style="list-style-type: none"> Annog mesurau i hybu cysylltiadau trafnidiaeth rhyngwladol gwell a chydnerth, gan gynnwys yn yr awyr, ar y môr, ar ffyrdd ac ar reilffyrdd? Cefnogi adfywiad ardaloedd sy'n tanberfformio? Cefnogi cludiant nwyddau a gwella dibynadwyedd a chydnerthedd y rhwydweithiau cludo nwyddau ar ffyrdd, ar reilffyrdd ac yn yr awyr? Annog mewnfuddsoddiad? Annog gwell cynhyrchiant trwy well cysylltedd? Cefnogi gwelliannau i'r economi wledig ac arallgyfeirio gwledig? Cefnogi ac annog gweithgareddau trydydd sector, gan gynnwys trafnidiaeth gymunedol? Cefnogi camau i leihau'r angen i deithio ar gyfer gwaith? A fyddai'n helpu i leihau anghydraddoldebau sy'n gysylltiedig ag anfantais economaidd-gymdeithasol? 	Cymru â diwylliant bywiog lle mae'r Gymraeg yn ffynnu Cymru sy'n gyfrifol ar lefel fyd-eang
4. Annog camau i ddiogelu a hybu diwylliant Cymru a gwella mynediad at fannau diwylliannol a hamdden	<ul style="list-style-type: none"> Hybu mynediad cynaliadwy a chydnerth at asedau a gweithgareddau diwylliannol a threftadaeth Cymru? Annog mesurau i wella asedau treftadaeth ddiwylliannol, mannau hamdden a'u lleoliad? Cyfrannu at reoli'r system drafnidiaeth yn effeithlon yn ystod digwyddiadau mawr, gan gynnwys gweithgareddau chwaraeon a hamdden a digwyddiadau diwylliannol? Cyfrannu at reoli teithio yn effeithlon mewn ardaloedd twristiaeth yn ystod cyfnodau brig? 	Cymru â diwylliant bywiog lle mae'r Gymraeg yn ffynnu
5. Annog camau i ddiogelu a hybu'r Gymraeg	<ul style="list-style-type: none"> Annog darparwyr trafnidiaeth i fodloni safonau'r Gymraeg? Ceisio cefnogi gwell mynediad trwy foddau cynaliadwy at gyfleusterau addysg cyfrwng Cymraeg? Ceisio cefnogi cynnydd i'r amrywiaeth o wasanaethau a gynigir trwy gyfrwng y Gymraeg? Ceisio cefnogi cymunedau Cymraeg eu hiaith trwy fentrau trafnidiaeth? Creu'r amodau y mae'r Gymraeg yn ffynnu ynddynt? Ceisio hybu'r Gymraeg trwy ei defnyddio mewn cyhoeddiadau gorsafoedd, ar arwyddion ffyrdd ac ar arwyddion mewn gorsafoedd rheilffordd a bysiau? 	Cymru lewyrchus Cymru sy'n fwy cyfartal Cymru o gymunedau cydlynus Cymru â diwylliant bywiog lle mae'r Gymraeg yn ffynnu Cymru sy'n gyfrifol ar lefel fyd-eang
6. Lleihau allyriadau nwyon tŷ gwydr o drafnidiaeth	<ul style="list-style-type: none"> Annog lleihau allyriadau nwyon tŷ gwydr o'r seilwaith trafnidiaeth presennol? Cyfrannu at leihau allyriadau CO₂ o'r sector trafnidiaeth? Annog technoleg lanach ar gyfer trafnidiaeth? Creu'r amodau lle mae'n ofynnol i ddylunio cynaliadwy fod yn rhan annatod o ddatblygiad newydd? Annog lleihad i'r galw am ynni a chynyddu effeithlonrwydd ynni? Cynyddu'r potensial ar gyfer defnyddio ffynonellau ynni carbon isel neu ddi-garbon Lleihau cyfanswm y traffig ar y ffyrdd trwy leihau'r angen i deithio, lleihau pellteroedd teithio a chynyddu'r opsiynau teithio llesol a thrafnidiaeth gyhoeddus sydd ar gael? 	Cymru lewyrchus Cymru gydnerth Cymru iachach Cymru sy'n fwy cyfartal Cymru o gymunedau cydlynus Cymru sy'n gyfrifol ar lefel fyd-eang

Fframwaith yr ACI ar gyfer asesu SDC		
Amcanion yr ACI	Cwestiynau cynorthwyo penderfyniad A fydd Strategaeth Drafnidiaeth Cymru yn....?	Nod llesiant
7. Galluogi cydnherthedd yn erbyn y newid yn yr hinsawdd	<ul style="list-style-type: none"> • Cyfrannu at leihau a rheoli perygl llifogydd? • Annog pob datblygiad trafndiaeth newydd i fod yn gydnerth yn wyneb newid yn yr hinsawdd? • Lleihau'r anghydraddoldebau o ran mynediad at drafnidiaeth yn ystod llifogydd? • Lleihau'r perygl cynyddol o lifogydd a/neu lifogydd arfordirol a hybu mesurau i ddiogelu gorlifdiroedd neu ardaloedd o berygl llifogydd a reolir? • Sicrhau cymaint o gyfleoedd â phosibl i wella cydnherthedd ecosystemau a swyddogaethau sy'n helpu i leihau pa mor agored i niwed yw'r hinsawdd? • Cyfrannu at weithrediad addasiadau arfordirol oherwydd erydu arfordirol? 	Cymru lewyrchus Cymru gydnerth Cymru iachach Cymru o gymunedau cydlynus Cymru sy'n gyfrifol ar lefel fyd-eang
8. Diogelu a gwella ansawdd aer	<ul style="list-style-type: none"> • Creu'r amodau i wella a diogelu ansawdd aer? • Lleihau effeithiau negyddol trafndiaeth ar ansawdd aer lleol? • Gwella ansawdd aer er mwyn cael gwared ar Ardaloedd Rheoli Ansawdd Aer presennol a lleihau'r tebygolrwydd y bydd angen Ardaloedd Rheoli Ansawdd Aer newydd trwy fentrau trafndiaeth? • Creu'r amodau lle gellir lleihau'r allyriadau posibl o draffig a diwydiant? • Lleihau effaith anghymesur ansawdd aer gwael ar y cymunedau mwyaf difreintiedig ac agored i niwed? 	Cymru lewyrchus Cymru gydnerth Cymru iachach Cymru o gymunedau cydlynus Cymru sy'n gyfrifol ar lefel fyd-eang
9. Diogelu a gwella nodweddion unigryw lleol ein tirweddau a'n trefluniau	<ul style="list-style-type: none"> • Annog camau i warchod a gwella ardaloedd o gymeriad, nodweddion unigryw, amrywiaeth ac ansawdd tirweddau? • Annog camau i warchod a gwella cymeriad ac ansawdd trefluniau? • Hybu dylunio sensitif wrth ddatblygu seilwaith trafndiaeth? • Lleihau effeithiau niweidiol traffig ar y ffyrdd a pharcio (e.e. amhariad gweledol a sŵn) ar y tirweddau a'r trefluniau a werthfawrogrir yng Nghymru? 	Cymru lewyrchus Cymru sy'n fwy cyfartal Cymru o gymunedau cydlynus Cymru â diwylliant bywiog lle mae'r Gymraeg yn ffynnu Cymru sy'n gyfrifol ar lefel fyd-eang
10. Hybu camau i warchod a gwella asedau treftadaeth	<ul style="list-style-type: none"> • Annog camau i warchod a gwella asedau treftadaeth a'u lleoliadau, a all gynnwys rhai asedau trafndiaeth eu hunain? • Annog gwaith i uwchraddio asedau treftadaeth presennol, fel pontydd hanesyddol, i fodloni'r safonau gweithredu diweddaraf? • Annog camau i warchod a gwella'r dirwedd hanesyddol? 	Cymru lewyrchus Cymru sy'n fwy cyfartal Cymru o gymunedau cydlynus Cymru â diwylliant bywiog lle mae'r Gymraeg yn ffynnu Cymru sy'n gyfrifol ar lefel fyd-eang

Fframwaith yr ACI ar gyfer asesu SDC		
Amcanion yr ACI	Cwestiynau cynorthwyo penderfyniad A fydd Strategaeth Drafnidiaeth Cymru yn....?	Nod llesiant
11. Hybu camau i warchod a gwella bioamrywiaeth, geoamrywiaeth ac ecosystemau	<ul style="list-style-type: none"> Hybu camau i sefydlu rhwydweithiau ecolegol mwy cydlynol a chydnerth ar dir sy'n diogelu gwasanaethau ecosystem er budd bywyd gwyllt a phobl? Annog camau i warchod a gwella safleoedd cadwraeth natur, cynefinoedd a rhywogaethau dynodedig gan gynnwys eu cysylltedd yn y dirwedd? Annog camau i warchod a gwella cynefinoedd a rhywogaethau heb eu dynodi, gan gynnwys eu cysylltedd yn y dirwedd? Sicrhau gwelliant i gyfleoedd i bobl gael mynediad at fywyd gwyllt a mannau gwyrdd agored? Hybu gwaith dylunio seilwaith trafnidiaeth da i sicrhau manteision bioamrywiaeth? Diogelu geoamrywiaeth? 	Cymru lewyrchus Cymru gydnerth Cymru iachach Cymru o gymunedau cydlynus Cymru sy'n gyfrifol ar lefel fyd-eang
12. Sicrhau'r defnydd cynaliadwy o adnoddau naturiol	<ul style="list-style-type: none"> Cyfrannu at ddiogelu a gwella ansawdd dŵr daear a dŵr wyneb? Annog y defnydd o ddeunyddiau ailgylchu a chynaliadwy wrth ddatblygu seilwaith trafnidiaeth, gyda phwyslais ar leihau'r carbon ymgorfforedig mewn seilwaith trafnidiaeth newydd? Lleihau cyfanswm gwastraff cyffredinol trwy fentrau trafnidiaeth? Annog camau i warchod pridd, gan gynnwys osgoi llygredd pridd? Cynyddu cyfleoedd i fwynhau amgylchedd naturiol a rhwydwaith hawliau tramwy Cymru trwy bob math o deithio llesol? 	Cymru lewyrchus Cymru gydnerth Cymru iachach Cymru o gymunedau cydlynus Cymru sy'n gyfrifol ar lefel fyd-eang
13. Galluogi camau i ddiogelu ardaloedd tawel ac atal llygredd sŵn a golau	<ul style="list-style-type: none"> Annog camau i osgoi cynefinoedd ac aneddiadau sy'n sensitif i lygredd sŵn? Annog camau i gynnal ac ehangu ardaloedd tawel? Hybu camau i leihau a lliniaru llygredd golau, yn enwedig yn y nos? Hybu'r defnydd o gamau lliniaru a gwelliannau i ardaloedd a effeithir gan lygredd sŵn? Lleihau nifer yr ardaloedd sy'n cael eu heffeithio'n negyddol gan lygredd sŵn? 	Cymru gydnerth Cymru iachach Cymru o gymunedau cydlynus

2.3.7 Mae Tabl 2.4 yn nodi lle y cymerir pob un o'r pynciau amgylcheddol a restrir yn Atodiad 1(f) y Gyfarwydddeb AAS, yn ogystal â phob un o'r gwahanol asesiadau effaith sy'n rhan o'r ACI, i ystyriaeth yn Amcanion yr ACI. Sgriniwyd yr holl bynciau ac asesiadau effaith hyn i mewn i'r asesiad.

Tabl 2.4 Pynciau'r Gyfarwydddeb a phrif amcanion perthnasol yr ACI

Pwnc AAS/Asesiad Integredig	Prif Amcan(ion) yr yr ACI	Sgriniwyd i mewn?
AAS: Bioamrywiaeth	11	Do
AAS: Poblogaeth	1, 2, 3, 4, 5, 7	Do
AAS: Iechyd Pobl	1, 2, 3, 4, 5, 7	Do
AAS: Ffawna	9, 11	Do
AAS: Fflora	9, 11	Do
AAS: Pridd	11, 12	Do
AAS: Dŵr	7, 11, 12	Do
AAS: Aer	6, 8, 12	Do
AAS: Ffactorau Hinsoddol	6, 7, 12	Do
AAS: Asedau Perthnasol	12	Do
AAS: Treftadaeth Ddiwylliannol gan gynnwys treftadaeth bensaernïol ac archeolegol	9, 10	Do
AAS: Tirwedd	9, 10, 11	Do
Iechyd	1, 2	Do
Cydraddoldebau	1, 2	Do
Y Gymraeg	5	Do
Prawfesur Gwledig	1, 2, 3, 4, 5	Do
Hawliau Plant	1, 2	Do
Newid yn yr Hinsawdd	6, 7, 12	Do
Datblygu Economaidd	2, 3	Do

2.4 Opsiynau Amgen Rhesymol SDC (Tasg B.2)

Gofynion y Gyfarwydddeb AAS ar gyfer ystyried opsiynau amgen rhesymol

Y Gyfarwydddeb AAS Atodiad 1(h):

“an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken, including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.”

Y Gyfarwydddeb AAS Erthygl 5(1):

“Where an environmental assessment is required under Article 3(1), an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated. The information to be given for this purpose is referred to in Annex I.”

- 2.4.1 At ddiben bodloni gofynion Adroddiad Amgylcheddol yr AAS, mae angen i adroddiad yr ACI nodi ac arfarnu effeithiau amgylcheddol y cynigion yn SDC, yn ogystal â nodi ac arfarnu effeithiau amgylcheddol opsiynau amgen rhesymol i'r cynigion hyn. Diben defnyddio opsiynau amgen rhesymol yw dangos mai tystiolaeth sydd wedi creu'r Cynllun arfaethedig yn hytrach nag i'r gwrthwyneb.
- 2.4.2 Mae penderfynu a yw opsiwn amgen yn rhesymol fel arfer yn asesiad arfarnol ac ansoddol i'r awdurdod cynllunio. Mae Canllawiau AAS yn nodi mai opsiynau amgen rhesymol, realistig a pherthnasol yn unig y mae angen eu cyflwyno. Nid yw'r Gyfarwydddeb AAS a'r ddeddfwriaeth gysylltiedig yn diffinio beth yw opsiwn amgen, na faint o opsiynau amgen y mae'n rhaid eu hystyried.
- 2.4.3 Trafodwyd datblygiad 'opsiynau amgen rhesymol' yn drwyadl gyda thîm SDC, gan ystyried gwahanol gyfeiriadau a phosibiliadau. O ganlyniad i'r trafodaethau hyn, gan gynnwys yr angen i SDC fodloni gofynion deddfwriaethol penodol, nid ystyriwyd bod 'opsiynau amgen' i'r dulliau yn y cynllun yn rhesymol, yn enwedig gan nad oes unrhyw elfennau gofodol i'w hystyried.
- 2.4.4 Mae SDC yn cyflwyno Gweledigaeth ar gyfer y sector trafndiaeth yng Nghymru. Dilyniir hyn gan Uchelgeisiau a Blaenoriaethau a fyddai'n sicrhau, o'u cyflawni, bod y Weledigaeth ddymunol yn cael ei gwredu. Er mwyn cyflawni'r Weledigaeth, yr Uchelgeisiau a'r Blaenoriaethau yn llwyddiannus, mae SDC wedyn yn cyflwyno cynlluniau cryno manwl ar gyfer pob sector trafndiaeth, sy'n disgrifio yn fanwl y dull y bydd Llywodraeth Cymru yn ei fabwysiadu.
- 2.4.5 Bwriedir i'r Weledigaeth, yr Uchelgeisiau, y Blaenoriaethau a'r Cynlluniau Cryno sicrhau cydymffurfiaid cyfreithiol, gan gynnwys â'r gwahanol gynlluniau a rhaglenni perthnasol a nodwyd wrth Gwmpasu (Atodiad A). Bwriedir hefyd iddynt sicrhau bod sector trafndiaeth Cymru yn dod yn gynyddol gynaliadwy (o ran ei effeithiau amgylcheddol, cymdeithasol, economaidd a diwylliannol) yn ystod oes SDC. Mae'n amlwg na fyddai dull amgen yn hytrach na'r un yma h.y. un nad yw'n cydymffurfio â'r gyfraith neu nad yw'n gwella cynaliadwyedd y sector trafndiaeth yng Nghymru, yn 'rhesymol'.

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- 2.4.6 Darparwyd drafft cychwynnol a chynnar o SDC i Arcadis ym mis Awst/Medi 2020 ac aseswyd hwn gan ddefnyddio Fframwaith yr ACI. Rhannwyd canlyniadau ac argymhellion asesiad yr ACI gyda llunwyr y cynllun, gan roi gwybodaeth iddynt am berfformiad y gwahanol opsiynau yn erbyn pob un o'r asesiadau effaith deddfwriaethol ac anneddfwriaethol. Mireiniwyd SDC yn dilyn hyn.
- 2.4.7 Mae Tabl 2.5 yn cynnig crynodeb o'r canlyniadau asesu ar gyfer y fersiwn ddrafft gynnar o SDC. Mae Tabl 2.6 yn cynnig crynodeb o'r argymhellion a wnaed yn asesiadau'r ACI i'w hystyried gan y

rhai sy'n paratoi SDC. Roedd hon yn elfen hollbwysig yn natblygiad SDC a chynorthwyodd gyda chynhyrchiad drafft mis Hydref 2020 a fydd yn cael ei gyhoeddi ar gyfer ymgynghoriad.

- 2.4.8 Nododd yr asesiad i'r drafft cynnar cychwynnol o SDC ym mis Medi 2020 effeithiau cadarnhaol yn bennaf. Ystyriwyd bod SDC yn mynd i'r afael yn gynhwysfawr â'r materion a'r cyfleoedd cynaliadwyedd allweddol sy'n gysylltiedig â sector trafndiaeth Cymru ac yn ceisio rhoi sylw i'r rhain. Gwnaed argymhellion i sicrhau bod yr effeithiau cadarnhaol hyn mor fawr â phosibl er mwyn cyflawni mwy o effeithiau cadarnhaol mawr, yn ogystal â llenwi unrhyw fylchau posibl.

Tabl 2.5: Crynodeb o ganlyniadau'r arfarniad cychwynnol o ddrafft Medi 2020 SDC

	Amcan yr ACI												
	1. Iechyd	2. Cydlyniant	3. Economi	4. Diwylliant Cymru	5. Y Gymraeg	6. Allyriadau Nwyon Ty Gwydr	7. Cydnheredd yn erbyn Newid Hinsawdd	8. Ansawdd aer	9. Tirwedd	10. Treftadaeth	11. Bioamrywiaeth	12. Adnoddau naturiol	13. Tawelwch
Gweledigaeth	+	+	+	+	+	+	+	+	+	+	+	+	+
Pennod 2: O Ddaioni i Gymdeithas	+	+	+	+	+	+	0	0	0	0	0	0	0
Pennod 2: O Ddaioni i'r Amgylchedd	+	0	+	0	0	+	+	+	0	0	+	+	+
Pennod 2: O Ddaioni i Ddiwylliant/Iaith	?	?	+	+	+	+	0	0	+	+	0	0	0
Pennod 2: O Ddaioni i'r Economi	+	+	+	+		0	0	0	0	0	0	+	0
Blaenoriaeth 1: Lleihau'r angen i deithio mewn ceir a cherbydau preifat	+	+	+	+	+	+	+	+	+	0	+	+	+
Blaenoriaeth 2: Gwasanaethau trafndiaeth gyhoeddus y gall pobl eu defnyddio, y maent eisiau eu defnyddio, ac y maent yn eu defnyddio	+	+	+	0	+	+	+	+	+	0	+	+	+
Blaenoriaeth 3: Seilwaith trafndiaeth wedi'i gynnal a'i gadw yn dda	+	+	+	0	0	+	+	+	+	0	+	+	+
Blaenoriaeth 4: Newid ymddygiad	+	+	+	0	+	+	0	+	0	0	0	0	0
Blaenoriaeth 5: Dulliau arloesi sy'n cynnig dewisiadau trafndiaeth mwy cynaliadwy	+	+	+	0	0	+	+	+	0	0	+	+	+
Pennod 5: Sut y byddwn yn cyflawni	+	+	+	+	+	+	+	+	0	0	+	+	+

Allwedd

Sgorio Asesiad	
++	Cadarnhaol cryf – yn debygol o arwain at gynnydd tuag at yr amcan (arwyddocaol)
+	Cadarnhaol mân – yn debygol o arwain at gynnydd cyfyngedig iawn tuag at yr amcan
0	Canlyniad niwtral
+/-	Ystod o ganlyniadau cadarnhaol a negyddol posibl
?	Canlyniad ansicr
-	Negyddol mân – yn debygol o fod yn niweidiol iawn i gyflawni'r amcan
--	Negyddol cryf – yn debygol o fod yn niweidiol iawn i gyflawni'r amcan (arwyddocaol)

Tabl 2.6: Crynodeb o'r argymhellion a wnaed yn yr ACI cychwynnol o ddrafft Medi 2020 SDC

SDC	Crynodeb o'r argymhellion a wnaed yn yr ACI cychwynnol o ddrafft Medi 2020 SDC
Gweledigaeth	<ul style="list-style-type: none"> Gallai'r diffiniad a roddir ar gyfer 'system drafndiaeth' gynnwys cysylltiadau cerdded a beicio - fel y mae wedi'i eirio ar hyn o bryd, gellid ystyried ei bod yn llawn moddau trafndiaeth llygredd uchel. Mae'n bosibl y gallai ddangos yr hierarchaeth o ffafriaeth, gan roi moddau carbon isel ar y brig. Gallai gyfeirio at fuddsoddiad mewn trafndiaeth 'fforddiadwy'. Gallai'r weledigaeth gydnabod bod y mannau y mae pobl eisiau teithio iddynt yn newid – a byddant yn parhau i newid wrth i dechnoleg ddatblygu – ac felly byddai angen monitro hyn yn ystod oes SDC. Gallai cyfeirio'n benodol at y Gymraeg yn y diffiniadau fod yn bwysig, o dan 'hygyrch' o bosibl. Nid yw'n eglur ar hyn o bryd sut y rhoddir sylw i iaith yn 'hygyrch, effeithiol, fforddiadwy'. Gallai'r Weledigaeth gyfeirio at gydnerthedd, yn ogystal â 'Cymru fwy gwyrdd'. Efallai y byddai'n ddefnyddiol cyfeirio at seilwaith cerbydau trydan. Gellid cryfhau cyfeiriadau a chynnwys cydnerthedd hinsawdd. Gellid sôn yn benodol am yr agweddau ar y nodau llesiant, yn enwedig pwysigrwydd cydnerthedd. Gellid cyfeirio at egwyddorion Rheoli Adnoddau Naturiol yn Gynaliadwy Cyfoeth Naturiol Cymru.
Pennod 2: O Ddaioni i Gymdeithas	<ul style="list-style-type: none"> Ceir bwlch posibl o ran mynediad at ofal iechyd yng nghefn gwlad – gallai SDC gyfeirio yn benodol at anghenion penodol ardaloedd gwledig ac ardaloedd mwy difreintiedig. Nid yw'n eglur sut y bydd y mesurau a ddisgrifir yn gwella diogelwch – yn enwedig o ran COVID-19 Mae beicio i'r gwaith yn effeithiol o ran sicrhau canlyniadau iechyd cadarnhaol. Mae gwahanol astudiaethau a setiau data yn dangos ei fod yn sylweddol well i iechyd o'i gymharu â cherdded ac y gall leihau'n sylweddol ordewdra/clefyd y galon/marwolaeth o ddiffyg ymarfer corff. Ond dim ond tua 6% o bobl yng Nghymru sy'n beicio o leiaf unwaith yr wythnos ar gyfer teithio llesol - dylid ceisio gwella hyn, gyda'r buddion dilynol i iechyd – ac yna fuddion i'r Gwasanaeth Iechyd Gwladol (GIG). Dylai SDC roi llawer mwy o bwyslais ar wella seilwaith beicio. Mae'n ymddangos bod "sicrhau bod gwasanaethau a seilwaith trafndiaeth yn cael eu dylunio, eu cynllunio a'i darparu" yn canolbwyntio ar seilwaith a datblygiadau newydd. Dylai SDC hefyd gael gwared ar rwystrau ffisegol presennol sy'n achosi, er enghraifft, gwahaniad cymunedau o bobtu'r ffordd. Gan fod mwy o bobl yn gweithio gartref, yn ogystal ag effeithiau'r pandemig byd-eang, mae iechyd a llesiant meddwl yn datblygu i fod yn broblem gynyddol mewn cymdeithas. Er bod cynllunio trafndiaeth ar gyfer llwybrau i gyflogaeth yn bwysig, felly hefyd y mae darparu llwybrau hamdden lleol o ansawdd uchel a gwelliannau i dir y cyhoedd mewn cymdogaethau. Mae hyn hefyd yn wir i'r rhai sy'n byw yng Nghymru yn cael mynediad nad yw'n ddud i barciau cenedlaethol at ddibenion hamdden. Mae'r ffaith nad yw pobl yn teimlo'n gyfforddus ar drafndiaeth gyhoeddus yn fwy amlwg yn ystod pandemig Covid-19 oherwydd pryderon iechyd. Nid grwpiau penodol y mae angen gwrandio arnynt neu weithio â nhw mwyach, ond cymdeithas yn ei chyfarwydd. Mae SDC yn nodi bod pobl wedi colli hyder mewn trafndiaeth gyhoeddus, sy'n wir, ond dylai gynnig mwy o fanylion ynghylch sut y bydd yr hyder hwn yn cael ei adennill, yn hytrach na dim ond "creu diwylliant o ymwybyddiaeth o ddiogelwch". Gallai cyfyngiadau ar barcio ar y palmant wella hygyrchedd ar lwybrau troed, ond nid diogelwch o reidrwydd, yn enwedig os bydd yn arwain at geir yn parcio mewn modd anniogel mewn mannau eraill neu'n rhwystro'r gerbyttffordd, gan achosi perygl i ddefnyddwyr eraill y ffordd. Os bydd parcio ar y palmant yn cael ei gyfyngu, mae'n rhaid cynnig opsiynau parcio ymarferol eraill – ond nid i'r graddau ei fod yn annog cyfraddau uchel o yrru. Yn hytrach na nodi "Nid yw llawer o bobl yn teimlo'n gyfforddus", argymhellir y dylai hyn ddisgrifio'n fwy penodol y grwpiau agored i niwed efallai nad ydynt yn teimlo'n gyfforddus, yn seiliedig ar rywedd, anabledd ac ati – a pham nad ydynt yn teimlo'n gyfforddus. Gallai SDC sôn am adfywio ardaloedd o amddifadedd a sut y gall trafndiaeth chwarae rhan yn hyn. Mae astudiaethau amrywiol: (Ahern et al, 2016; Mouratidis, 2020; Lucas et al, 2008) wedi dangos bod cysylltiad uniongyrchol rhwng ardaloedd o amddifadedd a diffyg mynediad at drafndiaeth. Gellid sôn am y Gymraeg fel rhwystr i fynediad. Mae'n bosibl y gellid cyfeirio at fynediad cyfartal at gysylltiadau cerdded/beicio diogel yn ogystal â seilwaith cerbydau trydan. Dylid ystyried ei gwneud yn ofynnol i bob datblygiad newydd sydd â lleoedd parcio gynnwys seilwaith gwefru ceir trydan.
Pennod 2: O Ddaioni i'r Amgylchedd	<ul style="list-style-type: none"> Mae 'o ddaioni i'r amgylchedd' wedi'i gyfyngu i newid hinsawdd yn unig. Yn ddelfrydol, byddai SDC yn cael ei hehangu i roi sylw mwy manwl i'r argyfwng bioamrywiaeth (mae seilwaith trafndiaeth presennol yn un o achosion allweddol cynefinoedd sydd wedi'u darnio a'u hynysu). Dylai SDC gyfeirio at yr angen i'r system drafndiaeth leihau effeithiau ar yr hinsawdd ar unwaith yn ogystal ag yn yr hirdymor. Dylai lleihau'r angen i deithio mewn ceir a chyflwyno parthau aer glân a Pharthau Allyriadau Isel lawn fod o ddaioni i'r amgylchedd, ond nid yw'r mesurau hyn yn gynaliadwy os nad oes dewis ymarferol arall. Mae angen i system trafndiaeth gyhoeddus gynhwysfawr a chyflawn fod ar waith er mwyn annog newid

SDC	Crynodeb o'r argymhellion a wnaed yn yr ACI cychwynnol o ddrafft Medi 2020 SDC
	<p>moddol o'r car i weld unrhyw fudd i'r amgylchedd. Bydd gweithredu mesurau cyllidol fel parthau aer glân ddim ond yn cael effaith anghymesur ar y bobl dlotaf mewn cymdeithas. Gallai'r bennod gyfeirio at yr angen i'r holl fesurau gael eu darparu ar yr un pryd, a chael eu hymrwymyo i'r hirdymor, i welliannau gweladwy gael eu gwireddu.</p> <ul style="list-style-type: none"> Gellid ystyried cysylltiadau trafnidiaeth sy'n rhedeg yn hwyrach o bosibl, er mwyn lleihau rhywfaint o'r angen i bobl fod yn gyrru yn y nos Gallai SDC roi llawer mwy o bwyslais ar wella seilwaith beicio yn ogystal â llwybrau cerdded. Gallai'r seilwaith hwn hefyd fod o werth bioamrywiaeth uchel a chynnig coridorau newydd neu well sy'n gwella cymeriad lleol, yn gwella treftadaeth, yn lliniaru dŵr wyneb ffordd, yn hidlo llygryddion aer allan ac ati. Gellid ail-neilltuo lle ar gyfer mannau gwyrdd neu gysylltiadau cerdded/beicio. Gallai SDC gyfeirio'n benodol at anghenion ardaloedd gwledig ac ardaloedd mwy difreintiedig. Gallai gwneud defnydd o barthau aer glân a Pharthau Allyriadau Isel lawn gael effaith anghymesur ar grwpiau economaidd-gymdeithasol mwy difreintiedig. Gallai SDC gyfeirio at fynediad cyfartal at gysylltiadau cerdded/beicio diogel a mynediad cyfartal at seilwaith cerbydau trydan. Gallai SDC gydnabod y perygl o lifogydd ac erydu arfordirol a sut y gall y system drafnidiaeth addasu. Dylai drafod addasu'r system drafnidiaeth bresennol i effeithiau newid hinsawdd er mwyn aros yn gydnerth. Gallai SDC sôn am Barthau Rheoli Ansawdd Aer a chyfeirio'n benodol at y targed gwella ansawdd aer, yn ogystal â'r targed carbon sero-net.
Pennod 2: O Ddaioni i Ddiwylliant/ laith	<ul style="list-style-type: none"> Gallai SDC nodi bod angen i'r system drafnidiaeth fod yn hygyrch, yn groesawgar ac yn hawdd ei defnyddio i bobl o bob diwylliant a chefnidir, ac nid y rhai sy'n siarad Cymraeg a Saesneg yn unig. Gallai SDC sôn am fewnfuddsoddiad, a allai gynnwys prosiectau fel addasu hen reilffyrdd/llwybrau beicio at ddibenion gwahanol fel atyniadau i dwristiaid. Gallai SDC gyfeirio at y potensial i ail-ddefnyddio hen reilffyrdd a thwnelau fel ffordd o greu cynefinoedd i gynyddu bioamrywiaeth, neu ar gyfer llwybrau beicio/cerdded newydd.
Pennod 2: O Ddaioni i'r Economi	<ul style="list-style-type: none"> Mae galluogi pobl i gael mynediad at waith, hamdden ac ati yn bwysig ond mae angen sôn am wella'r system drafnidiaeth bresennol i'w gwneud yn fwy dibynadwy ac effeithlon. Mae tagfeydd ac oedi i deithiau yn cael effaith uniongyrchol ar yr economi trwy golled cynhyrchiant a danfon nwyddau. Gallai SDC ystyried ychwanegu "Gwella effeithlonrwydd, dibynadwyedd ac ansawdd y system drafnidiaeth bresennol i alluogi pobl i gyrraedd y gwaith yn brydlon, i gael mynediad at addysg a hyfforddiant yn ddibynadwy ac i ddanfôn nwyddau yn effeithlon ar gyfer parhad busnes". Gallai SDC gyfeirio'n benodol at y buddion tebygol i gydraddoldeb a fyddai'n cael eu sicrhau o ganlyniad i welliannau economaidd.
Blaenoriaeth 1: Lleihau'r angen i deithio mewn ceir a cherbydau preifat	<ul style="list-style-type: none"> Nid yw'r gwahaniaeth rhwng Blaenoriaeth 1 a Blaenoriaeth 2 yn eglur ar hyn o bryd. Mae'n ymddangos bod llawer o'r hyn sydd wedi'i gynnwys yn y flaenoriaeth yn cyd-fynd â'r sefyllfa bresennol e.e. mae cartrefi yn cael eu lleoli yn agos at wasanaethau presennol. Efallai y gellid ail-eirio'r flaenoriaeth 'Lleihau'r angen i deithio mewn ceir' i 'cynyddu'r nifer sy'n manteisio ar ddulliau teithio llesol a thrafnidiaeth gyhoeddus' er mwyn rhoi'r pwyslais ar deithio llesol a thrafnidiaeth gyhoeddus, nid ar y defnydd o geir. Rhoddir llawer o bwyslais ar sicrhau bod datblygiadau yn hygyrch trwy gerdded a beicio. Efallai y byddai'n briodol cyflwyno diffiniad ar gyfer 'hygyrch' yn y cyd-destun hwn a fyddai'n cyfeirio, yn ddelfrydol, at lwybrau seilwaith gwyrdd cydlynol a chynhwysfawr sy'n cynnig amrywiaeth eang o fuddion cynaliadwyedd. Dylai pwyslais y defnyddwyr fod ar fwy nag amseroedd croesi yn unig. Mewn ardaloedd trefol mawr, ceir problemau o ran llwybrau i gerddwyr ddim yn dilyn llinellau dymunol a seilwaith beicio yn ddigysylltiad ac yn dod i ben yn sydyn. Gallai'r flaenoriaeth geisio sicrhau bod cawodydd, mannau storio a chyfleusterau newid yn cael eu darparu mewn cyfleusterau manwerthu a hamdden – nid mewn gweithleoedd yn unig – er mwyn cynyddu'r nifer sy'n cerdded/beicio. Mae Caerdydd yn arwain y ffordd gyda llwybrau beicio penodol – gellid cyflwyno hyn mewn dinasoedd eraill, gan gynnwys Abertawe a Chasnewydd. Gellid darparu cyllid ar gyfer cyfleusterau llogi beiciau ym mhob tref a dinas fawr i wneud beicio yn hygyrch i bawb. Mae'n ymddangos bod y flaenoriaeth hon yn canolbwyntio yn bennaf ar ddatblygiadau newydd yn hytrach na gwella hygyrchedd neu gysylltiadau ag ardaloedd cyflogaeth, hamdden a phreswyl presennol. Er mwyn hwyluso newid ymddygiad ledled y wlad, mae angen gwneud gwelliannau i'r rhwydwaith presennol a chysylltiadau o fewn cymunedau a rhyngddynt; nid sicrhau bod datblygiadau newydd yn gwneud darpariaeth ar gyfer moddau cynaliadwy yn unig.

SDC	Crynodeb o'r argymhellion a wnaed yn yr ACI cychwynnol o ddrafft Medi 2020 SDC
	<ul style="list-style-type: none"> Byddai cynyddu'r niferoedd sy'n cerdded a beicio yn gofyn am welliannau i ddiogelwch a diogelwch tybiedig y dulliau teithio hyn. Gallai Blaenoriaeth 1 gynnwys ymdrechion i wella diogelwch cysylltiadau teithio llesol, gan gynnwys gwella seilwaith beicio; sicrhau mannau storio beiciau diogel mewn datblygiadau newydd; sicrhau llwybrau beicio a throed sydd wedi'u goleuo'n dda ac sy'n caniatáu cyfraddau uchel o oruchwyliaeth naturiol sy'n gysylltiedig â datblygiadau newydd; gwneud lle ar ffyrdd i lwybrau beicio. Byddai hyn yn helpu i gynyddu'r niferoedd sy'n beicio gan arwain at fuddion i iechyd pobl a lleihau'r perygl o niwed. Ceir anghydbwysedd rhwng y rhywiau o ran cyfraddau cerdded a beicio. Gallai cynnwys mesurau i wella diogelwch, a diogelwch tybiedig, llwybrau cerdded a beicio (fel yr argymhellir yn erbyn Amcan 1 yr ACI) helpu i annog mwy o fenywod i feicio ac felly mynd i'r afael â'r anghydraddoldeb hwn. Nodir y rhoddir sylw rhannol i hyn ym Mlaenoriaeth 2. Gellid aileirio annog pobl i weithio gartref i ganiatáu lle i ddewis h.y. dylai'r rhai sy'n meddwl y gallai eu hiechyd neu eu llesiant meddyliol gael ei niweidio wrth weithio gartref gael yr opsiwn i weithio yn eu lleoedd gwaith, neu yn rhywle arall. Gallai SDC gynnwys ffyrdd o'i wella mynediad at fannau agored gan gynnwys parciau cenedlaethol a mathau eraill o hamdden. Mae SDC yn sôn am leoli gweithgarwch hamdden yn agos at y lleoedd y mae pobl yn byw ond nid yw'n crybwyll cysylltiadau cynaliadwy o ardaloedd preswyl presennol i gyfleusterau hamdden. Gallai'r flaenoriaeth ystyried cydnabod nad yw pawb yn gallu cerdded neu feicio, oherwydd anableddau penodol, oedran neu feichiogrwydd er enghraifft. Bydd sicrhau mynediad da at dfraniaeth gyhoeddus yn arbennig o bwysig i'r grwpiau hyn i ganiatáu iddynt deithio'n gynaliadwy. Gellid annog cyflogwyr i ddarparu cynlluniau beicio i'r gwaith. Gellid hefyd eu hannog i sicrhau bod y gweithle yn hygyrch iawn trwy gerdded a beicio yn ogystal â thrafnidiaeth gyhoeddus. Gellid annog pobl i beidio â chael lleoedd parcio mewn gweithleoedd, lle mae'n hawdd iawn cyrraedd yno drwy deithio llesol a thrafnidiaeth gyhoeddus. Mae'n bosibl y gallai dangos arweinyddiaeth gynnwys ymdrechion i gyfyngu darpariaeth barcio mewn datblygiadau sector cyhoeddus, a chynnwys mannau storio beiciau diogel o ansawdd uchel. A ellid cael ymrwymiad i ddarparu cymorth ariannol, neu gymorth arall, i grwpiau beicio cymunedol? Mae sawl un yn bodoli sy'n gwneud ymdrechion gwirioneddol i newid ymddygiad pobl o ran beicio. Prin y mae llwybrau'r flaenoriaeth hon a chydnerthedd yn erbyn newid hinsawdd yn croesi. Fodd bynnag, gallai cysylltiadau cerdded a beicio fod o werth seilwaith gwyrdd uchel sydd wedi'u hintegreiddio'n dda ac yn darparu gwasanaethau lliniaru perygl llifogydd naturiol lle maent wedi'u lleoli. Bydd cyfyngu ar y defnydd o geir yn helpu i leihau allyriadau Nwyon Tŷ Gwyrdd, ond hefyd fathau eraill o lygredd e.e. gwaddodi nitrogen atmosfferig. Mae traul teiars yn gyfrifol am lawer iawn o lygredd plastig. Gellid cyfeirio'n benodol at y budd hwn o leihau'r defnydd o geir yn y flaenoriaeth. Dylai lleihau'r angen i ddefnyddio'r car helpu i leihau'r angen i adeiladu ffyrdd. Byddai hyn o fudd sylweddol i gynefinoedd a bywyd gwyllt gan fod ffyrdd yn darnio ac yn ynysu cynefinoedd, ac yn atal symudiad rhydd bywyd gwyllt. Mae lleihau llygredd aer hefyd o ddaioni i gynefinoedd sensitif. Gellid cyfeirio at hyn yn rhan o'r ysgogiad sy'n sail i'r flaenoriaeth hon ac fel rheswm i osgoi adeiladu ffyrdd newydd. Gallai SDC annog trydaneiddio trafndiaeth gyhoeddus Cymru. Gellid annog datblygiadau sector cyhoeddus newydd i ddefnyddio'r technolegau a'r deunyddiau carbon isel diweddaraf yn ystod gwaith adeiladu.
Blaenoriaeth 2: Gwasanaethau trafndiaeth gyhoeddus y gall pobl eu defnyddio, y maent eisiau eu defnyddio, ac y maent yn eu defnyddio	<ul style="list-style-type: none"> Dylai pwyslais cryf SDC fod ar gerbydau trydan ac nid yw'n eglur lle mae hyn wedi'i leoli rhwng Blaenoriaethau 1 a 2. Gallai mynediad at gerbydau trydan fod yn fwy teg, trwy fforddiadwyedd a seilwaith gwefru cerbydau trydan, yn enwedig mewn ardaloedd gwledig. Gellid gwneud hyn trwy gymhellion fel lonydd cerbydau trydan yn unig ar y rhwydwaith ffyrdd strategol. Er bod tocynnau integredig yn bwysig, mae angen gosod y seilwaith trafndiaeth er mwyn hwyluso integreiddiad, er enghraifft, safleoedd bws y tu allan i orsafoedd rheilffordd neu gyfleusterau llogi beiciau nesaf at ganolfannau trafndiaeth. Bydd canolfannau trafndiaeth wedi'u hintegreiddio yn llawn yn helpu hefyd. Pan fyddant yn cael eu cyflwyno, bydd Metro De Cymru a Metro Gogledd-ddwyrain Cymru yn arloesol ac yn gwneud trafndiaeth gyhoeddus yn fwy hygyrch, ond wedi'u cyfyngu i'r rhanbarthau hyn. Dylid gwneud gwelliannau i'r canolbarth a'r gogledd. Bydd gwelliannau i reilffordd Cambria, ailagor gorsafoedd fel Carno ac ailagor rheilffyrdd fel Rheilffordd Aberystwyth i Gaerfyrddin yn gwneud cryn dipyn i helpu. Mae'r Blaenoriaethau a SDC yn osgoi cyfeirio at ffyrdd/rheilffyrdd ac ati penodol. Efallai fod gwerth o wneud hynny. Er enghraifft, nid yw trafndiaeth gyhoeddus yn ymarferol i rai cysylltiadau strategol: <ul style="list-style-type: none"> O Gaerdydd i Aberystwyth: Mewn Car: 2 awr 40 munud Ar Drên: 4 awr 32 munud O Gaerdydd i Fangor: Mewn Car: 4 awr 30 munud Ar Drên: 5 awr 29 munud

SDC	Crynodeb o'r argymhellion a wnaed yn yr ACI cychwynnol o ddrafft Medi 2020 SDC
	<ul style="list-style-type: none"> ○ Tyddewi i Fangor: Ar Fws (3 bws) – 8 awr 43 munud Mewn Car – 4 awr 18 munud • Mae gwahanol astudiaethau: (Ahern et al, 2016; Mouratidis, 2020; Lucas et al, 2008) wedi dangos bod cysylltiad uniongyrchol rhwng ardaloedd o amddifadedd a diffyg mynediad at drafndiaeth gyhoeddus. Ni ddylai gwelliannau strategol i drafndiaeth gyhoeddus effeithio ar drafndiaeth leol a dylent ei hategu a'i gwella. • I gynorthwyo'r broblem o dagfeydd mewn dinasoedd/trefi, gallai gwasanaethau parcio a theithio ar gyrion trefi fod yn opsiwn ymarferol a gallai annog mwy o ddefnydd o drafndiaeth gyhoeddus a newid ymddygiad. • Gellid neilltuo blaenoriaeth i deithio llesol – teithio llesol yw'r modd trafndiaeth mwyaf cynaliadwy â buddion sylweddol i bobl a'r amgylchedd – mae buddion trafndiaeth gyhoeddus yn fwy prin. • "Sicrhau y gall gwasanaethau trafndiaeth gyhoeddus addasu yn effeithlon ac yn effeithiol..." Mae'r rhain yn ddau bwynt cwbl ar wahân. Mae bod â chynllun wrth gefn ar gyfer argyfyngau annisgwyl yn wahanol iawn i gynllunio trafndiaeth ychwanegol ar gyfer digwyddiadau a drefnwyd. Dylai hwn fod yn ddau bwynt bwled ar wahân. • Mae'r niferoedd sy'n defnyddio trafndiaeth gyhoeddus yn is o'u cymharu â'r adeg cyn pandemig COVID-19 – mae ystadegau'r Adran Drafndiaeth ar gyfer defnydd o drafndiaeth ers 1 Mawrth 2020 yn dangos bod y niferoedd a oedd yn defnyddio bysiau yn ystod y cyfyngiadau symud, ac eithrio Llundain, rhwng 10 a 15% o ddiwrnod/wythnos gyfatebol cyn y pandemig. Hyd at 21 Medi, 59% oedd y niferoedd brig. Mae'r ffigurau yn waeth i reilffyrdd cenedlaethol – rhwng 4% a 7% o'r niferoedd yn ystod y cyfyngiadau symud, â'r niferoedd brig yn cyrraedd 43%. Mae COVID-19 wedi gwneud gwasanaethau trafndiaeth gyhoeddus yn llai deniadol ac mae angen i'r adran hon gydnabod hyn. • Gallai'r Flaenoriaeth gyfeirio at yr angen mwy dybryd am lendid a lle yn sgil pandemig COVID-19 • Wrth amlinellu y bydd cynllunio ar gyfer trafndiaeth gyhoeddus, ei darparu a'i dylunio, y bydd gwasanaethau mwy deniadol yn bwysig - gallai hyn gynnwys gwasanaethau/cyfleusterau presennol hefyd. • Gellid gwneud cyfeiriad penodol at y gwahanol heriau iechyd a diogelwch a wynebier gan wahanol grwpiau mewn cymdeithas ar drafndiaeth gyhoeddus. • Gallai hefyd sôn y bydd defnydd cynyddol o drafndiaeth gyhoeddus yn cyfateb i economi gryfach gan fod mwy o bobl yn teithio ac yn gwario.
Blaenoriaeth 3: Seilwaith trafndiaeth wedi'i gynnal a'i gadw yn dda	<ul style="list-style-type: none"> • Nid oes unrhyw gyfeiriad at wella diogelwch seilwaith beicio. Efallai mai'r rhwystr mwyaf o gyfraddau beicio uchel yw'r diffyg diogelwch ar y ffyrdd i feicwyr. Gallai hwn fod yn bwyslais sylfaenol i'r flaenoriaeth hon – ei gwneud yn fwy diogel i bobl deithio'n llesol – gan gynnwys trwy wella diogelwch seilwaith fel y mae (e.e. dynodi llwybrau beicio ar ffyrdd); ailwampio'r seilwaith (e.e. cau ffyrdd i geir a'u gwneud yn rhai ar gyfer cerdded/beicio yn unig) neu ddarparu seilwaith newydd (e.e. llwybrau beicio newydd). Mae'r cam o gymell cerdded/beicio a drafodir ym mlaenoriaeth 4 yn annhebygol o wneud llawer os na fydd seilwaith a diogelwch beicio yn cael eu gwella'n sylweddol. • Mae "Cyflawni ein cyfrifoldebau statudol i gynnal y rhwydwaith ffyrdd..." yn rhwymedigaeth gyfreithiol felly dylai ddigwydd beth bynnag. Mae angen rhoi mwy o bwyslais ar wneud gwaith ychwanegol i hyn i wneud darpariaeth teithio llesol ddiogel gan beidio ag amharu ar ddiogelwch y Rhwydwaith Ffyrdd Strategol. Dylai "wedi'i gynnal a'i gadw yn dda" fynd ymhellach i ymgorffori technolegau newydd i reoli galw ar y Rhwydwaith Ffyrdd Strategol a chynnal a chadw arloesol, yn hytrach na'r hyn sy'n rhwymedigaeth gyfreithiol yn unig. • Sylwer bod cyfraddau beicio yn isel – 91% o bobl yn beicio llai nag unwaith yr wythnos neu byth yn beicio – ond mae cyfraddau ymhlith menywod yn llawer is nag ymhlith dynion – nid yw tua 94% o fenywod yn beicio o'i gymharu ag 87% o ddynion. Efallai y bydd angen gwneud mwy o waith i benderfynu i ba raddau y mae diogelwch a diogelwch tybiedig beicio yn achosi hyn. • Mae anghydraddoldebau iechyd yn amlwg ymhlith gwahanol grwpiau, yn enwedig plant a hen bobl ac er y nodir y bydd seilwaith yn "gynhwysol", mae'n ddatganiad amwys. • Gallai'r Flaenoriaeth grybwyll cynnal arwyddion dwyieithog ar y Rhwydwaith Ffyrdd Strategol (nid Cymraeg a Saesneg yn unig). • Gallai'r Flaenoriaeth geisio cynnwys mesurau i ddatgarboneiddio'r Rhwydwaith Ffyrdd Strategol.
Blaenoriaeth 4: Newid ymddygiad	<ul style="list-style-type: none"> • Bydd y mesurau a amlinellir yn gwneud y defnydd o geir yn llai teg, o'r safbwynt y bydd yn cosbi'r rhai sydd angen defnyddio car, er enghraifft trigolion cefn gwlad, neu'n effeithio ar y bobl dlotaf mewn cymdeithas. Gellid aileirio hyn fel bod mynediad at gerbydau trydan yn fwy teg, er enghraifft trwy fforddiadwydd a seilwaith gwefru cerbydau trydan, yn enwedig mewn ardaloedd gwledig. • Gellid aileirio 'Gweddnewid delwedd trafndiaeth gyhoeddus' i gynnwys 'a theithio llesol' hefyd. Gellid crybwyll rhywbeth am ymestyn rhwydweithiau trafndiaeth gyhoeddus a theithio llesol i'r rhai nad oes ganddynt fynediad digonol ar hyn o bryd. Nid yw'n mynd yn ddigon pell i ddatgan y dylid annog y rhai "y mae'r dewis ganddynt" – dylid rhoi'r dewis i bawb.

SDC	Crynodeb o'r argymhellion a wnaed yn yr ACI cychwynnol o ddrafft Medi 2020 SDC
	<ul style="list-style-type: none"> Gellid ymhelaethu ar y datganiad efallai na fydd yr atebion sy'n gweithio mewn dinasoedd yn gweithio mewn ardaloedd gwledig. Awgrymir y dylid ymestyn cymhellion i annog trafndiaeth gynaliadwy a rhwydweithiau trafndiaeth gynaliadwy i ardaloedd gwledig, gyda gwell dibynadwyedd a phrydlondeb i ddilyn. "Integreiddio yn well rhwng moddau" Er bod tocynnau integredig yn bwysig, mae angen gosod y seilwaith trafndiaeth er mwyn hwyluso integreiddio, er enghraifft, safleoedd bws y tu allan i orsafoedd rheilffordd neu gyfleusterau llogi beiciau nesaf at ganolfannau trafndiaeth. Dylid ystyried aileirio i gynnwys y ddarpariaeth o seilwaith. Dylai pwyslais defnyddwyr fod ar fwy nag amseroedd croesi yn unig. Mewn ardaloedd trefol mawr, ceir problemau o ran llwybrau i gerddwyr ddim yn dilyn llinellau dymunol a seilwaith beicio yn ddigysylltiad a ddim yn dilyn llinellau dymunol chwaith. Mae amseroedd croesi yn un mater, ond felly hefyd y mae nifer a lleoliad croesfannau er enghraifft, yn enwedig i grwpiau agored i niwed fel yr henoed neu bobl â namau symud neu namau ar eu golwg. Mae angen cydweithrediad rhwng awdurdodau lleol cyfagos i ddarparu trafndiaeth integredig. Roedd data cymudo gan StatsCymru, 2019, yn dangos bod 98,600 o bobl yng Nghaerdydd yn unig yn cymudo i'r ardal o awdurdodau lleol eraill bob dydd. Mae 35,300 o bobl yn cymudo i Gasnewydd o fannau eraill bob dydd. Er bod Caerdydd a Chasnewydd yn awdurdodau lleol cyfagos, nid oes unrhyw lwybr diogel, uniongyrchol, addas ar gyfer beicio rhwng y ddwy ganolfan gyflogaeth. Pan fydd Llywodraeth Cymru yn dyrannu cyllid trafndiaeth i bob awdurdod lleol unigol, dylai annog cydweithrediad i ddarparu gwasanaethau integredig. Gellid cynnwys ymrwymiad i weithio gyda grwpiau cymunedol perthnasol. Ni ddylai mesurau cyllidol fod yn ateb nes bod opsiynau amgen digonol ac ymarferol ar waith. Er enghraifft, ni ddylid cyflwyno tâl atal tagfeydd neu drethi parcio yn y gweithle yng Nghaerdydd nes i'r Metro gael ei gyflwyno, er mwyn peidio â rhoi'r rhai mewn grwpiau economaidd-gymdeithasol mwy difreintiedig dan anfantais. Mae'n rhaid gweld bod trafndiaeth gyhoeddus a theithio llesol yn cynnig gwell gwerth na bod yn berchen ar gar a'i yrru. Nid yw hyn o safbwynt ariannol yn unig; mae'n rhaid ystyried dibynadwyedd, mynediad, hwylustod ac amser teithiau hefyd. Ni fydd pobl yn newid o'r car nes fod opsiynau ymarferol ar gyfer eu teithiau cyfan, a dyna pam mae angen y dull cydgysylltiedig, cydweithredol. Gellid cyflwyno lonydd rhannu car a/neu lonydd cerbydau trydan yn unig ar y Rhwydwaith Ffyrdd Strategol. Sicrhau bod mynediad at gerbydau trydan yn fwy teg. Trwy fforddiadwyedd a seilwaith gwefru cerbydau trydan, yn enwedig mewn ardaloedd gwledig. O dan gymhellion, gellid cynnwys consesiynau ar gyfer digwyddiadau/asedau diwylliannol a threftadaeth a gwneud trafndiaeth gyhoeddus i'r rhain yn fwy fforddiadwy a chyfleus na pharcio car, er mwyn annog newid ymddygiad.
Blaenoriaet h 5: Dulliau arloesi sy'n cynnig dewisiadau trafndiaeth mwy cynaliadwy	<ul style="list-style-type: none"> Ceir anghydraddoldebau rhwng ardaloedd gwledig a threfol o ran band eang a signal ffônau symudol. Canfu adroddiad gan Ofcom yn 2018 mai Cymru sydd â'r gwahaniad mwyaf rhwng ardaloedd trefol a gwledig o ran signal 4G. Er bod gan 79% o gartrefi a swyddfeydd trefol signal 4G cyflawn, mae'r ffigur ar gyfer eiddo gwledig yn llai na hanner hynny (36%). Nid oes unrhyw signal o gwbl mewn rhai ardaloedd anghysbell o'r wlad, nid oes gan 10% o Gymru (9% o'r DU) wasanaeth 4G da gan unrhyw weithredwr. Mae'n debygol felly bod gwelliannau a wneir i gynaliadwyedd trefniadau teithio pobl o ganlyniad i ddatblygiadau technolegol yn annhebygol o fod o fudd cyfartal i bobl wledig a threfol.
Pennod 5: Sut y Byddwn yn Cyflawni	<ul style="list-style-type: none"> Bydd hierarchaeth buddsoddi yn benderfynnydd allweddol o faint a natur effeithiau SDC, gan y bydd yn un o'r dulliau cyflawni allweddol. Ar hyn o bryd, mae'n anodd gwerthfawrogi maint yr effaith heb ragor o wybodaeth am sut y bydd yr hierarchaeth buddsoddi newydd yn edrych. Ar hyn o bryd, mae'r geiriad yn awgrymu y byddai rhai ffyrdd newydd yn dderbyniol mewn rhai achosion. Yn ddefnyddol, byddai SDC yn atal unrhyw ffordd newydd. Dylid diffinio prosiectau seilwaith ffyrdd newydd sylweddol. Mae ymrwymiad i barhau i ddefnyddio WelTAG yn ymddangos fel parhad o'r drefn arferol h.y. parhau i gael pobl i gynnal arfarniadau WelTAG. Efallai fod angen adolygu/diwygio'r WelTAG i'w wneud yn addas ar gyfer argyfwng yr hinsawdd. Cynllun Cyflawni Cenedlaethol ar gyfer Trafndiaeth – byddai'n ddefnyddiol cael rhagor o wybodaeth am hwn o ran amserlenni, ymgynghori ac ati. Byddai llawer o'r hyn y mae SDC yn ei ddweud yn fuddiol, ond mae gan asesiadau sicrwydd isel gan ei bod yn anodd penderfynu sut y byddai'n cael ei gyflawni'n ymarferol – mae'n debygol y byddai'r Cynllun Cyflawni Cenedlaethol ar gyfer Trafndiaeth yn gwneud hyn yn fwy eglur ac felly byddai'n destun ymgynghoriad cyhoeddus yn ddefnyddol, ac yn destun asesiadau cynaliadwyedd ac ati. Dylid cynnwys grwpiau wedi'i hymyleiddio a grwpiau mewn perygl yn adran 5.5 o'r grwpiau defnyddwyr a fydd yn cynnig adborth.

3 ASESIAD O'R SDC DDRAFFT (HYDREF 2020)

3.1 Cynnwys y SDC Ddrafft

3.1.1 Mae SDC wedi'i strwythuro yn y ffordd ganlynol:

- 1. Gweledigaeth
 - *Yn nodi beth yw'r FfDC, sut y mae'n cyd-fynd â pholisi ehangach Llywodraeth Cymru a strwythur system gynllunio Cymru.*
- 2. Ein Huchelgeisiau Hirdymor ar gyfer Trafnidiaeth yng Nghymru
 - *O ddaioni i bobl a chymunedau*
 - *O ddaioni i'r amgylchedd*
 - *O ddaioni i'r economi a lleoedd yng Nghymru*
 - *O ddaioni i ddiwylliant ac iaith Cymru*
- 3. Ein Blaenoriaethau 5 Mlynedd
 - *Blaenoriaeth 1: Cynllunio ar gyfer gwell cysylltedd*
 - *Blaenoriaeth 2: Gwasanaethau trafndiaeth gyhoeddus y gall pobl eu defnyddio, y maent eisiau eu defnyddio ac y maent yn eu defnyddio*
 - *Blaenoriaeth 3: Seilwaith trafndiaeth diogel, hygyrch, wedi'i gynnal a'i gadw'n dda*
 - *Blaenoriaeth 4: Newid ymddygiad*
 - *Blaenoriaeth 5: Mabwysiadu dulliau arloesi sy'n cynnig dewisiadau trafndiaeth mwy cynaliadwy*
- 4. Yr Hyn y Byddwn yn ei Fesur;
- 5. Sut y Byddwn yn Cyflawni;
- 6. Y Pum Dull o Weithio; a
- 7. Cynlluniau Cryno: Dulliau a Sectorau Trafnidiaeth
 - *Cynllun Cryno ar gyfer Teithio Llesol;*
 - *Cynllun Cryno ar gyfer Bysiau;*
 - *Cynllun Cryno ar gyfer Rheilffyrdd;*
 - *Cynllun Cryno ar gyfer Ffyrdd, Strydoedd a Pharcio;*
 - *Cynllun Cryno ar gyfer Sectorau Trafnidiaeth Cymunedol a Di-elw;*
 - *Cynllun Cryno ar gyfer Tacsis a Cherbydau Hurio Preifat;*
 - *Cynllun Cryno ar gyfer Cludo Nwyddau a Logisteg;*
 - *Cynllun Cryno ar gyfer Porthladdoedd a Thrafnidiaeth Forol;*
 - *Cynllun Cryno ar gyfer Hedfanaeth.*

3.1.2 Mae'r arfarniad yn yr ACI wedi canolbwyntio ar Benodau 1 (Gweledigaeth), 2 (Uchelgeisiau), 3 (Blaenoriaethau), a 7 (Cynlluniau Cryno). Ystyriwyd Pennod 4 (Yr Hyn y Byddwn yn ei Fesur) yn rhan o ddatblygiad y fframwaith monitro.

3.2 Crynodeb o'r Canlyniadau Asesu

- 3.2.1 Mae SDC yn strategaeth genedlaethol ac felly mae'r arfarniadau yn nodi tueddiadau eang a chyffredinol o effeithiau posibl ar y lefel genedlaethol. Bwriedir i'r arfarniadau fod yn strategol ac maent wedi'u dylunio i sicrhau bod ystyriaethau cynaliadwydd yn cael sylw yn y broses o lunio cynllun o'r cychwyn cyntaf.
- 3.2.2 Mae Gweledigaeth ac Uchelgeisiau SDC wedi bod yn destun asesiad B1 ar gyfer eu cydweddoldeb ag Amcanion yr ACI. Arfarniad ansoddol oedd hwn yn seiliedig ar farn arbenigol ac wedi'i lywio gan y cwestiynau cynorthwyo penderfyniadau yn Fframwaith yr ACI. Mae Tabl 3.1 yn grynodeb o ganlyniadau prawf cydweddoldeb B1.
- 3.2.3 Aseswyd y Blaenoriaethau Pum Mlynedd a phob un o'r Cynlluniau Cryno yn fwy manwl yn erbyn pob un o Amcanion yr ACI. Mae Tabl 3.2 yn crynhoi canlyniadau'r broses hon. Gan nad yw SDC yn cynnwys unrhyw elfennau gofodol/defnydd tir, ni fu'n bosibl darogan yr effeithiau â sicrwydd a manylder uchel.

Tabl 3.1: Cydweddoldeb rhwng Amcanion yr ACI a Gweledigaeth ac Uchelgeisiau SDC

1. SDC	1. Iechyd	2. Cydlyniant a chydaddoldeb	3. Datblygu economaidd	4. Diwylliant Cymru	5. Y Gymraeg	6. Allyriadau Nwyon Tŷ Gwydr	7. Cydnerthedd yn erbyn newid hinsawdd	8. Ansawdd aer	9. Tirwedd a threfluniau	10. Trefladaeth	11. Ecosystemau	12. Adnoddau Naturiol	13. Tawelwch
Gweledigaeth	✓	✓	✓	✓	✓	?	✓	?	✓	✓	✓	✓	✓
Uchelgeisiau													
1. O Ddaioni i Bobl a Chymunedau	✓	✓	✓	✓	✓	✓	●	✓	●	●	●	●	●
2. O Ddaioni i'r Amgylchedd	✓	●	✓	✓	●	✓	✓	✓	✓	✓	✓	✓	✓
3. O Ddaioni i'r Economi a Lleoedd yng Nghymru	✓	✓	✓	✓	●	✓	●	✓	●	●	●	✓	●
4. O Ddaioni i Iaith a Diwylliant Cymru	✓	✓	✓	✓	✓	●	●	●	✓	✓	●	●	●

Allwedd:

Yn cydweddu	✓	Niwtral	●
Ddim yn cydweddu	✗	Ansicr	?

Tabl 3.2: Sgoriau effaith a gofnodwyd ar gyfer y Blaenoriaethau Pum Mlynedd a'r Cynlluniau Cryno yn erbyn pob un o Amcanion yr ACI.

1. SDC	Amcan yr ACI												
	1. Iechyd	2. Cydlyniant a chydaddoldeb	3. Datblygu economaidd	4. Diwylliant Cymru	5. Y Gymraeg	6. Allyriadau Nwyon Tŷ Gwydr	7. Cydnerthedd yn erbyn y newid	8. Ansawdd aer	9. Tirwedd a threfluniau	10. Trefladaeth	11. Ecosystemau	12. Adnoddau Naturiol	13. Tawelwch
Blaenoriaeth 1: Cynllunio ar gyfer gwell cysylltedd	+	+	++	+	+	+	+	+	+	+	+	+	+
Blaenoriaeth 2: Gwasanaethau trafnidiaeth gyhoeddus y gall pobl eu defnyddio, y maent eisiau eu defnyddio ac y maent yn eu defnyddio	+	++	++	+	+	++	+	+	+	+	+	+	+
Blaenoriaeth 3: Seilwaith trafnidiaeth diogel, hygyrch, wedi'i gynnal a'i gadw'n dda	+	+	++	+	+	++	+	+	+	+	+	+	+
Blaenoriaeth 4: Newid Ymddygiad	+	+	+	O	O	+	O	+	+	O	O	+	+
Blaenoriaeth 5: Mabwysiadu dulliau arloesi sy'n cynnig dewisiadau trafnidiaeth mwy cynaliadwy	+	+	++	+	O	+	O	+	O	O	+	+	+
Cynllun Cryno: Teithio Llesol	+	+	+	+	?	++	+	++	+	+	+	+	+
Cynllun Cryno: Bysiau	+	+	+	+	+	+	?	+	+	+	+	+	+
Cynllun Cryno: Rheilffyrdd	+	+	+	+	?	+	?	+	+	+	+	+	+
Cynllun Cryno: Ffyrdd, Strydoedd, a Pharcio	+	+/-	+/-	+	+	+	+	+	+	+	+	+	+
Cynllun Cryno: Sectorau Trafnidiaeth Cymunedol a Di-elw	++	++	+	+	+	+	O	+	O	+	+	+	O
Cynllun Cryno: Tacsis a Cherbydau Hurio Preifat	+	+	+	+	+	+	O	+	+	+	+	+	+
Cynllun Cryno: Cludo Nwyddau a Logisteg	+	+	+	O	+	+	+	+	-	O	+	+	+
Cynllun Cryno: Porthladdoedd a Thrafnidiaeth Forol	+	+	++	++	+	+	-	+	O	+	+	+	O
Cynllun Cryno: Hedfanaeth	-	-	++	+	O	--	O	--	O	O	O	+	--

Allwedd:

1. Cadarnhaol cryf (arwyddocaol)	++	Canlyniad ansicr	?
Cadarnhaol mân	+	Negyddol mân	-
Canlyniad niwtral	O	Negyddol cryf (arwyddocaol)	--
Ystod o ganlyniadau cadarnhaol a negyddol	+/-		

3.3 Asesiad o'r Effeithiau Cyfunol

3.3.1 Yn ogystal ag arfarnu pob cynnig yn SDC ar wahân, fe'u harfarnwyd ar y cyd ar gyfer eu heffeithiau cronol, eilaidd a synergyddol tebygol yn erbyn pob un o Amcanion yr ACI. Caiff canlyniadau'r broses hon eu crynhoi yn Nhabl 3.3 a'u cyflwyno'n llawn yn Nhabl 3.4.

Tabl 3.3: Crynodeb o sgoriau yr asesiad o'r effeithiau cyfunol (asesiad llawn yn Nhabl 3.4)

	Amcan yr ACI												
	1. Iechyd	2. Cydlyniant a chydaddoldeb	3. Datblygu economaidd	4. Diwylliant Cymru	5. Y Gymraeg	6. Allynadau Nwyon Tŷ Gwydr	7. Cydherthedd yn erbyn newid hinsawdd	8. Ansawdd aer	9. Tirwedd a threfluniau	10. Trefladaeth	11. Ecosystemau	12. Adnoddau Naturiol	13. Tawelwch
SDC	++	++	++	+	+	+/-	+	+	+	+	+	+	+

Allwedd:

Cadarnhaol cryf (arwyddocaol)	++	Canlyniad ansicr	?
Cadarnhaol mân	+	Negyddol mân	-
Canlyniad niwtral	0	Negyddol cryf (arwyddocaol)	--
Ystod o ganlyniadau cadarnhaol a negyddol	+/-		

Tabl 3.4: Asesiad o'r effeithiau cyfunol ar gyfer yr SDC Ddrafft (Hydref 2020)

Effeithiau cyfunol	Sgôr effaith cyffredinol
<p>1. Cyfrannu at welliant i iechyd a llesiant corfforol, meddyliol a chymdeithasol i bawb, gan gynnwys cyfrannu at leihau anghydraddoldebau iechyd ledled Cymru</p> <p>Byddai SDC yn helpu i wneud trafndiaeth gyhoeddus yn fwy hygyrch i amrywiaeth ehangach o bobl, yn enwedig o ganlyniad i'r Uchelgeisiau, Blaenoriaethau 1, 2, 3 a 5 yn ogystal â'r Cynlluniau Cryno ar Deithio Llesol, Bysiau a Rheilffyrdd. Byddai gwell mynediad at opsiynau trafndiaeth gyhoeddus o ansawdd uwch sy'n cludo pobl i'r lleoedd y maen nhw angen mynd iddynt, a phryd y maen nhw angen cyrraedd yno, yn helpu i sicrhau y gall mwy o bobl gael mynediad gwell at gyfleusterau iechyd a gofal cymdeithasol, cyfleoedd ymarfer corff a hamdden yn ogystal ag amrywiaeth eang o gynefinoedd lled-naturiol. Mae trafndiaeth gyhoeddus hefyd yn helpu i fynd i'r afael â'r perygl o ynysigrwydd cymdeithasol trwy gynnig dull o ryngweithio cymunedol anffurfiol â chymdogion lleol. Nid yw rhyngweithio cymdeithasol yn bosibl pan fo pobl yn ddibynnol ar geir ar gyfer y rhan fwyaf o'u teithiau. Gall ffyrdd, a ffyrdd prysur yn benodol, hefyd arwain at rannu cymunedau o bobtu'r ffordd.</p> <p>Nod SDC yw sicrhau bod datblygiadau newydd yn gynyddol hygyrch trwy sicrhau bod seilwaith trafndiaeth wedi'i leoli yn agos at gartrefi a bod datblygiadau yn hygyrch trwy gerdded a beicio. Caiff hyn ei atgyfnerthu trwy gydol yr Uchelgeisiau yn SDC yn ogystal â'r Cynlluniau Cryno ar Deithio Llesol, Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol. Mae'n debygol felly y gall yr holl bobl leol gael mynediad at gyfleusterau cymunedol newydd, mannau hamdden yn ogystal â chyfleusterau iechyd newydd a mannau agored, yn effeithlon ac yn gynaliadwy.</p> <p>Gallai'r Uchelgeisiau, y Blaenoriaethau a'r Cynllun Cryno ar Deithio Llesol hwyluso cyfraddau sylweddol uwch o gerdded a beicio i bobl yng Nghymru, sydd wedi bod yn ddisymud yn y blynyddoedd diwethaf. Cerdded a beicio yw'r dull mwyaf cynaliadwy o deithio ond mae hefyd yn cynnig manteision iechyd sylweddol, er enghraifft oherwydd ymarfer corff a'r rhyngweithio cymunedol cynyddol. Gallai gwelliannau i gysylltiadau teithio llesol fod yn arbennig o fuddiol i grwpiau penodol o gymdeithas, gan gynnwys yr henoed, y rhai nad oes ganddynt fynediad at gar, a phlant sy'n teithio yn ôl ac ymlaen i'r ysgol.</p> <p>Byddai SDC yn sicrhau bod y rhwydwaith ffyrdd strategol yn cael ei gynnal, yn unol â rhwymedigaethau cyfreithiol y Llywodraeth. Ei nod fyddai sicrhau bod gwasanaethau a chyfleusterau newydd yn agos, neu mewn lleoliadau hygyrch, ar gyfer pobl sydd angen eu defnyddio (e.e. gweler Blaenoriaeth 1). Byddai hyn yn galluogi amseroedd teithiau mwy effeithlon a chyflymach i bobl, gan roi mwy o amser rhydd iddynt y tu allan i'w teithio neu eu cymudo, i ddilyn eu diddordebau personol eu hunain. Gallai hyn fod o fudd mawr i iechyd a llesiant pobl.</p> <p>Mae llygredd aer yn aruthrol o niweidiol i iechyd pobl, a chredir fod deunydd gronynnol a llygredd nitrogen deuocsid yn gysylltiedig â thua 2,700 o farwolaethau yng Nghymru bob blwyddyn²³. Y sector trafndiaeth sy'n gyfrifol am gyfran fawr o'r mathau hyn o lygredd. Byddai SDC yn annog ac yn hwyluso cyfraddau uwch o deithio llesol a defnyddio trafndiaeth gyhoeddus a fyddai'n debygol o leihau nifer y cerbydau llygredd uchel ar y ffordd a thrwy wneud hynny, byddai'n helpu i leihau cyfradd y marwolaethau yng Nghymru sy'n gysylltiedig â llygredd aer.</p> <p>O'u cyfuno, byddai'r gwelliannau i gysylltiadau trafndiaeth gyhoeddus a theithio llesol, ynghyd â rhoi gwasanaethau mewn lleoliadau hygyrch ac ansawdd aer gwell, yn gwneud cyfraniad sylweddol at greu effaith synergddol i fynd i'r afael ag anghydraddoldebau iechyd ac yn helpu i sicrhau bod y system drafndiaeth yn hwyluso gwelliannau i iechyd a llesiant corfforol a meddyliol pobl.</p> <p>Yn sgil gwelliannau i dechnoleg ddigidol, mae mwy o bobl yn gweithio gartref yn rheolaidd. Mae'r pandemig a'r cyfyngiadau symud yn 2020 wedi cynyddu'n sylweddol nifer y bobl sy'n gweithio gartref ac, i lawer o bobl, efallai y bydd hyn yn dod yn arferol o 2021 ymlaen. Mae SDC yn cydnabod bod angen gwelliannau i seilwaith digidol er mwyn hwyluso hyn. Mae'r daith yn ôl ac ymlaen i'r gwaith yn gyfle allweddol i ymarfer corff trwy gerdded a beicio, a chan fod pobl yn cymudo llai, mae SDC yn cydnabod y bydd yn gynyddol bwysig sicrhau bod y mannau eraill y mae pobl angen mynd iddynt (e.e. siopau, gwasanaethau, amwynderau, mannau diwylliannol) yn hygyrch trwy gerdded a beicio. Dylid nodi, er bod gweithio gartref yn cynnig cyfleoedd sylweddol o ran lleihau'r angen i bobl deithio a lleihau nifer y ceir ar y ffyrdd, y gall fod yn berygl i lesiant meddyliol pobl gan eu bod yn methu cyfleoedd ar gyfer teithio llesol yn ogystal â chyfleoedd i ryngweithio'n gymdeithasol ac yn gymunedol.</p> <p>Ar y cyfan, ystyrir ei bod yn debygol, â lefel uchel o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mawr (arwyddocaol) hirdymor, yn uniongyrchol (e.e. trwy leihau llygredd aer) ac yn anuniongyrchol (e.e. trwy wella hygyrchedd cyfleusterau iechyd o ganlyniad i well gwasanaethau trafndiaeth gyhoeddus), ar iechyd a llesiant corfforol a meddyliol pobl ledled Cymru.</p>	++
2. Creu'r amodau lle gellir sicrhau gwelliant i gydlyniant cymdeithasol a chydraddoldeb	++

²³ 'Estimating the mortality burden of air pollution in Wales' <http://www.wales.nhs.uk/sitesplus/888/opendoc/317890>

Effeithiau cyfunol	Sgôr effaith cyffredinol
<p>Byddai defnyddio dulliau digidol arloesol, yn unol â'r Blaenoriaethau, yr Uchelgeisiau a'r Cynllun Cryno ar gyfer Rheilffyrdd, a sicrhau bod safbwyntiau defnyddwyr y system drafnidiaeth yn cael eu cymryd i ystyriaeth, yn helpu i sicrhau bod anghenion amrywiol poblogaeth gynyddol Cymru yn cael eu diwallu. Byddai trafnidiaeth gyhoeddus sy'n gallu cael ei defnyddio gan bawb beth bynnag fo'u cefndir, ac sy'n cael ei defnyddio ganddynt, yn helpu i wella cydlyniant cymdeithasol.</p> <p>Mae SDC yn cydnabod y rhwystr y gall iaith ei greu, yn enwedig i'r rhai nad ydynt yn siarad Saesneg (e.e. gweler yr Uchelgais 'O Ddaioni i Ddiwylliant ac Iaith Cymru' yn ogystal â'r Blaenoriaethau a'r Cynlluniau Cryno), ac mae'n debygol y bydd y rhwystrau hyn yn cael eu herydu yn gynyddol o ganlyniad i SDC ac y byddai defnyddwyr tair iaith swyddogol Cymru (Cymraeg, iaith Arwyddion Prydain a Saesneg) yn gallu gwneud defnydd cyfartal o'r system drafnidiaeth (gan gynnwys teithio llesol, trafnidiaeth gyhoeddus a'r rhwydwaith ffyrdd) i'r un graddau.</p> <p>Mae mynediad at drafnidiaeth gyhoeddus a chysylltiadau teithio llesol yn arbennig o gyfyngedig mewn cymunedau gwledig. Er y gallai fod mynediad da at lwybrau troed cyhoeddus mewn ardaloedd gwledig, mae'r rhain yn annhebygol o fod yn opsiynau ymarferol ar gyfer teithio yn ôl ac ymlaen i wasanaethau a chyfleusterau. Mae SDC yn cydnabod bod ffyrdd a gyrru yn hanfodol i gymunedau gwledig a byddai'n bwriadu cynnal a gwella'r rhwydwaith ffyrdd i gynnal cysylltedd cymunedau gwledig a mynd i'r afael â'r ynysigrwydd cymdeithasol a all fod yn gyffredin yma.</p> <p>Mae SDC yn cydnabod pwysigrwydd gwella diogelwch y system drafnidiaeth i'r holl ddefnyddwyr, a sicrhau ei bod yn croesawu pawb. Byddai'r Uchelgeisiau, Blaenoriaethau 2 a 3 yn ogystal â'r Cynlluniau Cryno ar Fysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol yn arbennig o fuddiol i aelodau cymdeithas a allai deimlo'n llai diogel, neu aelodau agored i niwed mewn cymdeithas sy'n llai diogel yn ystadegol, wrth ddefnyddio cysylltiadau teithio llesol neu drafnidiaeth gyhoeddus.</p> <p>Ar y cyfan, ystyrir ei bod yn debygol, â lefel uchel o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mawr (arwyddocaol) hirdymor, gan gynnwys yn uniongyrchol (e.e. trwy sicrhau mynediad tecach at drafnidiaeth gyhoeddus sydd hefyd yn cael ei gwneud yn fwy diogel) ac yn anuniongyrchol (e.e. twf economaidd sydd o fudd i bawb yng Nghymru), ar gydlyniant cymdeithasol a chydaddoldeb.</p>	
3. Cefnogi datblygiad economaidd cynaliadwy ac amrywiaeth	++
<p>Byddai SDC yn cael effaith gadarnhaol gyfunol ar ddatblygiad ac economi Cymru. Byddai gwell cysylltiadau teithio llesol ac opsiynau trafnidiaeth gyhoeddus, a fyddai'n cael eu gwneud yn gynyddol hygyrch i bawb a phob cymuned, yn helpu i sicrhau mynediad mwy teg at gyfleoedd addysg a chyflogaeth, yn enwedig oherwydd yr Uchelgeisiau o ran Cymuned a'r Economi, Blaenoriaeth 1 a'r Cynlluniau Cryno ar Fysiau a Thrafnidiaeth Gymunedol.</p> <p>Gan y byddai pobl yn gallu teithio'n fwy effeithlon ac yn fwy rhydd, gallai fod cynnydd i nifer yr ymwelwyr ag ardaloedd economaidd pwysig, a fyddai'n rhoi hwb i'r economïau lleol. Byddai hyn yn arbennig o wir lle caiff cysylltiadau teithio eu gwella gan y byddai cyfraddau uwch o gerdded a beicio. Byddai hyn yn rhoi mynediad i fusnesau at gronfa ehangach o ddarpar gyflogeion.</p> <p>Gallai SDC helpu i amrywio'r farchnad gyflogeion a lleihau anghydraddoldeb o ran cyflogaeth rhwng ardaloedd gwledig a threfol trwy hyrwyddo gweithio gartref, yn enwedig oherwydd Blaenoriaeth 1 a'r Cynlluniau Cryno ar Fysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol.</p> <p>Mae'r defnydd o drafnidiaeth gyhoeddus yn mynd law yn llaw ag economi gryfach, oherwydd gwariant ar y gwasanaeth trafnidiaeth ei hun ac ar wasanaethau atodol (fel siopau bwyd a diod) yn yr ardal. Trwy annog y defnydd o drafnidiaeth gyhoeddus felly, gallai SDC arwain at dwf economaidd.</p> <p>Byddai gwella rhwyddineb mynediad at ganol trefi a'r stryd fawr, yn ogystal â digwyddiadau diwylliannol mawr ac asedau hanesyddol ac amgylcheddol (yn unol â Blaenoriaethau 2 a 3 a'r Cynlluniau Cryno ar Fysiau a Thrafnidiaeth Gymunedol), hefyd yn helpu i ysgogi'r economi.</p> <p>Gallai SDC gael effaith gadarnhaol ar economi Cymru trwy annog datblygiad 'canolfannau gwaith' newydd.</p> <p>Byddai amseroedd teithiau mwy effeithlon, trwy lwybrau mwy croesawgar a diogel, yn unol â Blaenoriaethau 4 a 5 a'r Cynlluniau Cryno ar Fysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol, yn gwella profiad y cwsmer wrth deithio ac yn golygu, i'r rhai sy'n cymudo yn ôl ac ymlaen i'r gwaith, eu bod yn cyrraedd y gwaith dan lai o straen ac yn gallu gweithio'n fwy cynhyrchiol, gan fod o fantais i economi Cymru drwy hynny.</p> <p>Byddai amseroedd teithiau mwy effeithlon hefyd o fudd sylweddol i symudiad nwyddau a gwasanaethau ledled Cymru, yn enwedig i gysylltiadau busnes i fusnes a symud nwyddau. Byddai hyn yn cael ei wneud trwy leihau nifer y ceir ar y ffyrdd, rhwydwaith ffyrdd wedi'i gynnal a'i gadw yn dda, llwybrau mwy diogel, a thrwy fanteisio ar ddulliau technolegol arloesol yn y sector cludo nwyddau a logisteg yn unol â Blaenoriaethau 4 a 5 a'r Cynlluniau Cryno ar gyfer Ffyrdd, Cludo Nwyddau a Logisteg, Hedfanaeth a Phorthladdoedd a Thrafnidiaeth Forol.</p> <p>Byddai Cymru fwy cysylltiedig sydd â llwybrau mwy effeithlon, mwy deniadol a mwy diogel, (o ganlyniad, er enghraifft, i'r Uchelgeisiau, Blaenoriaethau 2, 3 a 5 yn ogystal â'r Cynllun Cryno ar gyfer Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol wedi'u cyfuno) o fudd sylweddol i'r sector twristiaeth, gan roi mwy o allu i bobl gael mynediad diogel ac effeithlon at Gymru o dramor, neu i deithio drwy Gymru gyfan. Gallai gwelliannau i'r seilwaith teithio llesol yng Nghymru hefyd gynyddu pa mor ddeniadol yw'r sector twristiaeth gweithgareddau, fel heicio neu feicio mynydd.</p>	

Effeithiau cyfunol	Sgôr effaith cyffredinol
<p>Bydd newid hinsawdd yn effeithio ar yr economi dros gyfnod 25 mlynedd SDC. Yn unol â Blaenoriaeth 3 a'r Cynlluniau Cryno, nod SDC yw sicrhau bod y system drafnidiaeth yn barod ar gyfer y dyfodol ac yn wydn i effeithiau perygl llifogydd, digwyddiadau tywydd eithafol neu erydu arfordirol. Byddai hyn yn helpu i sicrhau bod manteision economaidd SDC yn gynaliadwy ac yn gydnherth.</p> <p>Ar y cyfan, ystyrir ei bod yn debygol, â lefel uchel o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mawr (arwyddocaol) hirdymor, gan gynnwys yn uniongyrchol (e.e. gwella effeithlonrwydd symudiad nwyddau a gwasanaethau) ac yn anuniongyrchol (e.e. trwy fuddsoddi mwy mewn gwasanaethau cyhoeddus sy'n cynnig buddion economaidd ehangach), ar ddatblygu economaidd ac amrywiaeth.</p>	
4. Diogelu a hybu diwylliant Cymru a gwella mynediad at fannau diwylliannol a hamdden	+
<p>Mae SDC yn hyrwyddo ac yn ceisio darparu mynediad mwy cynaliadwy, cydnherth a theg i bawb at fannau diwylliannol a hamdden, yn enwedig oherwydd effeithiau cyfunol yr Uchelgeisiau, Blaenoriaethau 2, 3 a 5 yn ogystal â'r Cynlluniau Cryno ar gyfer Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol.</p> <p>Byddai mynediad mwy effeithlon a chynaliadwy at y mannau hyn, gan gynnwys i bobl leol a thwristiaid, yn gwella hyfywedd a bywiogrwydd economaidd i ganiatáu manteision parhaus i bobl leol dros gyfnod SDC.</p> <p>Mae SDC yn cydnabod y straen y gall digwyddiadau diwylliannol a thwristiaeth graddfa fawr, fel digwyddiadau chwaraeon mawr, ei rhoi ar y system drafnidiaeth. Trwy Flaenoriaethau 1, 3 a 5, yn ogystal â'r Cynlluniau Cryno ar Fysiau a Rheilffyrdd, mae SDC yn ceisio sicrhau y gall y digwyddiadau hyn barhau i gael eu cynnal a pharhau i gael effaith gadarnhaol iawn ar economi, cymdeithas a diwylliant Cymru.</p> <p>Mae'n debygol, mewn rhai ardaloedd, y gallai'r gwelliannau i gysylltiadau teithio llesol diogel a deniadol wella amgylchedd neu gymeriad yr ardal leol. O'u cyfuno â gostyngiad i nifer y cerbydau ar y ffyrdd, a all gael effaith niweidiol ar lonyddwch mannau hamdden neu ddiwylliannol oherwydd llygredd sŵn, aer a golau, byddai gwelliannau yn helpu i wella ansawdd a natur ddeniadol mannau diwylliannol a hamdden.</p> <p>Ar y cyfan, mae'n debygol, â lefel ganolog o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mân (ddim yn arwyddocaol) hirdymor, gan gynnwys yn uniongyrchol (e.e. trwy sicrhau bod mannau cyhoeddus yn hygyrch trwy gerdded a beicio) ac yn anuniongyrchol (e.e. gwella amgylchedd mannau hamdden ac felly eu gwneud yn fwy deniadol i ymwelwyr), ar ddiwylliant Cymru.</p>	
5. Annog camau i ddiogelu a hybu'r Gymraeg	+
<p>Mae Uchelgeisiau SDC, yn ogystal â'r Cynlluniau Cryno, yn ceisio sicrhau bod y system drafnidiaeth yn annog defnydd rheolaidd o'r Gymraeg yn rhan o system sy'n "hygyrch i bawb".</p> <p>Byddai gwella cysylltiadau teithio llesol a thrafnidiaeth gyhoeddus ledled Cymru yn debygol o arwain at fynediad mwy teg at gyfleoedd addysg i bobl beth bynnag fo'u cefndir. Byddai gwneud hynny yn hwyluso mynediad mwy teg at gyfleoedd dysgu Gymraeg, naill ai yn rhan o'u dysgu yn yr ysgol neu gan fod yr ysgol yn gyfleuster.</p> <p>Ar y cyfan, mae'n debygol, â lefel ganolog o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mân (ddim yn arwyddocaol) hirdymor, gan gynnwys yn uniongyrchol (e.e. trwy sicrhau bod trafndiaeth gyhoeddus yn annog defnydd o'r Gymraeg) ac yn anuniongyrchol (e.e. gwella hygyrchedd ysgolion cyfrwng Gymraeg, ar y Gymraeg).</p>	
6. Lleihau allyriadau nwyon tŷ gwydr o drafnidiaeth	+/-
<p>Mae'n debygol y byddai cynigion yn SDC mewn cyfuniad yn arwain at ostyngiadau sylweddol i'r allyriadau nwyon tŷ gwydr sy'n gysylltiedig â sector trafndiaeth Cymru. Byddai hyn yn cael ei gyflawni'n bennaf o ganlyniad i annog a hwyluso cyfraddau uwch o gerdded, beicio a defnydd o drafnidiaeth gyhoeddus yn arwain at ostyngiadau dilynol i nifer y ceir ar y ffyrdd, yn unol â'r Uchelgeisiau, Blaenoriaethau 1-5 a'r Cynlluniau Cryno ar gyfer Teithio Llesol, Bysiau a Ffyrdd.</p> <p>Byddai manteisio ar ddulliau technolegol arloesol a sicrhau bod gwasanaethau a chyfleusterau yn agos at y lleoedd y mae pobl yn byw ynddynt, yn unol â'r Uchelgeisiau, Blaenoriaeth 1 a'r Cynllun Cryno ar gyfer Rheilffyrdd, yn lleihau ymhellach yr angen i bobl deithio ac yn caniatáu iddynt deithio'n fwy effeithlon pan fyddant yn gwneud hynny. Gallai teithiau mwy effeithlon ar gyfer symud nwyddau helpu i fynd i'r afael ag ôl troed carbon sector cludo nwyddau Cymru.</p> <p>Byddai SDC yn sicrhau y byddai bod yn berchen ar gerbyd trydan neu gerbyd glanach yn opsiwn mwy ymarferol yn hytrach na cherbyd petrol neu ddiesel trwy gefnogi technolegau fel trydaneiddio a hydrogen fel tanwydd, yn ogystal â gosod mwy o bwyntiau gwefru cerbydau trydan, a fyddai'n cyfrannu at leihau allyriadau. Mae SDC hefyd yn</p>	

Effeithiau cyfunol	Sgôr effaith cyffredinol
<p>hyrwyddo trydaneiddio trafndiaeth gyhoeddus. Byddai hyn yn cael ei gyflawni yn bennaf trwy gyfuniad o Flaenoriaethau 1- 5 yn ogystal â'r Cynlluniau Cryno ar gyfer Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol.</p> <p>Fodd bynnag, er y byddai SDC yn debygol o hwyluso gostyngiadau sylweddol i allyriadau nwyon tŷ gwydr sy'n gysylltiedig â symudiadau ar y rhwydwaith ffyrdd, ceir perygl y byddai hyn yn cael ei danseilio i ryw raddau gan y diwydiant hedfanaeth, a hefyd oherwydd y boblogaeth fawr o bobl sy'n byw yng nghefn gwlad y mae cyfleoedd teithio llesol neu drafndiaeth gyhoeddus yn annhebygol o wella'n sylweddol ar eu cyfer.</p> <p>Mae SDC wedi ymrwymo i gynnal sector hedfanaeth iach yng Nghymru ar gyfer ei fanteision economaidd sylweddol. Mae'r Cynllun Cryno ar gyfer Hedfanaeth yn cydnabod y bydd heriau i'r sector hedfanaeth wrth geisio bodloni cyllidebau carbon Cymru. Mae'n ceisio sicrhau, er enghraifft, bod Maes Awyr Caerdydd yn cyflwyno strategaeth ddatgarboneiddio gadarn a bod pobl yn mynd i feysydd awyr ar drafndiaeth gyhoeddus yn hytrach na mewn ceir i helpu i fantoli'r allyriadau hyn. Fodd bynnag, byddai'r mesurau a ddisgrifir yn SDC a'r Cynllun Cryno ar gyfer hedfanaeth, fel y strategaeth ddatgarboneiddio neu gynnydd i fynediad trafndiaeth gyhoeddus meysydd awyr, yn annhebygol o fantoli'r allyriadau sy'n gysylltiedig â hedfanaeth mewn gwirionedd. Mae ceir a cherbydau nwyddau trwm yn ffynhonnell llawer mwy o allyriadau nwyon tŷ gwydr yng Nghymru na hedfanaeth ar hyn o bryd, ac felly ni fyddai'r ymrwymiad i 'sector hedfanaeth iach' yn arwain at effaith niweidiol gyffredinol ar Amcan hwn yr ACI o ganlyniad i SDC, ond byddai'n debygol o atal gostyngiad sylweddol cyffredinol i allyriadau nwyon tŷ gwydr, neu o leiaf yn gwneud hynny'n fwy anodd.</p> <p>Pobl wledig yw ychydig dros un rhan o dair o boblogaeth Cymru ac er mwyn iddynt gael mynediad at wasanaethau a chyfleusterau allweddol mae angen iddynt deithio pellteroedd mwy na'r rhai sy'n byw mewn ardaloedd trefol. Byddai SDC yn annhebygol o ddatrys y broblem hon. Er y byddai rhai gwelliannau i'r rhwydwaith ffyrdd gan alluogi teithiau mwy effeithlon, mwy o gefnogaeth i gerbydau trydan, a gwelliannau i wasanaethau trafndiaeth gymunedol sy'n arbennig o bwysig mewn ardaloedd gwledig, byddai'n annhebygol o alluogi pobl sy'n byw mewn ardaloedd gwledig i deithio mor effeithlon, mor gynaliadwy gydag allyriadau isel fel y rhai sy'n byw mewn ardaloedd trefol. Nid yw'n eglur i ba raddau y byddai'r allyriadau sy'n gysylltiedig â symudiadau trafndiaeth pobl sy'n byw mewn ardaloedd gwledig yn cael eu lleihau yn weladwy o ganlyniad i SDC. Dylid ystyried unrhyw ostyngiad i allyriadau nwyon tŷ gwydr yng nghyd-destun cyllidebau carbon Cymru, sy'n ceisio gostyngiad o 80% i allyriadau nwyon tŷ gwydr sylfaenol erbyn y flwyddyn 2050. Bydd SDC ar waith am 25 mlynedd, ac felly byddai angen iddi helpu i sicrhau bod y cyllidebau carbon hyn yn cael eu bodloni. Mae'n annhebygol bod 'sector hedfanaeth iach', neu barhad o'r sefyllfa lle nad yw tua un rhan o dair o boblogaeth Cymru yn gallu dibynnu ar deithio llesol neu drafndiaeth gyhoeddus, wir yn cydymffurfio â'r cyllidebau carbon hyn, nac yn cyfrannu at eu bodloni'n llwyddiannus.</p> <p>Ar y cyfan, ystyrir, â lefel ganolig o sicrwydd, y byddai'r SDC yn arwain at gyfuniad o effeithiau positif ac effeithiau andwyol hirdymor ar allyriadau nwyon tŷ gwydr. Er y byddai'r cynigion yn SDC yn debygol o arwain at ostyngiad net i allyriadau nwyon tŷ gwydr, sy'n hynod gadarnhaol, mae'n ansicr i ba raddau y byddai hyn yn cael ei danseilio gan sector hedfanaeth iach a dibyniaeth barhaus y boblogaeth wledig ar ddefnyddio ceir personol. Mae'n ymddangos yn annhebygol y byddai'r mesurau yn SDC yn lleihau allyriadau nwyon tŷ gwydr ar y cyflymder sy'n ofynnol i'r sector trafndiaeth gydymffurfio â chyllidebau carbon Cymru a'r argyfwng hinsawdd, er y gallai'r mesurau hyn fod yn fwy amlwg yn y cynlluniau cyflawni a ddatblygir o ganlyniad i SDC.</p>	
7. Galluogi cydnerthedd yn erbyn y newid yn yr hinsawdd	+
<p>Nod SDC yw gwella cynaliadwyedd y broses o reoli a diogelu seilwaith presennol ar gyfer y dyfodol, a fydd yn helpu i wneud y system drafndiaeth yn fwy cydnerth i effeithiau posibl y newid yn yr hinsawdd, yn enwedig o ganlyniad i'r Uchelgeisiau a'r Cynlluniau Cryno. Byddai Blaenoriaethau 2 a 3, yn ogystal â'r Cynlluniau Cryno ar gyfer Bysiau, Rheilffyrdd a Thrafnidiaeth Gymunedol, yn arwain at wella trafndiaeth gyhoeddus o ran ei hyblygrwydd a'i gweithdrefnau brys i amddiffyn rhag llifogydd a digwyddiadau annisgwyl eraill.</p> <p>Gallai cysylltiadau cerdded a beicio newydd a gwell, a hyrwyddir drwy'r Uchelgeisiau, y Blaenoriaethau a'r Cynllun Cryno ar gyfer Teithio Llesol, arwain at gynydd i'r gorchudd seilwaith gwyrdd ar hyd y llwybrau hyn, sy'n helpu i reoli dŵr wyneb ffo ac i liniaru perygl llifogydd.</p> <p>Trwy greu system drafndiaeth sydd yr un mor hygyrch i holl aelodau cymdeithas, dylai SDC gydnabod a mynd i'r afael â'r anghydraddoldebau sy'n bodoli o ran mynediad at drafndiaeth mewn digwyddiadau tywydd eithafol; byddai hyn yn helpu i gynyddu cydnerthedd y system drafndiaeth i'r newid yn yr hinsawdd ac yn lleihau anghydraddoldebau rhwng ardaloedd trefol ac ardaloedd mwy gwledig, ar wahân. Mae SDC yn annog y defnydd o ddulliau trafndiaeth mwy cynaliadwy, carbon isel, fel teithio llesol a thrafnidiaeth gyhoeddus, yn hytrach na cherbydau preifat, a fyddai'n helpu i leihau allyriadau nwyon tŷ gwydr o'r sector trafndiaeth ac yn sgil hynny yn cyfyngu cyfraniad Cymru at newid hinsawdd.</p> <p>Ar y cyfan, ystyrir ei bod yn debygol, â lefel ganolig o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mân (ddim yn arwyddocaol) hirdymor, gan gynnwys yn uniongyrchol (e.e. trwy wella cydnerthedd seilwaith trafndiaeth i ddigwyddiadau tywydd eithafol) ac yn anuniongyrchol (e.e. trwy leihau achosion y newid yn yr hinsawdd), ar gydnerthedd yn erbyn y newid yn yr hinsawdd.</p>	

Effeithiau cyfunol	Sgôr effaith cyffredinol
8. Diogelu a gwella ansawdd aer	+
<p>Mae llygredd aer yn aml yn deillio o'r un gweithgareddau â'r rhai sy'n cyfrannu at newid hinsawdd. Mae'r sector trafndiaeth, ac yn enwedig ceir, cerbydau nwyddau trwm, awyrennau a thrafnidiaeth sy'n gysylltiedig â phorthladdoedd, yn ffynonellau sylweddol o allyriadau nwyon tŷ gwydr a llygredd aer.</p> <p>Nod SDC yw gwneud gostyngiad sylweddol i ddibyniaeth pobl ar geir i deithio. Byddai'n gwneud hynny trwy wella'r seilwaith ledled Cymru y mae dulliau trafndiaeth allyriadau isel yn dibynnu arno, fel trafndiaeth gyhoeddus a theithio llesol, yn unol â'r Uchelgeisiau, Blaenoriaethau 1 - 5 a'r Cynlluniau Cryno ar gyfer Bysiau a Theithio Llesol. Byddai'r gostyngiad net i nifer y ceir yn helpu i leihau'r llygredd aer sy'n gysylltiedig â'r sector trafndiaeth yng Nghymru, yn enwedig mewn ardaloedd mwy trefol lle mae ansawdd aer yn sylweddol waeth nag ardaloedd mwy gwledig.</p> <p>Drwy'r Uchelgeisiau a Blaenoriaethau 2 - 5, mae SDC yn ceisio cefnogi'r newid parhaus i gerbydau glanach, cerbydau trydan a dulliau trafndiaeth eraill sy'n mabwysiadu technolegau arloesol fel hydrogen. Byddai hyn yn helpu i sicrhau bod allyriadau'r ceir hynny sy'n dal i fod ar y ffyrdd ac yn cael eu defnyddio yn aml yn cael eu lleihau. Byddai gwell cynnal a chadw a rheolaeth o'r rhwydwaith ffyrdd presennol, yn unol â Blaenoriaeth 3 a'r Cynllun Cryno ar gyfer Ffyrdd, hefyd yn debygol o ganiatáu teithiau mwy effeithlon sy'n arwain at lai o lygredd, gan gynnwys o ganlyniad i lai o dagfeydd a segura. Mae'n debygol y byddai rheolaeth a chynnal a chadw o'r fath yn cynnig cyfleoedd i wella seilwaith gwyrdd ar hyd coridorau ffyrdd, sy'n helpu i hidlo llygryddion aer allan a'u hymneilltuo.</p> <p>Fodd bynnag, fel y disgrifir uchod o ran Amcan 6 yr ACI ar allyriadau nwyon tŷ gwydr, mae SDC wedi ymrwmo i gynnal sector hedfanaeth iach yng Nghymru ar gyfer ei fanteision economaidd sylweddol. O ganlyniad, mae llygredd aer sy'n gysylltiedig â sector hedfanaeth Cymru yn annhebygol o leihau yn weladwy dros gyfnod SDC.</p> <p>Mae'r broblem bosibl o ran y boblogaeth yng Nghymru sy'n byw mewn lleoliadau gwledig, lle nad oes ganddynt ddewis yn aml ond dibynnu ar ddefnyddio ceir personol ar gyfer cael mynediad at wasanaethau neu amwynderau, hefyd yn annhebygol o gael ei datrys. Mae'n annhebygol felly y bydd y llygredd aer sy'n gysylltiedig â symudiadau pobl sy'n byw yng nghefn gwlad yn cael ei leihau'n sylweddol.</p> <p>Oherwydd y broblem sydd heb ei datrys o lygredd aer yn gysylltiedig â hedfanaeth a'r ddibyniaeth uchel ar ddefnyddio ceir i bobl sy'n byw yng nghefn gwlad, ystyrir yn gyffredinol y byddai SDC yn gwneud cyfraniad bach yn hytrach na mawr (sylweddol) at Amcan hwn yr ACI. Ar y cyfan, ystyrir ei bod yn debygol, â lefel ganolog o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mân (ddim yn arwyddocaol) hirdymor, gan gynnwys yn uniongyrchol (e.e. trwy leihau llygredd aer yn gysylltiedig â defnydd o geir) ac yn anuniongyrchol (e.e. cynnwys seilwaith gwyrdd am ymneilltuo llygredd aer mewn coridorau trafndiaeth), ar lygredd aer. Mae effaith gadarnhaol fawr yn ymddangos yn annhebygol o gofio'r ymrwymiad parhaus i sector hedfanaeth iach yn ogystal â'r broblem sydd heb ei datrys o ddibyniaeth y boblogaeth wledig ar ddefnydd o geir personol.</p>	
9. Diogelu a gwella unigrywedd lleol ein tirweddau a'n trefluniau	+
<p>Mae Gwledigaeth SDC yn cydnabod pwysigrwydd diogelu a gwella tirweddau a threfluniau unigryw Cymru.</p> <p>Byddai'r gostyngiad tebygol i nifer y ceir ar y ffyrdd, wedi'i gyflawni yn bennaf drwy'r Uchelgeisiau, y Blaenoriaethau a'r Cynlluniau Cryno ar gyfer Teithio Llesol a Bysiau, yn helpu i osgoi'r effeithiau niweidiol y gall ffyrdd eu cael ar gymeriad tirweddau a threfluniau, a sicrhau eu bod cyn lleied â phosibl, gan gynnwys trwy lygredd swm, aer a golau yn ogystal â thrwy fod â gwerth amwynder gwledol isel. Byddai hyn o fudd arbennig i ganolfannau aneddiadau hanesyddol yn ogystal â'r tirweddau naturiol unigryw sy'n gyffredin yn ardaloedd mwy gwledig Cymru.</p> <p>Nod SDC yw gwella'r broses o reoli a chynnal a chadw seilwaith trafndiaeth presennol, yn unol â Blaenoriaethau 2 a 3, a allai gynnwys glendid gwell a mesurau gwella a fyddai o fudd i dirweddau a threfluniau.</p> <p>Yn unol â'r Uchelgeisiau, y Blaenoriaethau a'r Cynlluniau Cryno, mae SDC hefyd yn ceisio sicrhau bod yr amgylchedd hanesyddol a naturiol yn cael ei warchod a'i wella a bod yr egwyddor hon yn cael ei hymwreiddio ym mhob seilwaith trafndiaeth newydd. Mewn llawer o achosion, mae trefluniau a thirweddau unigryw Cymru o werth hanesyddol a/neu fioamrywiaeth sylweddol. Drwy warchod ac, mewn rhai achosion, wella'r gwerth hwn, byddai'n debygol o fod o fudd i gymeriad trefluniau a thirweddau lleol.</p> <p>Ar y cyfan, ystyrir ei bod yn debygol, â lefel ganolog o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mân (ddim yn arwyddocaol) hirdymor, gan gynnwys yn uniongyrchol (e.e. trwy leihau effaith weledol ceir ar y ffordd) ac yn anuniongyrchol (e.e. trwy warchod a gwella bioamrywiaeth), ar unigrywedd lleol ein tirweddau a'n trefluniau.</p>	
10. Hybu camau i warchod a gwella asedau treftadaeth	+

Effeithiau cyfunol	Sgôr effaith cyffredinol
<p>Mae Gweledigaeth, Blaenoriaethau ac Uchelgeisiau SDC yn cydnabod bod angen gwarchod a gwella asedau treftadaeth ac ardaloedd hanesyddol Cymru. Ledled Cymru, mae rheilffyrdd, twnelau a llwybrau hanesyddol o werth treftadaeth sylweddol. Mae'n debygol, mewn llawer o achosion, y byddai'r buddsoddiad sy'n cael ei gyfeirio at drafnidiaeth yn helpu i ddiogelu a gwella'r asedau hyn drwy sicrhau nad ydynt yn mynd i gyflwr gwael neu'n segur.</p> <p>Yn yr un modd â chymeriad tirweddau a threfluniau, byddai'r gostyngiad i nifer y ceir ar y ffyrdd wedi'i achosi gan yr Uchelgeisiau, y Blaenoriaethau a'r Cynlluniau Cryno ar Deithio Llesol, Rheilffyrdd a Bysiau, a'r gallu dilynol i osgoi ymyriadau sŵn, aer, golau ac ymyriadau gweledol eraill, a sicrhau eu bod cyn lleied â phosibl, yn helpu i ddiogelu amgylchedd asedau treftadaeth ac ardaloedd hanesyddol.</p> <p>Mae'n debygol y byddai'n ofynnol i waith cynnal a chadw a rheoli seilwaith trafnidiaeth presennol, a'r ddarpariaeth o unrhyw seilwaith trafnidiaeth newydd ystyried yr effeithiau posibl ar unrhyw asedau treftadaeth ac ardaloedd hanesyddol cyfagos, ac ymgorffori elfennau sy'n helpu i wella eu hamgylchedd.</p> <p>Mae diogelu a gwella bioamrywiaeth yn ddull sydd wedi'i ymwreiddio drwy SDC a allai fod o fudd posibl i amgylchedd asedau treftadaeth ac ardaloedd hanesyddol oherwydd amwynder gweledol uchel seilwaith gwyrdd a chynefinoedd lled-naturiol, yn ogystal â'i swyddogaeth o ran sgrinio ardaloedd rhag effeithiau gweledol datblygiad newydd.</p> <p>Byddai gwella cysylltedd trafnidiaeth gyhoeddus a theithio llesol lleoedd ledled Cymru yn debygol o helpu i wella hygyrchedd ardaloedd hanesyddol ac asedau treftadaeth i bawb o bob cefndir, gan gynnwys pobl leol a thwristiaid. Byddai hyn yn helpu i hyrwyddo pwysigrwydd yr asedau a'r ardaloedd hyn a gallai arwain yn sgil hynny at fuddsoddiad newydd, fel cynnydd yn nifer yr ymwelwyr, a fyddai'n helpu i ddiogelu'r asedau a'r ardaloedd hyn i genedlaethau'r dyfodol eu mwynhau.</p> <p>Ar y cyfan, ystyrir ei bod yn debygol, â lefel ganolog o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mân (ddim yn arwyddocaol) hirdymor, gan gynnwys yn uniongyrchol (e.e. trwy fuddsoddi mewn seilwaith trafnidiaeth sydd hefyd yn ased treftadaeth) ac yn anuniongyrchol (e.e. trwy wella hygyrchedd asedau treftadaeth sy'n cynnig mwy o incwm i'r ardaloedd hyn), ar asedau treftadaeth.</p>	
11. Hybu camau i warchod a gwella bioamrywiaeth a geoamrywiaeth	+
<p>Wedi'i hymwreiddio trwy SDC mae dealltwriaeth o'r angen i ddiogelu a gwella bioamrywiaeth, geoamrywiaeth ac ecosystemau a cheisio sicrhau bod y system drafnidiaeth yn mabwysiadu strategaethau rheoli tir cynaliadwy sy'n cynnwys cydnherthedd ecosystemau mewn gweithrediadau trafnidiaeth. Ar ei ffurf bresennol, gall y sector trafnidiaeth beri bygythiadau sylweddol i gynefinoedd a rhywogaethau, gan gynnwys gwahanu cynefinoedd, ynysu rhywogaethau, a gall arwain at lefelau o lygredd sy'n uwch na llwythi critigol cynefinoedd sensitif. Mae ymyriadau sŵn a golau o'r sector trafnidiaeth yn hynod niweidiol i rai rhywogaethau hefyd.</p> <p>Mae SDC yn canolbwyntio ar gynnal y rhwydwaith ffyrdd presennol gan wella cysylltiadau teithio llesol, yn unol â'r Weledigaeth, yr Uchelgeisiau a'r Blaenoriaethau a'r Cynllun Cryno ar gyfer Ffyrdd. Mae'n debygol y byddai effeithiau niweidiol ar gynefinoedd, wedi'u hachosi gan ffyrdd newydd yn eu gwahanu ac yn ynysu rhywogaethau, yn cael eu hosgoi yn gyffredinol. Gall cynlluniau ffyrdd newydd beri risg i geoamrywiaeth oherwydd y gwaith helaeth sy'n ofynnol i baratoi'r pridd, ac felly gall osgoi unrhyw ffyrdd newydd fod yn fodd effeithiol o warchod asedau geoamrywiaeth pwysig Cymru. Ceir elfen o ansicrwydd yma gan ei bod yn aneglur o dan ba amgylchiadau yn union y byddai SDC yn caniatáu cynlluniau ffyrdd newydd.</p> <p>Byddai'r newid i ddulliau teithio allyriadau isel, gan gynnwys teithio llesol, trafnidiaeth gyhoeddus, a thrydaneiddio, yn unol â'r Weledigaeth, y Blaenoriaethau a'r Cynlluniau Cryno ar Fysiau, Rheilffyrdd a Theithio Llesol, yn helpu i osgoi effeithiau niweidiol ar gynefinoedd sy'n sensitif i ansawdd aer, a sicrhau bod yr effeithiau hyn cyn lleied â phosibl, yn enwedig lle mae lefelau eisoes yn uwch na'u llwythi critigol.</p> <p>Mae'n debygol y byddai cynnal a chadw a rheoli seilwaith trafnidiaeth presennol yn cynnig cyfleoedd i gynnwys elfennau seilwaith gwyrdd sy'n cynyddu eu gwerth bioamrywiaeth, fel gosod seilwaith gwyrdd ar hyd coridorau ffyrdd. Lle caiff llwybrau cerdded a beicio newydd eu gosod, byddai'r rhain yn cynnig cyfle i gynnwys elfennau seilwaith gwyrdd sy'n fioamrywiol ond hefyd yn cynnig buddion ehangach i'r ecosystem gan gynnwys coridorau bywyd gwyllt, gwelliannau i ansawdd aer, hidlo dŵr, dal a storio carbon a gwelliannau i dirweddau a threfluniau. Mae'n ymddangos bod SDC yn mynd ar drywydd cysylltiadau cerdded a beicio o'r natur hwn, er bod elfen o ansicrwydd ynghylch i ba raddau y byddent yn cael eu darparu.</p> <p>Ar y cyfan, ystyrir ei bod yn debygol, â lefel ganolog o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mân (ddim yn arwyddocaol) hirdymor, gan gynnwys yn uniongyrchol (e.e. trwy gynnwys elfennau seilwaith gwyrdd bioamrywiaeth mewn seilwaith trafnidiaeth) ac yn anuniongyrchol (e.e. trwy leihau llygredd aer), ar fioamrywiaeth. Dylid ystyried yr effeithiau cadarnhaol mân hyn yng nghyd-destun Cynllun Gweithredu Adfer Natur Cymru, sy'n tynnu sylw at yr angen brys i fodloni amcanion ac uchelgeisiau adfer natur yng Nghymru. Mae'n bosibl y gallai SDC fynd ymhellach i helpu i sicrhau bod yr amcanion a'r uchelgeisiau hyn yn cael eu bodloni.</p>	
12. Sicrhau'r defnydd cynaliadwy o adnoddau naturiol	+

Effeithiau cyfunol	Sgôr effaith cyffredinol
<p>Mae SDC yn annog y defnydd o ddulliau trafndiaeth mwy cynaliadwy, carbon isel, fel trafndiaeth lesol a chyhoeddus, yn hytrach na cheir preifat, yn ogystal â thrydaneiddio trafndiaeth, a fyddai'n debygol o gael effaith gadarnhaol ar ymdrechion i leihau'r defnydd o adnoddau naturiol fel tanwyddau ffosil.</p> <p>Wedi'i hymwreiddio trwy SDC, fel y disgrifir yn y Weledigaeth, mae'r ymdrech i sicrhau system drafndiaeth gynaliadwy sy'n annog y defnydd o ddeunyddiau ailgylchu a chynaliadwy wrth ddatblygu seilwaith trafndiaeth pan fo'n bosibl. Gallai hyn helpu i leihau'r defnydd o ddeunyddiau, a chynhyrchu gwastraff, sy'n gysylltiedig â'r sector trafndiaeth. Mae'r Uchelgeisiau, Blaenoriaethau 1 a 2 a'r Cynllun Cryno ar gyfer Ffyrdd yn gwneud ymdrech bendant i leihau gwastraff a chadwyn gyflenwi fwy cynaliadwy. Mae'n bosibl y byddai SDC yn arwain at lai o gynlluniau ffyrdd newydd, gan annog y defnydd o ddeunyddiau sy'n cynyddu oes gwasanaeth, sy'n golygu bod angen llai o ddeunyddiau ac yn galluogi cwrpas ehangach i ddefnyddio deunyddiau ailgylchu, yn unol â Blaenoriaethau 1-5. Fodd bynnag, byddai cynnal a chadw seilwaith trafndiaeth presennol, a'r ddarpariaeth o wasanaethau trafndiaeth gyhoeddus a chysylltiadau teithio llesol gwell, yn ei gwneud yn ofynnol i ddefnyddio adnoddau naturiol i ryw raddau. Byddai SDC yn arwain at lai o geir ar y ffyrdd. Byddai hyn yn arwain at ostyngiad yn y llygryddion o bibellau gwacáu neu ollyngiadau yn syrthio ar y tarmac; yna ceir llai o siawns y bydd dŵr wyneb ffo yn cludo'r llygryddion hyn i mewn i'r pridd, i ddŵr daear ac i ddŵr wyneb, gan wella eu hansawdd o bosibl. Gall traul teiars ceir ar ffyrdd fod yn ffynhonnell sylweddol o lygredd plastig yn yr amgylchedd naturiol, gan gynnwys yn yr amgylchedd dŵr, ac mae'n debygol y byddai hyn yn cael ei leihau i ryw raddau gan gynigion trwy SDC oherwydd y symudiad tuag at deithio llesol a thrafndiaeth gyhoeddus..</p> <p>Ar y cyfan, ystyrir ei bod yn debygol, â lefel ganolog o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mân (ddim yn arwyddocaol) hirdymor, gan gynnwys yn uniongyrchol (e.e. trwy leihau'r defnydd o adnoddau naturiol ar gyfer cynlluniau ffyrdd newydd) ac yn anuniongyrchol (e.e. trwy leihau traul teiars ar ffyrdd newydd ac felly diogelu ansawdd dŵr), ar adnoddau naturiol.</p>	
13. Galluogi camau i ddiogelu ardaloedd tawel ac atal llygredd sŵn a golau	+
<p>Byddai SDC yn cynyddu'r niferoedd sy'n manteisio ar ddulliau trafndiaeth cyhoeddus a llesol, yn enwedig oherwydd yr Uchelgeisiau, Blaenoriaethau 1, 2 a 3 a'r Cynlluniau Cryno ar Fysiau, Rheilffyrdd a Theithio Llesol, gan leihau'r defnydd o geir; byddai hyn yn debygol o arwain at effeithiau cadarnhaol ar ddiogelu ardaloedd tawel oherwydd gostyngiad mewn sŵn ac ymyriadau gweledol.</p> <p>Trwy ei chefnogaeth i gerbydau trydan, yn unol â Blaenoriaethau 3, 4 a 5 a'r Cynllun Cryno ar gyfer Ffyrdd, sy'n llawer mwy tawel na cherbydau petrol a diesel, mae'n debygol y byddai SDC yn helpu i leihau ymyriadau sŵn sy'n gysylltiedig â thrafndiaeth.</p> <p>Ar y cyfan, ystyrir ei bod yn debygol, â lefel ganolog o sicrwydd, y byddai'r cynigion yn SDC yn arwain yn gyfunol at effeithiau cadarnhaol mân (ddim yn arwyddocaol) hirdymor uniongyrchol ar dawelwch.</p>	

3.4 Osgoi, lleihau neu liniaru effeithiau negyddol a sicrhau'r effeithiau cadarnhaol mwyaf posibl

3.4.1 Cyflwynir crynodeb o argymhellion a wnaed ar gyfer SDC ddrafft Hydref 2020 yn Nhabl 3.5.

Tabl 3.5: Argymhellion yr ACI ar gyfer SDC (drafft Hydref 2020)

Adran SDC	Argymhellion
Gweledigaeth	<ul style="list-style-type: none"> Mae'n bosibl y gallai'r diffiniad o'r system drafndiaeth ddangos yr hierarchaeth o ffafriaeth, gan roi moddau carbon isel ar y brig. Achosir dros hanner yr allyriadau nwyon tŷ gwydr i drafndiaeth yng Nghymru gan geir; gellid cyfeirio at seilwaith cerbydau carbon isel.
Uchelgais: O Ddaioni i'r Amgylchedd	<ul style="list-style-type: none"> Gallai'r Uchelgais hwn gyfeirio'n benodol at gyllidebau carbon Cymru wrth gyfeirio at ostyngiadau 'sylweddol' i allyriadau nwyon tŷ gwydr.
Blaenoriaeth 1: Cynllunio ar gyfer gwell cysylltedd	<ul style="list-style-type: none"> Gallai fod yn ddefnyddiol i SDC gyfeirio at y Model Cymdeithasol o Anabledd wrth ganolbwyntio ar wella trafndiaeth gyhoeddus. Yn ogystal â datblygiadau sector cyhoeddus, ceir y posibilrwydd o'i gwneud yn ofynnol/annog/argymhell bod mannau a lleoedd diwylliannol yng Nghymru yn hygyrch trwy deithio llesol a thrafndiaeth gyhoeddus. Gellid rhoi mwy o bwyslais ar gymunedau nad ydynt yn Gymraeg eu hiaith (ac eithrio Cymunedau Cymraeg eu hiaith), a allai wynebu eu heriau eu hunain wrth gael mynediad at drafndiaeth gyhoeddus. Mae'n bosibl y gallai dangos arweinyddiaeth gynnwys ymdrechion i gyfyngu darpariaeth lleoedd parcio mewn datblygiadau sector cyhoeddus, a chynnwys mannau storio beiciau diogel ac o ansawdd uchel. Ymrwymiad posibl i ddarparu cymorth ariannol, neu gymorth arall, i gynorthwyo grwpiau beicio cymunedol. Gall y rhain fod yn sefydliadau arbennig o weithgar a cheir enghreifftiau o achosion lle mae ymdrechion sylweddol yn cael eu gwneud i newid ymddygiad pobl o ran beicio. Mae'n bosibl y gallai SDC ymrwmo i sybsideiddio prynu cerbydau trydan. Gallai hyn fod yn arbennig o effeithiol i'r rhai sydd â mynediad cyfyngedig at drafndiaeth gyhoeddus neu gysylltiadau teithio llesol, neu lle gallai dibyniaeth ar y car preifat fod yn fwy, fel mewn ardaloedd gwledig. Ni chyfeirir at effeithlonrwydd ynni o fewn y seilwaith trafndiaeth gyhoeddus, ond gallai gynnig symudiad pellach tuag at ffynonellau niwtral o ran defnydd ynni/di-garbon. Dylid rhoi mwy o fanylion am gynnwys seilwaith gwyrdd yn y rhwydwaith trafndiaeth a darparu cydnherthedd ecosystem a helpu i leihau pa mor agored ydyw i newid hinsawdd. Ceir lle i SDC ganolbwyntio ar leihau'r defnydd o geir mewn ardaloedd lle mae ansawdd aer yn arbennig o wael, fel mewn Parthau Rheoli Ansawdd Aer, neu'n agos atynt. Gellid cynnwys mwy o waith ar gysylltiadau cerdded a beicio - yn ddelfrydol, byddai'r rhain yn llwybrau diogel a deniadol sy'n annog pobl i gerdded neu feicio. Byddent o werth bioamrywiaeth uchel sy'n cysylltu â'r rhwydwaith seilwaith gwyrdd ehangach, ac sy'n cynnig manteision naturiol i bob agwedd ar gynaliadwyedd gan gynnwys gwella tir y cyhoedd (manteision cymdeithasol ac economaidd); manteision iechyd; gwerth bioamrywiaeth ac amwynder gweledol; amddiffyn rhag llifogydd; ansawdd aer; cyfoethogi pridd; coridorau bywyd gwyllt.
Blaenoriaeth 2: Gwasanaethau trafndiaeth gyhoeddus y gall pobl eu defnyddio, y maent eisiau eu defnyddio ac y maent yn eu defnyddio	<ul style="list-style-type: none"> Gallai'r adran hon gyfeirio at yr angen cynyddol am lendid a lle yn sgil y pandemig byd-eang. Byddai'r dull pobl yn gyntaf sy'n canolbwyntio ar y defnyddiwr yn helpu i sicrhau y gellid diwallu anghenion amrywiol gwahanol grwpiau. Fodd bynnag, gellid ei gwneud yn fwy eglur pryd a sut y byddai'r safbwyntiau hyn yn cael eu casglu. Dylai'r flaenoriaeth gyfeirio at y Model Cymdeithasol o Anabledd a nodi'n benodol sut y bydd defnyddwyr anabl yn cael eu trin yn gyfartal o ran y ddarpariaeth o drafndiaeth gyhoeddus. Gallai elfen 'gwell' trafndiaeth gyhoeddus y flaenoriaeth grybwyll y dylai adeiladau a dodrefn ffordd cysylltiedig hefyd fod yn 'well'.
Blaenoriaeth 3: Seilwaith	<ul style="list-style-type: none"> Mae'r materion diogelwch ar drafndiaeth gyhoeddus (trosedd) yn wahanol i'r materion diogelwch ar y ffyrdd neu dybiaethau o feicio. Gellid rhoi sylw i hyn mewn pwyntiau gwahanol.

Adran SDC	Argymhellion
trafnidiaeth diogel, hygrych, wedi'i gynnal a'i gadw'n dda	<ul style="list-style-type: none"> Gellid sôn am fforddiadwyedd yn nhestun y pwyntiau bwled i sicrhau mwy o bwyslais, gan y cyfeirir ato mewn llythrennau italig yn unig yn y testun. Gallai fod yn ddefnyddiol i'r flaenoriaeth gynnwys y gair 'cynhwysol' ochr yn ochr â 'hygyrchedd'. Gallai'r Flaenoriaeth nodi'r angen i wella bioamrywiaeth yn rhan o baratoi'r rhwydwaith trafndiaeth presennol ar gyfer y dyfodol. Gallai hyn gynnwys mesurau i wella seilwaith gwyrdd, fel gwella a chynnal lleiniau ymyl y ffordd a llwybrau bioamrywiaeth ochr yn ochr â llwybrau trafndiaeth ac arnynt, a chynnwys pontydd cynefin yn nyluniadau'r dyfodol. Gallai'r Flaenoriaeth nodi'n ddefnyddiol na fydd SDC yn annog nac yn cefnogi datblygiad seilwaith ffyrdd newydd, yn enwedig lle mae hyn yn brif ddull trafndiaeth.
Blaenoriaeth 4: Newid Ymddygiad	<ul style="list-style-type: none"> Mae pobl wedi colli hyder mewn trafndiaeth gyhoeddus yn ddiweddar oherwydd pryderon iechyd ynghylch COVID-19. Mae pobl yn debygol o fod yn amharod i ddefnyddio trafndiaeth gyhoeddus oni bai ei fod yn gwbl angenrheidiol dros y misoedd a'r blynyddoedd nesaf, ac mae angen i SDC fynd i'r afael â hyn. Mae tybiaeth y cyhoedd o ddiogelwch ar drafndiaeth gyhoeddus yn arbennig o bwysig, a bydd hysbysebu yn eang yr hyn y mae darparwyr trafndiaeth yn ei wneud i helpu i fynd i'r afael â'r feirws yn helpu i adennill hyder pobl mewn teithio ar drafndiaeth gyhoeddus eto. Yn ogystal â chynlluniau teithio mewn gweithleoedd, gellid ystyried cynlluniau i ddarparu beiciau ac offer beicio i drigolion ardaloedd o amddifadedd na allant fforddio brynu rhai eu hunain. Byddai hyn yn helpu i leihau anghydraddoldeb iechyd trwy roi mynediad cyfartal i bawb at gyfleoedd ymarfer corff efallai na fyddent yn eu cael fel arall. Dylai SDC sicrhau bod mynediad at gerbydau trydan yn fwy teg trwy fforddiadwyedd a seilwaith gwefru cerbydau trydan. Mae hyn yn arbennig o bwysig mewn ardaloedd gwledig ac ynysig, lle nad yw defnyddio trafndiaeth gyhoeddus yn opsiwn. Efallai na fydd gan rai defnyddwyr trafndiaeth fynediad at y rhyngwyd, neu ddata symudol, neu fynediad arall at dechnolegau a fyddai'n caniatáu iddynt dderbyn data trafndiaeth. Dylid rhoi sylw i'r mater o gynhwysiant digidol yma, gan amlygu'r "<i>moddau eraill</i>" a fyddai'n cael eu defnyddio i rannu gwybodaeth er mwyn peidio ag eithrio defnyddwyr penodol.
Blaenoriaeth 5: Mabwysiadu dulliau arloesi sy'n cynnig dewisiadau trafndiaeth mwy cynaliadwy	<ul style="list-style-type: none"> Er y cyfeirir at rannu beiciau, dyma'r unig gyfeiriad at deithio llesol, sydd o fudd i iechyd meddyliol a chorfforol pobl. Gallai'r "storfa ddata agored newydd i Gymru yn darparu gwybodaeth gyfredol a chywir" gynnwys manylion cysylltiadau cerdded a beicio, mapiau, topograffi ac ati, ond dylid tynnu sylw at hyn yn SDC. Gellid rhoi rhagor o fanylion ynghylch sut y bydd y materion sy'n ymwneud â chynhwysiant data, yn enwedig o ran yr henoed a'r rhai mewn ardaloedd gwledig, yn cael sylw. Dylid darparu unrhyw ddulliau arloesi, fel datblygiad apiau, yn ddwyieithog – gellid datgan hyn i wella'r gallu i'w gyflawni. Gellid defnyddio seilwaith data i greu system sy'n fwy ymatebol o ddigwyddiadau eithafol, fel llifogydd. Gellid casglu data yn awtomatig ac felly ar unwaith ar ddigwyddiadau sydd wedi effeithio ar y system trafndiaeth gyhoeddus neu'r rhwydwaith ffyrdd, y gellid eu defnyddio wedyn i hysbysu'r penderfyniad ynghylch sut y gellir ymdrin ag ef neu ei ddatrys. Gallai diweddariadau amser real roi gwybodaeth fanwl i'r cyhoedd am y digwyddiad a chynghor ar sut i deithio yn ei sgil. Byddai hyn yn helpu i leihau anghydraddoldebau o ran mynediad at drafndiaeth yn ystod digwyddiadau tywydd eithafol. Yn ogystal â chanolbwyntio ar drafndiaeth fwy cynaliadwy, gallai dulliau technolegol arloesol gynnwys trafndiaeth a fydd yn ymdopi'n well mewn amodau tywydd eithafol mewn ardaloedd gwledig, fel eira, nag y mae dulliau trafndiaeth presennol yn gallu ei wneud. Mae'r heriau yr ydym yn eu hwynebu o'r hinsawdd yn newid, ac mae angen i dechnolegau trafndiaeth newydd adlewyrchu hynny. Gellid cyflwyno'n gliriach y syniad o dechnolegau i ddatblygu dulliau trafndiaeth yn benodol ag allyriadau carbon isel, yn enwedig o ran hedfanaeth. Gallai'r testun yn ymwneud â datblygu technolegau deunyddiau newydd gynnwys cyfeiriad at ddefnyddio deunyddiau ailgylchu. Cyfeirio'n benodol at y defnydd o ddeunyddiau cynaliadwy mewn technolegau trafndiaeth newydd ac unrhyw seilwaith newydd. Gallai dulliau technolegol arloesol hefyd ystyried technolegau sy'n lleihau neu'n lliniaru llygredd sŵn a golau.
Cynllun Cryno: Teithio Llesol	<ul style="list-style-type: none"> Mae'r cynllun cryno yn sôn am annog pobl ifanc i feicio ond nid am wella'r amgylchedd cerdded a beicio i bobl hŷn neu'r rhai â phroblemau symudedd – dylid cynnwys hyn.

Adran SDC	Argymhellion
	<ul style="list-style-type: none"> Nid yw'r cynllun cryno yn cydnabod anghydraddoldebau iechyd, a sut y gallai pobl sy'n byw mewn ardaloedd o amddifadedd gael eu heffeithio / sut y gallai gwell potensial ar gyfer teithio llesol helpu i weithio tuag at leihau anghydraddoldebau – dylid cynnwys hyn. Dylid cynnwys mynediad trwy ddulliau teithio cynaliadwy fel cerdded a beicio at wasanaethau iechyd a gofal cymdeithasol presennol. Mae'r cynllun cryno yn sôn y bydd mynediad at barciau cenedlaethol a rhwydweithiau beicio cenedlaethol wedi cael eu gwella ond nid yw'n cynnwys cynllun cyflawni i fynd i'r afael â hyn yn benodol. Gellid cynnwys hwn yn benodol, e.e. bydd SDC yn buddsoddi yn y rhwydwaith beicio cenedlaethol. Ni roddir sylw i anghydraddoldebau rhwng teithio llesol mewn ardaloedd gwledig a threfol, ond gellid gwneud hynny. Gellid darparu mwy o fanylion ynghylch beth yw'r rhwystrau i gerdded a beicio a sut y bydd anghydraddoldebau yn cael sylw – er enghraifft, sut y gellir goresgyn anghydraddoldebau rhwng y rhywiau o ran beicio. Nid yw'r cynllun cryno yn mynd i'r afael ag anghydraddoldeb ar sail oedran neu deithio llesol sydd ar gael (er enghraifft, efallai y bydd amrywiadau rhwng ardaloedd trefol a gwledig). Mae maes arall i'w gynnwys yn ymwneud â sut y gellir gwneud cerdded a beicio yn fwy hygyrch i'r rhai a phroblemau symud neu sut y gellir gwneud llwybrau eu hunain yn fwy hygyrch. Mae'r cynllun cryno yn cyfeirio at ddatblygiadau newydd, ond dylid rhoi pwyslais hefyd ar wella ac ymestyn llwybrau presennol i leihau achosion o wahanu cymunedau o bobtu'r ffordd a chynyddu'r niferoedd sy'n cerdded a beicio. Ni ddylai 'cau ffyrdd i draffig cerbydau' fel ffordd o annog teithio llesol fod ar draul y rhai sy'n dibynnu ar y car i deithio, yn enwedig y rhai sy'n byw mewn ardaloedd gwledig, poblogaethau oedrannus neu'r rhai sydd â phroblemau symudedd. Ceir corff cynyddol o dystiolaeth o sut y gall teithio llesol gyfrannu at berfformiad economaidd, gan gynnwys lleihau tagfeydd, cynorthwyo busnesau lleol a'r stryd fawr, gwella effeithlonrwydd busnes a thrwy greu swyddi yn uniongyrchol (yr Active Travel Toolbox a Sustrans, er enghraifft). Gellid gwneud cyfeiriad penodol at y manteision hyn i'r economi. Mae'r cynllun cryno yn cyfeirio at y ffaith y bydd mynediad at barciau cenedlaethol a rhwydweithiau beicio cenedlaethol wedi cael eu gwella ond nid yw'n cynnwys cynllun cyflawni i fynd i'r afael â hyn yn benodol. Gellid cynnwys hwn yn benodol, e.e. bydd SDC yn buddsoddi yn y rhwydwaith beicio cenedlaethol a'r rhwydwaith seilwaith gwyrdd yn rhan o ddull cyfannol. Cynnwys mesurau at sut y gall y Gymraeg ffynnu, a allai gynnwys hyrwyddo arwyddion dwyieithog ar lwybrau teithio llesol er mwyn hybu a diogelu'r Gymraeg fel iaith a ddefnyddir yn gyfartal i'r Saesneg. Y posibilrwydd o gynorthwyo gwell mynediad trwy deithio llesol at gyfleusterau addysg cyfrwng Cymraeg yn rhan o gynlluniau trafnidiaeth rhanbarthol. Dylai sôn y gallai fod yn rhaid addasu/cynnal a chadw Llwybr Arfordir Cymru oherwydd erydu arfordirol a llifogydd arfordirol. Gellir dylunio cysylltiadau cerdded a beicio yn y fath fodd eu bod yn gwneud cyfraniad cadarnhaol at gymeriad lleol, er enghraifft gwyrddu neu dir y cyhoedd. Gellid ychwanegu hwn at y nodau (erbyn 2040, bydd gennym: well tirwedd a threfluniau trwy rwydwaith teithio llesol cenedlaethol sydd wedi'i gyfuno â rhwydwaith seilwaith gwyrdd). Mae'r cynllun cryno yn cyfeirio at y ffaith y bydd mynediad at barciau cenedlaethol a rhwydweithiau beicio cenedlaethol wedi cael eu gwella ond nid yw'n cynnwys cynllun cyflawni i fynd i'r afael â hyn yn benodol. Gellid cynnwys hwn yn benodol, e.e. bydd SDC yn buddsoddi yn y rhwydwaith beicio cenedlaethol a'r rhwydwaith seilwaith gwyrdd fel rhan o ddull cyfannol. Gallai gynnwys gwelliannau i gyfleoedd i bobl gael mynediad at fywyd gwyllt a mannau gwyrdd agored gan ddefnyddio teithio llesol. Cyfeiriad hefyd at y manteision iechyd sy'n gysylltiedig â mannau agored a natur (yn enwedig o ran iechyd a llesiant meddwl). Mae gan lwybrau teithio llesol y potensial i fod o werth bioamrywiaeth a chysylltu â'r rhwydwaith seilwaith gwyrdd ehangach, gan gynnig manteision naturiol i bob agwedd ar gynaliadwyedd. Gellid cynnwys hyn yn benodol, e.e. bydd SDC yn buddsoddi yn y rhwydwaith beicio cenedlaethol a'r rhwydwaith seilwaith gwyrdd fel rhan o ddull cyfannol. Gellid cyfeirio, o dan effaith amgylcheddol, at y lleihad i lygredd sŵn a golau yn sgil nifer gynyddol yn teithio'n llesol. Ceir manteision iechyd sy'n gysylltiedig â gostyngiadau i

Adran SDC	Argymhellion
	lygredd sŵn, yn enwedig i boblogaethau mwy agored i niwed fel plant, yr henoed a phobl a chyflyrau iechyd a oedd yn bodoli eisoes.
Cynllun Cryno: Bysiau	<ul style="list-style-type: none"> Dylid gwneud cyfeiriad penodol at y gwahanol heriau iechyd a diogelwch a wynebîr gan boblogaethau agored i niwed ar fysiau. Mae enghreifftiau yn cynnwys grwpiau sy'n dioddef lefelau uwch o orbryder ynghylch trosedd ar drafnidiaeth gyhoeddus a gwella diogelwch a diogelwch tybiedig teithio ar y bws, yn enwedig ar ôl iddi dywyllu. Bydd effeithiau COVID-19 yn y dyfodol yn effeithio ar ddyfodol y system drafnidiaeth e.e. seddi mwy ar wasgar, hylif diheintio dwylo, gwisgo masgiau. Er bod teithio mewn cerbyd preifat yn cael ei ystyried yn fwy diogel o safbwynt iechyd personol, gellir cymryd camau i sicrhau diogelwch teithwyr ar drafnidiaeth gyhoeddus. Bydd sicrhau bod bysiau yn cael eu hystyried yn ddiogel yn chwarae rhan fawr yn y cynllun cryno hwn. Mae nifer y teithwyr ar drafnidiaeth gyhoeddus yn is o'i chymharu â'r adeg cyn pandemig COVID-19 – mae ystadegau'r Adran Drafnidiaeth ar gyfer defnydd o drafnidiaeth ers 1 Mawrth 2020 yn dangos bod nifer y teithwyr ar fysiau ers y cyfyngiadau symud rhwng 10 a 15% o ddiwrnod/wythnos gyfatebol cyn y pandemig. Dylid ystyried defnyddio laith Arwyddion Prydain fel ffordd o wella mynediad i bobl sy'n fyddar neu sydd â nam ar eu clyw. Gellid gwneud hyn trwy hyfforddi staff bysiau i wneud gwasanaethau yn hygyrch i bawb. Mae gwahanol astudiaethau (er enghraifft Ahern et al, 2016; Mouratidis, 2020; Lucas et al, 2008) wedi dangos bod cysylltiad uniongyrchol rhwng ardaloedd o amddifadedd a diffyg mynediad at drafnidiaeth gyhoeddus. Dylid gwneud cyfeiriad at well mynediad at fysiau ac adfywio ardaloedd o amddifadedd. Bod yn eglur a nodi y bydd technoleg batri a defnydd o danwyddau hydrogen nid yn unig yn datblygu sgiliau lleol ond hefyd yn creu swyddi, a fydd o fudd i'r economi. Cynnwys "gweithleoedd" o dan flaenoriaeth i "sicrhau bod ystadau tai newydd yn hawdd eu cyrraedd ar fws". Crybwyll datblygiad safleoedd parcio a theithio i annog y defnydd o fysiau a chael gwared ar dagfeydd o ganol dinasoedd/trefi. Nod y cynllun cryno hwn yw cynyddu pa mor ddeniadol yw gwasanaethau bysiau. Un rhwystr pwysig i lawer o bobl, yn enwedig poblogaethau agored i niwed fel pobl mewn aelwydydd incwm isel a'r henoed, yw'r gost. Pa mor ymarferol fydd sicrhau prisiau gwirioneddol fforddiadwy sy'n annog nifer fawr o bobl i ddefnyddio gwasanaethau bysiau? Gallai bysiau helpu i reoli teithio mewn ardaloedd twristiaeth yn ystod cyfnodau brig neu wasanaethau ychwanegol ar gyfer digwyddiadau. Eto, gallai Parcio a Theithio helpu gyda hyn. Gallai bysiau wella mynediad at safleoedd diwylliannol o ddiddordeb – gellid cynnig prisiau tocynnau gostyngedig neu fynediad rhatach mewn safleoedd treftadaeth er enghraifft, i annog pobl i deithio'n gynaliadwy. Cynnwys annog darparwyr gwasanaethau bysiau i fodloni safonau'r Gymraeg. Gellid ystyried diffyg darpariaeth a gwasanaethau cyfrwng Cymraeg fel rhwystr i fynediad. Gallai SDC nodi mai'r uchelgais yw sicrhau y dylai'r Gymraeg a'r Saesneg gael eu trin yn gyfartal. Gallai SDC gynnwys cefnogi gwell mynediad ar fysiau at gyfleusterau addysg cyfrwng Cymraeg. Gallai SDC annog gwelliant cyflymach i allyriadau o drafnidiaeth gyhoeddus, o ystyried yr argyfwng hinsawdd. Cynnwys cydnherthedd yn erbyn argyfyngau cysylltiedig â'r hinsawdd a'r pandemig yn y dyfodol. Ychwanegu addasu gwasanaethau bysiau at ddigwyddiadau hinsoddol, gan gynnwys llifogydd yn ogystal â digwyddiadau mawr a drefnir. Gallai'r cynllun cryno nodi y dylai seilwaith trafnidiaeth gyhoeddus presennol a newydd fod mor gynaliadwy â phosibl a chyfrannu at rwydwaith seilwaith gwyrdd eang. Gallai hyn gynnwys plannu lleiniau ymyl ffordd, a gwyrddu safleoedd bws, er enghraifft, gyda thoeau gwyrdd. Bydd hyn yn helpu gydag agweddau lluosog, fel tirwedd, treflun, rheoli perygl llifogydd, ansawdd aer, a bioamrywiaeth. Gallai'r cynllun cryno nodi y dylai seilwaith trafnidiaeth gyhoeddus presennol a newydd fod mor gynaliadwy â phosibl a chyfrannu at rwydwaith seilwaith gwyrdd eang. Gallai hyn gynnwys plannu lleiniau ymyl ffordd, a gwyrddu safleoedd bws, er enghraifft, gyda thoeau gwyrdd. Bydd hyn yn helpu gydag agweddau lluosog, fel tirwedd, treflun, rheoli perygl llifogydd, ansawdd aer, a bioamrywiaeth.

Adran SDC	Argymhellion
Cynllun Cryno: Rheilffyrdd	<ul style="list-style-type: none"> Gallai'r adran hon gyfeirio at yr angen cynyddol am lendid a digon o le yn sgil y pandemig byd-eang. Bydd effeithiau posibl COVID-19 yn y dyfodol yn effeithio ar y system drafnidiaeth e.e. seddi mwy ar wasgar, hylif diheintio dwylo, defnyddwyr yn gwisgo masgiau. Er y gall teithio mewn cerbyd preifat gael ei ystyried yn fwy diogel, gellir cymryd camau i sicrhau diogelwch teithwyr ar drafnidiaeth gyhoeddus. Mae nifer y teithwyr ar drafnidiaeth gyhoeddus yn isel o'i chymharu â'r adeg cyn pandemig COVID-19 – mae ystadegau National Rail ar gyfer defnydd o drafnidiaeth ers 1 Mawrth 2020 yn dangos bod nifer y teithwyr ar drenau yn ystod y cyfyngiadau symud rhwng 4 a 7% o ddiwrnod/wythnos gyfatebol cyn y pandemig. Mae COVID-19 wedi gwneud gwasanaethau trafndiaeth gyhoeddus yn llai deniadol ac mae angen i'r cynllun cryno ar reilffyrdd gydnabod hyn yn eglur. Mae'n ymddangos bod y cynllun cryno yn canolbwyntio ar fanteision economaidd yn bennaf, a chael pobl i'r lle mae angen iddynt fod at ddibenion gwaith. Gellid sôn am ddibenion eraill teithiau, er enghraifft gwell mynediad at gyfleusterau iechyd a gofal cymdeithasol, addysg, a theithiau hamdden. Dylid cyfeirio'n benodol at y gwahanol heriau diogelwch tybiedig ymhlith gwahanol grwpiau poblogaeth sy'n defnyddio trenau – yn enwedig lleihau'r ofn o drafnidiaeth gyhoeddus ar sail rhyw a gwella diogelwch tybiedig teithio ar drenau a chael mynediad at wasanaethau trenau, yn enwedig ar ôl iddi dywyllu. Dylid ystyried defnyddio laith Arwyddion Prydain fel ffordd o wella mynediad i bobl sy'n fyddar neu sydd â nam ar eu clyw. Gellid gwneud hyn trwy hyfforddi staff rheilffyrdd i wneud gwasanaethau yn hygyrch i bawb. Mae'r cynllun cryno yn sôn am heriau yn gysylltiedig â rheilffyrdd oherwydd natur wledig llawer o Gymru ond nid yw'n nodi cyfleoedd ar gyfer sut y gall pobl sy'n byw mewn ardaloedd gwledig gael gwell mynediad at wasanaethau rheilffyrdd. Mae'n ymddangos bod y pwyslais ar y System Fetro a thagfeydd ar yr M4, y bydd y ddau ohonynt o fudd i dde Cymru ac ardaloedd trefol yn anghymesur. Bydd Metro Gogledd Cymru o fudd i ogledd-ddwyrain Cymru, ond prin yw'r awgrymiadau o welliannau yn y canolbarth neu mewn ardaloedd gwledig. Dylid ystyried ymhellach y mater o bobl yn gweithio'n lleol, gan gynnwys yr effaith y gallai hyn ei chael ar fanteision economaidd os bydd llai o bobl angen defnyddio'r trên at ddibenion cymudo. Bydd defnydd cynyddol o drenau yn cyfateb i economi gryfach gan fod mwy o bobl yn teithio ac yn gwario. Mae hwn yn faes y gellid cyfeirio ato yn y cynllun cryno. Nod y cynllun cryno yw cynyddu pa mor ddeniadol yw gwasanaethau rheilffyrdd. Mae un rhwystr pwysig i lawer o bobl yn ymwneud â fforddiadwyedd. Pa mor ymarferol fydd sicrhau prisiau gwirioneddol fforddiadwy sy'n annog nifer fawr o bobl i ddefnyddio gwasanaethau rheilffyrdd? Dylai'r cynllun cryno gyfeirio at y ffaith y bydd angen i wasanaethau rheilffyrdd addasu er mwyn darparu ar gyfer digwyddiadau mawr, er enghraifft y ddarpariaeth o gerbydau ychwanegol i gludo pobl neu amserlenni diwygiedig. Gallai rheilffyrdd wella mynediad at safleoedd diwylliannol o ddiddordeb – gellid cynnig prisiau tocynnau gostyngedig neu fynediad rhatach mewn safleoedd treftadaeth er enghraifft, i annog pobl i deithio'n gynaliadwy. Gellid rhoi mwy o anogaeth i Trafnidiaeth Cymru a darparwyr gwasanaethau rheilffyrdd fodloni safonau'r Gymraeg, gan gynnwys hyfforddi staff a sicrhau darpariaeth cyfrwng Gymraeg mewn gorsafoedd. Gallai SDC nodi mai'r uchelgais yw sicrhau bod y Gymraeg a'r Saesneg yn cael eu trin ar sail gyfartal. Cynnwys cydnerthedd yn erbyn argyfyngau sy'n gysylltiedig â'r hinsawdd a mathau eraill o argyfyngau yn y dyfodol. Ychwanegu addasiad o wasanaethau rheilffyrdd at ddigwyddiadau hinsoddol, gan gynnwys llifogydd yn ogystal â digwyddiadau mawr a drefnir. Gellid defnyddio elfennau seilwaith gwyrdd i hybu cyfleusterau rheilffordd trwy wneud llwybrau teithio yn fwy deniadol a'u gwneud yn llai agored i niwed sy'n gysylltiedig â'r hinsawdd e.e. waliau gwyrdd ar adeiladau gorsafoedd. Gallai rheilffyrdd wella mynediad at safleoedd ac asedau treftadaeth – gellid cynnig prisiau tocynnau gostyngedig neu fynediad rhatach mewn safleoedd treftadaeth er enghraifft, i annog pobl i deithio'n gynaliadwy. Gallai'r cynllun cryno nodi y dylai seilwaith trafndiaeth gyhoeddus presennol a newydd fod mor gynaliadwy â phosibl a chyfrannu at rwydwaith seilwaith gwyrdd eang. Gallai hyn gynnwys plannu lleiniau ymyl ffordd, a gwyrddu safleoedd bws, er enghraifft, gyda thoeau

Adran SDC	Argymhellion
	<p>gwyrdd. Bydd hyn yn helpu gydag agweddau lluosog, fel tirwedd, treflun, rheoli perygl llifogydd, ansawdd aer, a bioamrywiaeth.</p>
Cynllun Cryno: Ffyrdd, Strydoedd a Pharcio	<ul style="list-style-type: none"> Gallai fod yn ddefnyddiol i SDC gydnabod anghydraddoldebau, er enghraifft, mewn ardaloedd o amddifadedd. Gallai cau strydoedd ar adegau penodol o'r dydd helpu i leihau ymhellach ddamweiniau sy'n gysylltiedig ag oedran. Gellid ystyried cynnwys hyn. Dylai SDC geisio archwilio'r materion posibl uchod, i sicrhau bod mesurau yn deg. Gallai SDC ystyried cynnwys mesurau cyllidol, fel Trethi Parcio yn y Gweithle neu gynyddu cost parcio i leihau tagfeydd a'r defnydd o geir. Gallai SDC gyfeirio at Barthau Aer Glân neu Dâl Atal Tagfeydd fel mesurau posibl i leihau'r defnydd o geir, er y cydnabyddir bod y mesurau hyn yn cael effaith anghymesur ar bobl dlawd neu'r rhai sy'n dibynnu ar y car, er enghraifft, pobl sy'n byw mewn ardaloedd mwy gwledig. Mae SDC yn sôn am dechnoleg newydd ond gallai sôn am y swyddi y byddai hyn yn eu creu hefyd, gan fod o fudd pellach i'r economi. I reoli'r defnydd o ffyrdd a thagfeydd yn effeithiol, dylid hyrwyddo ac annog trafndiaeth gyhoeddus fel dewis ymarferol yn hytrach na'r cerbyd modur. Gallai hyn fod trwy brisiau parcio neu drwy ddarparu cyfleusterau parcio a theithio gorfodol i'r rhai sydd angen teithio mewn car. Gall hyrwyddo trefniadau rhannu car, clybiau ceir a chronfeydd ceir leihau allyriadau a'r defnydd o geir preifat heb ddibynnu ar gyflwyno technoleg newydd. Dylid crybwyll hyn yn y cynllun cryno. Ni chyfeirir at Barthau Rheoli Ansawdd Aer; dylid rhoi sylw i reoli'r parthau hyn yn y cynllun cryno hwn. Dylai'r cynllun cryno sôn am addasu arfordirol ar gyfer ffyrdd a sut y bydd erydu arfordirol yn cael ei liniaru neu ei reoli ar gyfer y rhwydwaith priffyrdd. I leihau llygredd aer yn effeithiol, dylid hyrwyddo ac annog trafndiaeth gyhoeddus fel dewis ymarferol yn hytrach na'r cerbyd modur. Gallai hyn fod trwy brisiau parcio neu drwy ddarparu cyfleusterau parcio a theithio gorfodol i'r rhai sydd angen teithio mewn car. I wella mynediad at Barciau Cenedlaethol ac AHNEau yn effeithiol a lleihau'r effaith gan geir, dylid hyrwyddo ac annog trafndiaeth gyhoeddus fel dewis ymarferol yn hytrach na'r cerbyd modur. Gallai hyn fod trwy brisiau parcio neu drwy ddarparu cyfleusterau parcio a theithio gorfodol i'r rhai sydd angen teithio mewn car. Gwella a chynnal lleiniau ymyl y ffordd a llwybrau bioamrywiaeth ochr yn ochr â llwybrau trafndiaeth ac arnynt, a chynnwys pontydd cynefin yn nyluniadau'r dyfodol. Dylid cynnwys lleihau carbon ymgorfforedig yn y rhwydwaith ffyrdd a defnyddio deunyddiau cynaliadwy i ddatblygu'r rhwydwaith ffyrdd, wrth gynnal a chadw neu adeiladu. Dylid cynnwys lliniaru sŵn o waith adeiladu/cynnal a chadw, a'r rheswm dros lai o sŵn ar y rhwydwaith, er enghraifft, trwy gynnydd i'r niferoedd sy'n defnyddio cerbydau trydan neu gan fod llai o gerbydau ar y ffyrdd. Dylid cynnwys lliniaru a rheoli Ardaloedd Blaenoriaeth Cynlluniau Gweithredu ynghylch Sŵn, sy'n amlwg ar hyd llawer o'r Rhwydwaith Ffyrdd Strategol a'r M4 - dylai'r cynllun cryno nodi sut y bydd y rhain yn cael eu rheoli'n effeithiol.
Cynllun Cryno: Sectorau Trafndiaeth Cymunedol a Di-elw	<ul style="list-style-type: none"> Dylai'r cynllun cryno fynd ymhellach i esbonio dibyniaeth ardaloedd ynysig neu grwpiau penodol, er enghraifft yr henoed neu bobl â chyflyrau iechyd a oedd yn bodoli eisoes, ar drafndiaeth gymunedol. Mae darparu trafndiaeth gymunedol yn helpu i leihau anghydraddoldebau iechyd trwy wella mynediad at wasanaethau i'r grwpiau hyn a grwpiau eraill, a dylid cyfeirio yn benodol at hynny. Mae trafndiaeth gymunedol yn gwneud cyfraniad sylweddol at gynnal iechyd a llesiant defnyddwyr gwasanaeth, trwy gynnal annibyniaeth, gwella ansawdd bywyd a chynyddu gweithgarwch corfforol a hybu llesiant meddwl. Dylid rhoi rhagor o fanylion am yr effeithiau cadarnhaol y gall trafndiaeth gymunedol eu cynnig yn rhan o'r ddadl dros fuddsoddiad parhaus a chynyddol yn y sector. Gallai fod yn ddefnyddiol i'r cynllun cryno amlinellu'r grwpiau y bydd anghydraddoldeb yn cael ei leihau iddynt, er enghraifft pobl anabl, yr henoed, plant a'r rhai sy'n byw mewn cymunedau gwledig neu led-wledig. Dylid ystyried defnyddio Iaith Arwyddion Prydain fel ffordd o wella mynediad i bobl sy'n fyddar neu sydd â nam ar eu clyw. Gellid gwneud hyn trwy hyfforddi staff trafndiaeth gymunedol i wneud gwasanaethau yn hygyrch i bawb. Gallai'r cynllun cryno fynd ymhellach i esbonio manteision economaidd trafndiaeth gymunedol, er enghraifft, mae gwaith ymchwil yn dangos bod unigrwydd ac ynysigrwydd

Adran SDC	Argymhellion
	<p>yn costio tua £2.1 biliwn i'r DU bob blwyddyn (<i>Why Community Transport Matters</i>, ECT Charity), felly gall darparu trafnidiaeth gymunedol gynnig arbedion economaidd enfawr.</p> <ul style="list-style-type: none"> • Sôn am fwy o wasanaethau trafnidiaeth i gymunedau Cymraeg eu hiaith, yn ogystal â grwpiau ffydd a diwylliannol. • Gallai'r cynllun cryno sôn y gall trafnidiaeth gymunedol liniaru effaith niweidiol traffig ar y ffyrdd a pharcio ar dirwedd Cymru, yn enwedig os caiff ei darparu i gael mynediad at AHNEau neu Barciau Cenedlaethol. • Gallai'r cynllun cryno nodi y bydd gostyngiad i lygredd swm wrth i fwy o bobl deithio gyda'i gilydd, gan y bydd llai o gerbydau ar y ffyrdd.
Cynllun Cryno: Tacsis a Cherbydau Hurio Preifat	<ul style="list-style-type: none"> • Dylai'r cynllun cryno gynnwys gwella mynediad at wasanaethau iechyd a gofal cymdeithasol. • Gallai gynnwys safonau hylendid uwch ar ôl Covid-19 fel bod teithwyr yn teimlo yn ddiogel yn defnyddio tacsis a cherbydau hurio preifat. • Dylai'r cynllun cryno gydnabod na all pawb fforddio defnyddio tacsis neu gerbydau hurio preifat er mai'r cerbydau hyn yw'r unig dfradniaeth sydd ar gael, yn dibynnu ar leoliad (ardaloedd gwledig neu led-wledig) neu'r adeg o'r dydd. Gallai'r cynllun cryno awgrymu gostyngiadau mewn ardaloedd gwledig neu sicrhau bod yn rhaid i bob tacsî ddefnyddio mesurdd, i sicrhau prisiau teg. Cyflwynodd Cyngor Sir Ceredigion, er enghraifft, brisiau sefydlog ar gyfer tacsis y mae gweithredwyr tacsis trwyddedig wedi eu rhwymo iddynt, fel na chodir gormod ar gwsmeriaid. Gellid cyflwyno hyn ar draws y wlad. • Dylid ystyried defnyddio laith Arwyddion Prydain fel ffordd o wella mynediad i bobl sy'n fyddar neu sydd â nam ar eu clyw. Gellid gwneud hyn trwy hyfforddi gyrrwyr tacsis i wneud gwasanaethau yn hygyrch i bawb. • Mae tacsis yn chwarae rhan allweddol yn yr economi fin nos yn benodol, a dylai'r cynllun cryno gyfeirio at hyn. • Dylid cyfeirio at ddatblygiadau technolegol, gan gynnwys apiau ffôn clyfar, ynghyd â'r swyddi y gallai hyn eu creu. • Amlinellu swyddogaeth bwysig tacsis a cherbydau hurio preifat ar gyfer cyrraedd digwyddiadau neu fannau diwylliannol a mannau hamdden. • Gallai'r cynllun cryno annog cwmnïau tacsis i gyflogi siaradwyr Cymraeg, fel bod gan ddefnyddwyr gwasanaeth yr opsiwn o gyfathrebu trwy gyfrwng y Gymraeg a hybu'r iaith ymhellach. • Dylai'r cynllun cryno fynd ymhellach na chyflwyno cerbydau dim allyriadau yn unig ac, fel y gwneir yn Llundain, gynnig grantiau ar gyfer cerbydau trydan a newid y gofynion trwyddedu er mwyn lleihau allyriadau o'r fflyd tacsis. Mae'r cynllun cryno yn nodi y bydd cynlluniau cymhellion yn cael eu cyflwyno ond gallai'r cynllun fynd ymhellach i sicrhau bod pobl yn manteisio arnynt. • Dylid pennu targed, yn debyg i'r targed allyriadau bysiau, i bob tacsî a cherbyd hurio preifat fod yn rhai dim allyriadau. Hyd nes i hyn ddigwydd, ni fydd y cynllun cryno yn bodloni'n llawn Amcan 6 yr ACI. • Gallai tacsis a cherbydau hurio preifat leihau effeithiau niweidiol traffig ar y ffyrdd a pharcio ar dirweddau a threfluniau gwerthfawr Cymru – dylid cyfeirio at hyn yn y cynllun cryno. • Dylid pennu targed, yn debyg i'r targed allyriadau bysiau, i bob tacsî a cherbyd hurio preifat fod yn rhai dim allyriadau.
Cynllun Cryno: Cludo Nwyddau a Logisteg	<ul style="list-style-type: none"> • Gallai SDC gynnwys cyfeiriad at swyddi a grëwyd yn y diwydiant cludo nwyddau a logisteg, sydd o fudd i'r economi. • Gallai SDC gynnwys buddsoddi mewn Ardaloedd Menter a'r diwydiannau gweithgynhyrchu/technoleg yng Nghymru, i leihau milltiroedd cludo nwyddau. • Nid oes unrhyw gyfeiriad at effeithiau posibl Brexit ar y diwydiant cludo nwyddau a sut y gellid lliniaru'r rain. Mae Llywodraeth Cymru yn cydnabod y gallai cerbydau nwyddau trwm sy'n teithio o lwerddon fod yn destun archwiliadau ychwanegol os bydd sefyllfa Brexit 'dim cytundeb', ond ni sonnir am yr oediadau hyn ac nid awgrymir camau lliniaru. Dylid cynnwys hyn. • Trwy annog mewnfuddsoddiad a buddsoddi mewn diwydiannau gweithgynhyrchu yng Nghymru, gellir lleihau milltiroedd cludo nwyddau, gan leihau allyriadau nwyon tŷ gwydr o dfradniaeth. • Dylai'r cynllun cryno esbonio sut y bydd rhwydweithiau cludo nwyddau a logisteg yn addasu i hinsawdd sy'n newid, gan gynnwys perygl o lifogydd ac erydu arfordirol ar hyd llwybrau allweddol. • Mae angen rhoi ystyriaeth hefyd i addasu ar ôl Brexit.

Adran SDC	Argymhellion
	<ul style="list-style-type: none"> Gwella a chynnal lleiniau ymyl y ffordd a llwybrau bioamrywiaeth ar hyd llwybrau cludo nwyddau allweddol, a chynnwys pontydd cynefin yn nyluniadau'r dyfodol. Gellir cynnwys pŵer hydrogen mewn gwasanaethau cludo nwyddau a bysiau, gan gynnwys defnyddio adnoddau naturiol
Cynllun Cryno: Porthladdoedd a Thrafnidiaeth Forol	<ul style="list-style-type: none"> Yn ôl Mynegai Amddifadedd Lluosog Cymru (MALIC), mae Ardal Gynnyrch Ehangach Haen Is (AGEHI) Tref Caerdydd, sy'n cynnwys Porthladd Caerdydd, ymhlith y 10-20% mwyaf difreintiedig yng Nghymru o ran iechyd. Nid yw'r cynllun cryno yn mynd yn ddigon pell i wella anghydraddoldebau iechyd mewn ardaloedd sy'n agos at borthladdoedd. Mae angen rhoi mwy o bwyslais ar ffyrdd o wella iechyd corfforol a meddyliol trigolion yr ardaloedd hyn. Dylid ystyried defnyddio iaith Arwyddion Prydain fel ffordd o wella mynediad i bobl sy'n fyddar neu sydd â nam ar eu clyw. Gellid gwneud hyn trwy hyfforddi staff porthladdoedd i wneud gwasanaethau yn hygyrch i bawb. Yn ôl MALIC, mae AGEHI Tref Caerdydd ymhlith y 10-% mwyaf difreintiedig yn gyffredinol. Ceir tystiolaeth debyg ar gyfer AGEHlau Canol Doc Penfro a Doc Penfro Llanion 1, y ddwy ymhlith y 10% o AGEHlau mwyaf difreintiedig yng Nghymru. Nid yw'r cynllun cryno yn mynd yn ddigon pell i wella'r anghydraddoldebau hyn. Nid oes unrhyw sôn am yr effaith y bydd Brexit yn ei chael ar borthladdoedd, yn enwedig Porthladd Caerdydd sy'n darparu cysylltiadau allweddol ag Iwerddon. Mae Llywodraeth Cymru yn cydnabod y gallai fod tarfu ar deithio i Gaerdydd ac oddi yno yn ystod dyddiad cynnar sefyllfa Brexit 'dim cytundeb' posibl a'r effaith y gallai dim cytundeb ei chael ar gerbyddau nwyddau trwm sy'n teithio o Iwerddon. Gellid ystyried hyn yn y cynllun cryno. Gallai SDC annog cyflogi siaradwyr Cymraeg mewn porthladdoedd a harbyrau er mwyn hybu'r iaith ymhellach. Dylai'r cynllun cryno ystyried sut y bydd porthladdoedd a harbyrau yn addasu i'r newid yn yr hinsawdd, gan gynnwys rheoli llifogydd arfordirol ac amddiffyn gorlifdiroedd ac addasu arfordirol oherwydd erydu arfordirol. Mae'n rhaid i ddatblygiadau porthladd a harbwr fod yn gynaliadwy i liniaru effeithiau newid hinsawdd. Hybu treftadaeth danddw'r annog ymwelwyr ac felly twf economaidd. Dylai'r cynllun cryno alinio yn fwy agos ag Amcanion 10 ac 11 dogfen Cynllun Morol Cenedlaethol Cymru: Diogelu, gwarchod, adfer a gwella bioamrywiaeth forol i atal a gwrthdroi ei dirywiad gan gynnwys cefnogi datblygiad a gweithrediad rhwydwaith wedi'i reoli'n dda sy'n ecolegol gydlynol o Ardaloedd Morol Gwarchodedig a phoblogaethau cydnerth o rywogaethau cynrychiadol, prin ac agored i niwed. Cynnal a gwella cydnerthedd ecosystemau morol a'r manteision y maent yn eu cynnig er mwyn diwallu anghenion cenedlaethau'r presennol a'r dyfodol. Gallai'r cynllun cryno gynnig rhagor o fanylion am ynni adnewyddadwy a chynnwys, er enghraifft, y potensial sy'n bodoli i dyfu algâu ar y môr mewn niferoedd digonol i fodloni'r arbedion maint i gyflenwi biomas i gynhyrchu ynni adnewyddadwy.
Cynllun Cryno: Hedfanaeth	<ul style="list-style-type: none"> Mae'n rhaid rhoi ystyriaeth i well diogelwch a threfnau glanhau a hylendid cynyddol ar ôl Covid-19 i wneud teithio awyr yn fwy diogel i bawb. Mae'r cynllun cryno yn cydnabod bod y sector hedfanaeth yn dioddef oherwydd Covid-19. Er mai nod y cynllun yw adennill nifer y teithwyr i tua 1.6 miliwn, efallai na fydd hyn yn bosibl gan fod llai o gwmnïau hedfan yn gweithredu o Gaerdydd neu oherwydd y farchnad yn gyffredinol. Dylai'r cynllun cryno gydnabod hyn a cheisio lliniaru'r effeithiau y gallai hyn eu cael a chynllunio ar gyfer adferiad ar ôl Covid-19. Gallai'r cynllun cryno hybu diwylliant Cymru ymhellach ym Maes Awyr Caerdydd a buddsoddi mewn hyrwyddo a hysbysebu rhyngwladol. Gweithio gyda chwmnïau hedfan i ddarparu gwasanaethau hedfanaeth ychwanegol pan fydd digwyddiadau diwylliannol neu chwaraeon mawr yn cael eu cynnal i wella mynediad i ymwelwyr cenedlaethol a rhyngwladol. Cynyddu defnydd o'r Gymraeg yn y gwasanaethau a'r cyswllt cwsmeriaid ym Maes Awyr Caerdydd. Hybu'r Gymraeg ym Maes Awyr Caerdydd ei hun. Gallai SDC osod "podiau" tebyg i Heathrow er mwyn symud teithwyr o feysydd parcio i adeilad y derfynfa. Yn 2008, cyflwynodd Heathrow 21 o gerbyddau gwennol di-yrwr a dim allyriadau, a bwerir gan fatris. Mae'r podiau wedi cludo mwy nag 1.5 miliwn o deithwyr o'r maes parcio i'r derfynfa ers eu cyflwyno, gan osgoi 70,000 o deithiau bws ac arbed yr hyn sy'n cyfateb i 100 tunnell o CO₂ y flwyddyn.

Adran SDC	Argymhellion
	<ul style="list-style-type: none"> Gallai'r cynllun cryno hybu asedau treftadaeth ymhellach ym Maes Awyr Caerdydd a buddsoddi mewn hyrwyddo a hysbysebu rhyngwladol. Er mwyn lleihau halogiad, mae Maes Awyr Heathrow yn trin dŵr sydd wedi'i halogi â glycol gan ei hidlo trwy gorsleoedd, sy'n cael gwared ar saith tunnell o lygredd organig bob blwyddyn. Gallai Caerdydd fabwysiadu dull lliniaru tebyg. Er mwyn diogelu poblogaethau adar, mae Maes Awyr Frankfurt yn cadw'r glaswellt yn hir, fel bod adar ysglyfaethus yn cael trafferth i weld ysglyfaeth yn y glaswellt ac felly'n hedfan llai uwchben y maes awyr. Cynnwys gosod fferm solar ar safle'r Maes Awyr, fel y nodir yn y Llwybr Hedfan Amgylcheddol. Gallai'r cynllun cryno gynnwys mesurau lliniaru sŵn, fel asesu llwybrau hedfan fel bod y rhan fwyaf o awyrennau yn gadael neu'n cyrraedd dros y môr o'r de, er mwyn lliniaru sŵn. Mae rhai meysydd awyr yn gweithio gyda chwmnïau hedfan i newid y ffordd y mae'r awyrennau yn agosáu at y rhedfa. Yn hytrach na chynnwys adrannau o hedfan gwastad wrth laniio, mae awyrennau yn disgyn ar lwybr syth, o 6,000 troedfedd yn nodweddiadol. Gall disgyniadau parhaus leihau sŵn yn sylweddol ac arbed hyd at 400 cilogram o danwydd. Gallai Maes Awyr Caerdydd gyflwyno cyfyngiadau ar nifer y teithiau hedfan neu'r mathau o awyrennau sy'n glanio neu'n gadael yn ystod y nos, codi taliadau cosb ar awyrennau hŷn, mwy swmlyd, a chyflwyno dirwyon am droseddau sŵn.

3.5 Monitro – Effeithiau sylweddol (Tasg B.6 a Cham E)

- 3.5.1 Mae'r ACI wedi nodi effeithiau tebygol SDC ar Amcanion yr ACI. Rhagwelwyd dynodiad o sicrwydd ac amserlennu'r effeithiau hyn hefyd. Fodd bynnag, ceir perygl bod effeithiau cynaliadwyedd SDC, gan gynnwys effeithiau polisïau penodol neu effeithiau cyfunol polisïau ar y cyd, yn wahanol i'r rhai a ddisgwylir oherwydd amgylchiadau na ellid eu rhagweld. Mae monitro datblygiad cynaliadwy, felly, yn elfen hanfodol o sicrhau datblygiad cynaliadwy i fonitro effeithiau SDC, o ran yr effeithiau a ragwelir. Mae monitro rheolaidd wedyn yn galluogi'r awdurdodau perthnasol i newid cynlluniau yn ôl yr angen os bydd effeithiau negyddol annisgwyl yn codi neu os na fydd effeithiau cadarnhaol a ddisgwylir yn codi.
- 3.5.2 Rhagwelir y bydd Llywodraeth Cymru yn monitro gweithrediad ac effeithiau SDC ar ôl ei mabwysiadu er mwyn cyfrannu at adolygiadau a diwygiadau o'r cynllun yn y dyfodol. Mae Tabl 3.6 yn cynnig Fframwaith Monitro Drafft i gadw golwg ar effeithiau cynaliadwyedd SDC, y byddai'n briodol ei integreiddio â gwaith monitro SDC. Mae hwn yn ddrafft a fydd yn cael ei drafod a'i fireinio gyda Llywodraeth Cymru. Yn ogystal â monitro i ba raddau y mae SDC yn arwain at yr effeithiau a nodwyd yn yr ACI, mae'r Fframwaith Monitro yn nodi effeithiau SDC ar y llinell sylfaenol amgylcheddol yng Nghymru a gellir cymharu hon â thueddiadau'r dyfodol fel y nodir yn Nhabl 2.1.
- 3.5.3 Dros oes SDC bydd gwybodaeth newydd, a fydd yn cynorthwyo i lywio'r adolygiad o SDC, yn cael ei hychwanegu at Fframwaith Monitro SDC. Mae'n bosibl y bydd rhai dangosyddion a ddefnyddir ar hyn o bryd gan Lywodraeth Cymru yn cael eu diwygio neu eu disodli gan ddangosyddion newydd. Mae dangosyddion eraill yn debygol o barhau yn gyson, lle gallant lywio canlyniadau hirdymor SDC dros gyfnod 25 mlynedd y strategaeth.

Tabl 3.6: Fframwaith Monitro Drafft Arfaethedig

Amcanion yr ACI	Dangosyddion monitro drafft arfaethedig
1. Cyfrannu at welliant i iechyd a llesiant corfforol, meddyliol a chymdeithasol pawb, gan gynnwys cyfrannu at leihau anghydraddoldebau iechyd ledled Cymru	<ul style="list-style-type: none"> Canran y bobl sy'n fodlon â'u gallu i gael mynediad at y gwasanaethau iechyd a gofal cymdeithasol sydd eu hangen arnynt Canran y bobl sy'n fodlon â'u gallu i gael mynediad at fannau agored Canran y teithiau yn defnyddio dulliau llesol Aelwydydd sy'n cael eu hamlygu i lygryddion aer a/neu sŵn amgylcheddol o drafnidiaeth Canran y defnyddwyr trafnidiaeth sy'n fodlon â'u taith Canran y bobl sy'n teimlo'n ddiogel wrth deithio
2. Creu'r amodau lle gellir sicrhau gwelliant i	<ul style="list-style-type: none"> Canran y bobl sy'n fodlon â'u gallu i gael mynediad at y gwasanaethau sydd eu hangen arnynt

Amcanion yr ACI	Dangosyddion monitro drafft arfaethedig
gydlyniant cymdeithasol a chydraddoldeb	<ul style="list-style-type: none"> Canran y bobl sy'n fodlon â'u gallu i gael mynediad at y celfyddydau, chwaraeon, neu dreftadaeth naturiol a diwylliannol Canran y defnyddwyr trafndiaeth sy'n fodlon â'u taith Canran y bobl sy'n teimlo'n ddiogel wrth deithio Canran y teithiau ar drafnidiaeth gyhoeddus Canran y teithiau yn defnyddio dulliau llesol Aelwydydd sy'n cael eu hamlygu i lygryddion aer a/neu sŵn amgylcheddol o drafnidiaeth
3. Cefnogi datblygiad economaidd cynaliadwy ac amrywiaeth	<ul style="list-style-type: none"> Canran y bobl sy'n fodlon â'u gallu i gael mynediad at y gwasanaethau addysg a chyflogaeth sydd eu hangen arnynt Canran y busnesau sy'n fodlon â'u gallu i symud nwyddau ar y rhwydwaith trafndiaeth Seilwaith trafndiaeth a cherbydau gwasanaeth mewn cyflwr da Twf i economïau gwledig yn erbyn trefol Oedi cyfartalog fesul cilomedr a deithir Canran y teithiau ar drafnidiaeth gyhoeddus Canran y nwyddau a symudir trwy ddulliau carbon isel/di-garbon Canran y cyflogaion sy'n gweithio gartref yn rheolaidd
4. Diogelu a hybu diwylliant Cymru a gwella mynediad at fannau diwylliannol a hamdden	<ul style="list-style-type: none"> Canran y bobl sy'n fodlon â'u gallu i gael mynediad at y celfyddydau, chwaraeon, neu dreftadaeth naturiol a diwylliannol Asedau diwylliannol a threftadaeth a mannau hamdden sy'n cael eu hamlygu i lygryddion aer a/neu sŵn amgylcheddol o drafnidiaeth Canran yr asedau treftadaeth sydd mewn cyflwr da ar yr ystad drafnidiaeth Oedi cyfartalog fesul cilomedr a deithir yn ystod digwyddiadau mawr ac mewn cyrchfannau twristiaid ar adegau brig
5. Annog camau i ddiogelu a hybu'r Gymraeg	<ul style="list-style-type: none"> Canran y siaradwyr Cymraeg sy'n fodlon â'u gallu i gael mynediad at rwydweithiau trafndiaeth trwy gyfrwng y Gymraeg Canran y gwasanaethau a'r seilwaith trafndiaeth sy'n cynnwys y Gymraeg Canran y bobl sy'n fodlon â'u gallu i gael mynediad at wasanaethau cyfrwng Cymraeg
6. Lleihau allyriadau nwyon tŷ gwydr o drafnidiaeth	<ul style="list-style-type: none"> Allyriadau nwyon tŷ gwydr o'r sector trafndiaeth Niferoedd y cerbydau trydan cofrestredig a'r pwyntiau gwefru sydd ar gael Cyfanswm y traffig ar y ffyrdd Canran y teithiau ar drafnidiaeth gyhoeddus Canran y teithiau sy'n defnyddio dulliau llesol Canran y nwyddau a symudir trwy ddulliau carbon isel/di-garbon Aelwydydd sy'n cael eu hamlygu i lygryddion aer o drafnidiaeth
7. Galluogi cydnherthedd yn erbyn y newid yn yr hinsawdd	<ul style="list-style-type: none"> Seilwaith trafndiaeth a cherbydau gwasanaeth sy'n gallu gwrthsefyll glaw trwm/llifogydd/eira Achosion o ganslo a tharfu ar wasanaethau trafndiaeth oherwydd digwyddiadau tywydd eithafol, yn enwedig ardaloedd trefol yn erbyn gwledig Hectarau o ecosystemau iach sy'n rhan o'r rhwydwaith trafndiaeth Allyriadau nwyon tŷ gwydr o'r sector trafndiaeth
8. Diogelu a gwella ansawdd aer	<ul style="list-style-type: none"> Allyriadau nwyon tŷ gwydr o'r sector trafndiaeth Aelwydydd sy'n cael eu hamlygu i lygryddion aer o drafnidiaeth Nifer y Parthau Rheoli Ansawdd Aer a'u harwynebedd Canran y teithiau ar drafnidiaeth gyhoeddus Canran y teithiau sy'n defnyddio dulliau llesol Canran y nwyddau a symudir trwy ddulliau carbon isel/di-garbon
9. Diogelu a gwella nodweddion lleol unigryw ein tirweddau a'n trefluniau	<ul style="list-style-type: none"> Hectarau o ecosystemau iach sy'n rhan o'r rhwydwaith trafndiaeth Cyfanswm y traffig ar y ffyrdd yng nghanol trefi a thrwy dirweddau a werthfawrogrir
10. Hybu camau i warchod a gwella asedau treftadaeth	<ul style="list-style-type: none"> Canran yr asedau treftadaeth sydd mewn cyflwr da ar yr ystad drafnidiaeth Asedau treftadaeth a thirweddau hanesyddol sy'n cael eu hamlygu i lygryddion aer a/neu sŵn amgylcheddol o drafnidiaeth
11. Hybu camau i warchod a gwella bioamrywiaeth,	<ul style="list-style-type: none"> Hectarau o ecosystemau iach sy'n rhan o'r rhwydwaith trafndiaeth Poblogaethau o rywogaethau dynodedig ac heb eu dynodi Canran y bobl sy'n fodlon â'u gallu i gael mynediad at fywyd gwyllt a mannau agored

Amcanion yr ACI	Dangosyddion monitro drafft arfaethedig
geoamrywiaeth ac ecosystemau	
12. Sicrhau'r defnydd cynaliadwy o adnoddau naturiol	<ul style="list-style-type: none"> • Ansawdd dŵr wyneb ger ardaloedd lle mae llawer iawn o seilwaith trafndiaeth • Lefelau llygredd pridd ger ardaloedd lle mae llawer iawn o seilwaith trafndiaeth • Gwastraff a gynhyrchir gan y sector trafndiaeth • Seilwaith trafndiaeth a cherbydau gwasanaeth mewn cyflwr da • Canran y teithiau ar drafndiaeth gyhoeddus • Canran y teithiau sy'n defnyddio dulliau llesol • Canran y nwyddau a symudir trwy ddulliau carbon isel/di-garbon
13. Galluogi camau i ddiogelu ardaloedd tawel ac atal llygredd sŵn a golau	<ul style="list-style-type: none"> • Aelwydydd sy'n cael eu hamlygu i lygryddion aer a/neu sŵn amgylcheddol o drafndiaeth • Niferoedd y cerbydau trydan cofrestredig a'r pwyntiau gwefru sydd ar gael

4 CASGLIAD

- 4.1.1 Mae'r ddogfen hon yn cynnwys yr ACI o'r SDC Ddrafft (Hydref 2020). Mae'n bodloni gofynion Adroddiad Amgylcheddol yn unol â'r Gyfarwydddeb AAS. Mae pob fersiwn o SDC hyd yn hyn wedi cael ei harfarnu er mwyn nodi ei heffeithiau sylweddol tebygol yn erbyn pob un o Amcanion yr ACI.
- 4.1.2 Mae'r ACI yn broses sydd wedi'i hintegreiddio i raddau helaeth â datblygiad SDC, gan gynnwys perthynas waith agos rhwng yr arbenigwyr ACI a Llywodraeth Cymru. Yn ystod y broses hon, mae'r ACI wedi galluogi Llywodraeth Cymru i ymwreiddio egwyddorion cynaliadwyedd ac ystyriaethau ehangach yng nghanlyniadau, strategaeth a pholisïau SDC, o'r cychwyn cyntaf. Mae'r ACI wedi darparu modd strwythuredig o ystyried buddion, costau a risgiau amrywiaeth eang o opsiynau.
- 4.1.3 Mae'r ACI yn darparu offeryn ymgynghori, sy'n rhoi dadansoddiad i'r cyhoedd a chyrff statudol o sut y datblygwyd SDC mewn modd a fydd yn sicrhau y gall gyfrannu at ddatblygu mwy cynaliadwy. Mae'r broses ymgynghori wedi bod yn gyfle i randdeiliaid gynnig adborth ac awgrymiadau i wella cynaliadwyedd cyffredinol SDC.
- 4.1.4 Yn ei hanfod, mae'r ACI yn darparu crynodeb o effeithiau SDC, ar gyfer ystyriaeth Llywodraeth Cymru, wrth ystyried mabwysiadu SDC. Os caiff ei mabwysiadu, byddai hynny gydag ymwybyddiaeth a derbyniad Llywodraeth Cymru o'r effeithiau a ragwelir ac a ddisgrifir yn yr ACI.

5 Y CAMAU NESAF

Camau C ac E: Adroddiad yr ACI a Monitro

- 5.1.1 Cyhoeddir yr Adroddiad ACI hwn (Cam C) i gyd-fynd â'r SDC Ddrafft.
- 5.1.2 Disgwylir y bydd SDC a'i dogfennau ategol yn cael eu cyhoeddi ar gyfer ymgynghoriad â rhanddeiliaid perthnasol, gan gynnwys y cyhoedd, yn ddiweddarach yn 2020. Bydd ymatebion a ddaw i law yn cael eu cymryd i ystyriaeth yn ystod fersiynau dilynol SDC a'r ACI.
- 5.1.3 Mae rhagor o wybodaeth am gamau proses yr ACI ar gael yn Adran 1 yr adroddiad hwn.

Atodiad A Cynlluniau, Rhaglenni ac Amcanion Diogelu Amgylcheddol a Adolygwyd

Glossary

Terminology	Definition
Cultural Heritage	This term is the SEA Directive Topic Cultural Heritage, including architectural and archaeological heritage.
Cultural Asset/ Cultural environment	This term refers to arts, music, literature, sport and heritage.
Ecosystem Resilience	The capacity of ecosystems to deal with disturbances, either by resisting them, recovering from them, or adapting to them, whilst retaining their ability to deliver services and benefits now and in the future.
Historic Asset	<p>The historic environment is made up of individual historic features which are collectively known as historic assets. Examples of what can constitute an historic asset are as follows:</p> <ul style="list-style-type: none"> • Listed buildings and conservation areas; • Historic assets of special local interest; • Historic parks and gardens; • Townscapes; • Historic Landscapes; • World Heritage Sites; and • Archaeological remains (including scheduled monuments and marine archaeology).
Innovation Active ¹	<p>The UK definition of innovation follows the EU-wide definition adopted by Eurostat. This definition of 'innovation active' includes any of the activities described below that enterprises were engaged in during the survey period:</p> <ol style="list-style-type: none"> 1. Introduction of a new or significantly improved product (good or service) or process; 2. Engagement in innovation projects not yet complete or abandoned; 3. New and significantly improved forms of organisation, business structures or practices and marketing concepts or strategies; and 4. Investment activities in areas such as internal research and development, training, acquisition of external knowledge or machinery and equipment linked to innovation activities. <p>The definition excludes expenditure and activities linked to innovation. For the purpose of the UK Innovation Survey and in line with the European-wide Community Innovation Survey, a business that had engaged in any of the activities described in points 1 to 3 above is defined as being 'innovation active'.</p> <p>For the purpose of this report, a business that has engaged in any of the activities described in points 1 to 4 above is defined as a 'broader innovator'. Also, businesses classed as a 'wider innovator' are those that have engaged in the activity described in point 3 above.</p>
Natural Resource	<p>Defined in section 2 of the Environment (Wales) Act 2016; this includes but is not limited to:</p> <ul style="list-style-type: none"> • animals, plants and other organisms; • air, water and soil; • minerals; • geological features and processes; • physiographical features; • climatic features and processes.
Sustainable Management of Natural Resources	<p>As defined in section 3 of the Environment (Wales) Act 2017:</p> <p>(1) In this Part, "sustainable management of natural resources" means—</p> <ol style="list-style-type: none"> (a) using natural resources in a way and at a rate that promotes achievement of the objective in subsection (2), (b) taking other action that promotes achievement of that objective, and

¹

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/536491/UKIS_2015_Main_report_Final_v.pdf

Terminology	Definition
	<p>(c) not taking action that hinders achievement of that objective.</p> <p>(2) The objective is to maintain and enhance the resilience of ecosystems and the benefits they provide and, in so doing—</p> <p>(a) meet the needs of present generations of people without compromising the ability of future generations to meet their needs, and</p> <p>(b) contribute to the achievement of the well-being goals in section 4 of the Well-being of Future Generations (Wales) Act 2015 (anaw 2).</p>

Table 1-1 List of Relevant Plans, Programmes and Environmental Protection Objectives

International Plans and Programmes
<p>UNESCO (1971) The Ramsar Convention on Wetlands (1971)</p> <p>UNESCO (1972) Convention Concerning the Protection of the World Cultural and Natural Heritage</p> <p>UNESCO (1973) Convention on International Trade in Endangered Species of Wild Fauna and Flora</p> <p>UNESCO (1979) Geneva Convention on Long Range Transboundary Air Pollution</p> <p>United Nations (1989) UN convention on the Rights of the Child 1989</p> <p>United Nations (1989) Basel Convention</p> <p>United Nations (1992) The Rio Convention on Biodiversity</p> <p>United Nations (1992) The Rio Declaration on Environment and Development</p> <p>United Nations (1994) The United Nations Framework Convention on Climate Change</p> <p>United Nations (1997) Kyoto Protocol to the UN Framework Convention on Climate Change</p> <p>United Nations (2002) The World Summit on Sustainable Development</p> <p>United Nations (2006) Convention on the Rights of Persons with Disabilities</p> <p>United Nations (2009) The Copenhagen Accord</p> <p>United Nations (2010) Cancun Adaptation Framework</p> <p>United Nations (2015) Sustainable Development Goals</p> <p>Universal Declaration of Human Rights (1948)</p> <p>United Nations (2016) Paris Agreement</p> <p>United Nations (2016) Committee on the Rights of the Child Recommendations report</p> <p>United Nations (2019) The PEP Partnerships</p> <p>United Nations, World Health Organisation and United Nations Economic Commission for Europe (2017) Cycling and Green Jobs</p> <p>United Nations Economic Commission for Europe (1998) The Aarhus Convention World Health Organization (1999) Guidelines for Community Noise 1999</p> <p>World Health Organisation (2014) Developing National Action Plans on Transport, Health and Environment</p> <p>World Health Organisation (2018) Making the (Transport, Health and Environment) Link</p> <p>World Health Organisation (2004) Children's Environment and Health Action Plan for Europe</p>
European Plans and Programmes
<p>Council of Europe (1981) Convention on the Conservation of European Wildlife and Natural Habitats - The Bern Convention</p> <p>Council of Europe (1992) European Convention on the Protection of the Archaeological Heritage</p> <p>Council of Europe (2000) European Landscape Convention</p> <p>European Council (2013) Seventh EU Environmental Action Plan (EAP) (2013-2020)</p> <p>European Commission (2006) Groundwater Directive 2006/118/EC</p> <p>European Commission (1992) EU Directive on the Conservation of Natural Habitats and Wild Fauna and Flora - The Habitats Directive 92/43/EEC</p> <p>European Commission (1999) European Spatial Development Perspective (ESDP) (97/150/EC)</p> <p>European Commission (2001) National Emissions Ceiling Directive 2001/81/EC</p> <p>European Commission (2002) Environmental Noise Directive (END) 2002/49/EC</p> <p>European Commission (2003) Public Sector Information Directive (PSI) 2003/98/EC</p> <p>European Commission (2004) Environmental Liability Directive 2004/35/EC</p> <p>European Commission (2005) EU Thematic Strategy on Air Quality</p> <p>European Commission (2006) Sustainable Development Strategy</p> <p>European Commission (2006) Action Plan on Biodiversity</p> <p>European Commission (2007) Together for Health - A Strategic Approach for the EU 2008-2013</p> <p>European Commission (2007) The Integrated Climate and Energy Package</p> <p>European Commission (2007) Green Paper: Towards A New Culture for Urban Mobility</p> <p>European Commission (2007) The Floods Directive 2007/60/EC</p> <p>European Commission (2008) Ambient Air Quality and Cleaner Air for Europe Directive 2008/50/EC and Air Quality Framework Fourth Daughter Directive 2004/107/EC</p>

European Commission (2008) Environmental Quality Standards Directive 2008/105/EC
European Commission (2009) Review of the EU Sustainable Development Strategy European Commission (2009)
European Commission (2009) The Birds Directive 2009/147/EC
European Commission (2009) Renewable Energy Directive 2009/8/EC
European Commission (2009) Promotion of Clean and Energy – Efficient Road Transport Vehicles Directive 2009/33/EC
European Commission (2009) Action Plan on Urban Mobility
European Commission (2009) White Paper: A Sustainable Future for Transport
European Commission (2010) Industrial Emissions Directive (integrated pollution prevention and control) 2010/75/EU
European Commission (2010) Europe 2020: A strategy for smart, sustainable and inclusive growth
European Commission (2010) Energy 2020 - A Strategy for Competitive, Sustainable and Secure Energy
European Commission (2011) A Roadmap for Moving to a Competitive Low Carbon Economy in 2050
European Commission (2011) EU Biodiversity Strategy to 2020
European Commission (2011) Roadmap to a Single European Transport Area
European Commission (2012) Energy Efficiency Directive (2012/27/EU)
European Commission (2013) Strategy on Adaptation to Climate Change
European Commission (2013) Towards Social Investment for Growth and Cohesion 2014-2020
European Commission (2013) Seventh Environmental Action Programme to 2020 'Living well, within the limits of our planet'
European Commission (2014) 2030 Policy Framework for Climate and Energy
European Commission (2015) An Aviation Strategy for Europe
European Commission (2016) A European Strategy for Low – Emission Mobility
European Commission (2017) Strategic Plan 2016 to 2020 – Mobility and Transport
European Union (2001) SEA Directive (2001/42/EC)
European Union (2005) Emissions Trading Scheme (EU ETS)
European Union (2014) Environmental Impact Assessment Directive 2014/52/EU amending Directive 2011/92/EU

UK Plans and Programmes

The Department for Business, Innovation and Skills (BIS) (2010) Local Growth: Realising Every Place's Potential (Local Growth White Paper)
Committee on Climate Change (2008) Building a Low-Carbon Economy - the UK's Contribution to Tackling Climate Change
Defra (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland
Defra (2007) Conserving Biodiversity the UK Approach 2007
Defra (2010) Air Pollution: Action in a Changing Climate
Defra (2010) Adapting to Coastal Change: Developing a Policy Framework
Defra (2011) Air Quality Plans for the Achievement of EU Air Quality Limit Values for Nitrogen Dioxide (NO₂) in the UK: List of UK and National Measures
Defra (2011) The Natural Choice: Securing the Value of Nature (Natural Environment White Paper)
Defra (2011) Mainstreaming Sustainable Development
Defra (2012) UK Climate Change Risk Assessment: Government Report
Defra and Department for Transport (2017) Air Quality plan for NO₂ in the UK Defra (2013) The National Adaptation Programme: Making the Country Resilient to a Changing Climate
Defra (2018) Clean Air Strategy
DECC (2009) UK Ports for the Offshore Wind Industry: Time to Act
DECC (2011) Carbon Plan: Delivering our Low Carbon Future
DECC (2011) National Policy Statements for Energy Infrastructure
DECC (2011) UK Renewable Energy Roadmap
DECC (2014) UK National Energy Efficiency Action Plan
Department for Culture, Media & Sport (2007) Heritage Protection for the 21st Century
Department for Culture, Media & Sport (2013) Scheduled Monuments & Nationally Important but Non-Scheduled Monuments
Department for Transport (2007) Ports Policy Review Interim Report
Department for Transport (2008) Delivering a Sustainable Transport System
Department for Transport (2011) National Policy Statement for Ports
Department for Transport (2016) Rail Freight Strategy
Department for Transport (2017) Transport Investment Strategy – Moving Britain Forward
Department for Transport (2017) Transport Infrastructure Efficiency Strategy
Department for Transport (2017) Connecting People: A Strategic Vision for Rail
Department for Transport (2017) Cycling and Walking Investment Strategy
Department for Transport (2018) Aviation 2050: The future of UK Aviation
Department for Transport (2018) The Inclusive Transport Strategy: Achieving Equal Access for Disabled People
Department for Transport (2018) Connecting communities with the railways: the community rail development strategy
Department for Transport (2019) Future of Mobility: Urban Strategy
Department for Transport (2019) Clean Maritime Plan: Maritime 2050

Department for Transport (2019) Port Air Quality Strategies
 Defra, Scottish Government, Welsh Government (2008) The Invasive and Non-Native Species Framework Strategy for Great Britain
 Environment Agency (2010) Managing the Environment in a Changing Climate
 Environment Agency (2018) The Environment Agency's Approach to Groundwater Protection V1.2
 Health Protection Agency (2007) Children's Environment and Health Action Plan
 Health Protection Agency (2008) Health Effects of Climate Change in the UK 2008 - An update of the Department of Health report 2001/2002
 HM Government (1949) National Parks and Access to the Countryside Act 1949
 HM Government (1967) Forestry Act 1967
 HM Government (1973) The Protection of Wrecks Act 1973
 HM Government (1979) Ancient Monuments and Archaeological Areas Act 1979
 HM Government (1981) Wildlife and Countryside Act
 HM Government (1986) Agriculture Act (with numerous revisions) 1986
 HM Government (1990) Environmental Protection Act
 HM Government (1990) Planning (Listed Buildings and Conservation Areas) Act 1990
 HM Government (1996) The Treasure Act 1996
 HM Government (1995) Environment Act 1995
 HM Government (2000) Transport Act 2000
 HM Government (2000) Countryside and Rights of Way Act 2000
 HM Government (2002) The National Heritage Act 2002
 HM Government (2003) The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003
 HM Government (2006) The Stern Review: The Economics of Climate Change
 HM Government (2006) Government of Wales Act 2006
 HM Government (2006) Natural Environment and Rural Communities Act 2006
 HM Government (2006) Commons Act 2006
 HM Government (2007) Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended 2010)
 HM Government (2008) Climate Change Act 2008
 HM Government (2008) The Energy Act 2008
 HM Government (2009) The Climate Change Act 2008 (2020 Target, Credit Limit and Definitions) Order 2009
 HM Government (2009) Flood Risk Regulations 2009
 HM Government (2009) The Marine and Coastal Access Act 2009
 HM Government (2010) Flood and Water Management Act 2010
 HM Government (2010) Air Quality Standards Regulations
 HM Government (2010) The Equality Act 2010
 HM Government (2010) Marine Strategy Framework Directive - putting in place the legal framework for implementation
 HM Government (2010) Conservation of Habitats & Species Regulations 2010 (as amended 2011)
 HM Government (2010) Marine Strategy Regulations 2010
 HM Government (2010) Environmental Permitting (England and Wales) Regulations
 HM Government (2013) Aviation Policy Framework
 HM Government (2015) Ozone-Depleting Substances Regulations 2015
 HM Government (2017) Industrial Strategy: Building a Britain fit for the Future
 HM Government (2017) Clean Growth Strategy
 HM Government (2017) Wales Act
 HM Government (2018) The Road to Zero
 HM Government (2018) A Green Future: Our 25 Year Plan to Improve the Environment
 HM Government (2019) Clean Air Strategy 2019
 HMG, NI Executive, Scottish Government, Welsh Government (2011) UK Marine Policy Statement
 HM Treasury (2011) UK Plan for Growth
 HM Treasury (2014) National Infrastructure Plan
 House of Commons (2016) Regional Airports
 Joint Nature Conservation Committee and Defra (2012) UK Post-2010 Biodiversity Framework
 Natural England and JNCC (2011) Marine Conservation Zone (MCZ) Project
 NERC (2010) Marine Environmental Mapping Programme (MAREMAP)
 Public Health England (2019) PHE Strategy 2020 - 2025
 Strategic Plan for Biodiversity 2011-2020 (2010)
 Sustainable Development Commission (2010) Sustainable Development: The Key to Tackling Health Inequalities
 UK Marine Monitoring and Assessment Strategy (2010) Charting Progress 2: The State of UK Seas
 UK National Ecosystem Assessment (2011) UK National Ecosystem Assessment: Understanding Nature's Value to Society

Brecon Beacons National Park Authority (2015) A Management Plan for the Brecon Beacons National Park 2015 - 2020
 Committee on Climate Change (2017) UK Climate Change Risk Assessment 2017 Evidence Report, Summary for Wales
 Countryside Council for Wales (now Natural Resources Wales) (2001) Register of Landscapes of Historic Interest
 Countryside Council for Wales (now Natural Resources Wales) (2015) National Seascape Assessment for Wales, LUC, NRW
 Future Generations Commissioner for Wales (2020) The Future Generations Report
 Joint Nature Conservation Committee (ongoing) Geological Conservation Review
 Historic Environment Group (2020) Historic Environment and Climate Change in Wales Sector Adaption Plan
 National Assembly for Wales (2009) Environmental Damage (Prevention and Remediation) (Wales) Regulations 2009
 National Assembly for Wales (2012) Contaminated Land (Wales) (Amendment) Regulations 2012
 National Assembly for Wales (2014) Social Services and Well-being (Wales) Act 2014
 National Assembly for Wales (2015) Planning (Wales) Act 2015
 National Assembly for Wales (2015) Well-being of Future Generations (Wales) Act 2015
 National Assembly for Wales (2016) Environment (Wales) Act 2016
 National Assembly for Wales (2016) Historic Environment (Wales) Act 2016
 National Assembly for Wales (2016) Public Health (Wales) Act
 National Assembly for Wales (2019) The Future Development of Transport for Wales
 Natural Resources Wales (ongoing) LANDMAP Programme
 Natural Resources Wales (2015) LIFE Natura 2000 Programme for Wales
 Natural Resources Wales (2015) Natural Resources Policy Statement
 Natural Resources Wales (2016) State of Natural Resources Report (SoNaRR)
 Natural Resources Wales (2019) State of Natural Resources (SoNaRR) Interim Report
 NHS Wales (2011) Together for Health
 Oxfam (2020) The Welsh Doughnut – A Framework for Environmental Sustainability and Social Justice
 Pembrokeshire Coast National Park Authority (2019) Management Plan 2020 - 2024
 Public Health Wales (2015) A Healthier, Happier and Fairer Wales
 Public Health Wales (2018) Long Term Strategy
 Public Health Wales (2019) Our Strategic Plan 2019 – 2022
 Snowdonia National Park Authority (2010) National Park Management Plan
 Sustainable Development Commission (2009) Low Carbon Wales
 The Socio-Economic Duty (2021)
 Wales Council for Voluntary Action (2016) Shape Your Future - future trends: Implications for the third sector in Wales
 Welsh Assembly Government (2007) One Wales – A Progressive Agenda for the Government of Wales
 Welsh Assembly Government (2008) One Wales: Connecting the Nation
 Welsh Assembly Government (2008) Welsh Coastal Tourism Strategy
 Welsh Assembly Government (2008) The Wales Freight Strategy
 Welsh Assembly Government (2009) Getting On Together - a Community Cohesion Strategy for Wales
 Welsh Assembly Government (2009) Capturing the Potential: A Green Jobs Strategy for Wales
 Welsh Assembly Government (2009) Rural Health Plan
 Welsh Assembly Government (2010) Improving Lives and Communities – Homes in Wales
 Welsh Assembly Government (2010) Setting the Direction: Primary & Community Services Strategic Delivery Programme
 Welsh Assembly Government (2010) A Major Events Strategy for Wales 2010 - 2020
 Wales Biodiversity Partnership (2010) Wales Biodiversity Framework
 Welsh Government (2006) Play Policy Implementation Plan
 Welsh Government (2006) Environment Strategy for Wales
 Welsh Government (2007) Coastal Access Improvement Programme
 Welsh Government (2007) Making the Most of Wales' Coast: The Integrated Coastal Zone Management Strategy for Wales
 Welsh Government (2008) Wales Transport Strategy
 Welsh Government (2008) People, Places, Future – The Wales Spatial Plan
 Welsh Government (2009) One Wales: One Planet, A New Sustainable Development Scheme for Wales Sustainable Development Scheme
 Welsh Government (2009) Woodlands for Wales Strategy
 Welsh Government (2009) Living Well Living Independent Lives
 Welsh Government (2010) Economic Renewal: A New Direction
 Welsh Government (2010) Valuing the Welsh Historic Environment
 Welsh Government (2010) Climate Change Strategy for Wales
 Welsh Government (2010) Low Carbon Revolution – the Welsh Government Energy Policy Statement
 Welsh Government (2010) Fulfilled Lives, Supportive Communities
 Welsh Government (2011) Policy Statement: Preparing for a Changing Climate
 Welsh Government (2011) Rural Development Plan for Wales (2014-2020)
 Welsh Government (2011) Rights of Children and Young Persons (Wales) Measure 2011

Welsh Government (2011) Welsh Language (Wales) Measure 2011

Welsh Government (2012) Working Differently – Working Together

Welsh Government (2012) Energy Wales: A Low Carbon Transition

Welsh Government (2012) Sustaining a Living Wales: A Green Paper on a New Approach to Natural Resource Management in Wales

Welsh Government (2012) Wales Infrastructure Investment Plan

Welsh Government (2013) Partnership for Growth: The Welsh Government Strategy for Tourism 2013 – 2020

Welsh Government (2013) National Flood and Coastal Erosion Strategy for Wales

Welsh Government (2013) The Historic Environment Strategy for Wales

Welsh Government (2013) Vibrant and Viable Places New Regeneration Framework

Welsh Government (2013) The Strategy for Older People in Wales 2013-2023

Welsh Government (2013) Active Travel (Wales) Act 2013

Welsh Government (2014) Declaration of Rights for Older People

Welsh Government (2015) Water Strategy for Wales

Welsh Government (2015) Strategy for Tourism 2013 – 2020: Framework Action Plan Year 2

Welsh Government (2015) Nature Recovery Action Plan

Welsh Government (2016) Active Travel Action Plan for Wales

Welsh Government (2016) Consultation on a Welsh Government draft strategy: a million Welsh speakers by 2050

Welsh Government (2016) National Strategy on Violence against Women, Domestic Abuse and Sexual Violence – 2016 - 2021

Welsh Government (2017) Natural Resources Policy

Welsh Government (2017) Prosperity for All: The National Strategy

Welsh Government (2017) Prosperity for All: Economic Action Plan

Welsh Government (2017) Taking Wales Forward 2016 – 2021

Welsh Government (2017) Welsh Transport Appraisal Guidance

Welsh Government (2018) Planning Policy Wales; Edition 10

Welsh Government (2018) Clean Air Zone Framework for Wales

Welsh Government (2018) Improving Public Transport (White Paper)

Welsh Government (2018) Valued and Resilient: The Welsh Government's Priorities for Areas of Outstanding Natural Beauty and National Parks

Welsh Government (2018) Review of the Road Safety Framework for Wales

Welsh Government (2018) Noise and Soundscape Action Plan 2018 -2023

Welsh Government (2019) Draft National Development Framework 2020 – 2040

Welsh Government (2019) Healthy Weight: Healthy Wales

Welsh Government (2019) A railway for Wales: the case for devolution

Welsh Government (2019) The Clean Air Plan for Wales; Healthy Air, Healthy Wales

Welsh Government (2019) Public Transport (Wales) Bill: Draft Regulatory Impact Assessment

Welsh Government (2019) National Transport Finance Plan 2018

Welsh Government (2019) International Strategy – Draft for Consultation

Welsh Government (2019) Prosperity for All: A Low Carbon Wales

Welsh Government (2019) Prosperity for All: A Climate Conscious Wales

Welsh Government (2020) Connected Communities

Welsh Government (2020) 20mph Task Force Group Report

Welsh Government/ NHS (2016) Measuring the health and well-being of a nation: Public Health Outcomes Framework for Wales

Welsh Government (2009) Technical Advice Note (TAN) 5: Nature Conservation and Planning

Welsh Government (2010) Technical Advice Note (TAN) 6: Planning for Sustainable Rural Communities

Welsh Government (2005) Technical Advice Note (TAN) 8: Renewable Energy

Welsh Government (1997) Technical Advice Note (TAN) 10: Tree Preservation Orders

Welsh Government (1997) Technical Advice Note (TAN) 11: Noise

Welsh Government (2016) Technical Advice Note (TAN) 12: Design

Welsh Government (1997) Technical Advice Note (TAN) 13: Tourism

Welsh Government (1998) Technical Advice Note (TAN) 14: Coastal Planning

Welsh Government (2004) Technical Advice Note (TAN) 15: Development and Flood Risk

Welsh Government (2007) Technical Advice Note (TAN) 18: Transport

Welsh Government (2013) Technical Advice Note (TAN) 20: Planning and the Welsh Language

Welsh Government (2014) Technical Advice Note (TAN) 23: Economic Development

Welsh Government (2017) Technical Advice Note (TAN) 24: The Historic Environment

Welsh Government: Wales We Want National Conversation

Welsh Water (2008) Surface Water Management Strategy

Future Generations Commissioner for Wales: 10 Point Plan to Fund Wales' Climate Emergency, White Paper: Detailed Report, June 2019

Table 1-2 summarises the outcomes of the review of International, European, UK and National plans, policies and environmental protection objectives. This identified key themes and the implications for the ISA and the WTS illustrating how these link to the development of the ISA framework.

The Well-being of Future Generations (Wales) Act 2015 that are applicable to the themes relevant to the ISA have also been included within Table 1-2. The goals are listed below:

1. A prosperous Wales
2. A resilient Wales
3. A healthier Wales
4. A more equal Wales
5. A Wales of cohesive communities
6. A Wales of vibrant culture and thriving Welsh language
7. A globally responsible Wales

Table 1-2 Sustainability Themes linked to ISA Objectives

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
Reduce air pollution and ensure improvements in air quality contributing to a healthier Wales	2, 3 and 7	Geneva Convention on Long Range Transboundary Air Pollution; The United Nations Framework Convention on Climate Change; Kyoto Protocol to the UN Framework Convention on Climate Change; Declaration of Human Rights; The	Building a Low-Carbon Economy - the UK's Contribution to Tackling Climate Change; Environmental Protection Act 1990; Air Pollution: Action in a Changing Climate; Air Quality Plans for the Achievement of EU Air Quality Limit Values for	Environment (Wales) Act 2016; Environment Strategy for Wales; Climate Change Strategy for Wales; Low Carbon Revolution – the Welsh Government Energy Policy Statement; Policy Statement: Preparing for a Changing Climate; A Climate Conscious Wales; Energy Wales: A Low Carbon Transition; Wales Transport Strategy; Well-being of Future Generations (Wales) Act 2015; UK Climate Change Risk Assessment 2017 Evidence Report, summary for Wales; A Healthier, Happier	The WTS should seek to incorporate measures to improve air quality such as promoting low carbon initiatives and sustainable transport modes. The WTS should maximise the ability of Wales' natural habitats to absorb pollutants and improve air quality. The	The ISA Framework should include objectives that seek to improve air quality and health through a range of potential opportunities	Air, Population, Human Health and Climatic Factors	1, 6, 7, 8, 11 and 12

² Well-being of Future Generations (Wales) Act 2015

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
		Copenhagen Accord; National Emissions Ceiling Directive 2001/81/EC; EU Thematic Strategy on Air Quality; Ambient Air Quality and Cleaner Air for Europe Directive 2008/50/EC and Air Quality Framework Fourth Daughter Directive 2004/107/EC; Seventh EU Environmental Action Plan; The EIA Directive 2014/52/EU; Industrial Emissions Directive (integrated pollution prevention and control) 2010/75/EU; Emissions Trading Scheme (EU ETS); Cancun Adaptation Framework (2010); Paris Agreement (2016).	Nitrogen Dioxide (NO ₂) in the UK: List of UK and National Measures; The National Adaptation Programme: Making the Country Resilient to a Changing Climate; Carbon Plan: Delivering our Low Carbon Future; UK Climate Change Risk Assessment: Government Report; Delivering a Sustainable Transport System; Managing the Environment in a Changing Climate; Climate Change Act 2008; Air Quality Standards Regulations 2010; Mainstreaming Sustainable Development; Environment Act 1995; Ozone-Depleting Substances Regulations 2015; Aviation Policy Framework; UK Climate Change Risk Assessment (2012); Air Quality plan for NO ₂ in	and Fairer Wales; Low Carbon Wales; Active Travel (Wales) Act 2013; Active Travel Action Plan for Wales; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; One Wales: Connecting the Nation; Technical Advice Note (TAN) 18: Transport; Clean Air Zone Framework (2018); Healthy Air, Healthy Wales (2019); Prosperity for All: A Low Carbon Wales, Public Health Wales (2018) Long Term Strategy Public Health Wales (2019), Our Strategic Plan 2019 – 2022; The Future Generations Report (2020)	plans, programmes and environmental protection objectives seek to improve air quality through low carbon initiatives and policies, Plans, programmes and environmental protection objectives that prioritise economic development without consideration of ecosystems services, may conflict with this theme. This is as an increase in built development or transport infrastructure could threaten the achievement of an improvement in, or the protection of, the natural environment. The WTS should also consider if poor air quality hot spots relate to areas of economic disparity. The health implications of poor air quality and the impact this has on vulnerable groups	such as transport, housing, economic development and improvements to the natural environment and ecosystems services.		

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
			the UK; Clean Air Strategy (2019);		should also be considered.			
Promote sustainable patterns of mobility, including active travel and public transport and enhance Sustainable Transport provision to improve air quality		A European Strategy for Low – Emission Mobility (2016); Cycling and Green Jobs; The PEP Partnerships (2019), Developing National Action Plans on Transport, Health and Environment (2014) Making the (Transport, Health and Environment) Link (2018); Green Paper: Towards a New Culture for Urban Mobility (2007); Action Plan on Urban Mobility (2009); Efficient Road Transport Vehicles Directive (2009/33/EC); A Sustainable Transport Future (2009); Strategic Plan 2016 – 2020: Mobility and Transport (2017);	UK Ports for the Offshore Wind Industry: Time to Act; Ports Policy Review Interim Report; Delivering a Sustainable Transport System; National Policy Statement for Ports; Transport Act 2000; Cycle and Walking Investment Strategy (2017); Port Air Quality Strategies (2019); Maritime (2050); The Community Rail Development Strategy (2018)	Wales Transport Strategy; Active Travel (Wales) Act 2013; Active Travel Action Plan for Wales; Clean Air Zone Framework (2018); Planning Policy Wales 10 (2018); Public Transport Bill (2019); A railway for Wales: the case for devolution (2019); Improving Public Transport (White Paper); The Future Development of Transport for Wales; Prosperity for All: A Low Carbon Wales; The Social Model of Disability.	The WTS should seek to promote and enhance sustainable transport modes, including Active Travel and Public Transport, in order to dissuade the use of single occupancy vehicles. The WTS should enhance and maintain sustainable connectivity between communities and across Wales, with the aim to reduce emissions and improve air quality. Patterns of mobility should be considered, in particular, if there are gendered or demographic differences associated with journey type, mode and journey time.	The ISA Framework should include objectives which seek to ensure the number single occupancy vehicle trips decreases and public transport and active travel patronage increases.	Air, Population, Human Health and Material Assets	1, 2, 6, 7, 8, 11 and 12
Improve the connectivity of existing communities and	1, 2, 3, 4, 5, 6 and 7	European Sustainable Development Strategy; Roadmap to a Single	The UK's Shared Framework for Sustainable	PPW edition 10; TAN18; One Wales, One Planet; TAN6-Planning for Sustainable Rural Communities;; Well-being of Future	Development and transport infrastructure should encourage	The ISA Framework should include	Population, Human Health and	1, 2, 3 and 9

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
reduce isolation through better planned and designed future communities and more inclusive public transport.		European Transport Area; Declaration of Human Rights; The Rio Declaration on Environment and Development; Review of the EU Sustainable Development Strategy European Commission (2009); Convention on the Rights of Persons with Disabilities;	Development; Countryside and Rights of Way Act; National Parks and Access to the Countryside Act 1949Achieving Equal Access for Disabled People (2018); Connecting People: A Strategic Vision for Rail (2017); Future of Mobility: Urban Strategy (2019); The Community Rail Development Strategy (2018)	Generations Act; Wales Transport Strategy; Active Travel (Wales) Act 2013; Active Travel Action Plan for Wales; Framework for Action on Independent Living; Taking Wales Forward 2016-2021; Planning (Wales) Act 2015; Shape Your Future - future trends: Implications for the third sector in Wales; One Wales – A Progressive Agenda for the Government of Wales; One Wales: Connecting the Nation; Rural Development Plan for Wales (2014-2020); Connected Communities (2020); Improving Public Transport (White Paper); The Future Development of Transport for Wales; The Future Generations Report (2020); The Welsh Doughnut	efficient and sustainable patterns of movement in the first instance. The WTS should plan for reducing the need to travel and provide opportunities to access new and existing development and services by a range of sustainable travel modes.	objectives that encourage improving the connectivity of communities and sustainable patterns of movement, as well as sustainable transport options.	Material Assets	
Promote greater equality of opportunity for all citizens. This should include a focus on ensuring equal accessibility for all, including for disabled and vulnerable people, as well as equality of outcome for all	1, 2, 3, 4, 5, 6 and 7	European Sustainable Development Strategy; Roadmap to a Single European Transport Area; The Rio Declaration on Environment and Development; Review of the EU Sustainable Development Strategy European Commission (2009); Convention on the Rights of Persons with Disabilities; Transport	The UK's Shared Framework for Sustainable Development; Countryside and Rights of Way Act; National Parks and Access to the Countryside Act 1949Achieving Equal Access for Disabled People (2018); Connecting People: A	PPW edition 10; TAN18; One Wales, One Planet; TAN6-Planning for Sustainable Rural Communities;; Well-being of Future Generations Act; Wales Transport Strategy; Active Travel (Wales) Act 2013; Active Travel Action Plan for Wales; Framework for Action on Independent Living; Taking Wales Forward 2016-2021; Planning (Wales) Act 2015; Shape Your Future - future trends: Implications for the third sector in Wales; One Wales – A Progressive Agenda for the Government of Wales; One Wales:	The WTS will need to recognise the existing ways in which power structures based on factors such as gender, race, sexuality, disability, class, age and faith interact with each other and create inequalities, discrimination and oppression. The WTS will need to ensure that	The ISA will need to help ensure that a gender perspective is at the heart of all decision-making during the preparation of the WTS. Appraisals through the ISA	Population and Human Health	1, 2, 3 and 9

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
women, men, and non-binary people		Connectivity: A Gender Perspective, International Transport Forum, 2019	Strategic Vision for Rail (2017); Future of Mobility: Urban Strategy (2019); The Community Rail Development Strategy (2018); Public Transport and Gender, Women's Budget Group, October 2018; 3 Campaign for Better Transport (2018) Buses in Crisis: A report on bus funding across England and Wales 2010-2018; Strategic Equality Plan 2020 - 2024	Connecting the Nation; Rural Development Plan for Wales (2014-2020); Connected Communities (2020); Improving Public Transport (White Paper); The Future Development of Transport for Wales; The Future Generations Report (2020); The Welsh Doughnut: A framework for environmental sustainability and social justice; Advancing Gender Equality in Wales Plan (2020);	transport in Wales facilitates economic independence of all women with all forms of unpaid and paid work recognised; facilitates the freedom of women to live their lives as they choose; challenges any existing power structures that may be disadvantaging women; is committed to equality of outcome for all women, men and non-binary people; places a gender perspective at the heart of decision-making; is open, transparent and welcomes scrutiny through a gender-lens; actively monitors progress towards equality; and leads by example for delivering equality.	will provide scrutiny from a gender-lens and help to ensure equality of outcome for all men, women, and non-binary people. The ISA will help to ensure that key issues such as safety on public transport, in public toilets and when using services such as taxis are appropriately addressed in the WTS.		

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
Maintain and enhance biodiversity, habitats and species with healthy functioning and resilient ecosystems, including connected networks of green infrastructure throughout rural and urban areas. This is so that ecosystem services provided by green infrastructure can be enhanced and taken full advantage of, including climate change resilience & mitigation, enhancements to biodiversity, geodiversity and soils and filtering air and water.	1,2,3,5 and 7	The Rio Convention on Biodiversity; Rio Declaration on Environment and Development; Liability Directive 2004/35/EC; World Summit on Sustainable Development; Convention on the Conservation of European Wildlife and Natural Habitats – The Bern Convention; EU Directive on the Conservation of Natural Habitats and Wild Fauna and Flora – The Habitats Directive 92/43/EEC; Convention on International Trade in Endangered Species of Wild Fauna and Flora; The Ramsar Convention on Wetlands (1971); Convention on International Trade in Endangered Species of Wild Fauna and Flora; Cancun Adaptation Framework (2010); Paris Agreement; Review of the EU Sustainable Development Strategy; The Birds Directive	Mainstreaming Sustainable Development; The Natural Choice: Securing the Value of Nature; Wildlife and Countryside Act 1981; Environmental Protection Act 1990; Natural Environment and Rural Communities Act 2006; Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended 2010); Conservation of Habitats & Species Regulations 2010 (as amended 2011); The UK Post-2010 Biodiversity Framework; Charting Progress 2: The State of UK Seas; UK National Ecosystem Assessment: Understanding Nature's Value to Society; The Paris Agreement; Joint Nature Conservation Committee and Defra (2012) UK Post-2010	One Wales: One Planet: The Sustainable Development Scheme of the Welsh Assembly Government; Woodlands for Wales Strategy; Wales Biodiversity Framework; UK Climate Change Risk Assessment 2017 Evidence Report; National Seascape Assessment for Wales; Taking Wales Forward 2016-2021; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; SoNaRR; Draft NRP; One Wales: Connecting the Nation; Capturing the Potential: A Green Jobs Strategy for Wales; Rural Development Plan for Wales (2014-2020); Water Strategy for Wales; Surface Water Management Strategy;; Technical Advice Note (TAN) 5: Nature Conservation and Planning; TAN 10: Tree Preservation Orders; Nature Recovery Action Plan (2015)	The WTS should seek to make transport, the environment and communities more resilient to major environmental problems including addressing declining biodiversity. Section 6 of the Environment (Wales) Act 2016 introduces an enhanced biodiversity and resilience of ecosystems duties for public authorities in relation to the exercise of their functions. The emphasis of the duty is that the consideration of biodiversity and ecosystem are embedded in the early thinking of the development of the WTS. The design of new transport infrastructure should retain and enhance biodiversity and habitats and the WTS should reflect this, with no interventions	The ISA Framework should include objectives that seek to conserve and enhance biodiversity, species and habitats as part of a wider aim to protect and enhance ecosystems services.	Biodiversity, Flora and Fauna	6, 7, 8, 9 and 11

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
Well-connected green infrastructure networks also provide active travel links		2009/147/EC; EU Biodiversity Strategy to 2020; Action Plan on Biodiversity (2006)	Biodiversity Framework; Conserving Biodiversity the UK Approach; Joint Nature Conservation Committee (2012) The UK Post-2010 Biodiversity Framework; Strategic Plan for Biodiversity 2011-2020 (2010); Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended 2010); Conservation of Habitats & Species Regulations 2010 (as amended 2011); The Invasive and Non-Native Species Framework Strategy for Great Britain; National Parks and Access to the Countryside Act 1949; Environment Act 1995; The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003; Ozone-Depleting Substances Regulations 2015; HMG, NI		resulting in a net loss of biodiversity. Capturing this duty as an integral part of the WTS development process will be essential. The Plans, programmes and environmental protection objectives seek to conserve and protect biodiversity through international and national regulations or frameworks. Plans, programmes and environmental protection objectives that prioritise economic development without consideration of ecosystems resilience, may conflict with this theme. This is as an increase in built development or transport infrastructure could threaten the achievement of an improvement in, or the protection of, the natural environment.			

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
			Executive, Scottish Government; Inshore Fisheries and Conservation Authorities Bylaws (various); Natural England and JNCC (2011) Marine Conservation Zone (MCZ) Project; NERC (2010) Marine Environmental Mapping Programme (MAREMAP)					
Reduce the existing or future risk of flooding and/or coastal erosion by adapting existing infrastructure to the impacts of climate change, and promote protection of floodplains or areas of managed realignment	2, 3 and 7	The EU Water Framework Directive; EU Flood Directive; European Sustainable Development Strategy; EU Directive 2014/52/EU 97/11/EC amending Directive 85/337/EEC on Environmental Impact Assessment; The Floods Directive 2007/60/EC; The Rio Declaration on Environment and Development; The United Nations Framework Convention on Climate Change; Kyoto Protocol to	Flood Risk Regulations 2009; Flood and Water Management Act 2010; Adapting to Coastal Change: Developing a Policy Framework; The Marine and Coastal Access Act 2009; Environment Act 1995; The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003; Ozone-Depleting Substances Regulations 2015; Inshore Fisheries and Conservation	PPW edition 10; TAN15 Development and Flood Risk; National Flood and Coastal Erosion Strategy for Wales; Welsh Coastal Tourism Strategy; Coastal Access Improvement Programme; Making the Most of Wales' Coast: The Integrated Coastal Zone Management Strategy for Wales; UK Climate Change Risk Assessment 2017 Evidence Report; National Seascape Assessment for Wales; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; Welsh Government Strategic Policy Position on Water; Water Strategy for Wales; Surface Water Management Strategy;	The WTS should use natural features that contribute to flood management to reduce flood risk and coastal erosion. Optioneering and design should seek to adapt to the risk of flooding when determining the location and design of new development and associated transport infrastructure. The WTS should ensure that new transport infrastructure avoids areas of flood	The ISA Framework needs to include objectives that to seek to ensure that flood risk is reduced, reflecting the principles of national studies and objectives.	Water Climatic Factors Population and Human Health	3, 6, 7, 9, 11 and 12

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
		the UN Framework Convention on Climate Change; Cancun Adaptation Framework (2010); Paris Agreement (2016); Review of the EU Sustainable Development Strategy European Commission (2009)	Authorities Bylaws (various); NERC (2010) Marine Environmental Mapping Programme (MAREMAP); Sustainable Development Commission (2005) One Future – Different Paths. Shared Framework for Sustainable Development	Technical Advice Note (TAN) 14: Coastal Planning	risk where possible and does not increase flood risk and should seek to ensure transport development incorporates climate change adaptation measures. The WTS should consider if areas of economic disparity are associated with a higher flood risk and should contribute to managing this additional risk.			
Sustainably manage natural resources and tackle the causes of climate change, including a reduction in carbon emissions associated with the transport sector in accordance with Wales' carbon budgets	1, 2, 3, 4, 5 and 7	Johannesburg Declaration on Sustainable Development; The EU Sixth Environmental Action Plan, European Sustainable Development Strategy; United Nations Framework Convention on Climate Change; European Climate Change Programme; The EU Air Quality Framework Directive; Agenda 21; EU Directive 97/11/EC amending Directive	Building a Low-Carbon Economy - the UK's Contribution to Tackling Climate Change; UK Climate Change Risk Assessment: Government Report; Health Effects of Climate Change in the UK 2008 - An update of the Department of Health report 2001/2002; The Stern Review: The Economics of Climate Change; Climate	Environment Strategy for Wales; Wales Spatial Plan;; Energy Policy Statement; Climate Change Strategy for Wales; One Wales, One Planet; Surface Water Management Strategy; TAN6-Planning for Sustainable Rural Communities Energy White Paper: Our Energy Future; Climate Change Wales; Well-being of Future Generations (Wales) Act 2015; A Climate Conscious Wales. Energy Wales A Low Carbon Transition; UK Climate Change Risk Assessment 2017 Evidence Report; Low Carbon Wales; Taking Wales Forward 2016-2021; Active Travel (Wales) Act 2013; Active Travel Action Plan for Wales;	The WTS should seek to reduce the consumption of natural resources and act to tackle the causes and consequences of climate change, through the promotion of sustainable transport modes and energy efficient transport systems The WTS could highlight the importance of managing and seeking to mitigate the consequences of climate	The ISA Framework should include objectives that address climate change issues. This is likely to be reflected across the whole range of SA objectives as a key	Air and Climatic Factors	3, 6, 7, 8, 9, 11 and 12.

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
		85/337/EEC on Environmental Impact Assessment; UN Framework Convention on Climate Change Directive to Promote Electricity from Renewable Energy (2001/77/EC); Strategy on Adaptation to Climate Change; National Emissions Ceiling Directive 2001/81/EC; Industrial Emissions Directive (integrated pollution prevention and control) 2010/75/EU; Emissions Trading Scheme (EU ETS); Kyoto Protocol to the UN Framework Convention on Climate Change; Cancun Adaptation Framework (2010); Paris Agreement (2016); Groundwater Directive 2006/118/EC; Review of the EU Sustainable Development Strategy European Commission (2009)	Change Act 2008; The Climate Change Act 2008 (2020 Target, Credit Limit and Definitions) Order 2009; Air Quality Strategy for England, Scotland, Wales and Northern Ireland; Water Resources Strategy for England and Wales; EA's Approach to Groundwater Protection V1.2 Forestry Act 1967; Planning (Listed Buildings and Conservation Areas) Act 1990; A Green Future (2018); Environment Act 1995; The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003; Ozone-Depleting Substances Regulations 2015; One Future – Different Paths. Shared Framework for	Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; One Wales: Connecting the Nation; Capturing the Potential: A Green Jobs Strategy for Wales; Woodlands for Wales Strategy; Welsh Government Strategic Policy Position on Water; Rural Development Plan for Wales (2014-2020); Sustaining a Living Wales: A Green Paper on a New Approach to Natural Resource Management in Wales; Water Strategy for Wales; Surface Water Management Strategy; Final Water Resources Management Plan; Natural Resources Policy (2017); Prosperity for All: A Low Carbon Wales; The Future Generations Report (2020); Nature Recovery Action Plan (2015); 10 Point Plan to Fund Wales' Climate Emergency Future Generations Commissioner for Wales, White Paper: Detailed Report, June 2019	change by building resilience into the natural and built environment.	integral cross-cutting theme.		

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
			Sustainable Development					
Protect and improve the quality and quantity of water resources	2, 3 and 7	The EU Water Framework Directive; EU Flood Directive; European Sustainable Development Strategy; EU Directive 2014/52/EU 97/11/EC amending Directive 85/337/EEC on Environmental Impact Assessment; The Rio Declaration on Environment and Development; The United Nations Framework Convention on Climate Change; Kyoto Protocol to the UN Framework Convention on Climate Change; Cancun Adaptation Framework (2010); Paris Agreement (2016); Review of the EU Sustainable Development Strategy European Commission (2009)	Flood and Water Management Act 2010; Adapting to Coastal Change: Developing a Policy Framework; The Marine and Coastal Access Act 2009; Environment Act 1995; The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003; Sustainable Development Commission (2005) One Future – Different Paths. Shared Framework for Sustainable Development	Surface Water Management Strategy; Coastal Access Improvement Programme; Making the Most of Wales' Coast: The Integrated Coastal Zone Management Strategy for Wales; UK Climate Change Risk Assessment 2017 Evidence Report; National Seascape Assessment for Wales; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; Welsh Government Strategic Policy Position on Water; Water Strategy for Wales; Surface Water Management Strategy; Final Water Resources Management Plan; Technical Advice Note (TAN) 14: Coastal Planning; Draft NRP	The WTS should seek opportunities to protect and improve the quality of water resources. The sustainable use of water should also be considered in new transport developments.	The ISA Framework needs to include objectives that seek to ensure that the quality of water resources is protected and improved.	Water	6, 7, 11 and 12

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
Manage mineral extraction and minimise waste generation and increase levels of reuse and recycling to achieve more sustainable waste management and reduce landfill	2 and 7	The EU Landfill of Waste Directive; EU Waste Framework Directive; European Sustainable Development Strategy; EU Directive 2014/52/EU 97/11/EC amending Directive 85/337/EEC on Environmental Impact Assessment; Environmental Liability Directive; (EU) Council Directive on Waste (75/442/EEC) as amended by Council Directive 91/156/EC; Council Directive on the Landfill of Waste (99/31/EC); EU Hazardous Waste Directive (91/689/EEC); EU Packaging and Packaging Waste Directive (94/62/EC); The Urban Waste Water Directive 91/271/EEC; Mineral Waste Directive 2006/21/EC; Landfill Directive (1999/31/EC); The Rio Declaration on	National Policy Statement for WasteWater; The UK's Shared Framework for Sustainable Development; Environment Act 1995; One Future – Different Paths. Shared Framework for Sustainable Development	Environment Strategy Wales; TAN21 – Waste; PPW edition 10; Wales Spatial Plan; One Wales, One Planet; Towards Zero Waste; Well-being of Future Generations (Wales) Act 2015; Low Carbon Revolution – the Welsh Government Energy Policy Statement; UK Climate Change Risk Assessment 2017 Evidence Report; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; Capturing the Potential: A Green Jobs Strategy for Wales; Technical Advice Note (TAN) 21: Waste; The Future Generations Report (2020)	The WTS should promote the reduction of waste. Opportunities for recycling and reuse should be encouraged and opportunities to reduce the amount of waste sent to landfill should be increased in line with National targets and goals.	The ISA Framework should include objectives that seek to encourage sustainable waste management.	Materials Assets, Soil, Population, Human Health and Climatic Factors	6, 7, 8, 9, 11 and 12

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
		Environment and Development						
Relieve pressure on natural resources by increasing energy efficiency, stimulating investment and innovation, and promoting the sustainable use of national renewable energy resources	1, 2, 3, 5 and 7	European Sustainable Development Strategy; EU Directive 2014/52/EU 97/11/EC amending Directive 85/337/EEC on Environmental Impact Assessment, Renewable Energy Coalition; The Integrated Climate and Energy Package; Renewable Energy Directive 2009/8/EC; Energy 2020 - A Strategy for Competitive, Sustainable and Secure Energy; Energy Efficiency Directive (2012/27/EU); 2030 Policy Framework for Climate and Energy; The United Nations Framework Convention on Climate Change; Kyoto Protocol to the UN Framework Convention on Climate Change; Environmental Quality Standards Directive 2008/105/EC; Review of the EU	National Policy Statements for Energy Infrastructure; UK Renewable Energy Roadmap; UK National Energy Efficiency Action Plan; The Energy Act 2008; The UK's Shared Framework for Sustainable Development; Water Resources Strategy for England and Wales; DECC (2009) Framework for the Development of Clean Coal; UK Ports for the Offshore Wind Industry: Time to Act; Forestry Act 1967; Environment Act 1995; Environmental Permitting (England and Wales) Regulations; Ozone-Depleting Substances Regulations	One Wales, One Planet; Wales a better Country; PPW edition 10; TAN8 – Renewable Energy; TAN6-Planning for Sustainable Rural Communities; Wales Spatial Plan; Energy Policy Statement; Climate Change Strategy for Wales; Well-being of Future Generations (Wales) Act 2015; Low Carbon Revolution – the Welsh Government Energy Policy Statement; Towards Zero Waste One Wales: One Planet; A Climate Conscious Wales;. Energy Wales A Low Carbon Transition; UK Climate Change Risk Assessment 2017 Evidence Report; Low Carbon Wales; Taking Wales Forward 2016-2021; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; Capturing the Potential: A Green Jobs Strategy for Wales; Woodlands for Wales Strategy; Rural Development Plan for Wales (2014-2020); Sustaining a Living Wales: A Green Paper on a New Approach to Natural Resource Management in Wales; Water Strategy for Wales; Surface Water Management Strategy; Final Water Resources Management Plan; The Future	The WTS should promote reduced energy usage and energy efficiency within the national transport network and incorporate this into the design phase of new transport infrastructure. The creation of energy from low or zero carbon energy sources for transport modes should also be promoted, capitalising on the potential of Wales.	The ISA Framework should include objectives that seek to encourage energy efficiency as well as the creation of energy from low or zero carbon energy sources, capitalising on the potential of Wales.	Population, Air and Climatic Factors	3, 6, 7, 8, 11 and 12

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
		Sustainable Development Strategy; Seventh Environmental Action Programme to 2020 'Living well, within the limits of our planet'; SEA Directive (2001/42/EC)	2015; A Green Future (2018);	Generations Report (2020); Nature Recovery Action Plan (2015)				
To conserve soil resources, control soil erosion and maintain their quality	2 and 7	European Sustainable Development Strategy; EU 6 TH Environmental Action Plan; EU Soil Framework Directive; European Nitrates Directive; EU Directive 2014/52/EU 97/11/EC amending Directive 85/337/EEC on Environmental Impact Assessment; Environmental Liability Directive 2004/35/EC; EU Nitrates Directive; European Thematic Strategy on Soil Protection European Commission (2006)	Forestry Act 1967; Environment Act 1995	Environment Strategy for Wales; Wales Spatial Plan; Surface Water Management Strategy; The Future of our Farming; UK Climate Change Risk Assessment 2017 Evidence Report; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; Woodlands for Wales Strategy; Draft NRP; Nature Recovery Action Plan (2015)	Better soil management will contribute to erosion prevention and supporting habitats. The WTS should ensure soil resources are not adversely affected by transport infrastructure or development.	The ISA Framework should include objectives with a focus on the protection of soil resources.	Soil, Material Assets and Water	6, 7, 8, 11 and 12
Protect and enhance the distinctiveness of our landscapes	1, 4, 5, 6 and 7	Convention Concerning the Protection of the World Cultural and Natural Heritage; European	Heritage Protection for the 21st Century; The Protection of Wrecks Act 1973; Ancient	PPW edition 10; Cultural Tourism Strategy; Coastal Tourism Strategy; TAN12 – Design; Register of Landscapes of Historic Interest; Historic Environment (Wales) Act 2016;	The WTS should protect and retain distinctiveness of the national landscapes,	The ISA Framework should include objectives that	Cultural Heritage	

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
National Parks, AONBs, seascapes, historic environment, historic assets, and their settings		Landscape Convention; European Convention on the Protection of the Archaeological Heritage	Monuments and Archaeological Areas Act 1979; Protection of Military Remains Act 1986; Planning (Listed Buildings and Conservation Areas) Act 1990; The Treasure Act 1996; Environment Act 1995; The National Heritage Act 2002; Commons Act 2006	Valuing the Welsh Historic Environment; The Historic Environment Strategy for Wales; UK Climate Change Risk Assessment 2017 Evidence Report; National Seascape Assessment for Wales; Taking Wales Forward 2016-2021; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; Valuing the Welsh Historic Environment; Valued and Resilient: The Welsh Government's Priorities for Areas of Outstanding Natural Beauty and National Parks; A Management Plan for the Brecon Beacons National Park 2015 – 2020; Pembrokeshire Coast National Park Management Plan 2020 – 2024; Snowdonia National Park Authority National Park Management Plan; Historic Environment and Climate Change in Wales Sector Adaption Plan	valued historic environment and cultural heritage and its setting and improve access to cultural facilities for citizens and visitors.	seek to protect local distinctiveness and the historic environment.	and Landscape	4, 5, 9, 10 and 13
Improve the physical and mental health and well-being of the population and reduce health inequalities to create a healthier Wales	1, 2, 3, 4, 5 and 7	Guidelines for Community Noise 1999; Children's Environment and Health Action Plan for Europe; Together for Health - A Strategic Approach for the EU 2008-2013; Environmental Noise Directive (END) 2002/49/EC; Seventh Environmental Action	Children's Environment and Health Action Plan; Health Effects of Climate Change in the UK 2008 - An update of the Department of Health report 2001/2002; Sustainable Development: The Key to Tackling Health Inequalities; One Future	PPW edition 10; Wales Spatial Plan; Play Policy Implementation Plan; National Energy Efficiency Action Plan; One Wales, One Planet; Living Well – Living Independent Lives; The Strategy for Older People in Wales; Third Sector Scheme; Volunteering Policy, Supporting Communities, Changing Lives; Towards Zero Waste; Active Travel (Wales) Act 2013; Active Travel Action Plan for Wales; Well-being of Future Generations (Wales) Act 2015; Together for Health; UK Climate	The WTS should encourage active travel and use the natural resources available to encourage an improvement in physical and mental health whilst promoting healthy and active lifestyles. The WTS should recognise the potential for national	The ISA framework should include a variety of social, environmental, cultural and economic objectives that seek to benefit health and the	Population, and Human Health	1, 2, 6, 7 and 8,

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
		Programme to 2020 'Living well, within the limits of our planet'	– Different Paths. Shared Framework for Sustainable Development; PHE Strategy 2020 – 2025;	Change Risk Assessment 2017 Evidence Report; A Healthier, Happier and Fairer Wales; Fulfilled Lives, Supportive Communities;; Declaration of Rights for Older People; Taking Wales Forward 2016-2021; Social Services and Well-being (Wales) Act 2014; Planning (Wales) Act 2015; Shape Your Future - future trends: Implications for the third sector in Wales; One Wales – A Progressive Agenda for the Government of Wales; One Wales: Connecting the Nation; Designed to Add Value - a third dimension for One Wales; Capturing the Potential: A Green Jobs Strategy for Wales; Rural Health Plan; A Framework for Action; Working Differently – Working Together; The Strategy for Older People in Wales 2013-2023; Technical Advice Note (TAN) 11: Noise Healthy Weight, Healthy Wales (2019); Public Health Wales - Long Term Strategy; Public Health Wales - Our Strategic Plan 2019 – 2022; Review of the Road Safety Framework for Wales; Noise and Soundscape Action Plan 2018 -2023; The Future Generations Report (2020); The Welsh Doughnut; The Socio-Economic Duty (2021)	green spaces as places for health and recreation, connecting habitats and supporting community interaction. A healthier population could enable people to achieve their potential and to make Wales a more equal society. The WTS should avoid and remove barriers to access for all members of society, including in accordance with the Social Model of Disability.	local community, reflecting the wide range of potential influences that can affect health and well-being within communities. This is likely to be reflected across the whole range of ISA objectives as a key integral cross-cutting theme.		
Contribute towards the future well-being of the	1, 2, 4, 6 and 7		Heritage Protection for the 21st Century (2007)	Welsh Language (Wales) Measure 2011; a million Welsh speakers by 2050; Planning (Wales) Act 2015; One Wales – A	The WTS should support activities which promote and facilitate	The ISA Framework should include	Population and Cultural	

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
Welsh language, culture, and heritage				Progressive Agenda for the Government of Wales; Well-being of Future Generations (Wales) Act (2015); One Wales: Connecting the Nation; Vibrant and Viable Places New Regeneration Framework; Welsh Medium Education Strategy 2010; TAN 24: The Historic Environment; The Future Generations Report (2020); Historic Environment and Climate Change in Wales Sector Adaption Plan	the use of the Welsh language as well as those who are reliant upon British Sign Language.	objectives that promote the Welsh language	Heritage	4, 5, 9 and 10
Create safe, sustainable, balanced, connected, and cohesive communities, including in both rural and urban areas	1, 2, 3, 4, 5 and 6	Johannesburg Declaration on Sustainable Development; European Spatial Development Perspective; European Sustainable Development Strategy; Agenda 21; Rio Declaration on Environment and Development; EU Rural Development Policy; Aarhus Convention; PSI Directive; Review of the EU Sustainable Development Strategy European Commission (2009); Towards Social Investment for Growth and Cohesion 2014-2020	Natural Environment and Rural Communities Act 2006; The Equality Act 2010; Planning (Listed Buildings and Conservation Areas) Act 1990; Commons Act 2006; One Future – Different Paths. Shared Framework for Sustainable Development; The Community Rail Development Strategy (2018)	National Energy Efficiency and Savings Plan; Living Well – Living Independent Lives; Framework for Regeneration Areas – Vibrant and Viable Places; Wales – A Better Country; Improving Lives and Communities – Homes in Wales; National Flood and Coastal Erosion Strategy for Wales; TAN 12- Design, Play Policy Implementation Plan; Community Cohesion Strategy for Wales; TAN1- Joint Housing Land Availability Studies; Gypsy Traveller Good Practice Guidelines; Travelling to a Better Future; Improving Lives and Communities; Improving Lives and Communities – Homes in Wales; Third Sector Scheme; Volunteering Policy, Supporting Communities, Changing Lives; A Healthier, Happier and Fairer Wales; Fulfilled Lives, Supportive Communities; Welsh Language (Wales) Measure 2011; a million Welsh speakers by 2050; Active Travel (Wales) Act 2013; Active Travel Action Plan for	The WTS should provide access to a range of employment and other opportunities to enable people to realise their individual aspirations. The WTS should promote cohesive communities through design and connectivity and promote equal access to well-being services and educational opportunities. The WTS should avoid and remove barriers to access for all members of society, including in accordance with the	The ISA Framework should include objectives that address community needs.	Population and Material Assets	1, 2 and 3

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
				Wales; Framework for Action on Independent Living; Taking Wales Forward 2016-2021; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; One Wales: Connecting the Nation; Setting the Direction: Primary & Community Services Strategic Delivery Programme; Welsh Government Rural Development Plan for Wales (2014-2020); Wales Infrastructure Investment Plan; Vibrant and Viable Places New Regeneration Framework; The Strategy for Older People in Wales 2013-2023; Review of the Road Safety Framework for Wales; 20mph Task Force Group Report; National Strategy on Violence against Women, Domestic Abuse and Sexual Violence – 2016 – 2021; The Welsh Doughnut: A framework for environmental sustainability and social justice	Social Model of Disability.			
Promote quality employment opportunities and economic activity	1, 2, 4, 5, 6 and 7	Johannesburg Declaration on Sustainable Development; The European Employment Strategy; Review of the EU Sustainable Development Strategy European Commission (2009); Public Sector Information Directive (PSI) 2003/98/EC	National Infrastructure Plan; One Future – Different Paths. Shared Framework for Sustainable Development; Aviation 2050; Regional Airports (2016).	PPW edition 10; Coastal Tourism Strategy; Strategy; Sustainable Tourism Framework; A Skills and Employment Strategy and Action Plan; Wales – A Better Country, Well-being of Future Generations (Wales) Act 2015; Taking Wales Forward 2016-2021; Natural Resources Policy Statement; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; Capturing the Potential: A Green Jobs Strategy for Wales; Sustaining a Living Wales: A Green Paper on a New Approach	The WTS should use the natural resources and transport infrastructure available to ensure adequate provision of employment opportunities, accessibility to employment and increased economic activity.	The ISA Framework should address employment provision.	Population and Material Assets	1, 2 and 3,

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
				to Natural Resource Management in Wales; Wales Infrastructure Investment Plan; Technical Advice Note (TAN) 4: Retail and Commercial Development; Technical Advice Note (TAN) 20: Planning and the Welsh Language; Technical Advice Note (TAN) 23: Economic Development; Prosperity for All: National Strategy; Prosperity for All: Economic Action Plan; Taking Wales Forward (2017); National Transport Finance Plan 2018; The Future Generations Report (2020); The Socio-Economic Duty (2021)				
Promote sustainable economic growth and business competitiveness through transport and innovation.	1, 2, 4, 6 and 7	European Spatial Development Perspective; The European Employment Strategy; Sustainable Development Goals; The Aarhus Convention; Europe 2020: A strategy for smart, sustainable and inclusive growth	Local Growth: Realising Every Place's Potential (Local Growth White Paper); UK Plan for Growth; National Infrastructure Plan; Rail Freight Strategy (2016); Transport Investment Strategy – Moving Britain Forward (2017); Transport Infrastructure Efficiency Strategy (2017); Industrial Strategy (2017); Clean Growth Strategy (2017); Aviation 2050; Regional Airports (2016).	Wales Spatial Plan; Economic Renewal: A New Direction; Third Sector Scheme; Volunteering Policy, Supporting Communities, Changing Lives;; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; One Wales: Connecting the Nation; Capturing the Potential: A Green Jobs Strategy for Wales; Wales Infrastructure Investment Plan; Vibrant and Viable Places New Regeneration Framework; Welsh Government Technical Advice Note (TAN) 4: Retail and Commercial Development; Technical Advice Note (TAN) 23: Economic Development; National Transport Finance Plan 2018; Wales Freight Strategy (2008); The Socio-Economic Duty (2021)	The WTS should encourage the creation of transport infrastructure and networks which enable business innovation and stimulates business growth. As this has the potential to conflict with environmental sustainability aims, this should seek to be achieved within the boundaries of environmental limits, as reflected in the first well-	The ISA Framework should include objectives relating to economic growth and development within the context of the delivery of the green growth agenda, ecosystems services and environmental limits.	Population and Material Assets	1, 2 and 3

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
					being goal (a prosperous Wales).			
Establish a strong tourist economy, sensitively capitalising on environmental, heritage, and leisure assets	1, 2, 5 and 6		Heritage Protection for the 21st Century (2007); Aviation 2050; Regional Airports (2016); Clean Air Strategy (2018)	TAN13 – Tourism, Cultural Tourism Strategy for Wales; Coastal Tourism Strategy; Wales Spatial Plan; Welsh Coastal Tourism Strategy; Partnership for Growth: The Welsh Government Strategy for Tourism 2013 – 2020; Strategy for Tourism, 2013 to 2020: Framework Action Plan – Year 2; Welsh Language (Wales) Measure 2011; a million Welsh speakers by 2050; Planning (Wales) Act 2015; One Wales – A Progressive Agenda for the Government of Wales; One Wales: Connecting the Nation; Capturing the Potential: A Green Jobs Strategy for Wales; Wales Infrastructure Investment Plan; Vibrant and Viable Places New Regeneration Framework; Draft International Strategy; Valued and Resilient: The Welsh Government's Priorities for Areas of Outstanding Natural Beauty and National Parks; A Management Plan for the Brecon Beacons National Park 2015 – 2020; Pembrokeshire Coast National Park Management Plan 2020 – 2024; Snowdonia National Park Authority National Park Management Plan	<p>The WTS should promote the use and enhancement of transport infrastructure for tourism development, within environmental limits. This includes addressing the impacts of aviation from international travel, whilst not negatively impacting on the tourist economy.</p> <p>The WTS could support the tourism industry through targeting improvements to travel including:</p> <ul style="list-style-type: none"> • Improving the experience of car/coach/motorcycle based visitors to Wales. • Increasing the use of public transport for 	The ISA Framework should include reference to capitalising on the tourist economy nationally, capitalising on, but not threatening, the wealth of national environmental and cultural resources and attractions.	Population, Cultural Heritage and Landscape	2, 3, 4, 9 and 10

Themes relevant to ISA of Wales Transport Strategy	Relevant Goals ²	Source					Main SEA Topics	Relevant ISA Objective
		International and European	UK	National	Implications for the WTS	Implications for the ISA		
					<p>journeys to and within Wales</p> <p>• Support the extension of the incoming route network, passenger numbers and attractiveness of Cardiff Airport, and maximise the potential of the ports and near airports in England.</p>			

Atodiad B Data Llinell Sylfaen a Materion a Chyfleoedd Allweddol

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Abbreviations Used in this Appendix

Abbreviation	Definition
AONB	Area of Outstanding Natural Beauty
ASNW	Ancient Semi-Natural Woodland
AQMA	Air Quality Management Area
BAP	Biodiversity Action Plan
CO ₂	Carbon Dioxide
CSI	Core Subject Indicator
DBEIS	Department for Business, Energy and Industrial Strategy
Defra	Department for Environment, Food and Rural Affairs
EC	European Commission
FPI	Foundation Phase Indicator
GDP	Gross Domestic Product
GDHI	Gross Disposable Income
GVA	Gross Value Added
HBAI	Households Below Average Income
HMO	Houses in Multiple Occupancy
ISA	Integrated Sustainability Appraisal
LA	Local Authority
LCA	Landscape Character Area
LSOA	Lower Super Output Area
MCA	Marine Character Area
MCZ	Marine Conservation Zone
NDF	National Development Framework
NEET	Not in education, employment or training
NI	National Indicator
NLCA	National Character Areas
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides

Abbreviation	Definition
NRW	Natural Resources Wales
ONS	Office for National Statistics
NQF	National Qualifications Framework
NVZ	Nitrate Vulnerable Zone
PM	Particulate Matter
RIGS	Regionally Important Geodiversity Sites
SAP	Standard Assessment Procedure
SAC	Special Area of Conservation
SCA	Seascape Character Assessment
SME	Small to Medium Enterprises
SoNaRR	State of Natural Resources Report
SMP	Shoreline Management Plan
SPA	Special Protection Area
SPP	Statement of Public Participation
SSSI	Site of Special Scientific Interest
TAN	Technical Advice Note
TSA	Tourism Satellite Account
UNESCO	United Nations Educational, Scientific and Cultural Organization
WCVA	Wales Council for Voluntary Action
WIMD	Welsh Index of Multiple Deprivation
WTS	Wales Transport Strategy

1 Introduction

This appendix provides the baseline social, economic, cultural and environmental data for Wales that is being used to help undertake the following aspects of the ISA:

- Identify the current baseline social, economic, cultural and environmental situation within Wales, against which the likely effect of the Wales Transport Strategy will be predicted.
- Identify key trends issues and opportunities for the ISA and WTS to consider.
- Develop the ISA Framework to use for the appraisal of the WTS.
- Ultimately assist the development of a monitoring framework to monitor the significant effects of the WTS.

The appendix has been structured around each of the seven well-being goals. Within those goals, the baseline data has been sub-divided into a series of ISA topics. Each section is structured as follows:

1. Wellbeing Goal and identification of relevant ISA topics within it.
2. Overview of Baseline Conditions for each topic. This comprises:
 - a. The relevance of that topic to the WTS;
 - b. The baseline conditions and trends structured around the baseline data sets; and
 - c. Any data gaps that are in the process of being filled.
3. Key Issues derived from the above that are relevant to the WTS and opportunities for it to address them.

Note on the baseline data sets

In the ISA the baseline data sets used are specific facts and statistics that are gathered by different organisations including, for example, the Welsh Government; the UK Government; or statutory bodies such as Natural Resources Wales (NRW), amongst others. These have been carefully selected to help give an appropriate overview of the baseline conditions and trends over time at a national scale and where necessary more detail on regional variations within Wales.

It is intended that the baseline data sets can be used as factual yardsticks to support the appraisal of the effects of the WTS against each of the relevant ISA Framework Objectives.

Ultimately, once the ISA is complete and the WTS is adopted, indicators will be produced to help monitor the predicted significant effects of the WTS as it is used.

There are hundreds of potential baseline data sets that could be used, many providing only subtly different information. As such, the selection of indicators for this ISA will be focussed, streamlined and reflective of the national scale and influence that the WTS is expected to have.

2 Well-Being Goal: A Prosperous Wales

This section provides baseline data relating to the following well-being goal:

‘An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.’

The data relates primarily to:

- The Economy, Employment and Income in Wales; and
- Education in Wales.

2.1 Overview of Baseline Conditions

2.1.1 The Economy, Employment and Income in Wales

Relevance to the WTS

A strong national economy is vitally important for securing people's wealth, jobs and incomes. This has a large contribution to the quality of life and the economic, social, cultural and environmental well-being of people and communities in Wales. Investment in transport networks can influence the functioning of labour markets, business productivity and competitiveness. These impacts interact over time and can lead to improvements in economic output and the geographical distribution of economic activity. They can also impact on the environment, quality of life and the overall attractiveness of towns and cities.¹

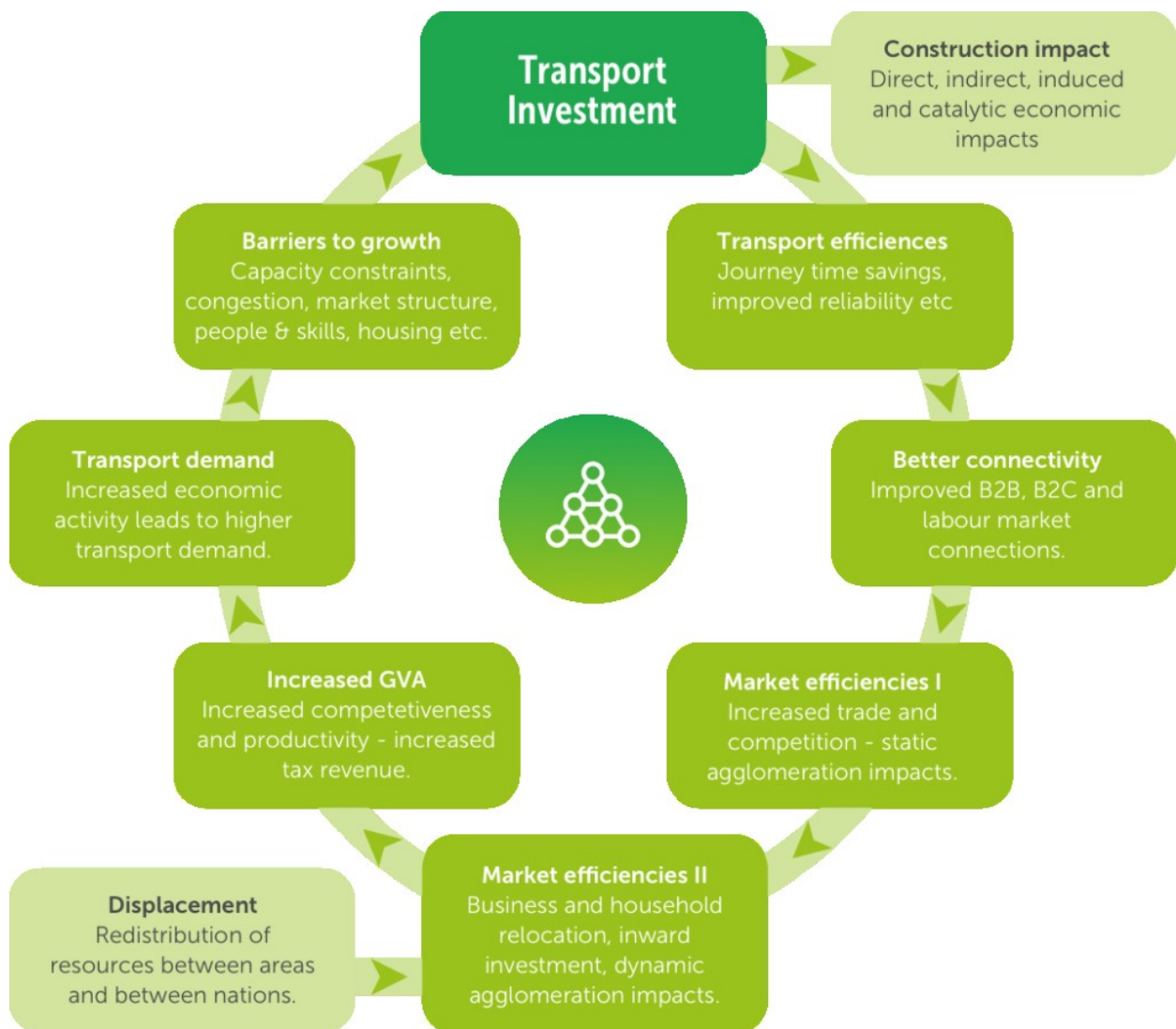
Figure 2-1 highlights how direct impacts from investment could create market efficiencies leading to investment and relocation decisions which in-turn can lead to changes in productivity and economic growth. The mechanisms for delivering economic impacts include:

- Benefits to non-users. In the case of public transport investments, these include reduced negative externalities from car travel (i.e. reduced congestion and CO₂ emissions) and option values (i.e. the value that is placed on maintaining a public asset or service even if there is little or no likelihood of the individual actually ever using it).
- Productivity effects. Productivity impacts generated through efficiencies resulting from improved connectivity, which effectively brings businesses, suppliers and workers closer together. These benefits are additional to user and non-user benefits at the national level.
- Induced investment impacts. Changes in the level or location of private sector investment as a result of a transport investment. These benefits are context specific and may be partially displaced from other areas.
- Employment impacts. Labour market impacts resulting from connectivity improvements, which may allow people to move to more productive jobs or enter the labour market as a result of reduced and cheaper commuting journeys.
- Regeneration impacts. Local economic impacts resulting from improved local image and attraction of land use development. In some cases, transport can act as a catalyst of local economic growth. These benefits may not be completely additional at a national level and may arise as a result of displacement of economic activity from elsewhere.

In addition to the potential long term impacts on productivity, the construction of large infrastructure projects provides an injection of resources into local economies during construction which may create new employment opportunities. Whilst this expenditure may simply be redirected from other government activities, the local impacts could be both significant in the short term and catalytic over the longer term.

¹ <https://transportknowledgehub.org.uk/guidance-tool/relationship-between-transport-economy/>

Figure 2-1 Transport investment and economic growth



Source: <https://transportknowledgehub.org.uk/guidance-tool/relationship-between-transport-economy/>

The WTS has a key role in supporting the national economy, through helping to guide decisions relating its supporting infrastructure.

The Welsh Government Strategy for Tourism² seeks to promote improved transport links by air, sea, road and rail. This could be supported by the WTS.

Baseline conditions and trends

The economy of Wales is closely aligned with that of the rest of the UK. However, for a long time, economic output has been lower in Wales compared with other areas. In 2018, the GVA (a key measure of economic output) was £65.1 billion, or £20,738 per head³. This was 72.8% of the average for the total of all UK regions, up by 2.9% on 2017, the third highest increase over the year of the 12 UK countries and English regions. Wales had the second lowest level of GVA per head in the UK (measured against the other UK regions), ahead of the North East where GVA per head was 72.1% of the UK average respectively (Welsh Government, ONS – 2020). GVA is rising, however the economic future of the whole of the UK is currently uncertain in light of the exit of the UK from the European Union. Economists and politicians are currently divided over what this will mean for the UK, with many schools of thought suggesting a short-term economic downturn, with potential for higher growth in the longer term.

² <https://gov.wales/sites/default/files/publications/2019-07/strategy-for-tourism-2013-to-2020-framework-action-plan-year-2.pdf>

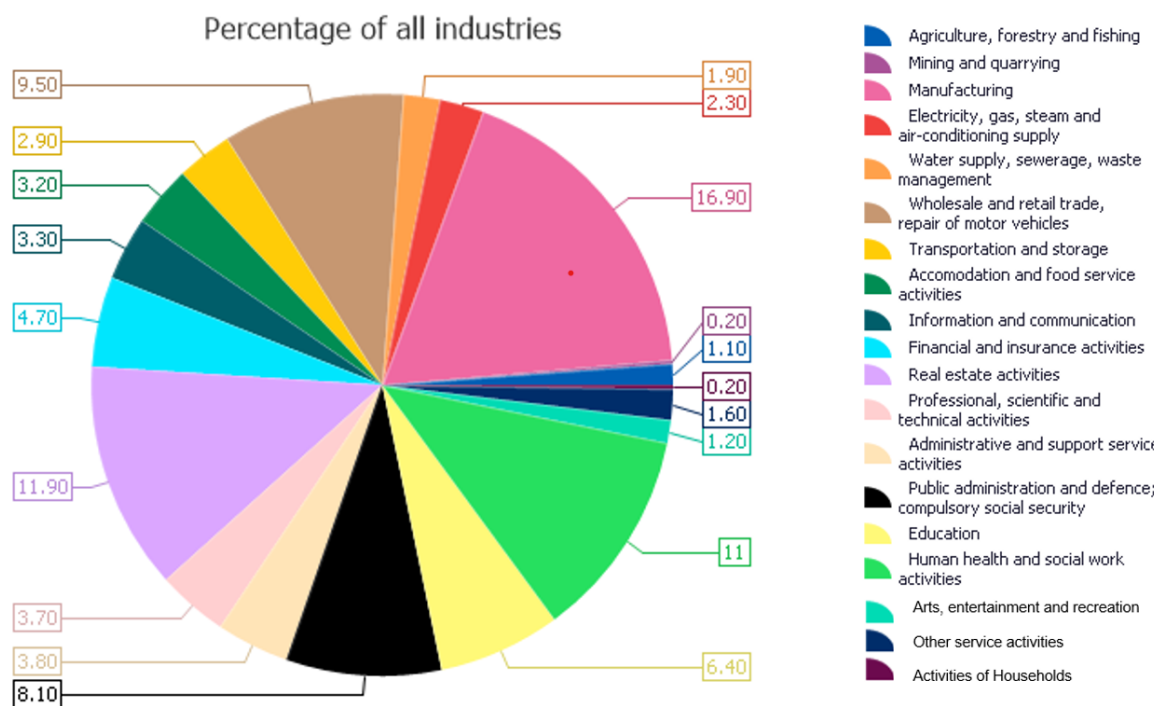
³ Welsh Government (2018) <https://gov.wales/regional-gross-domestic-product-and-gross-value-added-1998-2018>

The highest levels of output in 2018 were from Cardiff; Swansea; Monmouthshire; Newport; Flintshire; and Wrexham, reflecting the larger proportion of industry, population and services in those areas. GVA per head is significantly lower across much of the rest of Wales, reflecting its more rural nature. Blaenau Gwent recorded the lowest GVA per head in 2017 (£12,671). The fastest growth over the last decade has been in the Central Valleys region (all figures from Stats Wales).

In 2017, GVA per hour worked in Wales was approximately 16% below the UK average – making it the second lowest region in the UK, less than 1% above Northern Ireland. This reflects a lower than average level of productivity in Wales (ONS)⁴.

The second half of the 20th century saw a significant decline in the traditional manufacturing and extractive industries in Wales with a move towards service sector employment. The modern Welsh economy is now dominated by the service sector including public health, education, defence and administration, accounting for over half of the total Wales GVA. Figure 2-2 shows the split of GVA per industry.

Figure 2-2 Gross Value Added in Wales by industry (%)



Source: Stats Wales (2020)

After the service industry, the next largest group is the 'Production' industry. Whilst heavy industry has been in decline, Wales still has a diverse manufacturing sector. This includes:

- Metal ore refining at plants in, for example, Port Talbot, Llanwern, Newport, Trostre, Shotton, Ammanford, Pontarddulais, Tafarnaubach and Caerphilly;
- Oil refining at Milford Haven;
- Automotive component production; and
- Growth in the electronics industry.

⁴

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/regionalandsubregionalproductivityintheuk/february2019>

Rural economy

Wales is largely rural in nature, so agriculture and forestry represent a large area of economic land-use. This is dominated by beef, sheep and dairy farming on relatively small farms, compared to the rest of the UK. Economic output from these industries is, however, relatively small.

Tourism

The National Heritage Memorial Fund⁵ (25/10/2016) sets out the following from 'The Impact of heritage tourism for the UK economy 2016', which is the second follow-up to Investing in Success, HLF's original report on heritage tourism, published in 2010 in partnership with VisitBritain. The three reports analyse the impact of the heritage-based visitor economy and highlight the importance of continued investment from leisure, culture and heritage budgets in supporting UK tourism.

- Wales' heritage makes a £1bn GVA⁶ contribution to UK tourism economy (Cultural, historic and natural heritage attractions refer to museums, theatres, historic houses, historic parks or natural landscapes such as wetlands and national parks).
- Heritage tourism supports over 24,000 jobs in Wales.
- Wales' cultural and heritage attractions receive more than 10m visitors per year.
- Heritage tourism more important as economic driver in Wales than the UK as a whole.

With its rich natural and cultural assets, tourism is also a significant and growing part of the national economy. Cardiff, in particular, is a primary tourist destination due to its large number of high-quality attractions. This brings income and employment opportunities for a range of associated businesses such as hotels, food and retail outlets. The Wales Tourism Satellite Account (TSA) estimated a total tourism GVA of £1.8bn – around 4.4% of total direct GVA for the Welsh economy in that year. Emerging research suggests that when indirect impacts are added, the Tourism GVA increases to £2.5bn, which represents 6% of the whole economy (The Welsh Government Strategy for Tourism 2013 – 2020).

Between September 2018 and 2019 there were 10.4 million overnight domestic Great Britain trips to Wales which was an increase of 6.3% on the previous year which generated an expenditure of £1,973 million (9.2% increase) (Wales Gov 2020).⁷ These figures compare to a 0.1% increase in overnight domestic trips in Great Britain and a 0.7% increase in expenditure. For both Great Britain and Wales, the total expenditure increased but the number of nights spent decreased. The volume of international trips and expenditure also increased in Wales by 4% and 12%, respectively. In contrast, the number of tourism day visits taken in Wales decreased by 13% in the same period, compared to a decrease of 3% of trips taken in Great Britain.

Third sector

The third sector, as defined by the Wales Council for Voluntary Action (WCVA), is a very diverse range of organisations, including voluntary organisations and social enterprises, which share a set of values and characteristics. In 2017, approximately 100,000 people in Wales were employed in the charity/voluntary sector in Wales, accounting for just over 8% of all employment in Wales (WCVA Statistical Resource 2020).

The value of the third sector has been estimated by WCVA by adding the value of volunteer time (provided by organisations) – an estimated 61 million hours is given in a year and this has a monetary value of £757 million. In 2019 the sector had an estimated value of £3.8 billion⁸.

Micro-businesses

In 2019, there were an estimated 267,045 enterprises, the highest estimate since the start of the series in 2003. There was a steady annual increase from 2009-2019 and this trend is likely to continue (StatsWales). The overall increase was largely attributed to growth in the micro size-band enterprises - 0-9 employees which grew by 29% between 2009 and 2019. This could be a result of the recent labour market conditions, which may have encouraged people to set up businesses, as they are made redundant (for example).

⁵ Gross value added (GVA) is a measure of the value of goods and services produced in an area, industry or sector of an economy. GVA is linked as a measure to gross domestic product (GDP).

⁶ Gross value added (GVA) is a measure of the value of goods and services produced in an area, industry or sector of an economy. GVA is linked as a measure to gross domestic product (GDP).

⁷ <https://gov.wales/sites/default/files/statistics-and-research/2020-02/wales-tourism-performance-january-september-2019-537.pdf>

⁸ https://gov.wales/sites/default/files/publications/2019-03/third-sector-annual-report-2017-18_0.pdf

Regionally, micro enterprises in 2019 accounted for 34.9% of employment, however in mid-wales they represented 52% of employment. The production sector had the smallest proportion of total employment in micro businesses in Wales at 5.6 per cent.

Innovation

The Welsh Government also monitors the levels of innovation in the economy. It identified that between 2014-2018, 46% of Welsh businesses were innovation active, comparable to levels in Scotland, but just behind England (49%) and ahead of Northern Ireland (Stats Wales)⁹.

Economic Activity

The 2010, the Welsh Government publication, *Economic Renewal: a new direction*, identified two important factors responsible for Wales weaker economic position compared to the rest of the UK. These are a low employment rate and low average wages (reflecting low average productivity). In December 2019, the employment rate in Wales was 74.4% compared to 76.55 in the UK. In September 2019, the number of people economically inactive had decreased in Wales over the past decade by 4% from 23.7% to 19.7% (between September 2009 – September 2019). The national trend decrease in Wales has been above the UK average over this period with the UK decreasing by only 2.6%, however the percentage of economic inactivity in Wales remains above the UK average of 17.4 in 2019. The future direction of this trend is likely to be affected by the outcome of Brexit.

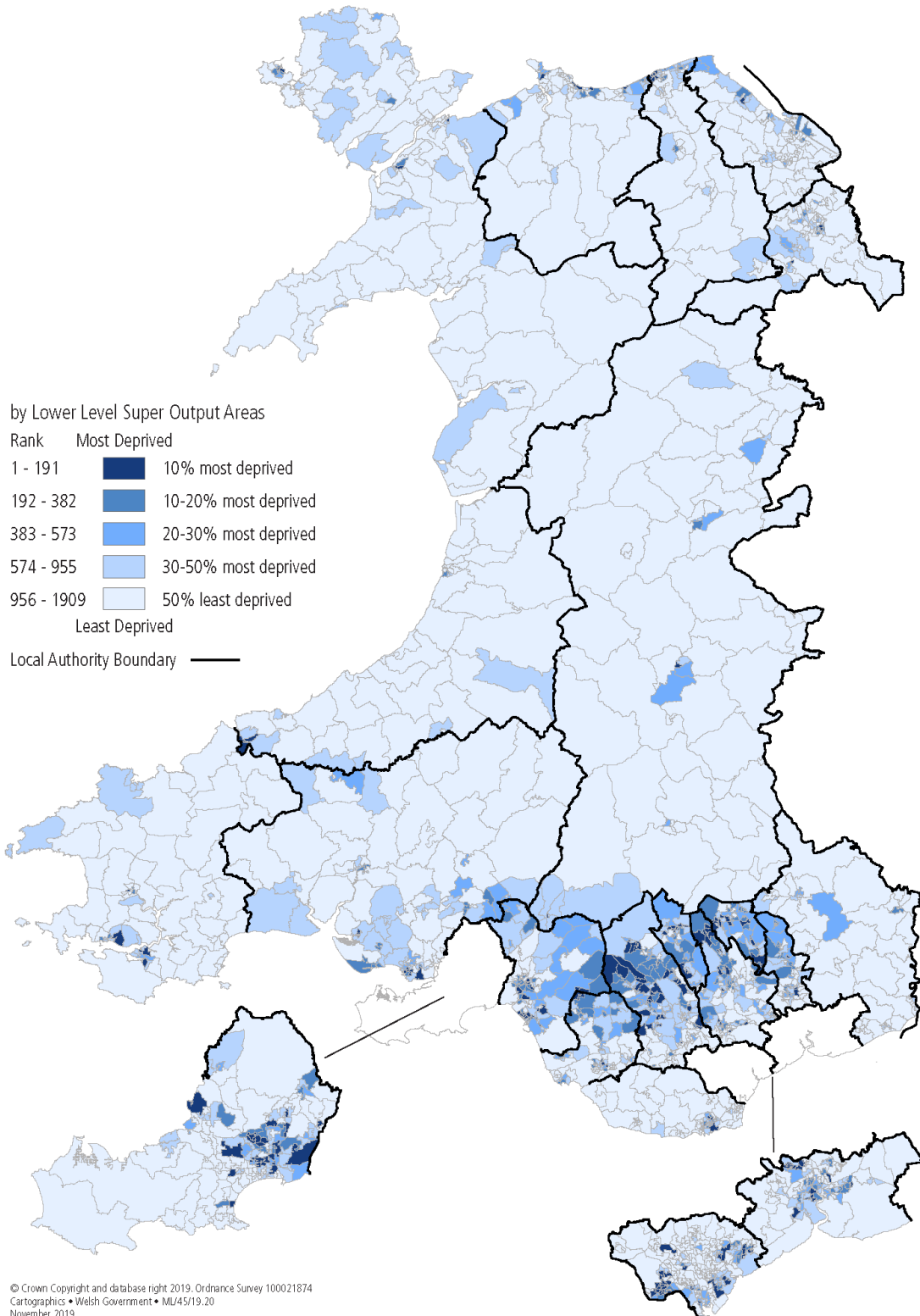
According to the Welsh Index of Multiple Deprivation (WIMD)¹⁰ 2019 employment domain (see Figure 2-3), the highest levels of employment deprivation were in the South Wales valleys and in some North Wales coastal towns. In terms of local authorities, Blaenau Gwent Merthyr Tydfil recorded the highest proportion of LSOAs in the most 10% in Wales for the employment domain. Monmouthshire had no LSOAs in the most deprived 10%.

⁹ <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Businesses/Innovation/businessessthatareinnovationactive-by-year>

¹⁰ The WIMD ranks each of the 1909 Lower Super Output Areas (LSOAs) in Wales in terms of the level of deprivation that LSOA exhibits for a given domain. Those ranked in the bottom 191 LSOAs are, therefore, in the 10% most deprived nationally.

Figure 2-3 WIMD 2014 Map for Wales, Employment Domain

Welsh Index of Multiple Deprivation 2019 Employment Domain



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Cartographics • Welsh Government • MU/45/19.20
November 2019

Source: WIMD 2019

Earnings

In April 2019, the average (median) gross weekly earning for full-time adults working in Wales was £535.00, this compares to a UK average of £584.90¹¹. However, median gross earnings in Wales increased by 5.1% between 2018 and 2019, compared to 2.9% across the UK.

The highest average earnings were in the South East and West Wales economic regions, followed closely by the North Wales economic region with the Mid Wales region significantly lower (Stats Wales).

In Wales, 67.5% of people in employment were either on permanent contracts (or have a temporary contract and are not seeking permanent employment) and were earning more than two thirds of the UK median wage for August to October 2018 (Stats Wales)¹².

The WIMD 2019 income domain focuses on the proportion of people with income below a defined level and has a weight of 22% in the overall index. In the WIMD 2019 income domain, there were pockets of high deprivation in the South Wales valleys, and in some North Wales coastal towns. The local authorities with the highest proportion of LSOAs in the most deprived 10% in Wales, for the income domain, was Newport, Merthyr Tydfil and Cardiff (at around 20%).

Job Satisfaction

Findings from the Work in Wales Skills and Employment Survey (2006-2017) found that, in terms of overall work satisfaction, workers in Wales exhibited the highest levels of low job satisfaction (9% compared to 7% in Britain) and very high job satisfaction (21 % compared to 18% in Britain).¹³ In 2013-14, respondents (to the National Survey of Wales) were asked how satisfied they were with their present job. On a scale of 0-10, the average satisfaction score was 7.5. There appears to be a strong correlation between satisfaction with present job and satisfaction with commuting time. 66% of people who were highly satisfied with their present job were also highly satisfied their commuting time.

Distance travelled to work

Table 2-1 shows the majority of Welsh residents travel less than 10km to work. The majority of residents living within all Welsh regions travel a maximum distance of less than 10km to work at a proportion ranging between 37.9 to 58%. Of the residents who work from home Mid and West Wales work have significantly higher numbers than the Welsh and other regional levels. The age of this dataset should be taken into account as distances may have changed significantly in the past 9 years.

Table 2-1 Distance travelled to work by Welsh Regions

Distance travelled to work	Mid and West Wales	North Wales	South Wales Central	South Wales East	South Wales West	Wales
Less than 10km	37.9%	48.6%	58.0%	51.2%	55.9%	50.5%
10km to less than 30km	23.0%	23.5%	20.4%	25.8%	21.1%	22.8%
30km and over	11.7%	9.6%	6.1%	7.6%	8.1%	8.5%
Work mainly at or from home	18.2%	10.8%	7.8%	8.1%	7.7%	10.4%
Other	9.3%	7.6%	7.7%	7.3%	7.2%	7.8%

Source: 2011 Census

Journey to work by mode

The method of travel to work census data (QS701EW) for Welsh residents are illustrated in Table 2-2. The results show a similar split between each mode type compared across each country by Welsh regions. The results for Wales overall the majority of residents travel by car (car or van driver, car passenger or motorcyclist) 45% and lower for active travel (walking or cycling) 7%, whilst the proportion of residents

¹¹ <https://gov.wales/annual-survey-hours-and-earnings-2019>

¹² <https://stats.wales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Earnings/peopleinemploymentwhoareonpermanentcontractsearnmorethantwothirdsukmedianwage-by-quarter>

¹³ Welsh Government (2019) - <https://gov.wales/sites/default/files/statistics-and-research/2019-04/work-in-wales-2006-2017.pdf>

travelling via public transport (bus or rail) lower at 4%. The proportion of residents not in employment in Wales overall at 39%.

Table 2-2 Method travelled to work by Welsh Regions, 2011 Census

Distance travelled to work	Mid and West Wales	North Wales	South Wales Central	South Wales East	South Wales West	Wales
Car	44%	48%	42%	47%	46%	45%
Public Transport	2%	4%	7%	5%	4%	4%
Active	8%	7%	9%	6%	6%	7%
Other method of travel to work	1%	0%	0%	0%	0%	0%
Not in employment	38%	37%	39%	40%	42%	39%
Working from home	7%	3%	2%	2%	2%	3%

Source: 2011 Census

Broadband

Ofcom¹⁴ reported in 2018 that Superfast Broadband is available to 93% of premises in Wales, up 4% from the previous year. However, of the 93% of the homes and businesses with access only 38% of homes/businesses have taken up the services which is the lowest up take in any of the UK nations. Whilst the coverage of internet access is growing, speeds and, in particular, access to superfast broadband can be a particular issue in rural communities, particularly amongst those with low incomes (National Survey for Wales, 2014-15). Poorer households across Wales are less likely to have internet access in their home. This is exacerbated in rural areas by relatively poor access to good quality broadband (Rural broadband ICT Toolkit, Welsh Government). Notwithstanding, full fibre broadband coverage to rural premises is the highest in Wales compared to the other nations in the UK, with 16% of homes/businesses having access to this, compared to 8% in rural England and Northern Ireland and 3% in rural Scotland. Over time, it is anticipated that the coverage of high-speed broadband will improve.

Access to Services

The Welsh Index of Multiple Deprivation 2019¹⁵ sets out deprivation in relation to access to services. The access to services domain measures travel times to a range of services as a proxy for wider physical access to services. For WIMD 2019, the domain also considers access to digital services, through an indicator on the availability of superfast broadband. The domain measures include access to the following services:

- Food shop
- General Practitioner (GP) Surgery
- Post Office
- %Unavailability of broadband at 30Mb/s
- Primary School
- Public Library
- Sports Facility
- Secondary School
- Petrol Station
- Pharmacy

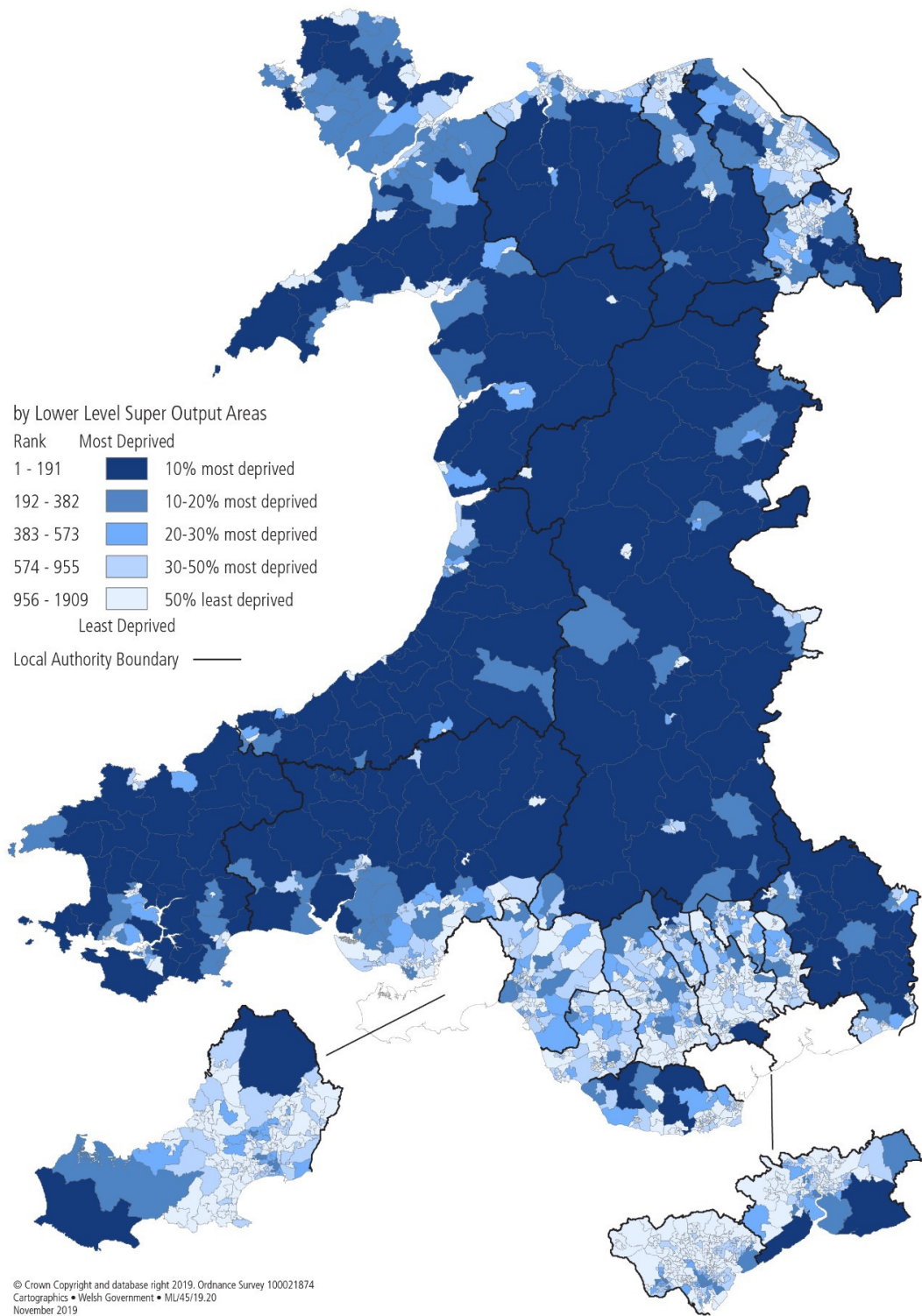
¹⁴ Ofcom (2018) Connected Nations 2018 - https://www.ofcom.org.uk/__data/assets/pdf_file/0020/130736/Connected-Nations-2018-main-report.pdf

¹⁵ <https://gov.wales/sites/default/files/statistics-and-research/2020-02/welsh-index-multiple-deprivation-2019-results-report.pdf>

Figure 2-4 presents the overall scores across Wales. In the WIMD 2019 access to services domain, high deprivation was widespread across rural areas of Wales. There were also some deprived pockets near large urban areas. The local authorities with the highest proportion of small areas in the most deprived 10% in Wales for access to services were Powys (50.6%) and Ceredigion (50.0%). Cardiff, Neath Port Talbot, Bridgend, Rhondda Cynon Taf, Blaenau Gwent and Torfaen local authorities had no areas in the most deprived 10%. For the access to services domain, the most deprived small area in Wales was Cynwyl Gaeo, Carmarthenshire, the same as for WIMD 2014. Six of the 10 most deprived areas in WIMD 2019 were also in the 10 most deprived areas in WIMD 2014. The overall patterns of access to services deprivation in WIMD 2019 are similar to those for WIMD 2014. However, there have been notable changes to relative ranks at the least deprived end. This reflects the significant improvements in the travel time calculations, as well as possible changes to service locations, public transport and road networks since 2014, and the inclusion of the new access to digital services indicator.

Figure 2-4 Access to services for LSOAs in Wales

Welsh Index of Multiple Deprivation 2019
Access to Services Domain



2.1.2 Education in Wales

Relevance to the WTS

Education is a fundamental factor in developing people's skills, both for future employment and for life in general. Improvements in educational attainment are directly linked to increased incomes, employment and overall economic growth. In particular, education and training to meet the skill sets required to grow the economy are of greatest importance. Chapter 4 of this appendix sets out further specific information in relation to the links between transport and young people, including in relation to accessing educational opportunities.

The WTS has a key role in ensuring that everyone can access education and training opportunities and, in doing so, support educational development and a healthy economy.

Baseline conditions and trends

Education/ Training

The Welsh Government publishes data on the learning activities and labour market status of young people (aged 16 to 24) in Wales. The provisional data series for 2018 further focuses on the proportion of young people who are not in education, employment or training (NEET) in Wales.

In terms of 16-18 year olds, around 78.3% were in education or training (down from 79.8% in 2017). The proportion in employment had increased annually since 2011 and in 2018 37.6% were in full or part-time employment. In addition, 10.3% of 16-18 year olds were reported as NEETs, an increase of 0.9% from the previous year.

Since 2004, the proportion of 19-24 year olds in education or training has remained around a similar level (37 to 39 per cent), whilst the proportion who are NEET increased to higher levels, following the start of the 2008 recession, reflecting contracting employment levels. There has, however, been an increase in employment, and a decrease in the proportion who are NEET in the last 3 successive years. As with many economic statistics, the immediate future direction of this trend is likely to be influenced by Brexit.

In terms of 19-24 year olds, around 38.4% were in education or training and 64% were in full or part-time employment. In addition, 16.1% of 19-24 year olds were reported as NEETs which is similar to the previous year.

Educational attainment in Wales is slightly below the UK average. The proportion of adults of working age holding Higher Education or equivalent level qualifications (NQF level 4 or above) in 2018 was 37.8%, compared with 27.9% in 2008. Wales is below the UK average level for NQF level 4 (which is 44%¹⁶). However, Wales is above Northern Ireland (33%) and some other UK regions. Over 78% of adults were qualified to NQF level 2 or above.

The trend is rising, with a 10% increase in NQF level 4 attainment in working age adults since 2008, with the greatest rises being amongst women.

In terms of regional distribution, adults in Mid Wales had the highest level of qualifications, whereas adults in South West Wales had the highest number of adults with no form of qualifications. The results for 2018 are presented in Table 2-3. More specifically, qualification levels were highest in Cardiff, Monmouthshire, and Vale of Glamorgan and lowest in Blaenau Gwent, Merthyr Tydfil and Neath Port Talbot.

¹⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/757675/UKETS_2018_Text.pdf

Table 2-3 Percentage of adults with qualifications at the different levels of the NQF

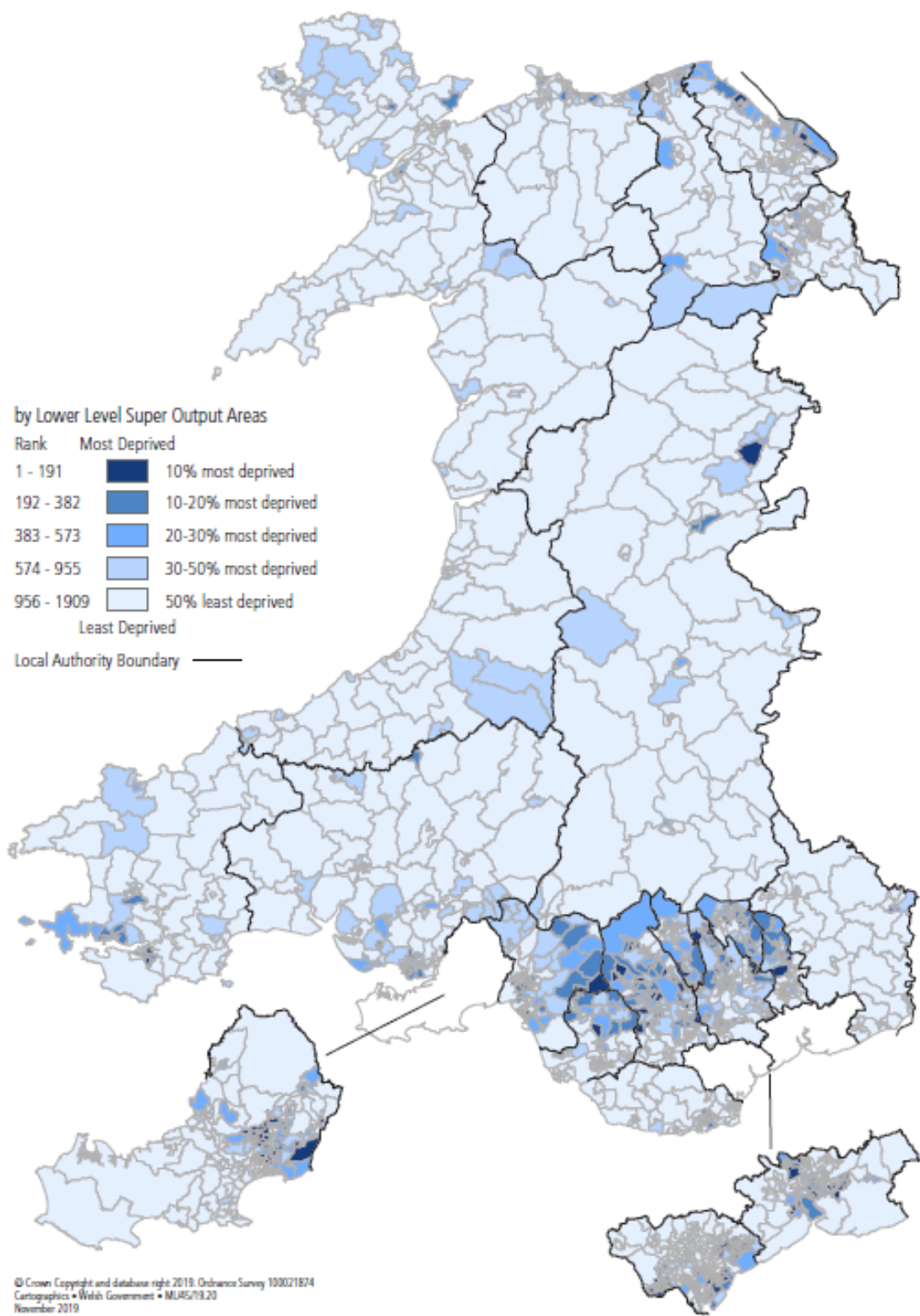
Area	No qualifications	Qualified to below level 2	Qualified to NQF level 2 or above	Qualified to NQF level 3 or above	Qualified to NQF level 4 or above
Wales	8.4%	12.7%	78.9%	59.1%	37.8%
North Wales	7.0%	12.9%	80.1%	59.0%	36.3%
Mid Wales	6.4%	12.2%	81.4%	63.8%	38.8%
South West Wales	9.2%	12.0%	78.8%	57.9%	36.1%
South East Wales	8.9%	13.0%	78.0%	59.0%	39.1%

Source: Stats Wales

The distribution of LSOAs and their relative deprivation in the education domain illustrates regional variation in educational attainment and access to education. This is shown in Figure 2-5 below. The South Wales valleys are the most educationally deprived area of Wales. This area includes the local authorities of Merthyr Tydfil, Torfaen, Blaenau Gwent and Rhondda Cynon Taff. There are also parts of the urban areas of Cardiff, Newport and Swansea that are suffering from education deprivation. Parts of Monmouthshire, Powys, Vale of Glamorgan and the North-East corner of Wales exhibit relatively low levels of education deprivation.

Figure 2-5 Education Deprivation for LSOAs in Wales

Welsh Index of Multiple Deprivation 2019
Education Domain



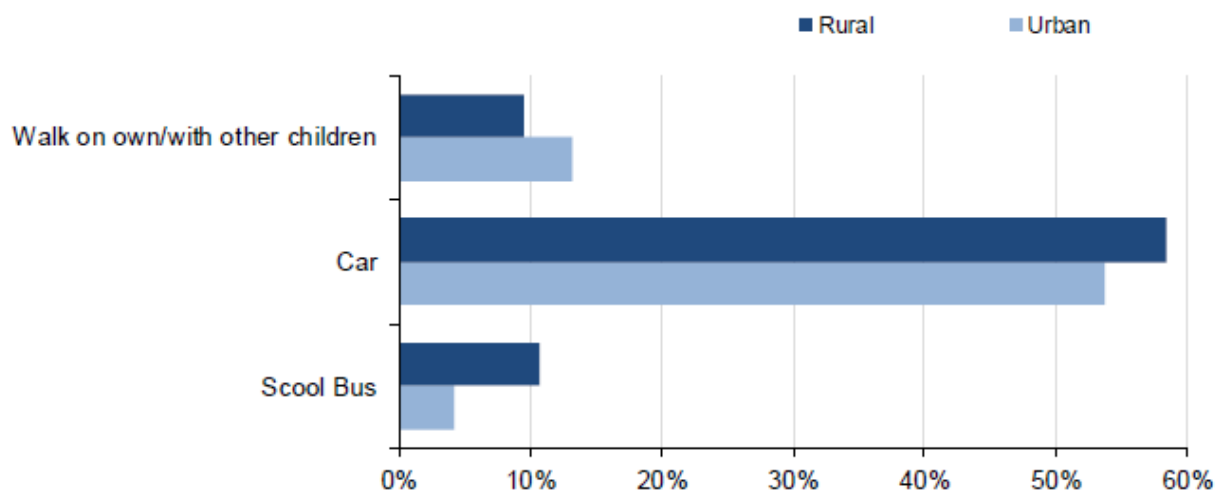
Source: Welsh Index of Multiple Deprivation 2014

Travel to School¹⁷

National Survey results (2019) indicate that car was the most common mode of transport used to get to a primary school (55%), followed by walking with an adult (32%). At secondary school the most popular modes of transport were catching a school bus and walking.

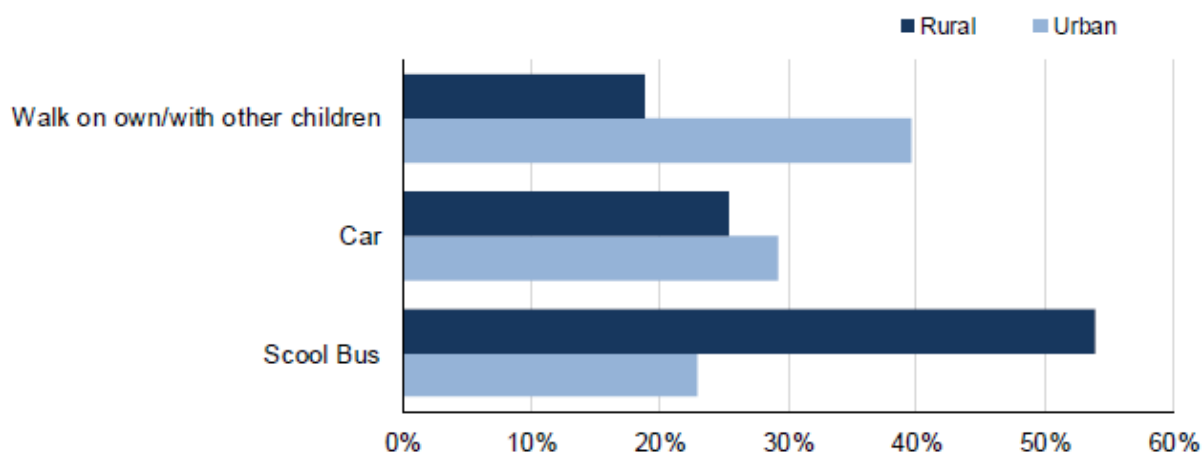
Figures 2-6 and 2-7 illustrate the mode of travel to/from school by urban/rural classification.

Figure 2-6 Mode of travel to/from primary school by urban/rural classification (a)



(a) Totals may not sum to 100% as multiple modes of transport can be selected

Figure 2-6 Mode of travel to/from Secondary school by urban/rural classification (a)



(a) Totals may not sum to 100% as multiple modes of transport can be selected

¹⁷ <https://gov.wales/sites/default/files/statistics-and-research/2019-11/active-travel-walking-and-cycling-april-2018-march-2019-073.pdf>

Data gaps

Data relating to the barriers to walking to school.

Data relating to distance travelled to work/education opportunities.

There are also relevant data gaps to be considered from the data collated from the 2011 Census, as it may not be accurate to the current population and these figures will not be updated until 2021/2022.

Data relating to the modal split of transport journeys within Wales.

For all data collected, there may be gendered differences that are not reflected in the sources they were collected from.

Visitor Economy Data may be considered out of date.

2.2 Key Issues relevant to the WTS and opportunities for it to address them

Issues

The economy of Wales is closely aligned with that of the rest of the UK. There has been a move towards service sector employment and a decline in heavy industry; Wales still has a diverse manufacturing sector.

There are clear geographical differences in employment activity in Wales with pockets of higher than average deprivation in the South Wales valleys and in some North Wales coastal towns.

Key reasons for relatively poor economic performance include:

- Relatively low skills levels and poor educational attainment levels (although improving), particularly in the more deprived parts of the country.
- The largely rural nature of the country results in relatively small urban areas which would otherwise be more strongly associated with agglomeration effects.
- There is a relatively high proportion of older people who are retirement age.
- There are high levels of congestion which have negative economic impacts including the impact on productivity and freight.

The UK Climate Change Risk Assessment 2017: Evidence Report highlights a number of key risks and opportunities facing Wales with regard to business. These could have effects on a number of factors including health and well-being, employment and the economy. Such matters facing Wales can be summarised as risks to business from flooding, loss of coastal locations, water scarcity, reduced access to capital, reduced productivity from disruption to infrastructure etc., disruption to supply chains and changes in demands for goods and services. These could all be taken into consideration in the WTS as they will all influence the habits of transport users.

There are issues with provisioning access to schools and employment, as the highest density areas for these are in the South of Wales. These facilities are much more difficult to access by any means other than private owned car in the North of Wales. It should be noted that, as per Appendix B, there are data gaps with regards to detailed information on school access.

Opportunities

The WTS has a role to play in achieving balanced and sustainable growth, and the transition to a low resource use (including low carbon) economy, to enable the population to live within environmental limits. This includes the opportunity to promote sustainable freight transport.

The WTS provides an opportunity for the economy to be guided towards a more sustainable future. This can be through the promotion of sustainable travel infrastructure and improvement of access to employment centres. It can also provide a framework that is more responsive to the needs of the economy and able to support new, emerging sectors and support transition of existing ones through the creation and enhancement of networks. Furthermore, it can also help to guide the creation of an environment that is attractive to inward investment and encourages sustainable access to jobs. Similarly, the WTS may facilitate improvements in access to education.

The WTS could seek to help address issues related to poverty and inequality through access to better education, better connectivity between communities and access to jobs and the job market.

Overall, the WTS could help to achieve the important balance of economic and social improvement that is also sustainable and respects the country's valuable natural and cultural environment.

There is an opportunity for the WTS to support employment through the promotion and support for active tourism, including the designation of the National Cycle Network as a strategic transport facility to encourage active tourism

There is an opportunity to promote the use of active travel to primary and secondary schools through walk to school schemes.

There is also an opportunity through improved public transport schemes to enable people to access a wider range of employment and education options.

There is an opportunity for the WTS to reduce congestion through promoting active travel and public transport through re-allocation of road space and integrated sustainable travel modes.

3 Well-Being Goal: A Resilient Wales

This section provides baseline data relating to the following well-being goal:

'A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).'

The data relates primarily to:

- Air Quality;
- Biodiversity, Flora and Fauna;
- Climate and Flood Risk;
- Geology and Soils;
- Water Environment; and
- Minerals and Waste.

3.1 Overview of Baseline Conditions

3.1.1 Air Quality

Relevance to the WTS

Clean air is important for both human health and the health of the natural environment. Poor air quality is the largest environmental risk to public health in the UK, as long-term exposure to air pollution can cause chronic conditions such as cardiovascular and respiratory diseases as well as lung cancer, leading to reduced life expectancy¹⁸. It is estimated that the life expectancy of every person in the UK is reduced by an average of 7-8 months due to air pollution¹⁹. Air pollution can directly affect vegetation (e.g. through exposure to sulphur dioxide or high levels of ozone), or indirectly affect the wider environment through pollutant deposition. Deposition of pollutants can adversely affect the acid and nutrient status of soils and waters, which, in turn, can affect habitat integrity and the fauna and flora they support. The introduction of environmental protection legislation has led to significant changes in the way air quality is managed and controlled, although the planning system also has a large role to play.

Transport is the biggest source of air and noise pollution in the UK. The WTS can affect air quality and noise pollution through ensuring decisions are based on the principle of reducing emissions through the transition to implementing the sustainable transport hierarchy.

¹⁸ <https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution>

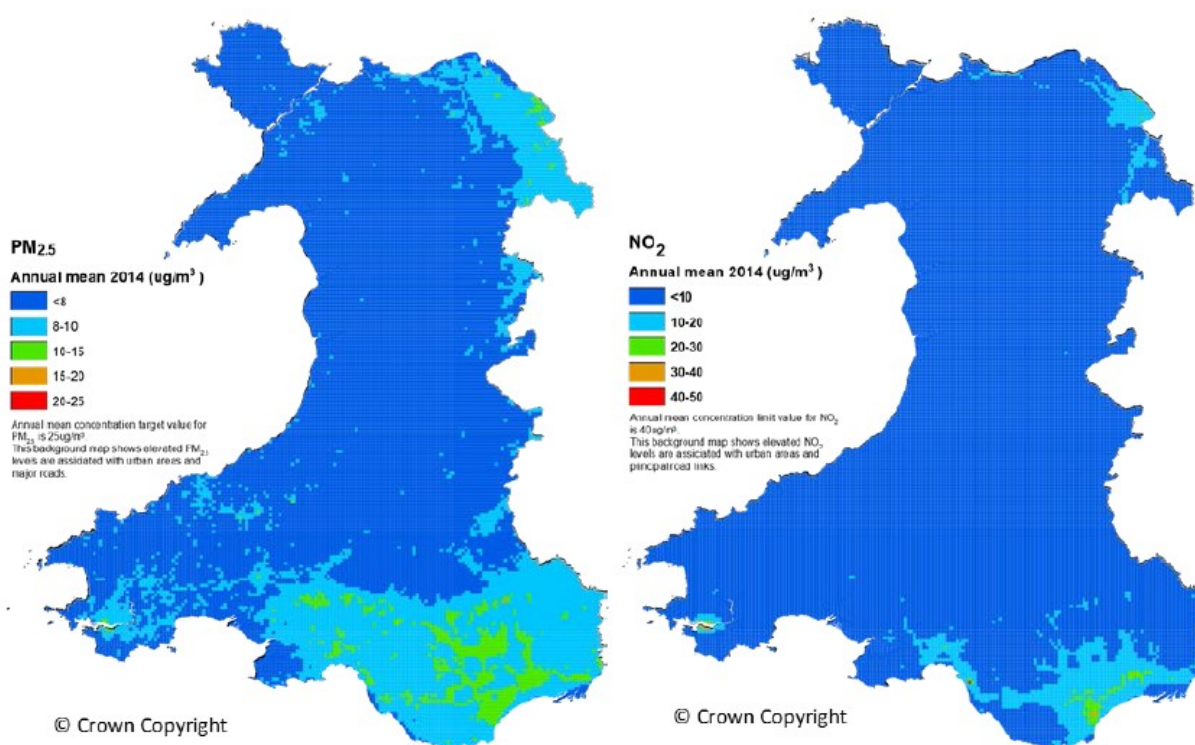
¹⁹ Defra in partnership with the Scottish Executive, Welsh Assembly Government and the Department of the Environment Northern Ireland (2007) the Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Volume 1.

Baseline conditions and trends

Air pollution is a local, national and international problem caused by the emission of pollutants. In Wales, air quality is generally very good, largely due to its predominantly rural nature and historic decline in heavy industry which has resulted in a reduction in emissions of some pollutants, such as particulate matter (PM) and Nitrogen Dioxide (NO₂). However, there are some parts of the country that experience highly elevated levels of localised pollution, notably due to road traffic. Targets for NO₂, PM, nickel and polycyclic aromatic hydrocarbons are still being breached in certain parts of Wales thereby posing a threat to human health and the natural environment (SoNaRR, 2016).

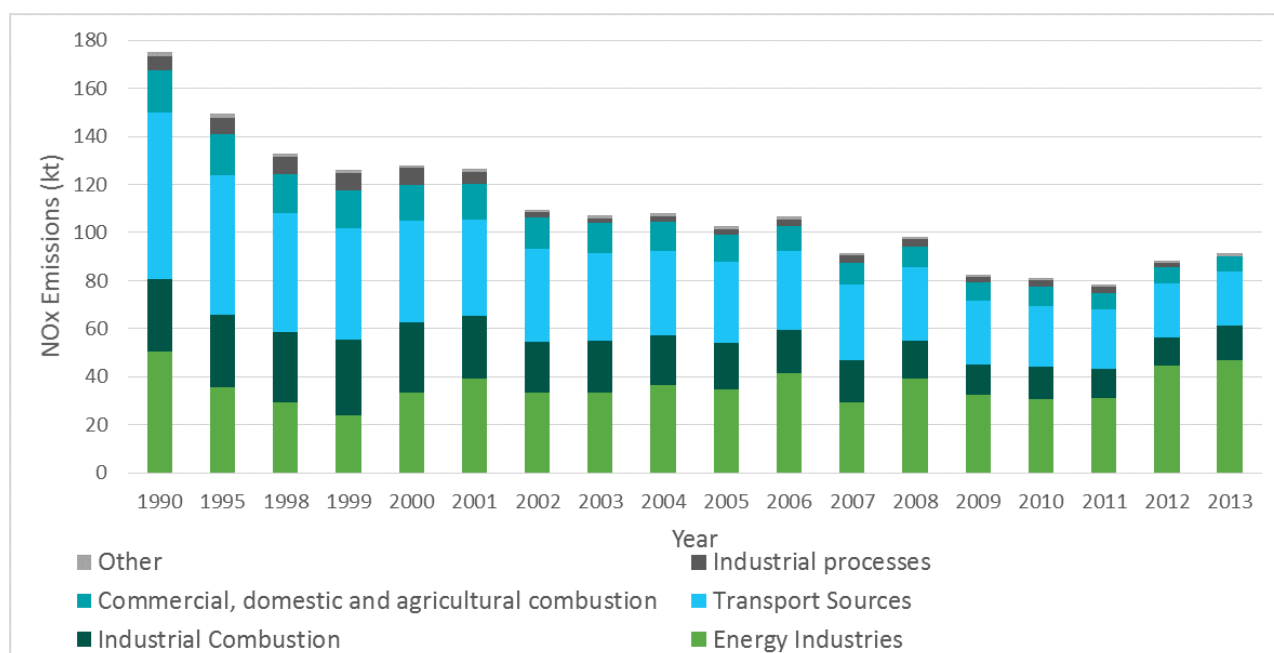
There are currently 38 designated Air Quality Management Areas (AQMAs) in Wales all of which are found in the south particularly centred around urban centres such as Cardiff, Newport and Swansea and relate to vehicle emissions. However, one area of elevated air pollution from an industrial source also exists associated with Port Talbot, where Tata Steel is located (Defra, 2017). Only four designated AQMAs have been revoked in Wales, with the last AQMA being revoked in 2015 in Rhondda Cynon Taff. The other three revocations occurred in Cardiff in 2007 (two AQMAs revoked) and 2013. Hafod-yr-ynys, a road in Caerphilly, is the most polluted road in the UK outside London. It exceeded hourly NO₂ limits on 60 occasions in 2016 (42 times more than allowed under EU law) and its annual mean NO₂ is almost double the EU limit (National Assembly for Wales, 2018). Figure 3-1 illustrates the highest concentrations of PM and NO₂ nationally.

Figure 3-1 PM_{2.5} and NO₂ concentrations in Wales (SoNaRR, 2016).



Road transport accounts for nearly a third of all NO₂ emissions in the UK and transport is the biggest source of air pollution in the UK (National Assembly for Wales, 2018). Levels of Nitrogen Oxides (NO_x) emissions have seen a significant decrease of over 50% between 1990 and 2013. The major contributor to NO_x emissions is the energy industry, however, the largest decrease in emissions between 1990 and 2013 was recorded by transport sources (see Figure 3-2).

Figure 3-2 Wales nitrogen oxides (NO_x) emissions by source sector (Defra, 2017)



Ammonia also remains an issue, both as a local air pollutant and as a contributor to the formation of secondary particulate matter. Concentrations of secondary particulate matter have risen in Wales in recent years, largely due to changes in agricultural practice. Indeed, 90% of semi-natural nitrogen sensitive Welsh habitats are subject to nitrogen deposition in excess of critical load limits (SoNaRR, 2016).

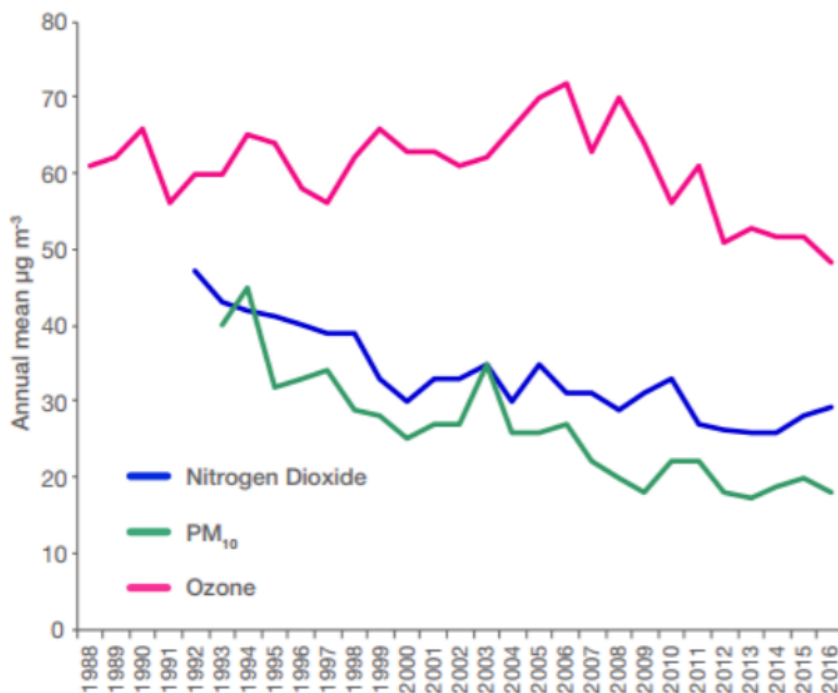
Wales has some of the worst air quality in the UK, which is surprising given its low population density and relatively small cities. A report in 2018 found that Cardiff and Port Talbot both have higher PM₁₀ levels than either Birmingham or Manchester. Hafod-yr-ynys, a road in Caerphilly, is the most polluted road in the UK outside London. It exceeded hourly NO₂ limits on 60 occasions in 2016 (42 times more than allowed under EU law) and its annual mean NO₂ is almost double the EU limit (however the houses on this road are to be demolished by the council). There are also five sites on motorway trunk roads (where NO₂ concentrations are above the limit level) that have had speed limits introduced in June 2018 in order to improve the air quality²⁰

Figure 3-3 shows the trends in ambient air pollution from 1990 to 2016. Whilst there were no instances in 2016 of EU PM₁₀ air quality limits being reached; NO₂ limits were exceeded at five sites. NO₂ and is the catalyst for the designation of all (except one) Air Quality Management Areas (AQMA) in Wales. Road transport accounts for nearly a third of all NO₂ emissions in the UK.²¹

²⁰ <https://gov.wales/sites/default/files/publications/2019-10/interim-data-on-no2-concentrations-for-the-motorway-and-trunk-road.pdf>

²¹ <https://www.assembly.wales/Research%20Documents/18-009/18-009-Web-English.pdf>

Figure 3-3 Ambient Pollution Trends in Wales 1990-2016



Source: Abernethy, 2018

Data gaps

One relevant data gap is if the poor air quality hot spots have any relation to areas of economic disparity. Also, the individual transport mode contributions to air quality as opposed to road transport.

3.1.2 Noise

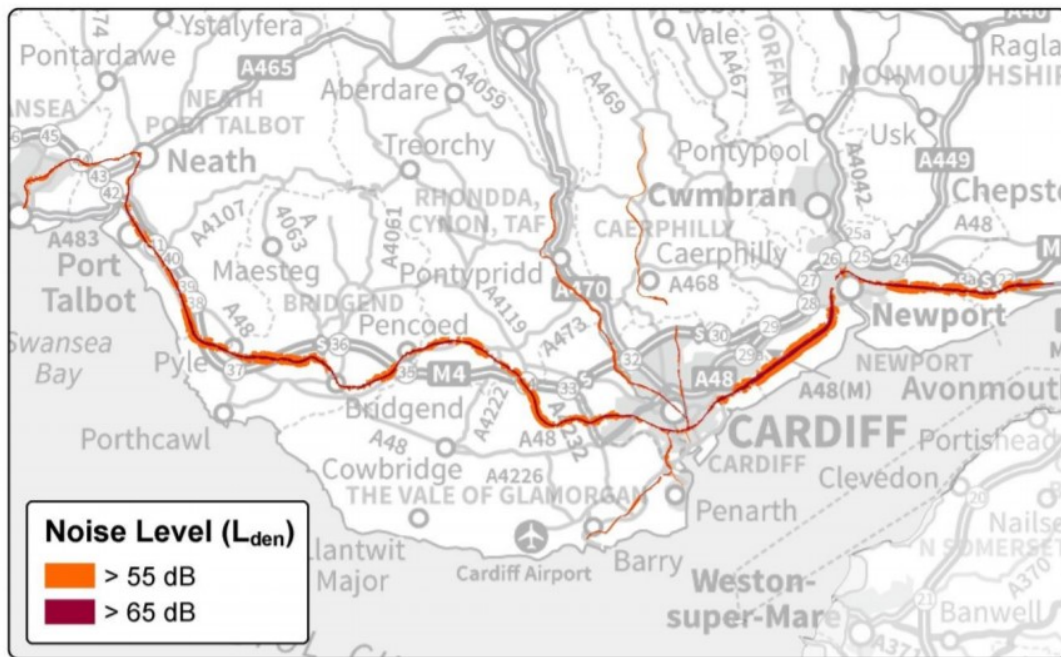
Relevance to the WTS

Noise pollution can have a damaging effect on people's health and the environment, from disrupting protected habitats to causing hearing loss and tinnitus. Transport is responsible for a lot of noise pollution in the UK. The WTS must plan transport networks to avoid areas sensitive to noise pollution. It must also seek to implement measures that will seek to reduce traffic overall, leading to a reduction in overall noise pollution and reduction in pressure on tranquil environments.

Baseline Conditions and trends

Noise pollution from railways mostly takes place in the south of Wales around Cardiff. Figure 3-4 shows the noise from major railways 2012/2017.

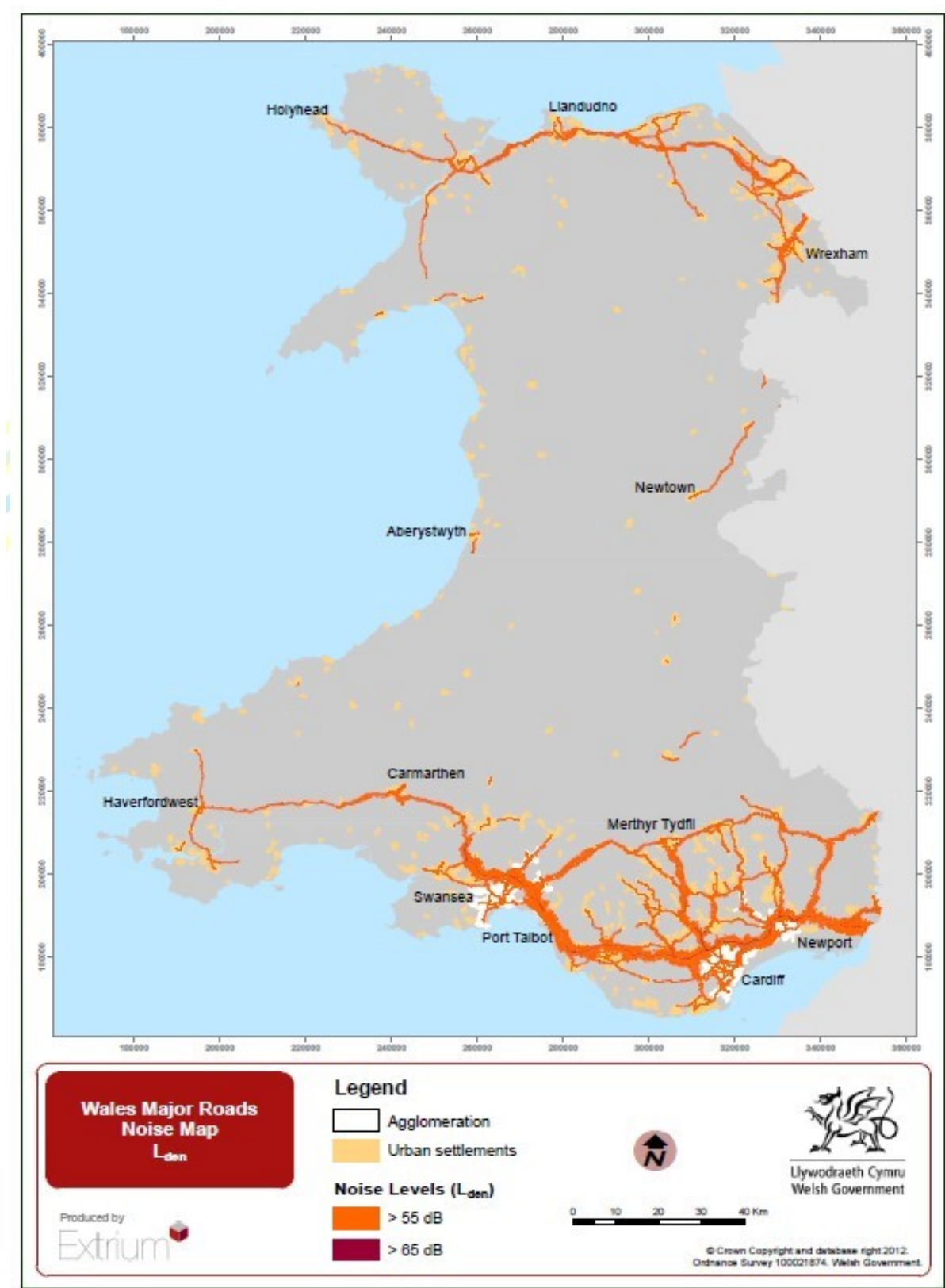
Figure 3-4 Noise of major railways in Wales (2012/2017)



Source: Welsh Government, 2018.

Noise mapping carried out by the Welsh Government in 2013 under the Environmental Noise Directive (see Figure 3-5) highlights that road noise is focused around the M4 in South Wales and adjoining 'A' roads. The A55 and adjoining 'A' Roads in North Wales, and the A483 in Mid Wales, also contribute to high levels of noise pollution.

Figure 3-5 Wales Major Roads Noise Map

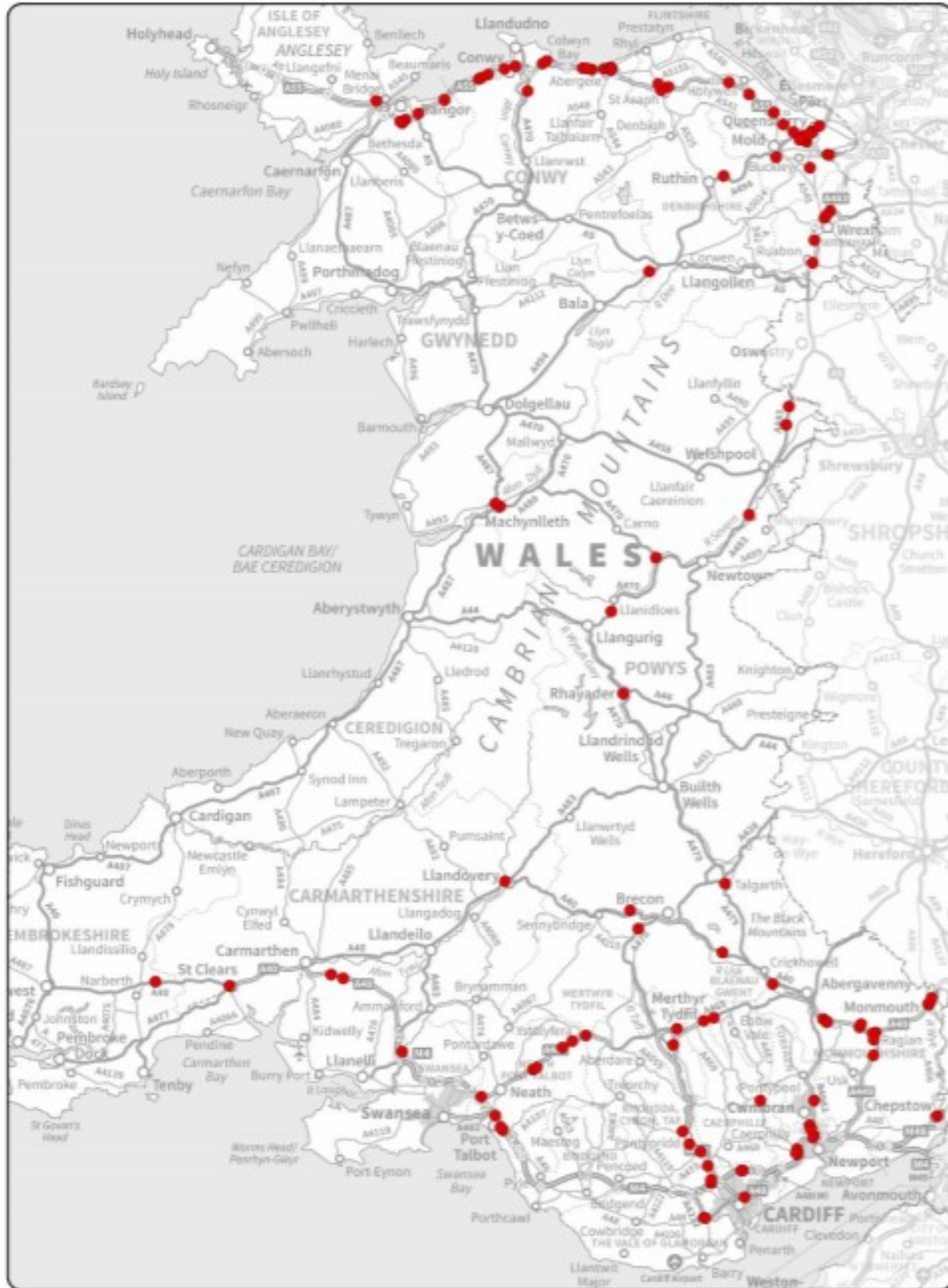


Source: Welsh Government (2013) Data Flow 4 and 8 Supplementary Report Major Roads in Wales.²²

²² Available at <http://gov.wales/docs/desh/publications/130214noise-major-roads-en.pdf> [Accessed January 2016].

The Welsh government has received many complaints about transport noise, the location of these complaints is shown in Figure 3-6.

Figure 3-6 Transport noise complaints received by the Welsh Government

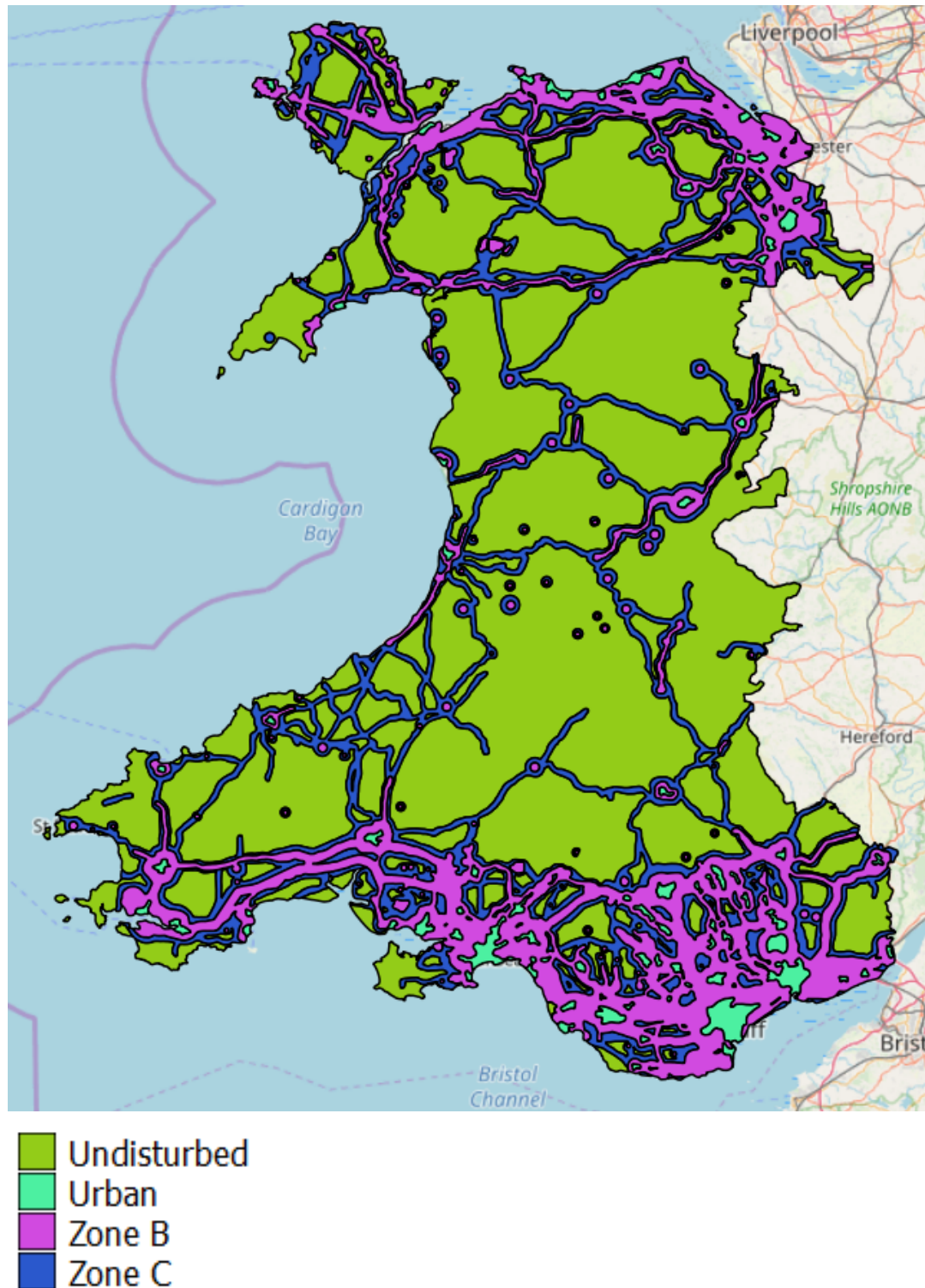


Source: Welsh Government, 2018.

When surveyed on noise complaints, 24% of Welsh people said they had regularly been bothered by noise from outside their home in the previous 12 months, 45% of these complaints were related to traffic, business or factories (it should be noted that noise is now considered a form of air pollution and as such is covered by WG's Clean Air Plan due to be published in 2020).

In Wales there is an official designation for areas of tranquillity, these different areas are mapped out below in Figure 3-7.

Figure 3-7 Map of Tranquil areas Wales 2009



Source: NRW

Data gaps

A data gap is if noise complaints made in Wales have any relation to economic disparity e.g. poorer households may be within closer proximity to factories or roadsides.

3.1.3 Biodiversity, Flora and Fauna

Relevance to the WTS

Biodiversity refers to the variety of all living organisms. It can be seen at a number of levels, in terms of the diversity within species, the diversity between different species, and the diversity of different ecosystems (i.e. the environments within which species live). High levels of diversity ensure habitats and species are more robust and able to cope with changes in the environment, both in terms of natural fluctuations and those caused by human activity, therefore supporting their long-term survival.

Ensuring the protection of biodiversity, including important marine and terrestrial habitats, species and protected sites, as well as biodiversity in general (including non-designated sites) and its resulting benefits in terms of ecosystems services, in turn, will have benefits to an improved economic and social health of an area. Therefore, conserving biodiversity not only fulfils our global responsibility but will improve the quality of life for Wales' residents and help maintain its attraction as a place to live and visit.

The WTS can significantly influence biodiversity through helping to guide decisions through the planning of transport infrastructure to ensure features of ecological importance, as well as their connectivity and the ecosystems services they provide, are protected and enhanced. The WTS has the potential to make a significant contribution to national and local biodiversity targets, particularly for those habitats and species that occur commonly on the Welsh trunk road and motorway network. The Trunk Road Estate Biodiversity Action Plan (TREBAP) audit of the network identified those habitats and species that are most at risk from the operation of the trunk road network, and those that could benefit from appropriate management of the soft estate.

The Welsh Assembly Government soft estate extends across the whole of Wales, traversing a wide variety of rocktypes, landscapes and habitats, from purple moorgrass and rush pasture to reedbed, coastal floodplain grazing marsh, and rock habitats. The associated soft estate currently extends to approximately 1700 hectares.

Increasingly, the soft estate is being acknowledged as holding areas of value for biodiversity. This can be: because of the presence of remnants of original habitats, the often low ecological value of adjacent land, its value as a wildlife corridor and in some cases, as a result of the management applied. Road verges can be of particular value if they comprise intrinsically valuable habitat that also adjoins larger areas of the same habitat type, such as Sites of Special Scientific Interest or local wildlife sites.

The RSPB²³ has provided guidance on the potential impacts to be considered in transport (particularly road) schemes. These include:

Habitat loss effects

- Permanent habitat loss on site
- Temporary habitat loss on site e.g. land taken up by construction equipment/temporary roads
- Physical removal of soils and vegetation

Habitat fragmentation effects

- Reduced habitat connectivity in the landscape – can disrupt the established relationships between different habitats or patches of the same habitat e.g. routes linking sleeping or roosting areas to feeding grounds or migration routes may be physically interrupted
- Barrier effects on species – can affect the movement of wildlife: population viability may be affected if populations of a scarce species are separated especially if they have poor dispersal activities
- Increased mortality due to wildlife casualties

²³ http://ww2.rspb.org.uk/Images/BiodiversityImpact_tcm9-257019.pdf

- Edge effects – if vegetation is removed the new linear gap creates a new microclimate and a change in physical conditions which can extend varying distances from the road edge. This newly created habitat may provide habitat for edge species and facilitate dispersal for some species.
- Reduced patch size - may reduce populations of key plant species, which in turn may affect the abundance of insects including butterflies they support.
- These require a minimum area to sustain viable populations and may in turn affect other species e.g. predatory birds. Also small patch size may not be able to support the range of habitat structure needed to sustain a range of different species

Changes in habitat quality and other indirect impacts

Changes to natural processes

- Groundwater regimes - changes in the groundwater regime may adversely affect habitats dependent on the watertable e.g. marsh, fen and bog.
- Depending on the geology, lowering the water table can impact habitats a considerable distance from the development.
- Stream/river flows - Increases or reductions in natural rates of flow e.g. flash flooding from hard surfaces may affect aquatic ecosystems.
- Accumulation of construction spoil can alter flow, volume and composition of water. These increased solids increase turbidity which can cause abrasion damage and gill blockage in fish and lead to the disappearance of filter feeding invertebrates
- Flooding regimes
- Soil leaching and changes in soil structure
- Soil erosion patterns

Water pollution

Water pollution from accidental spillages, de-icing chemicals, runoff and road spray can lead to adverse changes in aquatic biodiversity as can changes in sediment and solid loads in watercourses.

Soil pollution

Road spray, vehicle emissions and dust and other particulates (including aggregate and sealant materials used in road construction) can be deposited directly on the land or by polluted precipitation and by polluted groundwater. These can change soil pH and structure. Soil conditions can also greatly alter the effective toxicity of pollutants.

Air pollution

Emissions of lead, zinc, nitrogen, de-icing materials and particulates such as dust can affect biodiversity.

Changes to microclimate

Light and radiation emissions may alter the microclimate. These microclimatic changes may be sufficiently great to alter the performance of some species of plants and animals.

Windfunnelling

Where woodlands are bisected interior trees become exposed and liable to wind-blow effects leading to changes in the new marginal vegetation. Cuttings can have an additional windfunnelling 'jet' effect increasing windblow and evaporation that may result in a water supply shortfall which may lead to changes in species composition.

Disturbance

Fauna can be disturbed by noise, lighting and vibrations from traffic and by road lighting.

Reduced visibility

Road structures e.g. bridges and viaducts may cause problems for certain birds/mammals by reducing visibility

Introduction of exotics

The edge habitat or ecotone and traffic on the road may facilitate dispersal for some species. This may result in dispersal and establishment of alien and invasive species or pest species that may have secondary effects on biological communities.

Changes to habitat management eg frequency of verge cutting.

Public pressure

Surrounding habitats may be placed under increasing public pressure, because of access, leading to effects including the disturbance of animals, and physical destruction of ground flora. Also, litter may accumulate along road

Off site habitat losses and changes in habitat quality

In relation to the obtaining and disposal of materials e.g. mining for aggregates for road building.

Cumulative effects

Even relatively minor habitat loss, fragmentation and indirect impacts of an individual road project can, when added to other past, present and reasonably foreseeable future impacts of other projects and activities, contribute to significant impacts in an area. All relevant types of future projects and activities should be considered (i.e. not just other road projects) including induced development.

Positive effects

- Habitat enhancement
- Improved habitat management
- New structures e.g. bridges and tunnels may provide habitats for some species e.g. bats
- Habitat creation

Baseline conditions and trends

The land area of Wales covers 2,078,224 ha. The Welsh marine area extends out to 12 nautical miles, covering just under 15,000 km² or 41% of the territory of Wales.

Wales has a wide representation of species across a broad range of taxonomic groups with estimates varying from 25,000 to 50,000 different species of animals, plants and other organisms. There are 20 Special Protection Areas (SPAs) for internationally important populations of birds and 92 Special Areas of Conservation (SACs) for other threatened species and natural habitats. 562 of the total 1,016 Sites of Special Scientific Interest (SSSI) (as of 2010) have individually qualifying species and 54 have species assemblages which qualify. Many of the same species are also found on sites that qualify for their habitat. The list of species and habitats of principal importance in Wales (the interim Section 7 list) includes 557 species (SoNaRR, 2016).

Species

The 2013 reports on the Annexes of the Habitats Directive and Birds Directive summarise the UK status and trends of the selected habitats and species and are important evidence resources. A summary of the Welsh results for species is presented in Figure 2-4.

From monitoring data collected for species features on Natura 2000 sites, the overall condition of SAC and SPA species features on these sites in Wales, as reported in 2013, was mostly unfavourable (55%) with the exception of birds and mammals of which 86% and 68% were in favourable condition respectively.

In Wales, the interim Section 7 list of the Environment (Wales) Act has 557 species and 55 habitats of principle importance. These were originally selected for the Section 42 list of the Natural Environment and Rural Communities Act 2006 for prioritised action from the UK Biodiversity Action Plan using criteria based on the level of threat they face, the level of responsibility in Wales for their populations and whether remedial action could be taken to improve their status. The list includes species as diverse as slow-worm (*Anguis fragilis*), hornet robber fly (*Asilus crabroniformis*) and long-snouted seahorse (*Hippocampus guttulatus*).

An assessment of the status of some of the interim Section 7 species in comparison to their condition at the time of the last Biodiversity Action Plan report in 2008 is shown in Box 1 below.

Box 1 Assessment of the state of some of the Welsh priority species at broad taxonomic group level (SoNaRR, 2016).

Of the 104 invertebrate species listed as priorities, 67 were assessed. *21% of these were declining*, the outlook was *improving for 25%*, and the remaining *54% showed little change* in their status.

83 vertebrate species appear on the list of priority species and we assessed 78 of them. *37% of these were declining* and the outlook was *improving for 21%*. The remaining *42% showed little change* in their status.

Of the 87 fungi and lichens listed as priorities, 55 were assessed. *29% of these were declining*, the outlook was *improving for 27%* and the remaining *44% showed little change* in their status.

52 bryophytes feature on the priority species list and we assessed 49 of them. *47% of these were declining*, the outlook was *improving for 24%* and the remaining *29% showed little change* in their status.

A study of the impact of the 1995 drought on butterfly abundance showed that some widespread species, including large skipper (*Ochlodes sylvanus*) and green-veined white (*Pieris napi*), were particularly drought-sensitive. The impact of extreme weather events is also relevant to many invertebrates and birds on a yearly basis.

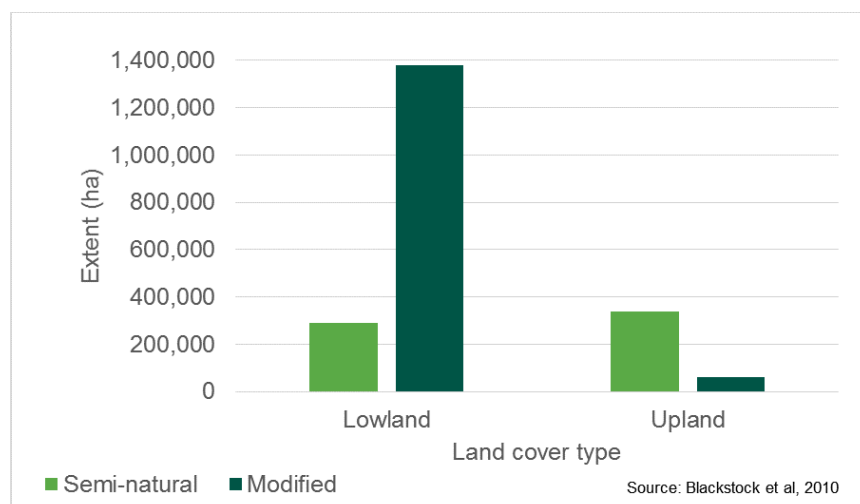
Climate change impacts such as acidification, sea temperature rises and extreme weather events have the potential to affect marine species through a number of factors including prey population dynamics, reproduction and distribution.

Habitats

The Habitat Survey of Wales provides complete coverage of the country and was undertaken between 1979 and 1997. More detailed information for habitats which are a priority for conservation measures is provided by NRW's ongoing Phase 2 Habitat Survey.

The land-cover of Wales can be divided broadly into semi-natural habitats and modified land-cover types. Semi-natural habitats retain many of their characteristic species. Modified land-cover types include the built environment as well as land where ecological processes and species composition have been hugely altered, for example, improved grassland, arable land and conifer plantations. The representation of semi-natural habitat varies significantly across Wales. The Welsh lowlands are highly modified as shown in Figure 3-8. Of the lowlands 17.3% is semi-natural habitat, whereas of the upland area 84% is semi-natural habitat. Semi-natural habitats in Wales cover a total of 626,100 ha (30% of the Welsh land surface) (SoNaRR, 2016).

Figure 3-8 Summary of the representation of semi-natural habitats and modified land-cover types in Wales.



The extent, condition and trends of terrestrial species in Wales are influenced primarily by habitat management and by climate change. Habitat management directly influences plant community composition, amounts of bare substrate, shading and vegetation structure. Shading due to scrub encroachment, following changes in grazing regime, can be as damaging for butterflies and many other species groups as overgrazing or agricultural improvement. These effects are compounded by direct habitat loss which leads to fragmentation of suitable habitat types or conditions and the increasing influence of nutrient enrichment which leads to changes in plant communities and patterns of growth. As above, climate change is also a significant threat to both habitats and the species they support (SoNaRR, 2016).

Habitats of Principle Importance

In Wales, the interim Section 7 list has 55 habitats of principle importance, which were originally selected for the Section 42 list of the Natural Environment and Rural Communities Act 2006. These habitats cover terrestrial, freshwater and marine. They include blanket bog, ponds and seagrass beds and were selected for prioritised action from the UK Biodiversity Action Plan (BAP) using criteria based on the level of threat they face, their relative importance as habitat in Wales and whether remedial action will be able to improve their status. Terrestrial habitats of principle importance extend over a total area of 387,300 ha. The most extensive of these in Wales (each with a resource of greater than 30,000 ha) include upland heathland, blanket bog, upland oak woodland, purple moor-grass and rush pasture, lowland dry acid grassland and coastal and floodplain grazing marsh. However, some key habitats of conservation importance are scarce, small in extent and highly vulnerable. Marine Intertidal BAP habitats extend over 15,000 ha. The most extensive intertidal BAP habitat, mudflats, covers over 14,000 ha and is found all around the coast of Wales. Honeycomb worm reefs cover 476 ha and are mainly found in South and West Wales. More than 50% of all BAP habitats were in decline in Wales in 2008 (SoNaRR, 2016).

Ancient Woodland

The area of Ancient Woodland in Ancient Wood Inventory (AWI) 2011 is 33,000ha (53 percent) greater than in AWI 2004. Largely, the revised figure consists of Ancient Semi-Natural Woodland (ASNW) in private ownership (29,000ha). 5,000 ha more Ancient Woodland has been identified on the Welsh Government Woodland Estate managed by Natural Resources Wales, compared with the AWI 2004. The AWI shows that South Wales Valleys and South Powys are the most populous ancient woodland areas. Most of these woodland resources are designated Plantations on Ancient Woodland Sites (SoNaRR, 2016).

European and UK Protected Sites

European protected sites are designated either as exemplars of listed habitat and species types or specifically to conserve wild birds that are listed as rare and vulnerable. The protection of these sites makes a significant contribution to conserving the habitats and wildlife species that live there. Protected sites also exist in the marine environment, and work continues to ensure these sites contribute to an ecologically coherent network of marine protected areas in UK seas.

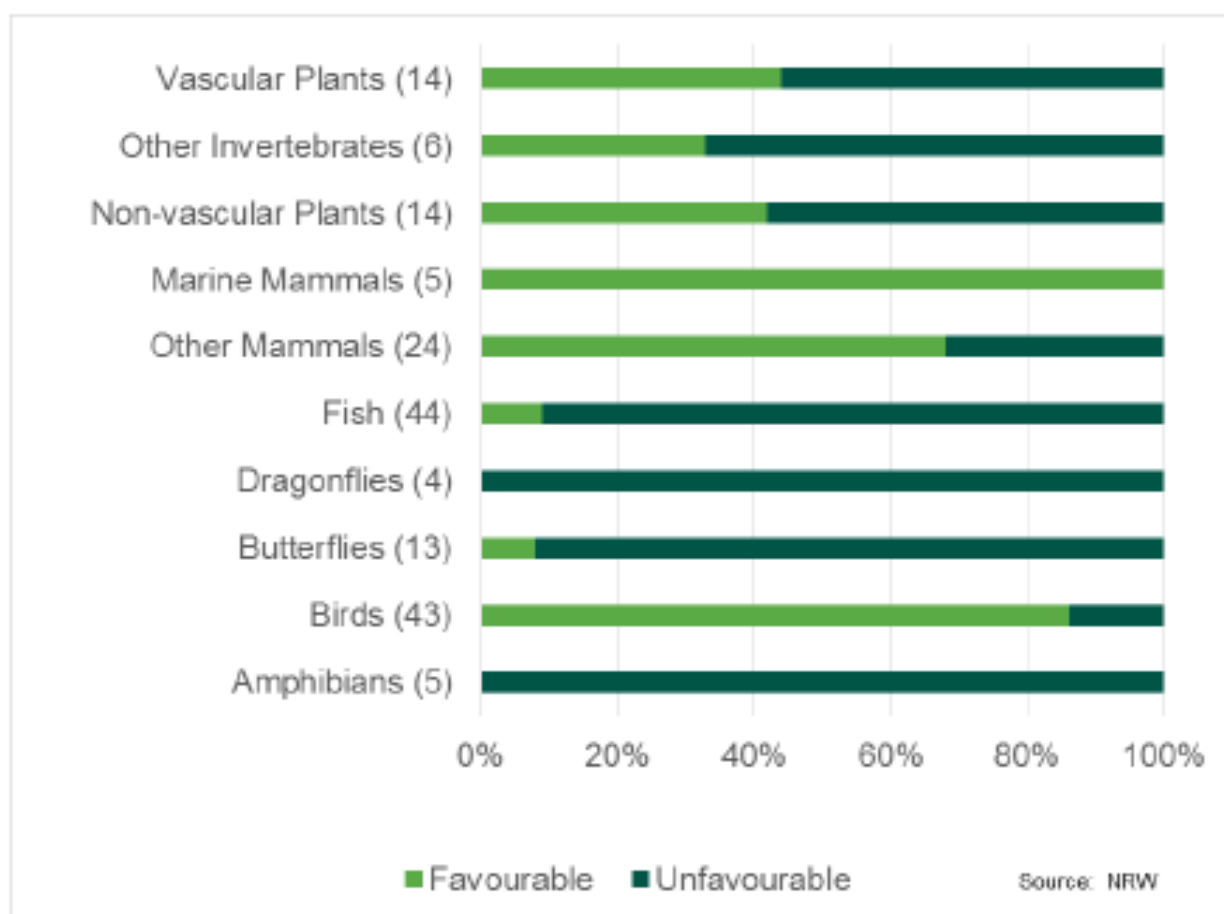
Special Protection Areas (SPA)

SPAs are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive, which came into force in April 1979. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species (Defra, 2013).

SPAs in Wales include the coastline between Burry Port and Saundersfoot, sections of the Pembrokeshire coast and the coastline from Penarth to the Severn Bridge in South Wales. The area between Llandrindod Wells and Tregaron in Mid Wales and the South Gwynedd area and Northern coastline in North Wales. The spatial distributions of Welsh SPAs can be found in Figure 1 - Designated Nature Conservation Sites.

The condition of SAC and SPA species features on sites in Wales, as reported in 2013, remains mostly unfavourable (55%), with the exception of birds and mammals of which 86% and 68% were in favourable condition, respectively. A summary of the results for species is shown in Figure 3-9.

Figure 3-9 Overview of condition of Habitat and Bird Directive species features on SACs and SPAs. Number of features in assessment shown in brackets.



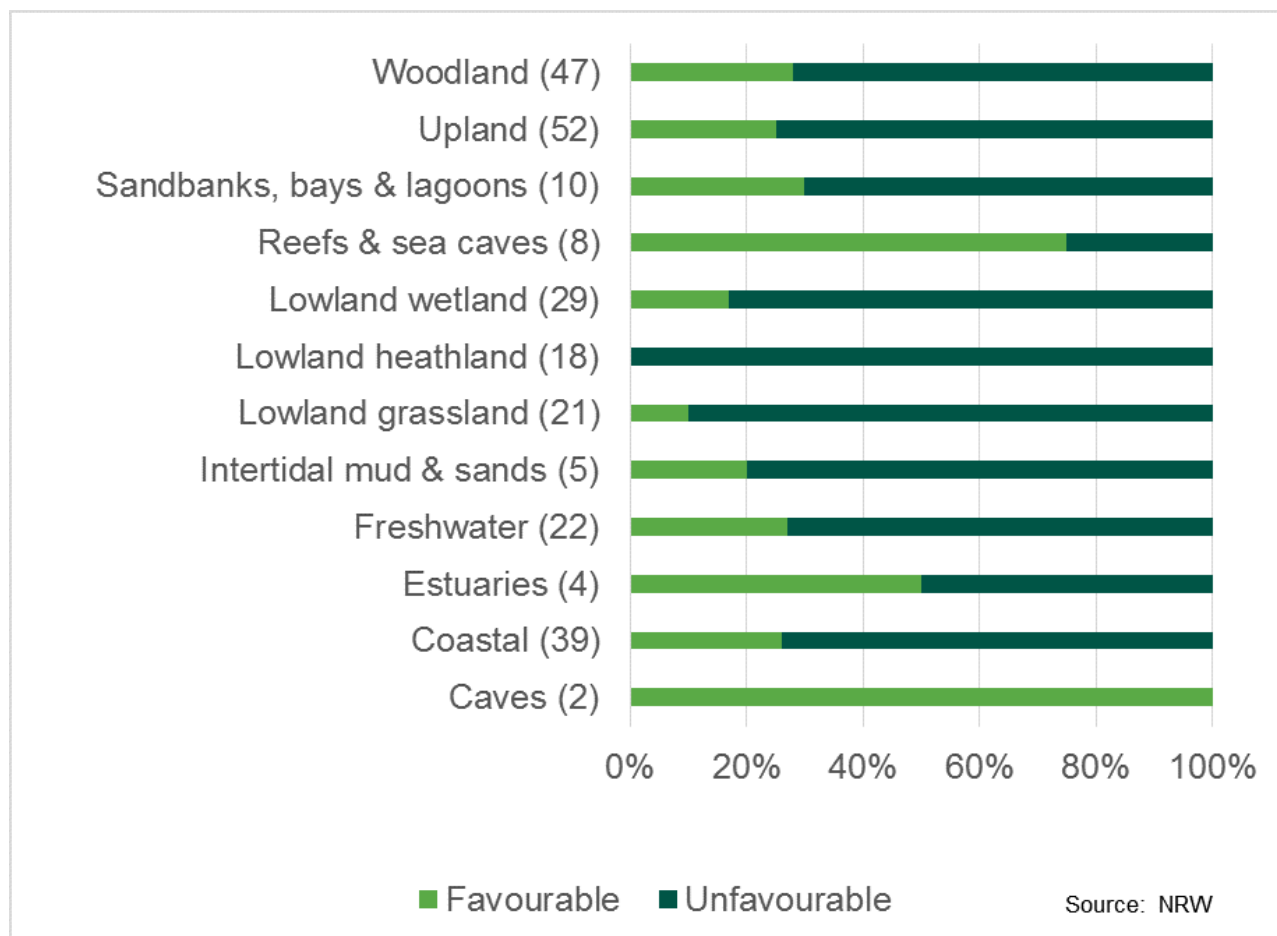
Special Areas of Conservation (SAC)

A Special Area of Conservation (or SAC) is a site designated under the Habitats Directive. These sites, together with Special Protection Areas (or SPAs), are called Natura 2000 sites and they are internationally important for threatened habitats and species.

SACs in Wales include the coastline between Burry Port and St. Davids; sections of the Pembrokeshire coast; and the coastline from Penarth to the Severn Bridge in South Wales. Large sections of the coastline between Cardigan up to Caernarfon in Mid Wales and the coast between Bangor and Conwy in North Wales are also protected under this designation. The spatial distributions of Welsh SACs can be found in Figure 1 –

Designated Nature Conservation Sites. As an overview, roughly a quarter of SAC habitats in Wales are in a favourable condition, see Figure 3-10.

Figure 3-10 Percentage of SAC habitat features in favourable and unfavourable condition. Number of habitat features in assessment shown in brackets (SoNaRR, 2016)



Ramsar Sites

The Ramsar Sites in Wales include wetlands that are considered to of international importance under the Ramsar Convention. Wales currently has 10 Ramsar Sites including The Dee Estuary, Llyn Idwal, Llyn Tegid and Corsydd Mon a Llyn in the north, Cors Caron, Cors Fochno and Midland Meres and Mosses in Mid Wales/Midlands and Burry Inlet, Crymlyn Bog and Severn Estuary in the south. The spatial distributions of Welsh Ramsar sites can be found in Figure 1 – Designated Nature Conservation Sites.

Sites of Special Scientific Interest (SSSI)

SSSIs are the most important sites for Wales' natural heritage. They help conserve and protect the best of the nation's wildlife, geological and physiographical heritage for the benefit of present and future generations.

SSSIs in Wales include coastline, freshwater, upland and lowland sites and range from small fens or sand dunes to woodlands and vast reaches of mountain. They contain important types of land, plants and wildlife. Geological sites range from quarries to rocky outcrops and massive sea-cliffs (Natural Resources Wales, 2016). As demonstrated in Figure 1 – Designated Nature Conservation Sites, the SSSIs in Wales are geographically spread across the country with a slight cluster in the rural areas North Powys and South Gwynedd. As of 2019 there are 1078 SSSIs within Wales²⁴.

²⁴ <https://lle.gov.wales/catalogue/item/ProtectedSitesSitesOfSpecialScientificInterest/?lang=en>

National Nature Reserves

National Nature Reserves tend to occupy the coastal areas of the country. There is a strong presence of nature reserves in the coastal areas of Wales. The highest concentration is to the east of the Llyn Peninsula. The spatial distributions of Welsh National Nature Reserves can be found in Figure 1 – Designated Nature Conservation Sites.

Marine Conservation Zones (MCZ)

The marine environment includes 2,740 km of coastline. The marine ecosystems in Wales form part of two wider biogeographic regions: the Irish Sea, and the Western Channel and Celtic Sea. There is a high diversity of habitats and species including sediment and biogenic habitats, sessile and highly mobile species. A proportion of marine habitats are surveyed and mapped, but for some areas our understanding only comes from modelling.

In 2014, the first MCZ in Welsh waters was established. Skomer MCZ is situated around the island of Skomer and the Marloes Peninsula in Pembrokeshire, South West Wales. Before 2014 the area had been Wales' only Marine Nature Reserve for 24 years (Joint Nature Conservation Committee). This is clearly visible in Figure 3-11 below.

Figure 3-11 Skomer Marine Conservation Zones – The first and only current MCZ in Wales situated off the South-West coast of Wales.



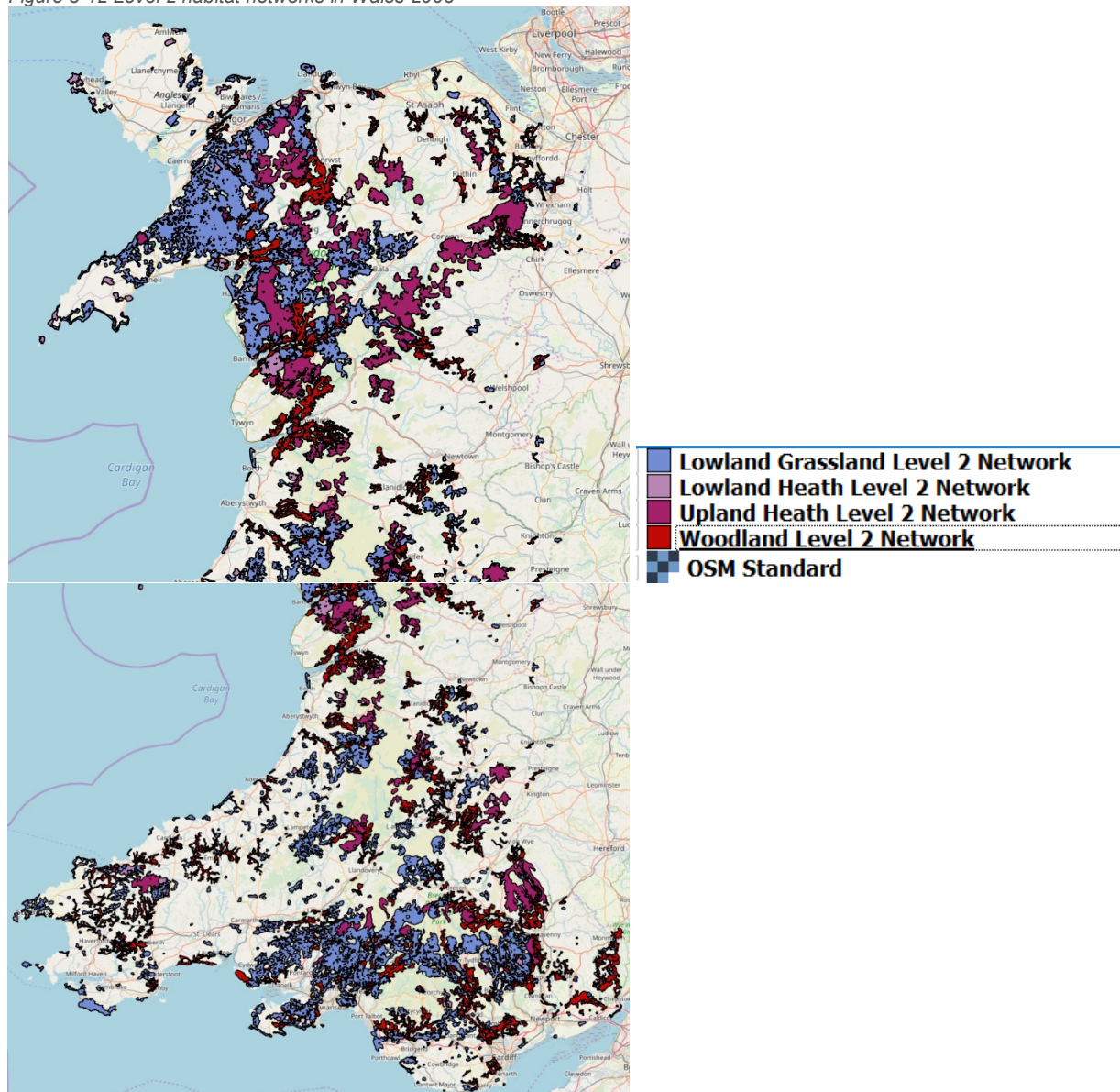
The Environmental and Rural Affairs Monitoring & Modelling Programme (ERAMMP) has accumulated and carried out many surveys of the habitats of Wales that is used to inform SoNaRR reports, they include both areas where the habitats excel and areas that need improvement, these areas that need improvement should be considered in the WTS; their 2020 findings²⁵:

- 20% of vegetation plots in Wales are on neutral grassland, but only <1% are on semi-natural neutral grassland.
- Topsoil carbon declined in the uplands since 2007. This includes acid grassland.
- 74-90% of farmed grassland fields contain no trees.
- Recent topsoil carbon declines in the uplands include Mountain, Moor and Heath.

Resilient Ecological Networks

In order to preserve biological diversity, resilient ecological networks are planned to enable habitats to adapt to developments within Wales.

Figure 3-12 Level 2 habitat networks in Wales 2008



²⁵ <https://erammp.wales/en/gmep-data-analysis>

Data gaps

No significant data gaps have been identified for this topic at this stage. Information in this section comes mostly from the SoNaRR, 2016 report, this information has not been updated online in an accessible form since then, even though there is a 2019 interim report.

3.1.4 Climate Change Adaptation and Flood Risk

Relevance to the WTS

Measurements indicate that over the past century air and ocean temperatures have increased, rates of ice melt in valley glaciers and ice caps have accelerated and sea levels have risen. However, the extent of future warming and both the nature and geographical distribution of its impacts are the subject of much greater uncertainty. Scientists predict that climate change will result in increased sea-levels, increased average annual temperatures, warmer wetter winters, hotter drier summers and an increase in extreme weather events. These factors have significant implications for both our human and natural environment.

The implications of climate change for the WTS are related to the need to arrest, or mitigate, the causes of global warming, and to adapt to future conditions. Flooding is a key area in which the effects of climate change are felt locally.

Baseline conditions and trends

Flooding is a key area in which the effects of climate change are felt locally. Flood risk is a significant issue in Wales including coastal, fluvial and surface water flooding.

Figure 3-12 presents the Technical Advice Note (TAN) 15 development flood risk areas, including the identification of areas served by significant infrastructure including flood defences; areas without flood defences; areas known to have had past flooding events; and areas at little or no risk of fluvial coastal or tidal flooding. TAN 15 notes that, historically, the topography of Wales has generally resulted in transport infrastructure being concentrated on valley floors, lowland areas and in the coastal fringes. The North West, North East, and South East regions are areas that have a high risk of flooding due to the extent of watercourses. A large proportion of the Welsh population is also located within urban centres along the coastal plain in North and South Wales, particularly Cardiff, Swansea and Newport and the coastal settlements of North Wales. Shoreline Management Plans (SMPs) provide a large-scale assessment of the risks associated with coastal processes that result in both erosion and flooding and presents a policy framework to reduce these risks to people and the developed, historic and natural environment in a sustainable manner. Wales is covered by the following SMPs:

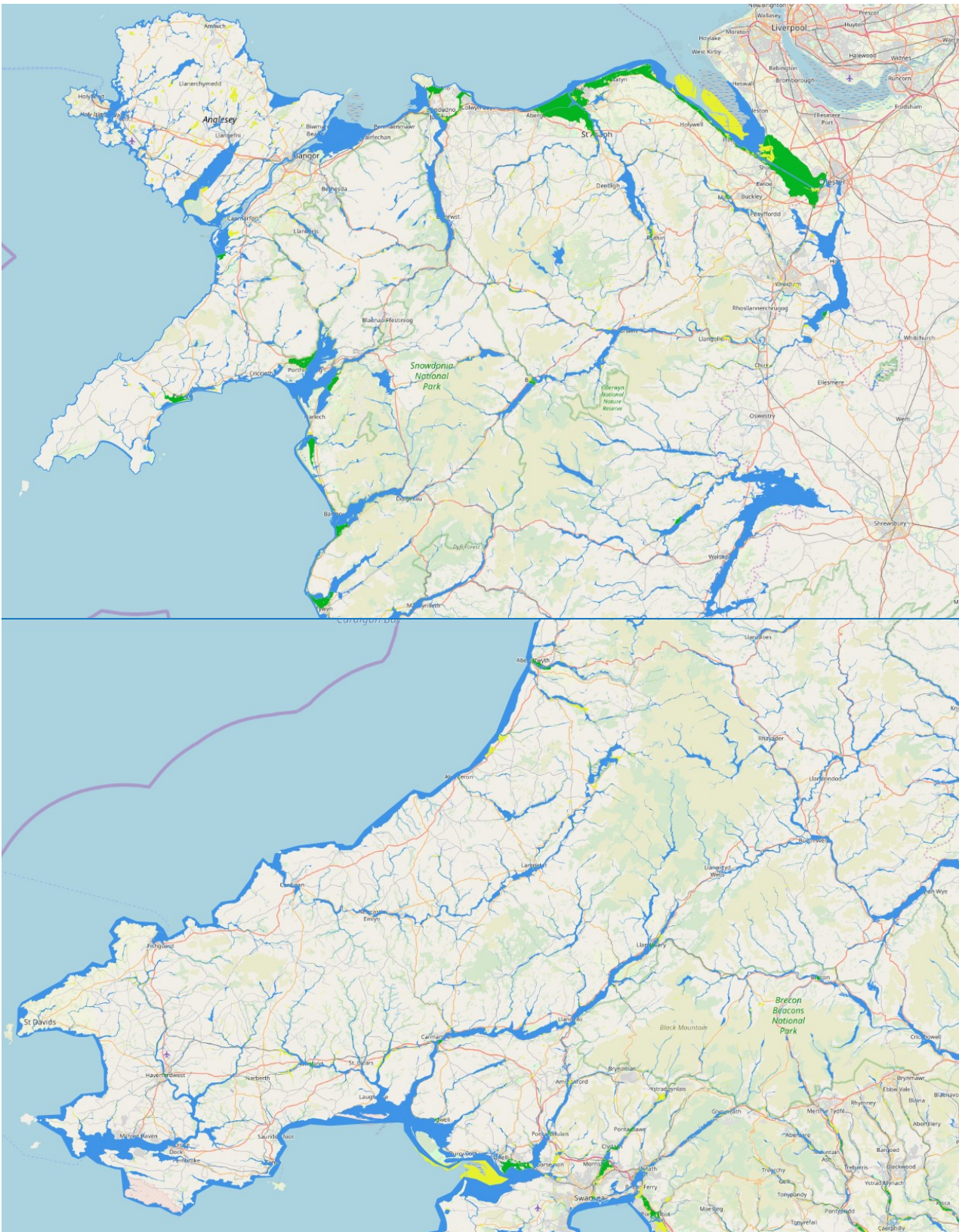
- SMP 19 Anchor Head to Lavernock Point (Severn Estuary);
- SMP 20 Lavernock Point to St Ann's Head (South Wales);
- SMP 21 St Ann's Head to Great Ormes Head (West of Wales); and
- SMP 22 Great Ormes Head to Scotland (North West England and North Wales).

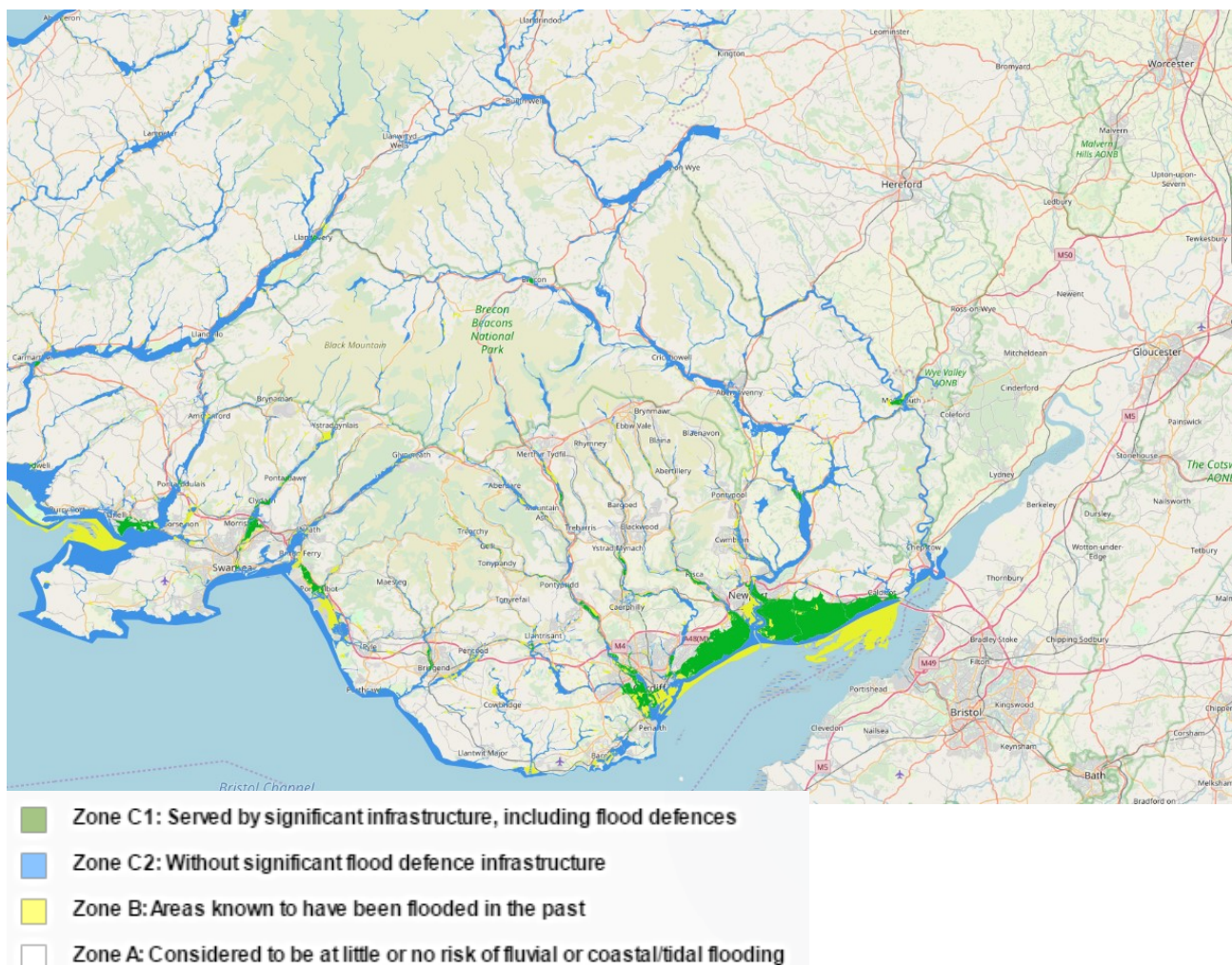
Overall, it has been assessed by the National assembly in Wales in 2017 that:

- There are at present around 208,500 properties at risk from flooding from rivers and sea in Wales. Around 163,000 properties are at risk from surface water flooding (based on 2014 data).
- Natural Resources Wales²⁶ estimates that 33 properties could be lost to coastal erosion over the next 20-50 years, and about 156 could be lost in the next 50-100 years. These estimates take into account the interventions proposed in the Second Generation Shoreline Management Plans. Without the interventions, these figures could increase to about 559 properties within 20-50 years and about 2,126 in 50-100 years.

²⁶ NRW (2017) Flood and Coastal Erosion Risk Management in Wales <https://www.assembly.wales/Research%20Documents/17-024/17-024-Web-English.pdf>

Figure 3-13 TAN 15 Development Flood Risk





Source: Development Advice Maps, Welsh Government

Flood risk and the need to manage and adapt to it is a very significant issue for Wales in the future as the risks brought about by climate change are anticipated to exacerbate flooding issues in the future. The most recent information for Wales from the UK Climate Impacts Programme (UKCP09) forecasts that by 2080 (under a medium emissions scenario), there will be an increase in winter mean precipitation of 19% (it is very unlikely to be less than 4% and it very unlikely to be more than 42%). Sea levels are forecast to increase by 36.2 cm compared to 1990 levels²⁷.

Almost 28% of the coast has some form of artificial protection, whilst 23.1% of the Welsh coast is considered to be eroding, with the potential to affect people, properties and infrastructure. In addition, both erosion and coastal protection have the potential to affect protected sites, although allowing dynamic processes to take place is usually considered to be positive.

Flooding is not only a pressure on communities and built structures but also causes impacts on the environment, as seen in the 2013-14 winter storms. These storms caused £8.1 million of damage to flood defence structures, in addition to the financial costs associated with the approximately 300 properties that were flooded. The work by NRW, Lead Local Flood Authorities, Internal Drainage Boards and Water and Sewerage companies has sought manage flooding and coastal erosion. In the winter storms of 2013/14, it is estimated that approximately 75,000 properties and 34,000 hectares of agricultural land was protected from flooding. Between 2011 and 2014, in excess of 340 coastal and river flood defence schemes were delivered, reducing flood risk to approximately 6,700 properties (Welsh Government Climate Change Annual Report 2014). It is estimated that £2.96 billion of damage to properties was avoided as a result of protection from

²⁷ UK Climate projections (2009) maps and key findings. Available: <http://ukclimateprojections.defra.gov.uk/21708#key> (accessed March 2017)

defences (SoNaRR, 2016). The trends in hydrological processes, which include sea-level rise and increased storminess, are likely to increase the likelihood and consequences of coastal flooding and erosion.

Data gaps

Data gaps relating to transport links affected by flooding.

Data gaps relating to transport structures affected by scour.

Data gaps relating to the types of households most likely to be affected by flooding.

3.1.5 Geology and Soils

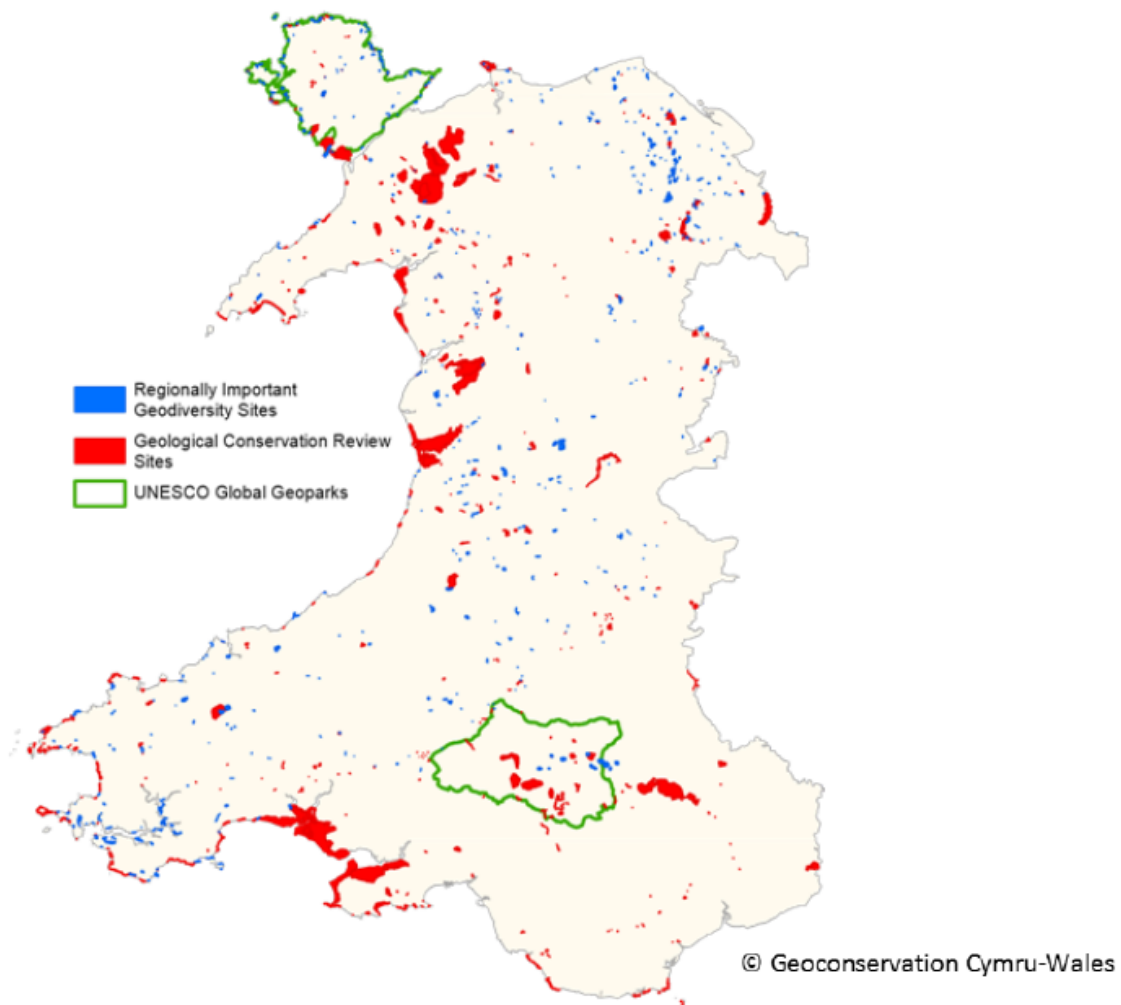
Relevance to the WTS

Wales has some of the most varied geology in the world representing all geological periods and spanning 1.4 billion years of the Earth's history. This diverse geology not only underpins the country's biodiversity and landscape but also provides important mineral resources. The protection and sustainable use of geological diversity, soil resources and minerals can be delivered through the guidance within the WTS.

Baseline conditions and trends

As identified above, Wales' geodiversity is significant. 300 SSSIs in Wales, covering 48,815 ha, contain some 500 geological features and 93% of these features are in favourable condition. Figure 3-13 illustrates the distribution of geological SSSIs and Regionally Important Geodiversity Sites (RIGS). Two UNESCO Global Geoparks, Geo Môn and Fforest Fawr, cover 1,483 km² of Wales and are also designated for the primary purpose of promoting geo-tourism (SoNaRR, 2016).

Figure 3-14 Welsh Geodiversity Sites (SoNaRR, 2016).






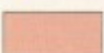
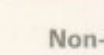
Source: SoNaRR, 2016.

In the future, geological hazards may change as a response to climate change. For example, coastal erosion, landslides and pollution from former mine sites. Exploration for conventional and unconventional sources of oil and gas also remains a possibility in Wales and its consideration will form a part of the emerging Welsh Government Energy Strategy.



The soil and agricultural land quality of Wales is reflective of the topography and geology of the country. The soil types are diverse with over 400 different soil types present across the country, which contribute to a rich geodiversity and biodiversity, landscapes and land uses. The majority of Wales is either Grade 4 or 5 in the Agricultural Land Classification. This classification is generally considered to be of poor or very poor quality agricultural land and is largely due to the predominantly upland nature of Wales. This has a strong influence on the types of agriculture feasible, lending itself more towards livestock farming. The soils of best quality and most productive agricultural land are a scarce and finite resource in Wales accounting for less than 7% of land area.

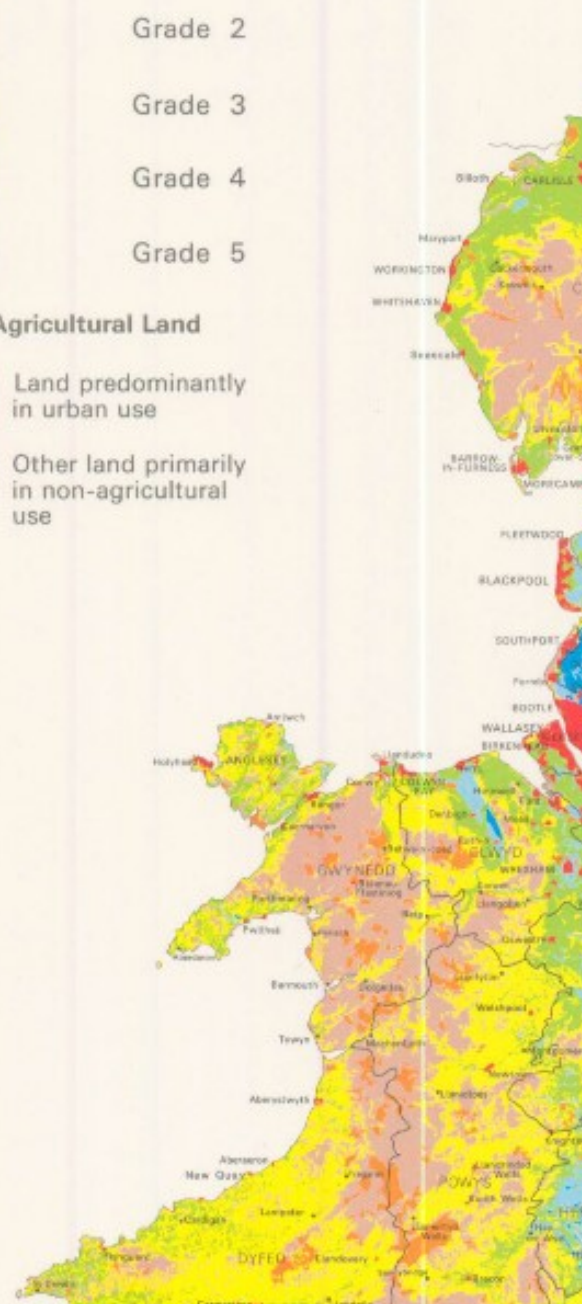
Soil quality has deteriorated over time across all habitats apart from woodlands where there has been some improvement (SoNaRR, 2016).

Agricultural Land

	Grade 1
	Grade 2
	Grade 3
	Grade 4
	Grade 5

Non-Agricultural Land

	Land predominantly in urban use
	Other land primarily in non-agricultural use



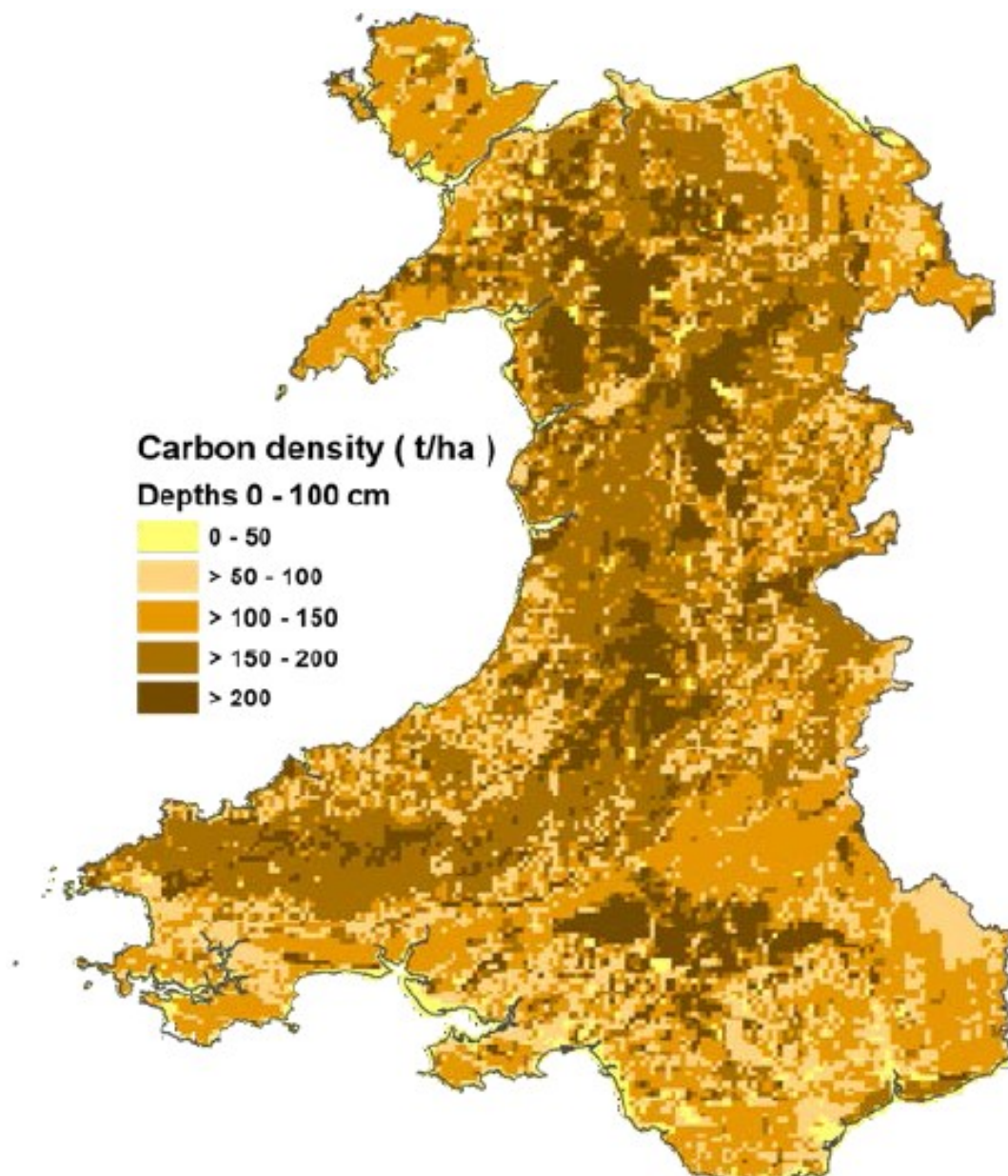
Source: Natural England

Whilst the severity and spatial extent of soil erosion has not been directly quantified in Wales, around 10-15% of grassland fields in England and Wales are thought to be affected by severe soil compaction and 50-60% are in moderate condition. Only 30% of the Welsh peat soil area is considered to be in 'good condition' (SoNaRR, 2016).

Remediation has been completed at 97 of the 111 Contaminated Land sites identified in Wales, but around 9,330 potentially contaminated sites have yet to be investigated (SoNaRR, 2016).

Welsh soils contain 410 million tonnes of carbon. The carbon density of Wales on the whole, is relatively high with the densest areas mainly being upland parts of the country. Again, this reflects the country's upland nature and large quantities of peaty soils. Figure 3-15 below, shows the carbon density of Wales at a depth of 0-100cm. Topsoil carbon concentrations are generally stable and there is ongoing recovery from soil acidification (SoNaRR, 2016).

Figure 3-16 Distribution of soil carbon in Wales, shown as carbon density (t/ha) depth 0-100 cm (SoNaRR, 2016).



Source: SoNaRR, 2016).

Data gaps

Issues relating to geology and soils amounting from transport and the potential impact new transport infrastructure can have on geology and soils.

3.1.6 Water Environment

Relevance to the WTS

Water is central to life. Wales relies on considerable quantities of water to produce resources, transport goods, provide recreational benefits, as a drinking resource and to grow food. The quality and quantity of water is therefore vitally important.

The WTS can help manage the water environment through helping to guide decisions through the planning process relating to development of transport infrastructure that could harm water quality or put pressure on water resources. It also has a role to play in environmental protection in general through its guidance.

Baseline conditions and trends

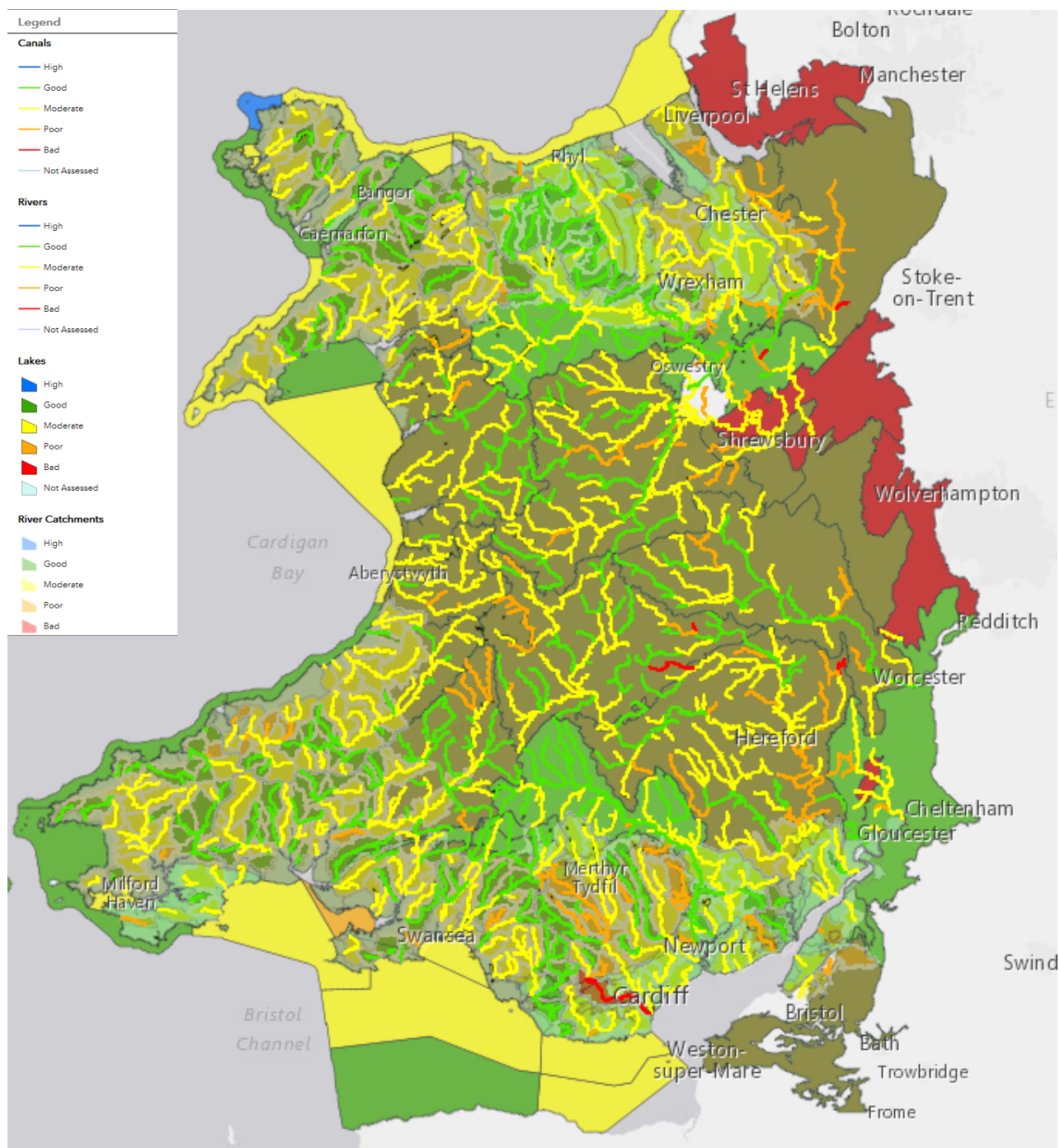
The water features map of Wales in Figure 3-16 was produced under the requirements of the Water Framework Directive. The map shows the river catchments and other water features in Wales. Water resources across Wales tend to range from a good to poor classification but are very rarely classed as high or bad. In particular, the river catchments in the south and Cardigan Bay are classed as moderate or good.

The Water Framework Directive required the UK to achieve 'good' status of all water bodies (including rivers, streams, lakes, estuaries, coastal waters and groundwater) by 2015.

In 2014 42% of water bodies in Wales were classified as being of 'good' ecological status compared to 21% in England. There was a slight decrease to 39% classified as being of 'good' ecological status in 2015 (Natural Resources Wales).

In many Welsh rivers, flows are particularly vulnerable to climate change because they tend to rise and fall quickly in response to rainfall. Increased flows during winter may also increase pressure upon sewerage and drainage systems and diffuse pollution (SoNaRR, 2016).

Figure 3-17 Water Features and Quality in Wales



(Source: Natural Resources Wales)

Groundwater provides a third of the drinking water in England and Wales, and it also maintains the flow in many of our rivers. All of Wales is classified as groundwater inner source protection zone. The zone is defined as the 50-day travel time from any point below the water table to the source. These areas apply at and below the water table. The criteria are set to protect against transmission of toxic chemicals and water-borne disease.

In Wales, the EC Nitrates Directive (91/676/EEC) was brought into law through the Nitrate Pollution Prevention (Wales) Regulations 2013. A Nitrate Vulnerable Zone (NVZ) is an area of land draining into ground or surface waters that are currently high in nitrate; or may become so if appropriate actions are not taken. Around 2.4% of Wales is currently within an NVZ.

Data gaps

No significant data gaps have been identified for this topic at this stage.

3.1.7 Minerals and Waste

Relevance to the WTS

As described above, Wales' diverse geology provides important mineral resources which underpins the country's construction and energy industries and is therefore an important aspect of the economy. Waste can also be viewed as a resource, both in terms of recycling and re-use for other purposes or as a source of energy. The future of transport in Wales will interact with this through both Waste creation, pathways for minerals and waste and use of waste and minerals in development of transport infrastructure.

The sustainable use of these minerals and waste resources can be delivered through the guidance within the WTS.

Baseline conditions and trends

Following a long history, metal mining has ceased and there is only localised coal mining and slate quarrying in Wales. The aggregates industry is now the main mineral extraction industry in Wales, including marine and terrestrially derived aggregates. In 2014, the largest extraction of minerals in tonnes was limestone and dolomite (see Table 3-1 (SoNaRR, 2016)).

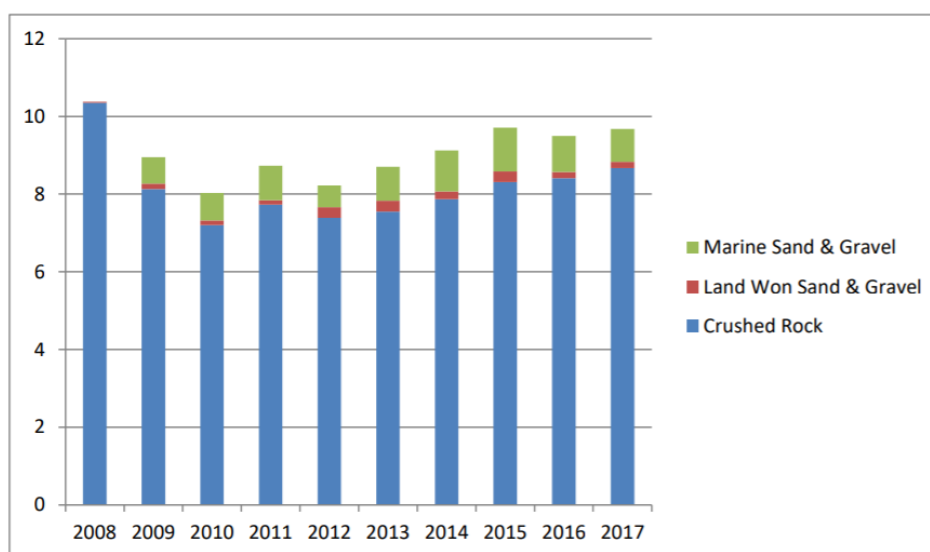
Table 3-1 Mineral Production in Wales for 2014 (SoNaRR, 2016)

Mineral	Thousand Tonnes Extracted
Coal (deep-mining)	91
Coal (opencast)	2,343
Igneous Rock	1,905
Limestone and Dolomite	8,934
Sand and gravel (land)	673
Sand and gravel (marine)	632
Sandstone	2,774
Total	17,352

The future trend in minerals extraction is heavily influenced by the national economy and confidence in the construction industry. Exploration for conventional and unconventional sources of oil and gas also remains a possibility in Wales and its consideration will form a part of the emerging Welsh Government Energy Strategy.

The sales of aggregates in Wales was published in the 2019 South Wales Regional Aggregates Working Party Annual Report for 2017.

Figure 3-18 Primary Aggregate Sale 2008-2017²⁸



The Welsh Government publication, 'Towards Zero Waste 2010–2050' aims for Wales to become a high recycling nation by 2025 and a zero-waste nation by 2050. The 2015 Progress Report identifies the following key statistics and trends:

- Wales leads the UK in recycling municipal waste by a significant margin, achieving 54.3% in 2013/14.
- Wales has reduced waste sent to landfill at permitted sites by 37% between 2010 and 2013.
- Since 2009-10, Wales has made progress in reducing household waste arisings by an average of 1.8% per year, and the recycling rate of local authority collected waste has improved by 13.8%.
- Wales met the EU target 2020 for biodegradable waste collected by local authorities and others sent to landfill eight years early.
- Wales has also reduced the greenhouse gas emissions from waste by 4.7% per year since 2007, exceeding the target reduction of 3% per year set in the Climate Change Strategy.

Table 3-2 shows the total amount of waste per sector that was not recycled, re-used or composted as a percentage of overall municipal waste production. This shows a steady decrease in the amount of waste sent to landfill. This trend is echoed in the commercial and construction sectors.

Table 3-2 Percentage of Municipal Waste sent to Landfill (Statistical Bulletin 'Local authority municipal waste management report for Wales, 2013-14', Welsh Government)

Year	% municipal waste sent to landfill
2009-10	59.5%
2011-12	50.0%
2013-14	45.7%

The latest quarterly statistical release for Landfill Disposals Tax by the Welsh Revenue Authority states that for waste disposed to landfill in the period April to June 2020, there were 179 thousand tonnes of authorised disposals, which is a fall of 28% for the same period in 2019. These disposals resulted in £5.2 million tax due, a fall of nearly 50% from the same period 2019. It is cited that Covid-19 has had a major impact on the

²⁸ <http://www.swrawp-wales.org.uk/Html/SWRAWP%20Annual%20Report%202017%20FINAL.pdf>

businesses of some landfill site operators and is likely to be a factor in the level of waste disposed.

The Natural Resource Policy published in 2017 puts an emphasis on taking a place-based approach and delivering nature-based solutions²⁹. There is an emphasis within the document of using a solid baseline to understand how to sustainably plan for the future.

The four policy themes, drawn from the NRP, were:

1. Marine and Freshwater Water Quality
2. Natural Flood Management
3. Woodland Planting (for various objectives)
4. Urban and Peri-Urban Green Infrastructure

Data gaps

Data gap relating to how recycled materials are used in the transport industry as a percentage of total materials used.

Data gaps relating to the transportation and management of waste and minerals.

There may be data gaps due to some of the data being five years old or more, this data may no longer be an accurate representation.

3.2 Key Issues relevant to the WTS and opportunities for it to address them

Issues

Air Quality

Air quality in Wales is generally very good, reflective of its largely rural nature and high-quality natural environment. However, targets are being breached for a number of key pollutants which pose a risk to human health and the natural environment so the transport plan must take this into account. These notably occur in urban areas and adjacent to busy roads.

90% of semi-natural nitrogen sensitive Welsh habitats are subject to nitrogen deposition in excess of critical load limits.

Road transport accounts for nearly a third of all NO₂ emissions in the UK and transport is the biggest source of air pollution in the UK.

Noise Pollution

Road noise is focused around the M4 in South Wales and adjoining 'A' roads. The A55 and adjoining 'A' Roads in North Wales, and the A483 in Mid Wales, also contribute to high levels of noise pollution. Noise pollution from railways mostly takes place in the south of Wales around Cardiff.

Biodiversity, Flora and Fauna and Ecosystem Resilience

Wales has a rich and varied natural environment including a wide representation of important habitats and species. However, the condition of species features in European designated sites in Wales and the condition of priority habitats in Wales remains mostly unfavourable, the transport plan must do its best to not impede on the habitats via habitat fragmentation or indirect effects such as nitrogen deposition, wildlife fatalities or noise disturbance.

²⁹ http://www.hwa.uk.com/site/wp-content/uploads/2018/11/POL_22-Welsh-Government-2017-Natural-Resources-Policy.pdf

Terrestrial and marine biodiversity is under threat from transport infrastructure, pollution and climate change, all of which are effects that come from the transport network.

Changes in habitat quality coming from changes to the groundwater regime, changes in natural rates of flow from hard surfaces increasing surface water flooding.

A change in soil leaching and erosion patterns.

Changes to microclimate from light and radiation emissions.

Windfunnellung from bisected trees.

Disturbance to fauna from noise, lighting and vibrations from traffic and road lighting.

Road structures may cause problems for certain birds/mammals by reducing visibility.

The edge habitat or ecotone and traffic on the road may facilitate dispersal for some species. This may result in dispersal and establishment of alien and invasive species or pest species that may have secondary effects on biological communities.

Surrounding habitats may be placed under increasing public pressure, because of access, leading to effects including the disturbance of animals, and physical destruction of ground flora. Also, litter may accumulate along road

Off-site habitat losses and changes in habitat quality in relation to the obtaining and disposal of materials e.g. mining for aggregates for road building.

Even relatively minor habitat loss, fragmentation and indirect impacts of an individual road project can, when added to other past, present and reasonably foreseeable future impacts of other projects and activities, contribute to significant impacts in an area. All relevant types of future projects and activities should be considered (i.e. not just other road projects) including induced development.

Climate, Flood Risk and Coastal Erosion

The effects of climate change are increasing and adaptation and resilience to its effects is an increasing necessity. Notably, flood risk is a significant issue in Wales including coastal, fluvial and surface water flooding that may affect transport infrastructure. This is exacerbated by an increase in extreme weather events and this means that properties and businesses are increasingly becoming at risk. Disruption can disproportionately impact communities with fewer and less resilient transport options.

Climate change will impact on Wales in ways other than just flooding, such as more extreme weather events, an increase in storminess, higher maximum and minimum temperatures, more severe droughts and exacerbated rates of coastal erosion. Climate change will also affect habitats and species throughout Wales.

The UK Climate Change Risk Assessment 2017: Evidence Report highlights a number of key risks and opportunities facing Wales with regard to transport, including the need to transition towards low-emission vehicles and enhanced active travel options.

Geology and Soils

In the future, geological hazards may change as a response to climate change. For example, coastal erosion, landslides and pollution from former mine sites. This poses significant risks to the transport system.

The soils of best quality and most productive agricultural land are a scarce and finite resource in Wales and soil quality has deteriorated over time across all habitats. Only 30% of the Welsh peat soil area is considered to be in 'good condition'. This is important for biodiversity, landscape character, tourism, agricultural productivity and climate change resilience. Topsoil, in particular peaty soils in Wales are a major carbon sink which needs protection. All of this must be taken into account when planning the location of future transport infrastructure.

Water Environment

The quality of Wales' water bodies is still not up to Water Framework Directive requirements with only 42% being of good ecological status in 2014. Transport activities can be a big contributor to poor water quality.

In many Welsh rivers, flows are particularly vulnerable to climate change because they tend to rise and fall quickly in response to rainfall. Increased flows during winter may also increase pressure upon sewerage and drainage systems and diffuse pollution (which may come from road surface run-off).

Whilst Wales is perceived to be water-rich, it is already facing challenges in terms of supply and water resources can become relatively scarce during prolonged warm, dry weather.

Run off from roads and spillages on roads and during construction can all lead to pollution in surface waters, ground waters and marine environments (around ports).

Minerals and Waste

The country still has substantial resources if required. sustainable management of this extraction is necessary for ongoing or future activity. Minerals safeguarding can sometimes also conflict with other forms of development e.g. transport infrastructure.

There may be high material requirements for construction of transport infrastructure putting further strain on the limited resources.

Covid-19

The Covid-19 pandemic has impacted most on the most vulnerable individuals and deprived communities. The long-term impacts of the pandemic are currently unknown and, whilst there have been some beneficial impacts, including improved air quality and greater reliance on active travel, the approach to recovery should promote social, health and economic equality.

Opportunities

Air Quality

The transport system is a significant contributor to air pollution at present, an opportunity to reduce this negative effect on air quality could be affected by helping to minimise pollution from transport through minimising the distance travelled and encouraging more sustainable modes of transport. Sustainable design and landscaping policies could help to provide opportunities for absorbing some pollutants.

Noise Pollution

The WTS can affect noise pollution through ensuring decisions are based on the principle of reducing emissions through the transition to implementing the sustainable transport hierarchy. Sustainable design and landscaping policies could help to reduce the effect of noise and the potential impact from transport on tranquil areas.

Biodiversity, Flora and Fauna and Ecosystem Resilience

The WTS can both benefit and enhance biodiversity through guiding the location and manner in which new transport infrastructure occurs. It provides opportunities to ensure biodiversity is protected and enhanced through the transport system, not just in terms of protected sites but also in terms of biodiversity and connectivity in general. Other benefits might include improved habitat management; new structures e.g. bridges and tunnels may provide habitats for some species e.g. bats; and habitat creation. There is opportunity for the WTS to introduce additional green infrastructure as part of future transport proposals to support placemaking as well as biodiversity, flora and fauna.

Climate, Flood Risk and Coastal Erosion

The WTS has a significant role to play in terms of climate change adaption and resilience. Flooding and coastal erosion are key areas in which the effects of climate change are felt locally and the WTS can help provide guidance on the location and design of infrastructure development to help minimise the risk. It is also an opportunity to further work with partners such as NRW and local authorities in developing flood management and protection schemes as part of encouraging sustainable land and ecosystem management, including the opportunity for the inclusion of SuDS to reduce the impact of new schemes on flood risk..

The WTS has a focus on significantly reducing greenhouse gas emissions from transport, through the promotion of more sustainable transport methods such as public transport and active travel.

Geology and Soils

The WTS has an opportunity to guide the sustainable use of Wales' geology and soils in the transport system in terms of their use in the construction of transport infrastructure.

The WTS could also help to avoid future risks by managing or avoiding geological hazards through the planning of the transport system. Exploration for conventional and unconventional sources of oil and gas also remains a possibility in Wales and its consideration will form a part of the emerging Welsh Government Energy Strategy.

Water Environment

The WTS can help to guide new development of transport infrastructure and transport routes in a manner that seeks to avoid pollution of water bodies. It could also be cognisant of the potential limitations of water supply and could promote measures to reduce water use in developments.

Minerals and Waste

The WTS has an important role to play with regard to minerals demand (through economic aspirations), planning and management. It can help to guide the sustainable use of such resources through its policies.

Covid-19

The WTS has a role to play in the recovery from Covid-19, particularly addressing changes in mobility. The WTS should address inequalities that have been exacerbated by Covid-19 and should promote sustained, equal recovery.

4 Well-Being Goal: A Healthier Wales and A More Equal Wales

This section provides data relating to the following well-being goal:

'A society in which people's physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.' And *'To deliver better public services, helping everyone who needs them, when they need them, where they need them.'*

The data relates primarily to:

- Human Health;
- Well-Being; and
- Population.

4.1 Overview of Baseline Conditions

4.1.1 Health and Well-being

Relevance to the WTS

Information with regard to the links between transport, health and priority groups can be found in section 4.1.3. In terms of equality, transport plays an important role in delivering an inclusive Wales, everyone, regardless of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation should be able to, and have the confidence to, make seamless independent and unassisted journeys across all modes of transport – from door to door and on a turn-up-and-go basis.

Baseline conditions and trends

In many ways, health in Wales is improving; people are living longer and rates of certain types of diseases are coming down. In many parts of Wales, the health of those living in rural communities is generally good, in comparison to those in a more urban setting. However, there are factors specific to a rural environment compared to those of urban environments that can impact on health more significantly and lead to

inequalities and poorer health, such as distance from public services and support; availability of transport; housing standards; and an ageing population.

Active Travel

“Active travel” is walking or cycling as a means of transport; that is walking or cycling in order to get to a particular destination such as school, work, shops, visit friends and many other journeys.’

Between 2018 and 2019 the Walking and cycling in Wales report³⁰ identified –

- 6% of adults cycled at least once per week for active travel purposes
- 57% of adults walked at least once per week for active travel purposes
- 70 per cent of people in urban areas walked for more than 10 minutes as a means of transport at least once a month, compared with 56 per cent of people in rural areas (Figure 4-1).
- Men, younger people, those without limiting illnesses and those who have qualifications were more likely than others to cycle.
- 44 per cent of children actively travel to primary school, and 34 per cent to secondary school.
- National Survey respondents who were in ‘very good’ or ‘good’ health were more likely to walk or cycle regularly.

Figure 4-1 Active travel (walking) by urban and rural classification

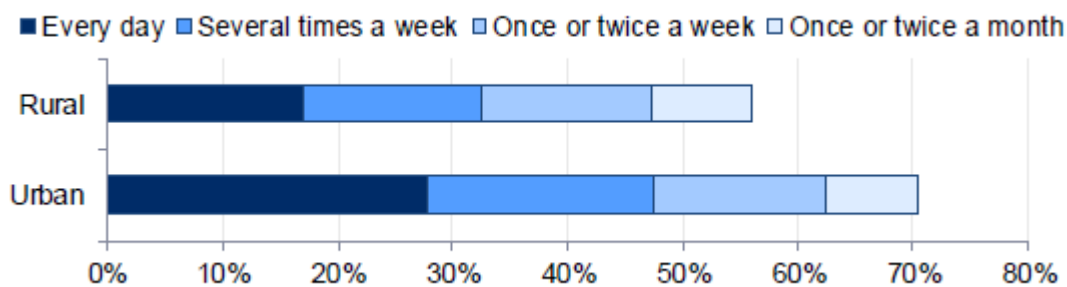
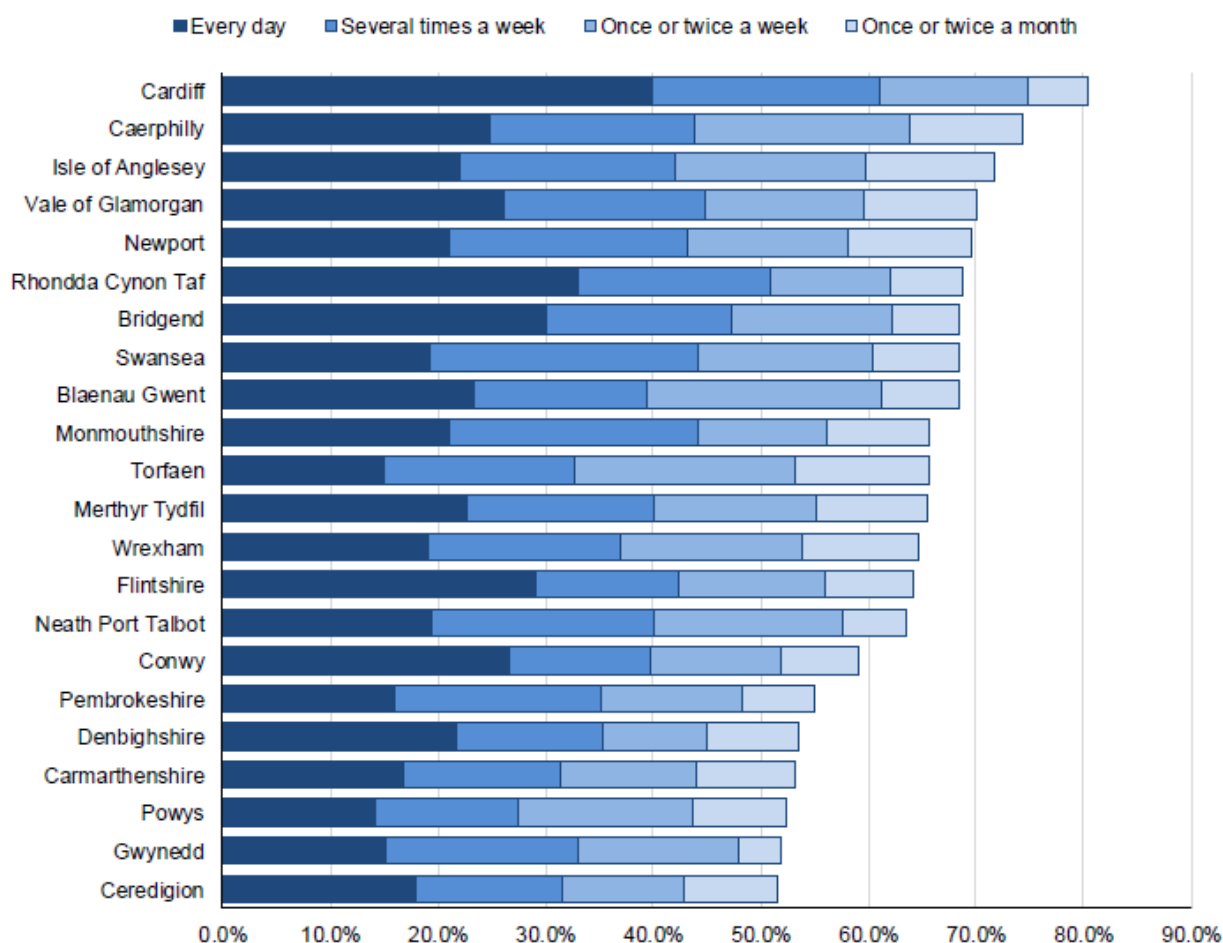


Figure 4-2 Active travel by walking, by local authority

³⁰ Walking and cycling in Wales: Active travel, 2018-19 Statistical Bulletin



Percentage of adults who have fewer than two healthy lifestyle behaviours

The 2019 Welsh Health Survey³¹ assessed whether Welsh respondents exhibited the following healthy lifestyle behaviours:

- Not smoking;
- Not drinking above daily guidelines in the previous week;
- Eating five or more portions of fruit and vegetables the previous day;
- Being physically active for at least 150 minutes in the previous week; and
- Maintaining a healthy weight/body mass index.

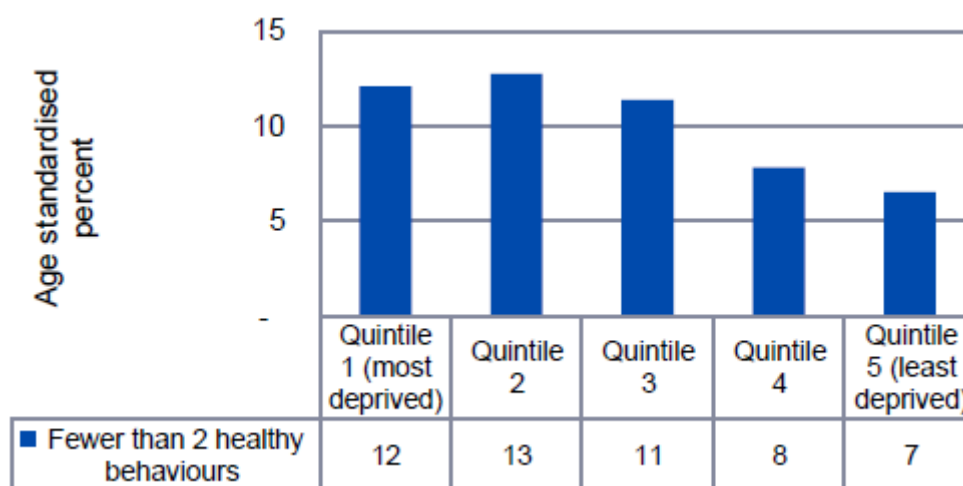
Around 10% of adults reported following less than 2 healthy lifestyle behaviours, 64% of adults reported either 2 or 3 healthy lifestyle behaviours

In terms of specific groups, the percentage of adults who followed fewer than 2 healthy lifestyles was slightly more common in men (12%) than women (8%), and among adults aged 45-64.

Figure 4-3 shows that the percentage of adults who reported following 0 or 1 healthy lifestyles was more prevalent in the most deprived areas (age-standardised).

Figure 4-3 Percentage of adults who exhibited 0 or 1 healthy lifestyles, by deprivation quintile

³¹ National Survey for Wales 2018-19: Adult Lifestyle Statistical Bulletin <https://gov.wales/sites/default/files/statistics-and-research/2019-06/national-survey-for-wales-april-2018-to-march-2019-adult-lifestyle-534.pdf>



Source: Welsh Government

The Welsh Health Survey (2019) established that for 2018 and 2019, amongst local health boards, the highest reports of 'Active less than 30 minutes a week' (50%) and lowest reports of 'Active 150 minutes a week' (39%) was in Cwm Taf Morgannwg. In contrast, Powys has the lowest records of less than 30 minutes of exercise (25%) and highest records of 150 minutes of exercise (65%).

Percentage of people who are lonely

In 2017-18, the National Survey for Wales asked people whether they agreed with a series of statements about their current life status. Users of care and social services were the most likely to agree that they often felt lonely (29% compared with 13% of those who were not users or carers).

Health facilities in Wales

There are a number of hospital facilities within Wales spread across a number of departmental requirements, the number and types of facilities are shown in Table 4-1. As of 2018 there were 421 GP Practices in Wales of which 89% were for all daily core hours were open for all of core hours or within one hour of core hours (08:00 to 18:30), Monday to Friday. (GP Access, Welsh Government, 2019).

Table 4-1 Number and Type of Hospital Facilities within Wales

Hospital Facility Type	Number
Major A&E Unit	13
Minor A&E Unit	1
Minor Injuries Unit	24
Other Hospitals	
Acute	2
CHC Local Committee	3
Clinic	19
Community	28
Community Hospital: Elderly Mental Infirm	3
Day Hospital	5
Major Acute	1
Psychiatric: Learning Disability	2
Psychiatric: Mental Illness	17
Psychiatric: Mental Illness / Learning Disability	2
Specialist Acute	3

Source: NHS Wales

Percentage of people overweight in particular levels of childhood

In 2019, 59% of adults were classified as overweight or obese, including 23% obese. Obesity levels in Wales have seen an increase since the Welsh Health Survey began in 2003/2004. Childhood obesity rates were higher in Wales in 2014 than in England. The prevalence of overweight and obese children in Wales was highest in Merthyr Tydfil (34%), Gwynedd and Bridgend (both 30%) and lowest in Monmouthshire (21%) and the Vale of Glamorgan (22%) (Public Health Wales, 2019).

In 2019 four and five year olds in Wales were found to have an obesity rate of 3.3%³².

Number and distribution of LSOAs in bottom 10% of most deprived in terms of access to services

Latest figures for the LSOAs in Wales (there are 1909 LSOAs in total in Wales) include average travel times using private transport when access to services have been considered. The WIMD 2019 access to services domain results have demonstrated that there is a widespread deprivation across Wales and also particularly within rural areas in terms of access. Furthermore, there are some deprived pockets near large urban areas.

The local authorities with the highest proportion of small areas in the most deprived 10% in Wales for access to services were Powys (50.6%) and Ceredigion (50.0%).

Cardiff, Neath Port Talbot, Bridgend, Rhondda Cynon Taf, Blaenau Gwent and Torfaen local authorities had no areas in the most deprived 10%.

The most deprived small area in Wales was Cynwyl Gaeo, Carmarthenshire, the same as for WIMD 2014.³³

Access to services and facilities

In the 2019 Wales National Survey³⁴, 69% of people surveyed were satisfied that good services and facilities are available in their local area, but 3% said that there were no services or facilities in their area. 80% were satisfied with their ability to get to or access the facilities and service they needed.

Figure 4-4 shows the deprivation levels of the LSOAs in Wales with regard to access to services.

³² <https://www.bbc.co.uk/news/uk-wales-47483203>

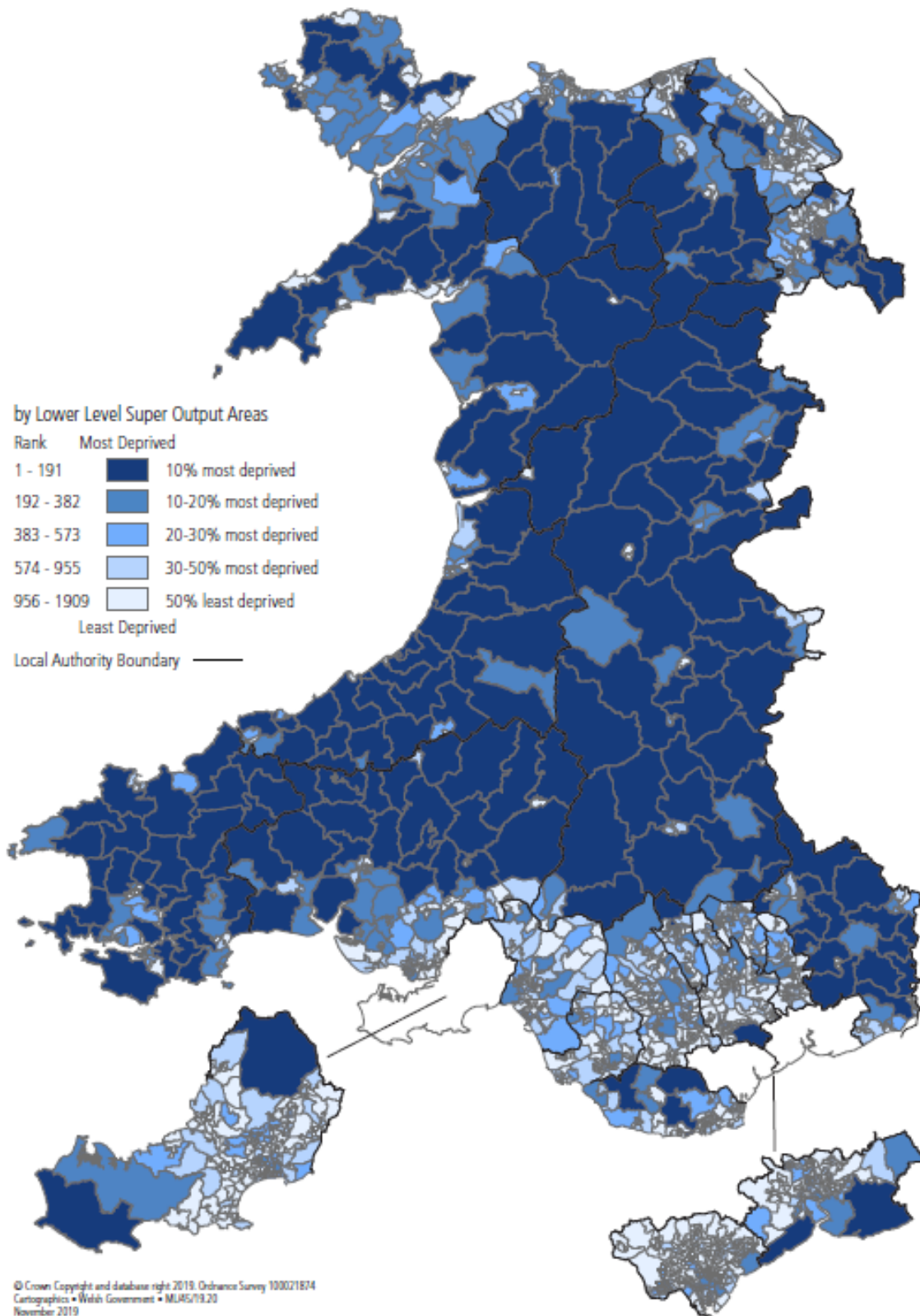
³³ Welsh Index of Multiple Deprivation, 2019 <https://gov.wales/welsh-index-multiple-deprivation-full-index-update-ranks-2019>

³⁴ National Survey for Wales, 2018-19 Community cohesion and safety in the local area Statistical Bulletin <https://gov.wales/sites/default/files/statistics-and-research/2019-11/community-cohesion-and-safety-local-national-survey-wales-april-2018-march-2019-739.pdf>

Figure 4-4 Access to Services Deprivation Map for Wales

Welsh Index of Multiple Deprivation 2019

Access to Services Domain



Source: WIMD 2019

No of LSOAs in bottom 10% Health deprivation domain

Patterns in health deprivation in Wales have remained largely unchanged since the 2011 WIMD. High deprivation levels were recorded in South Wales valleys and large cities, coastal areas of North Wales and border towns. The local authority the highest proportion of LSOAs in the most deprived 10% in Wales for health domain was Merthyr Tydfil. Three local authorities (The Isle of Anglesey, Ceredigion and Monmouthshire) were recorded as having had no LSOAs in the most deprived 10%.

For the health domain, the most deprived LSOA in Wales was Rhyl West 2, Denbighshire.

Percentage of good / bad health

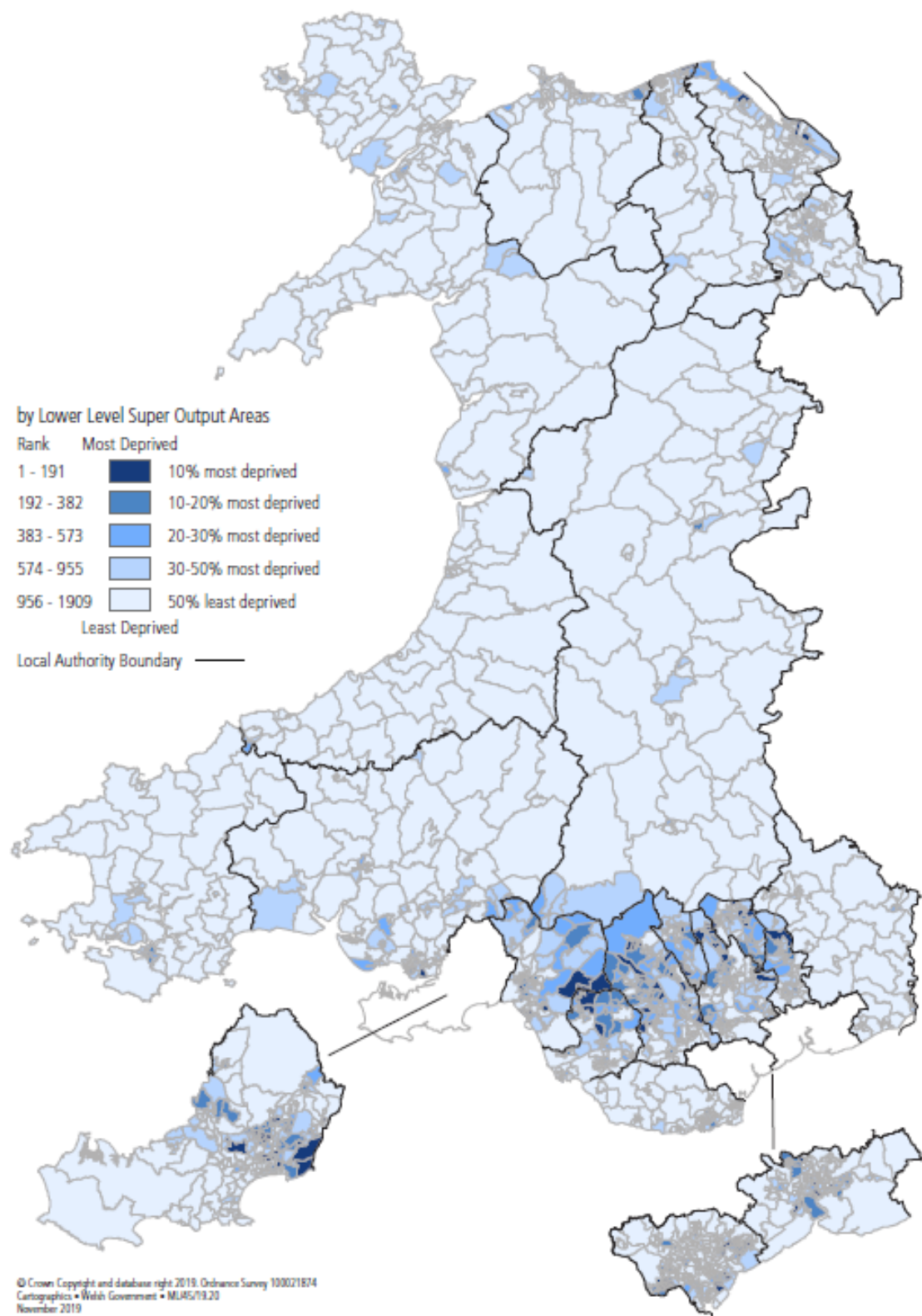
In 2018, 70% of people in Wales reported their general health as either 'Very good' or 'Good'. The gap between local health board reporting the highest (Powys: 76%) and lowest (Cwm Taf: 67 per cent) percentages of 'Very good' and 'Good' general health was 9%. The concentration of low percentages of 'Good' general health recorded in 2019 corresponds with the former coal mining and heavy industrial centres of the Welsh valleys in 2019 suggesting that these former industries have had long term health implications.

Isle of Anglesey, Ceredigion and Monmouthshire had no LSOAs in the most deprived 10%. Only 15.2% of the LSOAs in Ceredigion were in the most deprived 50% in Wales. Blaenau Gwent had the highest proportion of LSOAs in the most deprived 50% in Wales (95.7%). The next highest was Merthyr Tydfil, with 86.1% of its LSOAs in the most deprived half of Wales.

Figure 4-5 shows the deprivation levels of the LSOAs in Wales with regard to Health Domains.

Figure 4-5 Health Deprivation Map for Wales

Welsh Index of Multiple Deprivation 2019
Health Domain



Source: WIMD 2019

4.1.2 Population

Relevance to the WTS

An equal society in Wales can help to ensure that public transport services are fair and accessible to all and completely inclusive. The WTS could contribute positively towards making more fair and inclusive societies. Further detail is provided in section 4.1.3.

Baseline conditions and trends

The following baseline indicators have been used to characterise existing conditions relating to goal 4 of the Well-being of Future Generations (Wales) Act 2015 for population in Wales:

Percentage of Ethnic Groups

The ethnic make-up of the Welsh local authorities compared to national figures is shown in Table 4-2 below.

Table 4-2 Percentage of Ethnic Groups in Wales and local authorities

Area	All categories: Ethnic group	White (%)	Mixed (%)	Asian (%)	Black (%)	Other (%)
United Kingdom	63,182,178	87.2	2.0	6.9	3.0	0.9
Wales	3,063,456	95.6	1.0	2.3	0.6	0.5
Anglesey	69,751	98.2	0.7	0.7	0.1	0.3
Blaenau Gwent	69,814	98.5	0.6	0.7	0.1	0.1
Bridgend	139,178	97.8	0.7	1.1	0.2	0.2
Caerphilly	178,806	98.3	0.7	0.8	0.1	0.1
Cardiff	346,090	84.7	2.9	8.1	2.4	2.0
Carmarthenshire	183,777	98.1	0.6	1.0	0.2	0.2
Ceredigion	75,922	96.7	1.0	1.4	0.4	0.5
Conwy	115,228	97.7	0.8	1.1	0.2	0.3
Denbighshire	93,734	97.4	0.8	1.5	0.2	0.1
Flintshire	152,506	98.5	0.6	0.8	0.1	0.1
Gwynedd	121,874	96.5	0.8	1.8	0.2	0.7
Merthyr Tydfil	58,802	97.6	0.8	1.2	0.2	0.2
Monmouthshire	91,323	98.0	0.7	1.0	0.2	0.1
Neath Port Talbot	139,812	98.1	0.7	1.0	0.2	0.1
Newport	145,736	89.9	1.9	5.5	1.7	1.0
Pembrokeshire	122,439	98.1	0.6	1.0	0.1	0.2
Powys	132,976	98.4	0.6	0.9	0.1	0.1
Rhondda Cynon Taf	234,410	97.4	0.6	1.3	0.6	0.1
Swansea	239,023	94.0	0.9	3.3	0.8	1.0

Area	All categories: Ethnic group	White (%)	Mixed (%)	Asian (%)	Black (%)	Other (%)
The Vale of Glamorgan	126,336	96.4	1.3	1.6	0.4	0.3
Torfaen	91,075	98.0	0.7	1.1	0.2	0.1
Wrexham	134,844	96.9	0.7	1.7	0.5	0.2

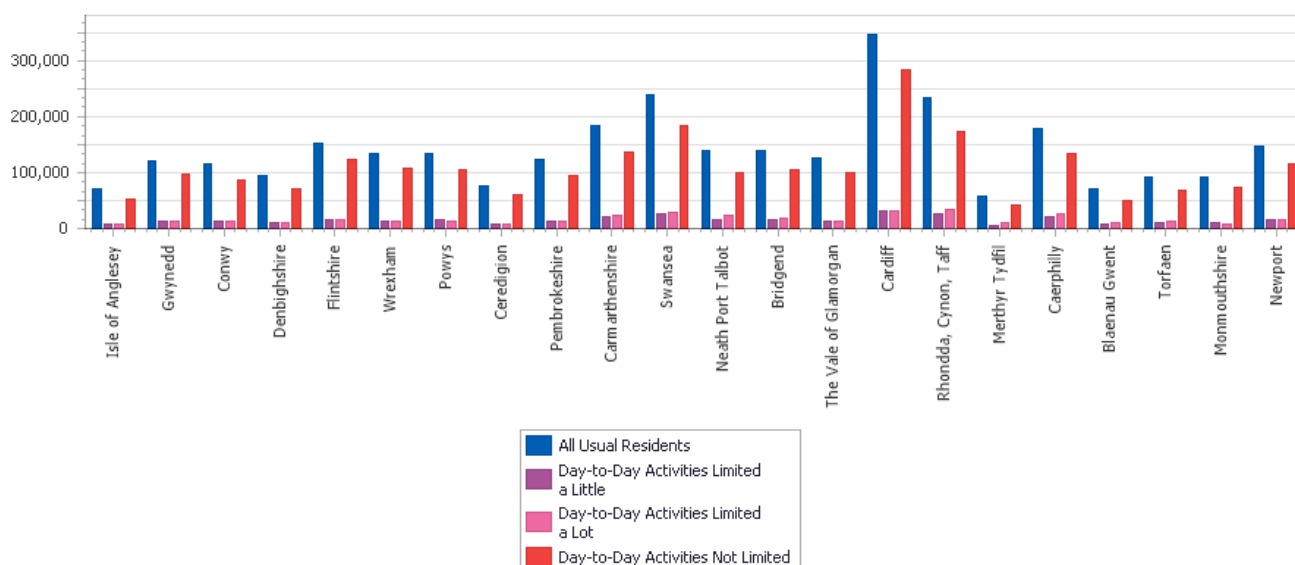
Source: 2011 Census – Nomis

In 2011, Wales had 8% more of its population who were white compared to the rest of the United Kingdom and a lower percentage of people who were Asian, black, mixed or other. The white ethnic group is dominant across all of the local authorities. The urban areas of Cardiff and Newport have a slightly more multicultural population and their percentages of white persons compares similarly with the UK figures.

Limiting long term illness or disability by local authority

Figure 4-6 shows the extent of illness or disability by local authority in Wales. In all cases, the majority of residents do not have an illness or disability that limits their day-to-day activities. The trend of results on a national scale for Wales is similar to that of the local authorities with 11.9% limited a lot and 10.8% limited a little. However, levels in Wales were slightly higher than that of England with 8.3% limited a lot and 9.3% limited a little in England (ONS).

Figure 4-6 Limiting long term illness or disability by local authority



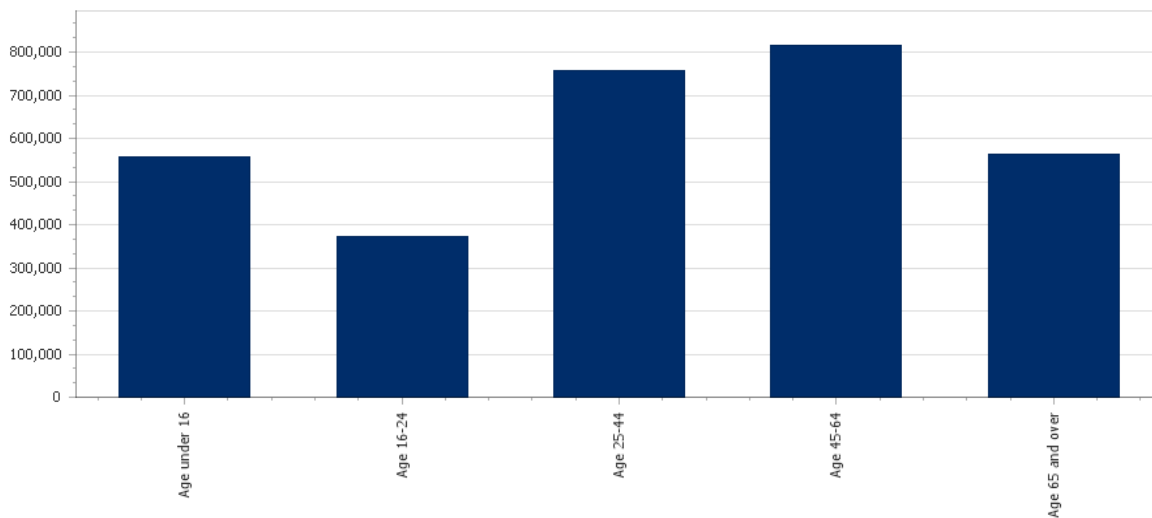
Source: StatsWales (2011)

Population Age Structure

Wales' population age structure for 2011 is shown in Figure 4-7. It shows the dominant age group is 45 – 64 years old. The results would also suggest that Wales is an 'aging' population with the higher figures leaning towards the older age groups. The number of people aged 65 and over is projected to increase by 292,000 (44%) between 2014 and 2039 (ONS). The 2009 Older People's Wellbeing Monitor identified that 44% of older people in Wales had a limiting long-term illness or disability.

In local authority terms, the majority of the authorities have a higher population between 25 and 64 with a fairly even split between the 25-44 and 45-64 age groups. Cardiff has a considerably higher proportion of 25-44 year olds.

Figure 4-7 Resident Population in Wales by broad age group

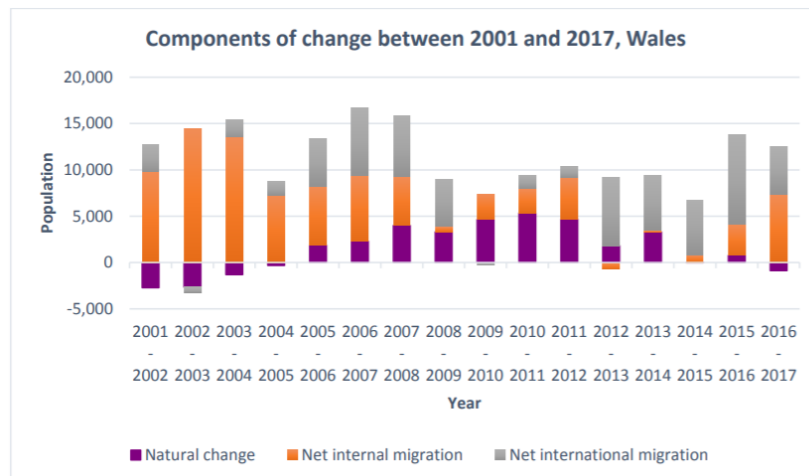


(Source: statswales.wales.gov.uk)

Net Migration Trends

Net migration in Wales has fluctuated over the past 12 years. Between 2012 and 2013 showed a considerable upturn in net migration (14,000) compared to the preceding years. Figure 4-8 shows the changes of migration in Wales over 16 years.

Figure 4-8 Migration in Wales between 2001 and 2017



Source: Bevan Foundation, 2018³⁵

Gender

Travel by public transport is highly gendered. In 2017 it was found that in England, a third more women than men travelled by bus and a third more men than women travelled by rail. Overall, expenditure on UK public transport (2016/17) was £29.1bn. This includes spending on national and local roads, public transport and national rail. 54% of this was spent on rail, compared to 8% on 'public transport' including local buses. The

³⁵ <https://41ydvd1cuyvlonsm03mpf21pub-wpengine.netdna-ssl.com/wp-content/uploads/2018/11/Demographic-trends-FINAL.pdf>

vast majority of politicians and policy makers involved in high level decision making about public transport are white men³⁶.

Gender Pay Gap

In 2019 the gender pay gap in Wales increased to 14.5%, this is a 1% increase on the 2018 figure of 13.5%, but still remains below the UK average of 17.3%³⁷.

4.1.3 Links between transport, population and health of relevance to the study area

The identification of links between transport systems and health, covering health determinants, pathways and outcomes are presented in Table 4-3. This analysis has informed the identification of potential health impacts of the Scheme on identified vulnerable groups during construction and operation (Section 7).

The following definitions have been adapted:

- a) Health Determinants: Factors that cause outcomes and influence our state of health. Factors are personal, social, cultural, economic and environmental. They include our physical environment, income, employment, education, social support and housing (Birley, 2011);
- b) Health Pathways: Routes leading to a change in determinant which affect the health risks (the probability that a particular harms will occur) (Birley, 2011); and
- c) Health Outcomes: medically defined states of disease and disability, as well as community defined states of wellbeing (Birley, 2011).

Table 4-3 identifies potential linkages between transport schemes and health, based on findings from research. However, the MRC Guide advocates that the findings from research be assessed against the local profile and qualitative evidence, to determine whether these findings are likely to be applicable.

³⁶ 2018 WBG Briefing: Public Transport and Gender: <https://wbg.org.uk/analysis/2018-wbg-briefing-transport-and-gender/>

³⁷ <https://chwaraeteg.com/news/wales-gender-pay-gap-increases/>

Table 4-3 Health determinants, pathways and outcomes

Relevance to the WTS: Health Determinants, Pathways and Outcomes Relevant to Transport Schemes

Determinant and Explanation	Pathways	Health Outcomes
<p>Accessibility to transport options and community facilities</p> <p>Accessible and affordable transport, enabling good access to education, employment, fresh food, friends and family, leisure and health services, enhances general physical health and wellbeing.</p> <p>Accessibility is a critical component of locally-based travel, which is influenced by socio-economic activity. Poor transport provision disproportionately affects lower-income groups and vulnerable groups and can lead to social exclusion and contribute negatively to quality of life and health. Specific groups include teenagers, the elderly, job seekers, and people living in rural locations.</p> <p>Car ownership amongst vulnerable groups is low. Therefore, the availability of other transport options is important for the wellbeing of vulnerable social groups.</p>	<p>Construction</p> <p>Transport routes and modes can be adversely affected by construction activities.</p> <p>There can be disruption and reduced access to existing transport modes and routes from route closures and diversions.</p>	<p>Construction</p> <p>Limited and disrupted accessibility may reduce access to amenities and services, adversely affecting general physical health and wellbeing. This is due to greater difficulties in traveling to the service or amenities and the increased stress caused by the disruption while travelling.</p> <p>Research shows that journey duration, predictability and convenience appear to be associated with lower stress levels.³⁸</p> <p>Disruption to pedestrian routes may result in a temporary increase in local traffic and congestion.</p>
	<p>Operation</p> <p>Transport schemes can lead to an increase in the provision of public transport use and an improvement of the walking/cycling environment. This can lead to a reduction in car usage.</p>	<p>Operation</p> <p>The identified pathways can lead to improvement in physical fitness, physical health and mental wellbeing.</p>
<p>Risk of injuries and deaths and highway user stress</p> <p>Road traffic accidents are a significant cause of mortality, disability and serious injuries across all age groups.³⁹</p> <p>Since the development of the DMRB methodology, understanding of the principal factors which cause driver stress has developed. Frustration at the inability to drive at a constant speed, as well as unreliable journey times, are now considered to represent factors of increased importance in assessing driver</p>	<p>Construction</p> <p>Increased construction traffic in residential area and alteration to existing traffic routes and patterns, can increase the risk of injury as a result of increase traffic levels and an unawareness of altered traffic movements.</p> <p>The risk of highway user stress could be increased during construction activity.</p>	<p>Construction</p> <p>Vulnerable road users, including motorcyclists, elderly drivers, children, pedestrians, new drivers and cyclists, may be at more risk of injury due to increased construction traffic and altered traffic movements.</p> <p>Highway user stress could be increased during construction activity.</p>

³⁸ MRC Social and Public Health Sciences Unit and Institute of Occupational Medicine, *Health Impact assessment of Transport Initiatives: A Guide*, 2007, p34

³⁹ Eastern Region Public Health Observatory, *Transport, Access and Health in the East of England*, 2005, p16-23

Determinant and Explanation	Pathways	Health Outcomes
stress.	<p>Operation</p> <p>Transport schemes can improve road safety, which can improve actual and perceived road safety.</p> <p>Highway user stress can be improved by the introduction of transport schemes.</p>	<p>Operation</p> <p>There can be a reduction in traffic-related injury and death and the risk of such. Vulnerable groups are similar to the ones identified for the construction stage.</p> <p>Highway user stress can be improved by the introduction of transport schemes.</p>
<p>Active travel</p> <p>Walking and cycling are physically active forms of transport. A supportive and safer environment for physical activity is a decisive factor in stimulating uptake. High quality, accessible new routes for pedestrians and cyclists with appropriate and safe crossing points are vital.</p>	<p>Construction</p> <p>Increased disruption, altered traffic movements and perception that routes have become unsafe can reduce active travel.</p>	<p>Construction</p> <p>Reduced levels of active travel may lead to increased prevalence of sedentary lifestyles, proven to increase risks of many preventable health conditions, including cardiovascular disease, obesity, osteoporosis and depression.⁴⁰</p>
	<p>Operation</p> <p>Transport schemes can enhance walking and cycling through new and more accessible, attractive and improved walking and cycling routes.</p>	<p>Operation</p> <p>An increase in active travel would increase the rate of physical activity leading to a potential improvement in wellbeing and improvement in physical fitness. This could lead to a decrease in conditions related to sedentary lifestyles.</p>
<p>Access to green space and land blight</p> <p>Studies⁴¹ have shown that exposure to the natural environment, or green space, has an independent effect on health and health-related behaviours.</p>	<p>Construction</p> <p>Transport schemes may lead to disruption of the normal uses of, or reduced access to, and potential loss of, green space. This can reduce the use of green space and have a negative aesthetic impact on the use and perception of the green space.</p>	<p>Construction</p> <p>Green space can affect health by inducing beneficial physical activity and by ameliorating stress level. Reducing or disrupting access to green space may therefore have negative health consequences.</p> <p>The fear of land being blighted by the proposals may lead to an increase in stress and affect wellbeing.</p>

⁴⁰ Health Scotland, MRC Social and Public Health Sciences Unit and Institute of Occupational Medicine, *Health Impact assessment of Transport Initiatives: A Guide*, 2007, p18

⁴¹ Mitchell, R and Popham, F, *Effect of exposure to natural environment on health inequalities: an observational population study*, 2008

Determinant and Explanation	Pathways	Health Outcomes
	<p>Operation</p> <p>Transport schemes can encourage active travel and improve access to local amenities, including green spaces. However, transport schemes could also lead to a loss of green space due to land-take.</p>	<p>Operation</p> <p>An increase in access and interaction with green spaces could lead to an improvement in mental health and wellbeing. It would also lead to an improvement in physical fitness, and a potential decrease in conditions related to sedentary lifestyles or air pollution.</p> <p>Loss of green space could cause the reverse of the above, as well as generate blight. This could have a further negative effect on wellbeing and health.</p>
<p>Air pollution</p> <p>Road traffic is a main source of air pollution. Pollutants that adversely impact health from road traffic include particulate matter (PM) and nitrogen dioxide (NO₂).</p>	<p>Construction</p> <p>Construction activities can have a short term negative impact on air quality.</p> <p>There can be dust from site works and construction vehicles carrying site materials or waste along with exhaust emissions from construction and other traffic due to road disruption and diversions.</p> <p>Operation</p> <p>Transport schemes can increase car or motor vehicle usage leading to an increase in air pollution. They can also reduce car usage, which in turn could reduce air pollution.</p> <p>Increased efficiency of the road network could also lead to an overall neutral effect on air pollution, as although motor vehicle usage may increase, there may be less congestion.</p>	<p>Construction and Operation</p> <p>Increases in outdoor air pollution can lead to increased cardiovascular and respiratory mortality and morbidity. Some effects are more or less immediate and affect vulnerable groups (e.g. children or people whose health is already impaired) in particular, whereas the effects of long-term exposure are more widespread.</p> <p>PM is the constituent most closely associated with adverse health effects. Some evidence shows that PM from traffic is more toxic (per unit mass) than PM from other sources.⁴²</p> <p>A reduction in air pollution can reduce the above adverse health effects.</p>

⁴² MRC Social and Public Health Sciences Unit and Institute of Occupational Medicine, *Health Impact assessment of Transport Initiatives: A Guide*, 2007, p26-31

Determinant and Explanation	Pathways	Health Outcomes
<p>Noise pollution and vibration</p> <p>Motorised forms of transport are a common source of noise pollution.</p>	<p>Construction</p> <p>Construction activities can lead to an increase in localised noise and vibration.</p>	<p>Construction and Operation</p> <p>Noise pollution and vibration at the levels generated by traffic can lead to annoyance, interference with speech and sleep disturbance. It can also have cardiovascular and physiological effects.</p> <p>Stress has been suggested as a possible mechanism through which noise may affect mental and physical health.</p> <p>Evidence suggests noise pollution may limit children's learning.</p> <p>An improvement in mental and physical health may result during operation, should noise and vibration levels decrease.</p>
	<p>Operation</p> <p>Transport schemes can increase noise pollution and vibration through increase motor vehicle usage and the construction of new road and rail routes.</p> <p>They can also reduce noise and vibration by encouraging a shift from cars to active travel and public transport or through smoother traffic flows.</p>	
<p>Soil and water pollution</p> <p>Surface water run-off containing particles from car tyres, brake linings and road surfaces contribute to the spread of hazardous substances in the environment and impact on water and soil quality. Oil and vehicle fuel also contain harmful organic substances.</p>	<p>Construction and Operation</p> <p>Potential for localised contamination can occur during the construction period from construction spills and road run- off.</p> <p>Road construction activities can bring about changes in groundwater levels and pollute nearby waterbodies.</p> <p>During operation, potential for pollution as a result of drainage contaminated with vehicle emission particulates and grit/salt spreading residues. Also, potential contamination as a result of fuel/chemical spillages following major traffic accidents.</p>	<p>Construction and Operation</p> <p>Soil and water pollution can lead to public health impacts directly when people come into contact with water and soil through recreation activities and or indirectly through the use of water for gardens or other green spaces.</p>
<p>Quality of life</p> <p>Quality of life is typically measured using a range of indices, encompassing health, happiness, prosperity, arts, safety, community, public realm, access to transport, access to green space, diet, etc.</p>	<p>Construction</p> <p>A combination of all pathways.</p> <p>Light pollution could result from an increase in lighting relating to construction activities.</p>	<p>Construction</p> <p>A combination of all outcomes.</p> <p>There is evidence showing that exposure to light at night can lead to associated problems including psychological stresses; increased cancer rates; disruption in sleeping patterns; and negative</p>

Determinant and Explanation	Pathways	Health Outcomes
		impacts on immune systems. ⁴³ Glare from poorly shielded outdoor lighting is also harmful to health, because it decreases vision by reducing contrast. This limits our ability to see potential dangers at night. Aging eyes are especially affected. ⁴⁴
	<p>Operation</p> <p>Increasing the accessibility of transport options can lead to an increase in access to education, employment facilities, health and social care facilities, leisure facilities, and family and friends. This could improve quality of life.</p> <p>Community severance could reduce accessibility and hence reduce quality of life.</p> <p>Light pollution could result from an increase in lighting as part of transport schemes, particularly new infrastructure such as roads.</p>	<p>Operation</p> <p>Increased quality of life can improve wellbeing and mental health and vice versa.</p> <p>There is evidence showing that exposure to light at night can lead to associated problems including psychological stresses; increased cancer rates; disruption in sleeping patterns; and negative impacts on immune systems. Glare from poorly shielded outdoor lighting is also harmful to health, because it decreases vision by reducing contrast. This limits our ability to see potential dangers at night. Aging eyes are especially affected.</p>
<p>Personal safety and perceptions of safety</p> <p>More segregated spaces with limited natural surveillance may lead to enhanced fear of crime.⁴⁵</p>	<p>Construction</p> <p>During construction, the perception of safety along routes could decrease due to the removal of open spaces, presence of site hoardings, construction activities, access diversions, a reduction on the attractiveness of walking and cycling, decreased interaction with other people (as construction reduces access and prevents people from walking or cycling) and the general construction environment generating noise/vibration, which may create the perception that the area is unsafe.</p>	<p>Construction</p> <p>Fear of crime and perception of safety can be an important factor influencing travel choices. Women's fear is generally greater than men's. Women are therefore more likely to avoid segregated spaces and disrupted routes. Elderly people and people with disabilities may also avoid disrupted routes. Personal safety may also affect decisions to walk or cycle. This has implications for public health directly (fear of crime) and indirectly (decrease in active lifestyle).</p>

⁴³ <http://www.britastro.org/dark-skies/health.html>

⁴⁴ <http://darksky.org/light-pollution/human-health/>

⁴⁵ Hillier, B. and Sahbaz, O, Crime and Urban Design, 2009 In: Cooper, R. Evans, G. and Boyko, C. Designing Sustainable Cities, 2009

Determinant and Explanation	Pathways	Health Outcomes
	<p>Operation</p> <p>Transport schemes can enhance actual and perceived safety through road safety improvements and increase natural surveillance. They can also enable more strangers to travel through an area which can reduce perceived safety.</p> <p>However, the use of underpasses could increase the fear or crime and reduce usage, in comparison to bridges.</p>	<p>Operation</p> <p>In addition to the above, an increased use of public transport during operation could increase interaction with other people, which could increase perceptions of a safer community through natural surveillance. This could reduce stress and improve mental wellbeing.</p> <p>Improvements to the walking and cycling environment should also increase perceptions of safety.</p>
<p>Social interaction and community severance</p> <p>There is an observed relationship between positive social capital and health. Well-connected and walkable neighbourhoods can enhance social capital by increasing co-presence and encounter opportunities, which are vital for interaction.</p>	<p>Construction</p> <p>During construction, there could be a decrease in access to services and amenities resulting from road closures/diversions and disruption to traffic and road flows.</p> <p>Construction can decrease transport mode and route options and can increase the cost of travel. There is also a risk of communities being severed by the construction traffic routes through an increase in the levels of traffic.</p>	<p>Construction</p> <p>Community severance can result from the divisive effects of major roads and railways running through an existing community including through the construction of new routes or increased traffic on existing routes.</p> <p>Potential severance during construction can lead to a decrease in interaction with other people. This can be of particular importance to those who rely heavily of local social networks e.g. the elderly and parents with young children.</p> <p>Reduced social interaction and increased community severance can reduce wellbeing and mental health as well as lead to reduced active travel and reduced physical fitness and a potential increase in obesity and cardiovascular disease.</p>
	<p>Operation</p> <p>Enhanced connectivity and new travel modes and route options could increase social interaction and reduce community severance. However, new routes through or near existing communities could increase community severance and reduce social interaction.</p>	<p>Operation</p> <p>An increase in social interaction and reduced community severance could improve wellbeing and mental health as well as lead to increased active travel and improved physical fitness. This could improve physical and mental health.</p>

Determinant and Explanation	Pathways	Health Outcomes
<p>Climate Change</p> <p>Greenhouse gases (GHGs) from transport contribute to climate change.</p>	<p>Construction</p> <p>During construction, increased vehicle movements from construction vehicles and car movements, as well as the embodied energy in construction materials, can lead to an increase in fossil fuel use and an increase in GHG emissions.</p>	<p>Construction</p> <p>Climate change consequences, at local level, are likely to affect the health of the population, particularly with an increase in flooding, summer temperatures, levels of solar radiation and frequency of extreme weather events leading to, for example, increased levels of fatalities, injuries, infectious diseases, heat related deaths, skin cancer cases and cataracts.</p>
	<p>Operation</p> <p>Transport schemes may reduce the efficiency in the use of roads or a reduction in car usage. These aspects could decrease the use of fossil fuels, which could lead to a reduction in GHG emissions.</p>	<p>Operation</p> <p>In addition to the above, a reduction in GHG emissions could have positive implications for public health.</p>
<p>Employment</p> <p>The implementation of infrastructure projects generates new employment opportunities. Employment is a positive factor for health, providing financial security, promoting equality and contributing to self-esteem.</p>	<p>Construction</p> <p>New employment opportunities can be generated by construction activities.</p>	<p>Construction and Operation</p> <p>The HUDU planning tool states that unemployment generally leads to poverty, illness and a decrease in personal and social esteem. People in employment are healthier, particularly those who have more control over their working conditions. Employment is also associated with income, a feeling of security, increase friendship networks and social status. In turn, these are linked to better health. These positive impacts are particularly important at a time where economic downturn is recent, which may have had negative effects on mental health.</p>
	<p>Operation</p> <p>Transport schemes may improve access to employment opportunities for various social groups.</p>	

Source: Adapted from *Highways England: M4 Junctions 3 to 12 smart motorway* (Arcadis Ltd, October 2015) and *Atkins Limited, South Bristol Link: Environmental Statement Volume 2: Health Impact*, July 2013

An HIA considers the effects of a project on both the health of the population affected by a project overall and the distribution of those impacts within the affected population. However, it is necessary to identify particular priority groups because changes to overall health determinants can have greater or lesser effects on population sub-groups depending on, for example, their age, health status, income and social support. The term "Vulnerable or Priority Groups" is derived from the HUDU guidance.

Vulnerable sub-groups are more likely to be susceptible to the WTS's impacts than other social groups due to various factors as explained in Table 4-4. Other wider target groups including adults and professionals and the general population living in Wales may also be impacted by the WTS.

Table 4-4 Vulnerable or Priority groups and health outcomes related to the WTS

4.1.4 Vulnerable or Priority Groups

Vulnerable/ Priority Group	Explanation and Health Outcomes
Younger people (children and young people, up to 18)	<p>Children and adolescents constitute a vulnerable population group due partly to their need to be able to move around freely to and from school and recreational activities, whilst they lack the experience and judgement displayed by adults when moving around in traffic and public spaces. Hence, children and adolescents as pedestrians and cyclists are at elevated risk from danger distributed by motorised transport.</p> <p>Furthermore, children are more sensitive than adults to air pollution, noise and other environmental factors. A particularly sensitive group is children in low-income families.</p> <p>Walking, cycling and travel by bus are important modes of travel for young people. Over half of children will walk to school for at least part of the week and 40 per cent will travel by bus. Bus travel is important for young people to access college, leisure facilities and work. Affordability of travel is an issue for younger people.</p> <p>16-24 year olds have higher risk of becoming a road casualty. They represent 12 percent of the population but 25 percent of fatal and serious casualties. The Plan contains schemes to improve active travel opportunities, support and improve access to key services by bus, address affordability of bus fares for young people and reduce road casualties.</p>
Women	<p>Women are more likely to not own a car and as a result can find it harder to travel to shops, employment, healthcare and other services. They are more reliant on the provision of public transport. Women may also have more safety and security concerns when travelling alone and when there are more strangers in an area e.g. resulting from an influx of construction workers.</p> <p>Estimates for 2011/12 indicate 80 percent of men and 67 percent of women in Wales hold a full driver's licence, nearly identical to Great Britain as a whole. The National Travel Survey reports that women have different travel patterns to men and this has major implications for travel requirements. In particular women are:</p> <ul style="list-style-type: none"> • more likely to work irregular shifts and need to commute outside normal working hours • more likely to be carers and to take escort trips • more likely to travel with luggage, bags and pushchairs • more likely to have a physical condition which makes it difficult to use the bus • are more likely than male users to say they would prefer to travel by car • are twice as likely as male users to say they feel unsafe using the bus at night <p>The Welsh Bus Passenger Survey also reported that a substantial number of bus users who are women were also travelling with children and / or with a pushchair.</p> <p>Women are less likely to travel to work by car (80 percent compared to 85 percent of men) and more likely to travel by bus (6 percent compared to 3 percent).</p> <p>Overall distance travelled per year by all modes is greater for men than women. Men tend to</p>

Vulnerable/ Priority Group	Explanation and Health Outcomes
	<p>make more commuting and more business trips than women and travel further for both purposes. Both men and women will benefit from schemes to improve the road network, public transport and active travel facilities.</p> <p>Women tend to be more likely to use rail transport less than buses, and less often than men. In 2016/17, the expenditure on UK public transport (2016/17) was £29.1bn. 54% of this was spent on rail, compared to 8% on 'public transport' including local buses. As of 2018, in Wales there has been a cut of 39% in funding for buses since 2010/11.</p> <p>Women are less likely to be safe, and less likely to feel safe, when using public transport, public toilets and taxis, including due to physical or verbal aggression, sexual harassment or other forms of violence.</p> <p>Women earn less on average, and use public transport more on average, than men. Women also typically have higher rates of trip chaining with diverse patterns due to carrying out a multitude of tasks, particularly when accompanying a child. Women are therefore more economically sensitive to the cost of transport and are therefore more likely to face financial constraints to mobility.</p> <p>The way women, non-binary people and men interpret accessibility in physical, cognitive, financial and emotional terms can vary greatly and define how they use transport.</p>
Older People (50+)	<p>Generally, the older people are, the slower their movement and reactions are and the poorer their hearing and vision can be. Therefore, older people are considered to be more sensitive as users when compared with younger and middle-aged adults. Older people can be more at risk from injury, may fear falls, and may be concerned about a lack of safe crossing points and short crossing times at safe crossing points. This can deter them from outdoor activity, especially walking, which can be critical for muscle strength and reduces the risk of falls, amongst other benefits.</p> <p>Older people can feel more vulnerable using public transport. They also often need to seek health services. Their continuing independence at home is often dependent on having availability to a range of transport mode and route options.</p> <p>Around 48 percent of pensioner households do not have access to a car compared to 26 percent of all households. The Plan contains commitments to provide funding to support socially necessary services and continue a concessionary fares scheme for older people. Public and Community Transport services provide access to key services including health but also enable improved social interaction for older people helping to tackle chronic loneliness.</p>
People who are disabled	<p>This group may not be able to access many forms of transport or need special arrangements and/or support to access those. They are more likely to find it difficult to walk or travel independently and can also be disadvantaged by the cost of transport.</p> <p>Chronically ill persons, for example, people with impaired lung function, can be more adversely affected by air pollution. The same is true of hypersensitive individuals such as asthmatics. Noise can cause hypertension and cardio-vascular problems. Those who already have these conditions can be more troubled by noise than others.</p> <p>People with existing physical and mental illnesses, including sleep disturbance, anxiety and depression, can be more sensitive to even small changes to their local environment.</p> <p>Disabled people or people with a long term illness are less likely than other people to have the use of a car (six of ten do so compared to 8 out of 10 other people). Employed disabled people are nearly twice as likely not to have the use of a car as other people.</p> <p>The 2010 Welsh Bus Passenger Survey reported that 25% of respondents had a disability or long term illness. Within this group, around 12% of bus users had mobility problems and 1% used wheelchairs.</p> <p>Disabled passengers who use buses use them as intensively as other passengers.</p> <p>Some 75% of disabled bus users use a bus three or more times a week, compared to 72% of bus users without a disability. This is despite disabled users having a different pattern of bus use. Compared to non-disabled bus users, disabled people are less likely to use a bus to commute and travel to education, but more likely to use a bus for shopping, visiting friends and relatives, and for leisure. Around two-thirds of passengers reporting that they had a</p>

Vulnerable/ Priority Group	Explanation and Health Outcomes
	<p>disability or long-term illness were entitled to free concessionary bus travel because they met either the age or disability criteria of that scheme.</p> <p>The availability of accessible information, including on-board audio and visual announcements and a high standard of customer care are key factors impacting on equality of travel opportunities.</p> <p>Rail – Passenger focus published its report on the experiences of disabled rail passengers in October 2012. Key conclusions from the report were:</p> <ul style="list-style-type: none"> • About 5% of rail journeys are made by passengers with disabilities or long term illness; • Half of these journeys are undertaken by people with impaired mobility; • About 1% of passengers have sensory impairment; • Passengers with disabilities tend to be older and are less likely to be in work compared to passengers in general; • 30% of journeys by disabled people are for commuting although this rises to 40% in peak time; • 78% of passenger journeys by disabled people are made alone, although disabled passengers are more likely to travel with another adult than other passengers (22% compared to 15%); • A railcard is used in 43% of journeys made by disabled passengers; <p>Disabled travellers will benefit from schemes to secure improved quality and accessibility of bus services, including bus driver training, to provide funding to support socially necessary services and continue to provide a concessionary fares scheme for disabled people.</p>
Those in low-income groups/ People without access to a car	<p>People on low incomes (living in a deprived area is used as a proxy for a low income) and without access to a car are likely to walk further. Their lack of transport options, which may include affordability of public transport, may limit life and work opportunities.</p> <p>People living in deprived areas can be particularly vulnerable to road traffic incidents (deaths and injuries), noise and air pollution. Deprived areas are often characterised by higher traffic volumes as well as other environmental burdens such as industrial facilities.⁴⁶ This group is generally more likely to already have reduced access to health and social care as well as other services and amenities.</p> <p>This group may have existing increased stress levels due to the factors above. A poor physical environment can also act as a barrier to active travel, or travel in general. In addition, this group is more vulnerable to food insecurity (meaning “consistent access to adequate food is limited by a lack of money and other resources at times during the year”), which has an access dimension.⁴⁷</p>
Ethnic minority people e.g. Asian, Black	<p>The National Travel Survey data shows that minority ethnic adults are more likely to live in a household without access to a car compared to a white British adult, so a greater reliance on public transport may exist in parts of Wales (South East and North East) where the majority of train and bus services are provided. About 60% of the passenger activity on the Wales and Borders Franchise area is focused on the Valleys Lines and Cardiff area. The same survey also suggested that minority ethnic adults make twice as many local bus trips as white adults.</p> <p>The ethnic background of bus users as compiled from the 2010 Welsh Bus Passenger Survey is that 93% reported that they were white, 5% were from another ethnic background, and 2% declined to answer. In comparison, around 4% of people in Wales are from a</p>

⁴⁶ Greater London Authority, London Health Commission and London Health Observatory (2002) Rapid review of health evidence for the draft London Plan; and Jarvis, S., Towner, E. et al 1995 cited in Cave, B (2001) “Accidents” in The health of our children ed. Botting, B, London, Office of Population Censuses and Surveys, HMSO

⁴⁷ S.Tsang, MHSc, RD (1); A.M.Holt, MHSc(2); E.Azevedo, MSc, RD (1), An assessment of the barriers to accessing food among food-insecure people in Cobourg, Ontario, Chronic Diseases and Injuries in Canada, Volume 31, no.3, June 2011

Vulnerable/ Priority Group	Explanation and Health Outcomes
	<p>minority ethnic group.</p> <p>Rail – Railway crimes reported by British Transport Police and published by the Office of National statistics reported that 77 racially aggravated offences on the railways were reported in the three years to 2011/2012, representing almost 13% of the reported violent offences against the person. (Source Rail transport statistics 2011/2012 published by ONS 30 October 2012). Schemes to improve public transport, including personal safety at waiting facilities and on vehicles, and the availability and accessibility of public transport information in the Plan will impact positively on all public transport users including those from minority ethnic backgrounds.</p>

Source: Adapted from *Highways England: M4 Junctions 3 to 12 smart motorway* (Arcadis Ltd, October 2015) and *Atkins Limited, South Bristol Link: Environmental Statement Volume 2: Health Impact, July 2013*⁴⁸ as well as the *National Transport Finance Plan 2015 – Impact Assessments*⁴⁹

Data Gaps

- Up to date national data relating to access to open space.
- Up to date data regarding the specific distribution of hospital or healthcare facilities in Wales.
- Information relating to the potential impact of the WTS on transgender people.
- Information relating to the potential impact of the WTS on people by religion and belief or non-belief.
- Information relating to the potential impact of the WTS on people by sexual orientation.
- Information relating to the potential impact of the WTS on Asylum Seekers and Refugees
- Information relating to the potential impact of the WTS on Gypsies and Travellers
- Information relating to the potential impact of the WTS on Migrants
- Impact of health emergencies on transport
- The health impacts of schemes such as smart motorways
- Data relating to the national cycle network
- Data relating to the national walking networks and Wales Coastal Path
- There are also relevant data gaps to be considered from the data collated from the 2011 Census, as it may not be accurate to the current population and these figures will not be updated until 2021/2022.
- Information relating to the percentage of men and women using different modes of public transport within Wales.
- For all data collected, there may be gendered differences that are not reflected in the sources they were collected from.

4.2 Key Issues relevant to the WTS and opportunities for it to address them

Issues

Overall health statistics for Wales are improving with life expectancy increasing and fewer people with reported poor health over the past decade however health gains are not distributed equally across the country and in particular access to services is varied, being good in more urban areas, notably the south, but

⁴⁸ The APHO website includes the SBL report as a good practice example of an HIA for a road project:
<http://www.apho.org.uk/resource/item.aspx?RID=136453>

⁴⁹ <https://gov.wales/sites/default/files/publications/2017-08/national-transport-finance-plan-2015-impact-assessments.pdf>

relatively poor across much of rural Wales. Although the health of those living in rural communities is generally good compared to those of urban environments.

Factors specific to a rural environment compared to those of urban environments that can impact on health more significantly and lead to inequalities and poorer health, such as distance from public services and support, availability of transport, and the ageing population. Access to healthcare can be limited in many parts of rural Wales. Public transport is important for both the sustainability and independence of rural communities.

Whilst people are living longer and the rates of some diseases is decreasing, challenges such as living environment and modern lifestyles can contribute towards increasing levels of chronic diseases such as diabetes, joint problems, heart disease and some cancers which in turn can lead to disability and increased demand on health services. In addition, poor mental health can also be an underpinning factor in a number of physical diseases and unhealthy lifestyles. Poor air quality, noise and light pollution as well as road traffic crashes can have direct effects on the physical and mental health of the population.

The transport system could be put under strain through a projected increase in net-migration mainly from within the UK and with urban areas projected to see greatest increase.

Increasing levels of those aged 65 and over could present pressures across the country (dependent on whether healthy life expectancy i.e. the number of years you live a healthy life, continues to track overall life expectancy) e.g. provision of appropriate services for an older generation (e.g. transport).

Issues relating to young people relate to their transition from dependence to independence, as transport plays an important role at particular 'trigger points' such as the move from primary to secondary school, and the move from education to employment.

Health inequalities reflect inequalities in the distribution of health determinants, such as access to transport, education and employment opportunities.

Disabilities and/or mobility impairments can be both physical and mental barriers to using the transport network across all modes.

Road transport has five main impacts on public health: air pollution, physical inactivity, road safety, noise and the isolation faced by vulnerable people due to fear of road danger, which prevents them accessing employment or educational opportunities, social networks, local amenities and services (including healthcare), adding to the risk of mental and physical ill-health.

Issues relating to women specifically can relate to a fear of crime on public transport.

Physical accessibility to transport may have an effect on disabled people accessing public transport.

There is still a high risk of road casualty for younger people which must be addressed by the WTS.

There is still a large disparity between the number of drivers licenses owned by women and men, with women having much fewer, this makes it more difficult for women to have the same access to facilities and amenities as men.

Chronically ill or disabled people are extremely sensitive to noise or air pollution in their local environment, with impacts ranging from sleep disturbance to hypertension.

People on low incomes (living in a deprived area is used as a proxy for a low income) and without access to a car are likely to walk further. Their lack of transport options, which may include affordability of public transport, may limit life and work opportunities. People living in deprived areas can be particularly vulnerable to road traffic incidents. This group may also have increased stress levels, a poor physical environment can be considered a barrier to active travel.

Minorities are more likely to live in a household without a car and so will be more reliant on public transport. 77 racially aggravated offences took place across three years on British railways. The WTS must provision for the safety and inclusion of minorities across all modes of public transport.

Women and minority groups are more likely to travel by bus, however more investment is being put into rail as a method of public transport. The WTS must provision for a more equal Wales by placing the necessary investment in the public transport most used by these groups or removing any potential barriers to other types of transport to these groups.

Levels of noise pollution around key roads within Wales are high. Noise can have multi-ranging effects, including on landscape receptors, ecological resources and human health.

The gender pay gap overall is increasing within Wales. The WTS must ensure that men and women working for the transport system are paid equally for carrying out the same job.

Women are more likely to have diverse patterns of trip chaining, particularly when accompanying a child. They therefore tend to be more economically sensitive to the costs of public transport, particularly buses, and particularly as women tend to earn less on average than men.

Opportunities

Overall, the WTS could help to achieve the important balance of economic and social improvement that is also sustainable and respects the country's valuable natural and cultural environment.

The WTS could recognise the potential for natural green spaces as places for health and recreation, connecting habitats and supporting community interaction. Improving the access to green and open spaces, including National Parks, could greatly encourage healthier lifestyles and a healthier population could enable people (including children) to achieve their potential and to make Wales a more equal society.

Protecting and enhancing green infrastructure throughout Wales is an opportunity to enhance people's access to green and open spaces. Access to a diverse range of semi-natural and natural habitats, as well as providing space for outdoor exercise and community engagement, is fundamental to physical and mental wellbeing.

The WTS has an important contribution to make towards ensuring that human health is provisioned through improved access to health facilities, a focus on reducing air pollution emissions, road safety and the encouragement of active travel in order to improve health and well-being and reduce inequalities. (It should be noted that a lot of active travel occurs within the context of trip chaining).

Overall, the WTS can help to address issues surrounding the aging population through facilitating the provision of accessible transport services supported by connective infrastructure to meet local population growth needs and the needs of individual groups.

An equal Wales can enable people to reach their full potential whilst addressing social, economic, cultural and environmental inequality. The WTS could provide an opportunity to reduce isolation and encourage the development of integrated and liveable communities through provisioning the inclusivity of public transport to allow everyone to have the same level of access.

The transport system should ensure that all groups are able to access public transport and the transport network equally and without fear or prejudice.

Reducing inequality can be achieved by increasing access for the most deprived more than the least deprived or increasing access for the most deprived and keeping the least deprived constant, any other form would involve the reduction of access to either or both groups so should not be an aim of the WTS.

Health inequalities can also be addressed through policies and infrastructure to promote active travel, thereby increasing physical activity, reducing pollution and noise. Active travel measures should be focussed in areas of deprivation to reduce inequalities.

5 Well-Being Goal: A Wales of Cohesive Communities

This section provides baseline data relating to the following well-being goal:

‘Attractive, viable, safe and well-connected communities.’

The data relates primarily to:

- Crime and Safety

5.1 Overview of Baseline Conditions

5.1.1 Crime and Safety

Relevance to the WTS

The creation of cohesive communities which are attractive, well-connected, safe and meet the needs of the population are important for Wales and the Wales Transport Strategy. The WTS has a key role to play in helping to guide decisions through the planning process relating to the development of space which can help to reduce crime related to transport. Further information on this topic is included in Chapter 4 relating to Health and Well-being. Other aspects relating to the connectivity of communities are included throughout this Appendix.

Baseline Conditions and trends

Percentage of people feeling safe at home, walking in the local area and when travelling

In 2019, In the National Survey⁵⁰, people were asked how safe they felt in a variety of situations after dark:

- 81% of people said they felt safe walking alone in their local area after dark;
- 97% of people felt safe at home after dark;
- 79% of people felt safe on public transport after dark; and
- 97% of people felt safe travelling by car after dark.

Percentage of people satisfied with local area as a place to live

In 2019, the National Survey included a series of questions on the quality of the local area. These were included in the survey to help investigate the environmental dimension of well-being.

- 72% of people were satisfied with the level of traffic noise in their local area; and
- 73% of people were satisfied with the level of air pollution in their local area.

Latest figures for year ending September 2019⁵¹ show the total crime rate per 1000 number of vehicle owning households / unweighted base households in England and Wales. Broken down in key transport related crime statistics the crime rates compared to the change from year ending September 2018 figures are as follows (Source ONS):

- Total Vehicle related theft – 45/1000 (-5%)
- Theft from vehicles – 33/1000 (-4%)
- Theft of vehicles – 3/1000 (-19%)
- Attempts of and from vehicles – 9/1000 (-2%)
- Criminal damage to a vehicle – 36/1000(-8%)
- Bicycle theft – 25/1000 (-2%)

⁵⁰ National Survey for Wales, 2018-19 Community cohesion and safety in the local area Statistical Bulletin

<https://gov.wales/sites/default/files/statistics-and-research/2019-11/community-cohesion-and-safety-local-national-survey-wales-april-2018-march-2019-739.pdf>

⁵¹ Office for National Statistics

<https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/crimeinenglandandwales/yearendingseptember2019>

In the report, Family Spending in the UK: April 2017 to March 2018⁵², it was found that the top spending category in Wales is transport, with households in Wales spending 15% of their total expenditure in this category, this mirrors the statistic that 85% of households in Wales owned a car or van in this three-year period. Households in Wales spent an average of £25.80 a week on the purchase of vehicles, which was 5% of total expenditure.

Crime on the rail network in Wales in 2017-18 increased by 15% compared to the previous year. Prior to this, the number of offences had been relatively stable. The largest categories of recorded offences were public order (308), violence against the person (294) and theft of passenger property (199), which accounted for 59%⁵³.

Transport user's satisfaction

Passenger satisfaction figures were collected by the National Passenger Survey (NPS)⁵⁴, in a report called 'Overall passenger satisfaction with their journey on Arriva Trains Wales', it was found that in August 2018, 7% of passengers were dissatisfied with the service, 11% were neither satisfied nor dissatisfied and 82% were satisfied with the service. Across all regional operators 79% of passengers were satisfied with the service.

A study of Public Service Vehicles (buses and taxis) found that bus fares in Wales increased by 3.6% from 2017 to 2018⁵⁵.

Road accidents by area by year and people killed or seriously injured on roads

In 2018, 103 people were killed (2 more than in 2017) and 1,028 people seriously injured on Welsh roads (69 more than in 2017).

In 2018, there were 4,215 road accidents in Wales involving personal injury recorded by the police, a reduction of 333 on 2017 (7.9% reduction). These recorded accidents resulted in 5,759 casualties.

Although there has been a slight increase in road traffic deaths and serious injuries, the number of road traffic accidents in general in Wales is trending downwards as the volume of traffic on the roads is trending upwards.⁵⁶

In 2019 police forces in Wales recorded 4,317 road accidents involving personal injury. These recorded accidents resulted in 5,789 casualties⁵⁷, an increase from 2018.

Within the 5,789 casualties:

- 98 people were killed, 10 fewer (9.2% lower) than in 2018.
- 1,092 people were seriously injured, 63 more (6.1% higher) than in 2018.
- 4,599 people were slightly injured, 32 fewer (0.7% lower) than 2018.

Railway Incidents

⁵² Office for National Statistics

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/bulletins/familyspendingintheuk/financialyearending2018#spending-levels-on-transport-in-fye-2018-remained-similar-to-fye-2017>

⁵³ Rail Transport, April 2017 to March 2018, Welsh Government, 2019 <https://gov.wales/sites/default/files/statistics-and-research/2019-04/rail-transport-april-2017-to-march-2018-824.pdf>

⁵⁴ StatsWales.gov <https://statswales.gov.wales/Catalogue/Transport/rail/rail-transport/overallpassengersatisfactionwiththeirjourneyonarrivatrainswales-by-timeofsurvey>

⁵⁵ Public service vehicles (buses and taxis), 2017-18 Statistical Bulletin Source: https://gov.wales/sites/default/files/statistics-and-research/2019-03/public-service-vehicles-buses-and-taxis-april-2017-to-march-2018_0.pdf

⁵⁶ Police recorded road accidents, 2018 Statistical Bulletin Source: <https://gov.wales/sites/default/files/statistics-and-research/2019-06/police-recorded-road-accidents-2018.pdf>

⁵⁷ <https://gov.wales/police-recorded-road-accidents-2019.html>

In 2017, there were 13 railway fatalities, 11 of which were suicides.

In 2017-18 there were 1,369 notifiable offences reported on Welsh railways, an increase of 15.3 per cent from previous years.⁵⁸

Data Gaps

Data gaps relating to crime and death/injury on buses or in bus stations.

Data gaps relating to crime and death/injury on active travel routes.

Data gaps relating to gendered differences within the data captured.

5.2 Key Issues relevant to the WTS and opportunities for it to address them

Issues

Bus fares are rising in cost at a rate higher than inflation, this could exclude some people or communities from this form of transport due to a price barrier.

The number of deaths on the road is remaining consistent year to year when it should be improving, more efforts should be made to provision the safety of drivers and other road users as much as possible.

Levels of noise pollution around key roads within Wales are high. Noise can have multi-ranging effects, including on landscape receptors, ecological resources and human health.

Rural Isolation and loneliness can lead to mental health problems, this can be caused by a less accessible transport system reducing access to communities, but also cars travelling through communities can sever communities and promote isolation.

When people are travelling, they should be able to do so without the fear or threat of crime.

Opportunities

The WTS could support the creation of connections between and within safe and well-maintained communities through public transport opportunities and active travel opportunities including foot and cycle paths.

The WTS could also plan for reducing the need to travel; and provide opportunities to access new and existing development and services by a range of sustainable travel modes and or improvements to digital connectivity. By reducing the amount of single-occupancy car journeys, the risk to non-motorised users could be reduced and the issue of isolation be lessened.

The WTS could consider strategic transport proposals in terms of the opportunities they present to encourage regional equality as well as improving human health, landscape and nature conservation from a reduction in noise and light pollution. Transport schemes can improve road safety, which can improve actual and perceived road safety. Driver stress can also be improved by the introduction of transport schemes,

⁵⁸ Rail Transport, April 2017 to March 2018 Statistical Bulletin Source: <https://gov.wales/sites/default/files/statistics-and-research/2019-04/rail-transport-april-2017-to-march-2018-824.pdf>

6 Well-Being Goal: A Wales of Vibrant Culture and Thriving Welsh Language

This section provides baseline data relating to the following well-being goal:

‘A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.’

The data relate primarily to:

- Welsh Language;
- Landscape and Townscape Character; and
- Cultural and Heritage Assets.

6.1 Overview of Baseline Conditions

6.1.1 Welsh Language

Relevance to the WTS

Wales is a bilingual country and the Welsh language is an important component of Welsh national identity and culture. As such, the protection and promotion of Welsh Language needs to be a core element of the WTS. Cymraeg 2050⁵⁹ sets out that Welsh-medium immersion education is our principal method for ensuring that children can develop their Welsh language skills, and for creating new speakers. Cymraeg 2050 incorporates three key themes: Increasing the number of Welsh speakers, increasing the use of Welsh and creating favourable conditions – infrastructure and context.

The WTS should seek to ensure that access to Welsh-Medium education facilities is specifically targeted as part of this aim, to support the strategy seeking to expand Welsh-Medium education provision. The WTS could also seek to support the aim to increase the range of services offered to Welsh speakers, and an increase in use of Welsh-language services. The WTS could also seek to ‘support the socioeconomic infrastructure of Welsh-speaking communities’ through its policies, helping to support the aim of ‘Develop[ing] a new regional focus to economic development to help all parts of Wales to benefit from prosperity and support each area to develop its own distinctive identity.’ Within the WTS there will be opportunities to promote the Welsh language through its use in station announcements, road signs and signs within rail and bus stations.

Baseline conditions and trends

The historic decline in use of the Welsh language has been halted and has now been on a general upward trend since the early 1990s. This is, in part due to Welsh entering the national curriculum and being a compulsory subject in schools. However, levels of fluency are still low and there are large regional variations. The February 2020 report ‘The Welsh Language and the economy: a review of evidence and methods’⁶⁰ presents the findings of a review of the evidence available on the relationship between the Welsh language, and other languages relevant to the linguistic context in Wales, and the economy.

The Welsh language use survey is funded jointly by Welsh Government and the Welsh Language Commissioner. It provides information about Welsh speakers’ use of the Welsh language. The average fluency across Wales is 29%, this can be seen in Figure 6-1 which shows the fluency of Welsh people across local authorities.

Local Government has a vital role to play in the delivery of services through the medium of Welsh, in the economic development of predominantly Welsh-speaking areas and in the strengthening of the Welsh language in daily use in the workplace and the wider community. In addition to their status as major employers and spenders, Local Authorities also influence local economic development through functions

⁵⁹ <https://gov.wales/sites/default/files/publications/2018-12/cymraeg-2050-welsh-language-strategy.pdf>

⁶⁰ <https://gov.wales/sites/default/files/statistics-and-research/2020-02/the-welsh-language-and-the-economy-a-review-of-evidence-and-methods.pdf>

such as housing, education, regeneration and cultural activities. Some of these functions are statutory, others not⁶¹.

Attitudes towards the Welsh Language

In the National Survey for Wales 2017-18⁶², Welsh Language: Confidence and attitudes, it was found that:

In terms of ability –

- 19% of adults aged 16 and over reported that they can speak Welsh, with a further 12% reporting to have some Welsh-speaking ability.
- Younger people aged 16 to 24 were most likely to be able to understand, speak, read and write Welsh.

In terms of confidence –

- 68% of Welsh speakers felt confident speaking Welsh. 72% wanted to speak it with other Welsh speakers and 36% worried they would be judged on how well they spoke it.
- Welsh speakers' fluency levels were strongly correlated with their confidence when speaking Welsh.
- 95% of fluent Welsh speakers were confident speaking Welsh; however, 21% of fluent speakers worried they'd be judged on how well they speak it.
- Women were slightly more likely than men to worry about feeling judged.

In terms of attitudes –

- 86% of people felt the language was something to be proud of.
- 67% thought more effort needed to be put into supporting the language.
- 62% of those who couldn't speak Welsh would like to be able to speak it, and 85% of those with some ability in Welsh wanted to speak it better.
- People were least likely to agree with the statement 'The Welsh language will be stronger in 10 years' time': 40% agreed with that statement. Those living in the North East of Wales were least likely to agree with this statement.

The Annual Population Survey⁶³ (last updated January 2020) found the percentage of people who can speak Welsh by Local Authorities as per Figure 6-1.

The January 2014 Report of the Welsh Language and Economic Development Task and Finish Group to the Minister for Economy, Science and Transport⁶⁴ sets out 27 recommendations for how economic development, and the public sector, can assist with enhancing the Welsh language.

⁶¹ <https://gov.wales/sites/default/files/inline-documents/2018-11/written-statement-working-group-on-the-welsh-language-in-local-government-administration-and-economic-development.pdf>

⁶² National Survey for Wales, 2017-18 Welsh Language: Confidence and attitudes Statistical Bulletin <https://gov.wales/sites/default/files/statistics-and-research/2019-01/national-survey-wales-welsh-language-confidence-attitudes-2017-18.pdf>

⁶³ StatWales.gov <https://stats.wales.gov.wales/Catalogue/Welsh-Language/Annual-Population-Survey-Welsh-Language/annualpopulationurveyestimatesofpersonsaged3andoverwhosaytheycanspeakwelsh-by-localauthority-measure>

⁶⁴ <https://gov.wales/sites/default/files/publications/2019-05/report-of-the-welsh-language-and-economic-development-task-and-finish-group.pdf>

Figure 6-1: Percentage of Welsh Speakers who are fluent by local authority area

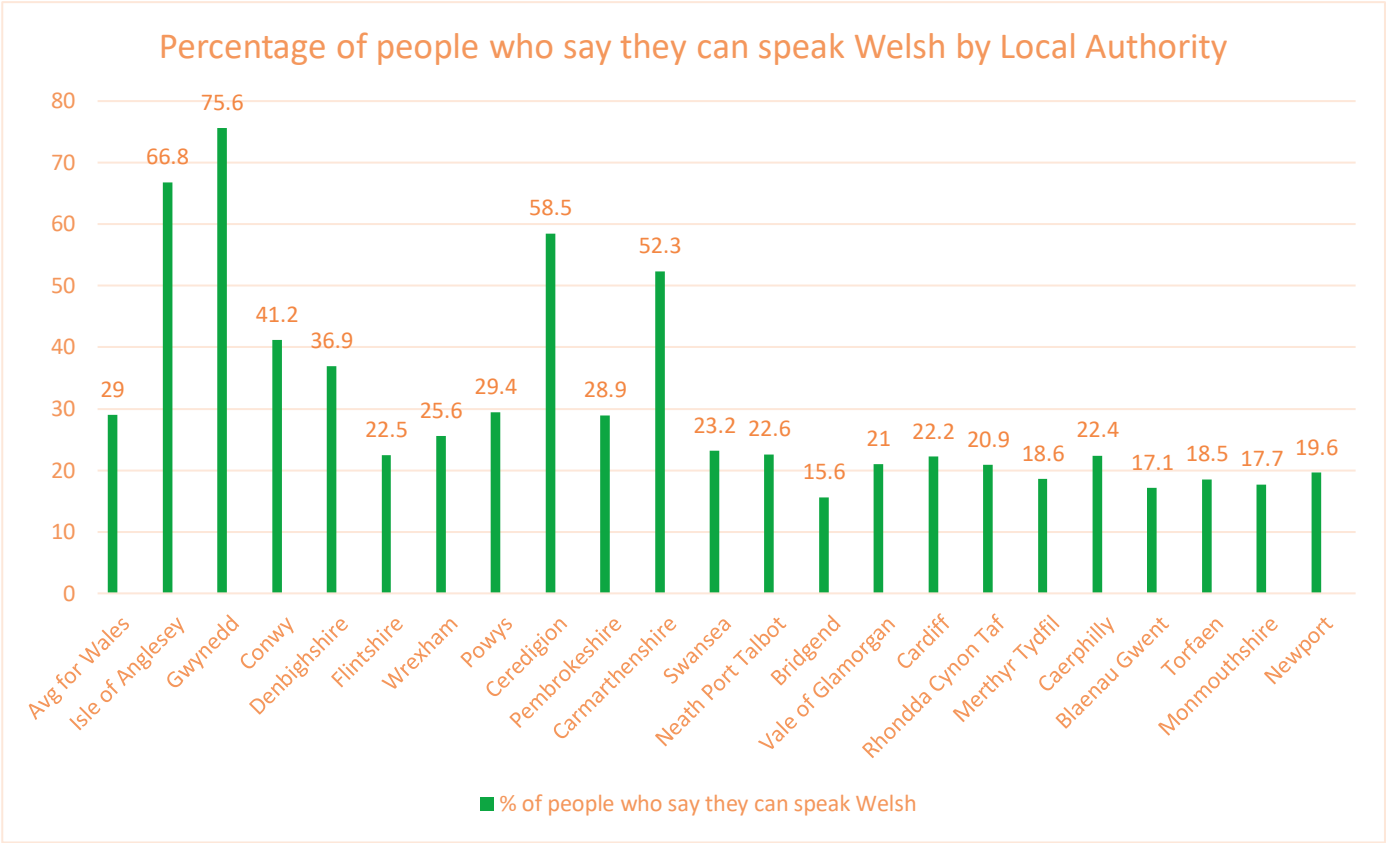
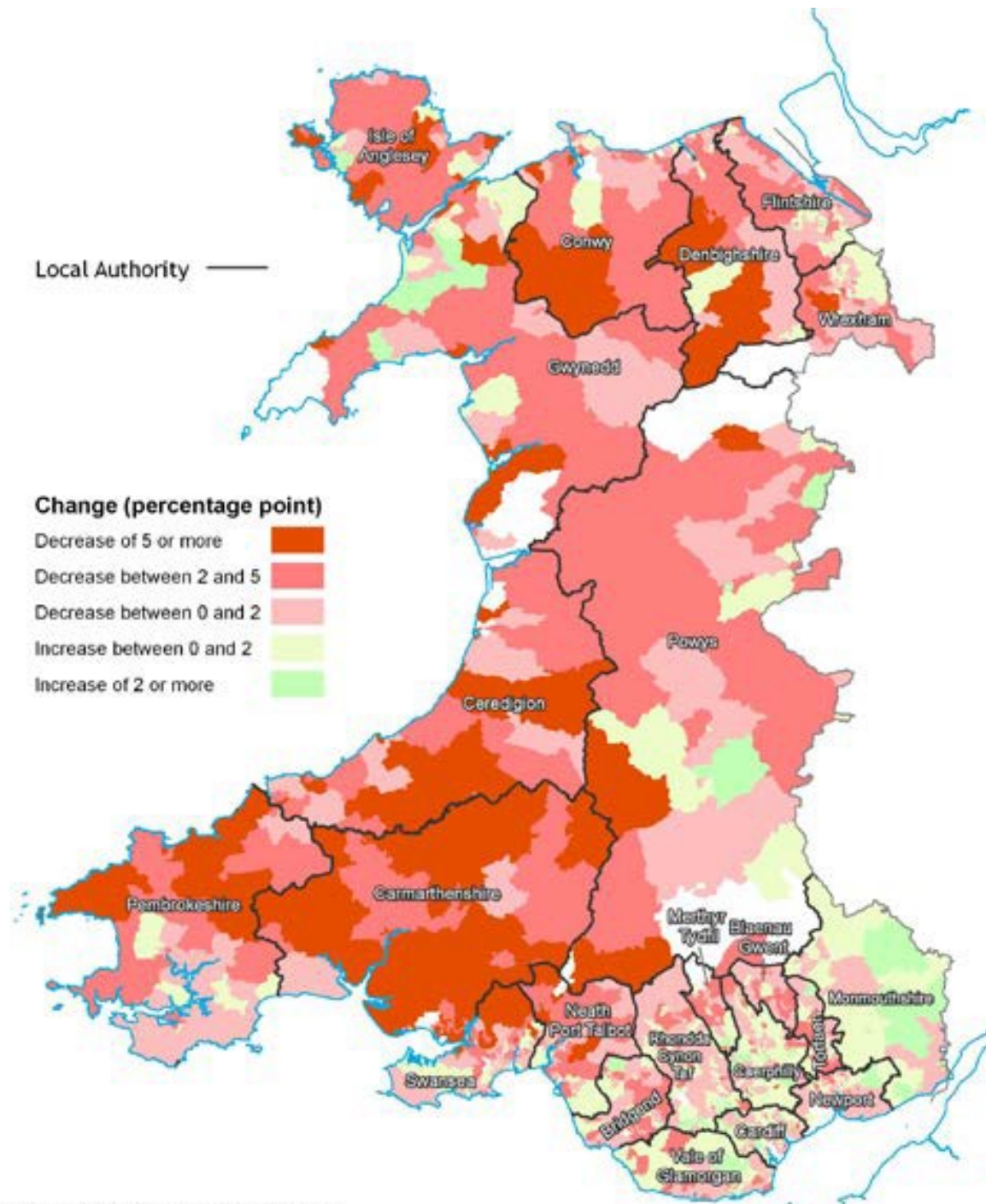


Figure 6-2 Change in proportion of people able to speak Welsh by LSOA, 2001 to 2011



Source: 2001 Census 2011 Census

(a) Presented for LSOAs that did not change between 2001 and 2011 only.

193.12-13

Geography & Technology

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Source: Cymraeg 2050⁶⁵

⁶⁵ <https://gov.wales/sites/default/files/publications/2018-12/cymraeg-2050-welsh-language-strategy.pdf>

Data Gaps

There are no specific statistics found with regards to the satisfaction of Welsh speakers and their ability to travel using Welsh.

Data gaps relating to gendered and age differences in Welsh speakers.

Data gaps relating to access to Welsh Language education and the role transport plays

6.1.2 Landscape and Townscape Character

Relevance to the WTS

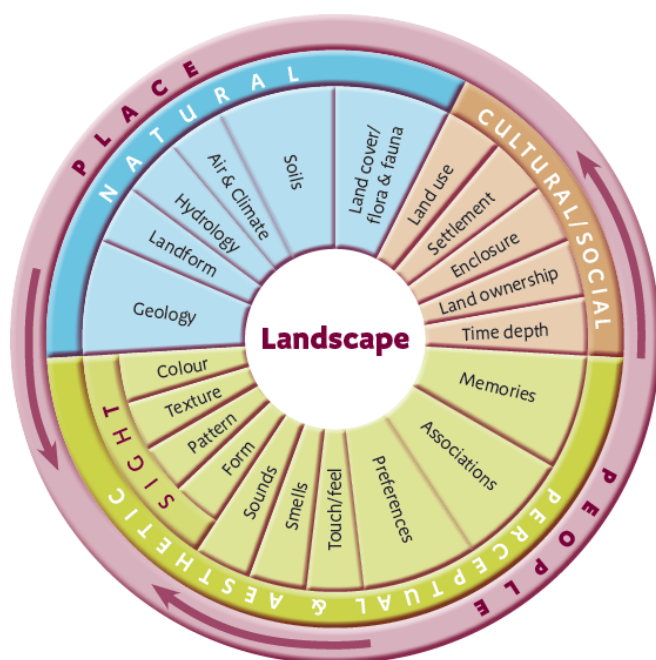
Welsh landscapes reflect the extent and condition of a range of natural resources and ecosystems against the complexity of human influences and land-use decisions. Townscapes and urban character also reflect a long history of human development. Similarly, seascape information complements the landscape/townscape information and together the two types of information provide an understanding of the cultural benefits to be had from both the terrestrial and the marine environment.

These elements have been strongly shaped by human intervention and land-uses throughout history and the WTS will continue to play an important role in shaping this character through its guidance on transport infrastructure planning. Landscape, townscape and seascape character are important in terms of Wales' strong sense of place and cultural identity with close links to the tourism industry.

Transport can have many potential impacts on landscape and townscape character, negative impacts could be new infrastructure developments reducing the visual amenity of a valued landscape by building a new road through it, or the removal of buildings or green spaces within towns for road widening schemes that may have value to the local community. A positive potential impact could be enhanced access to greenspaces and viewpoints.

Figure 6-3 is from the 2014 Landscape Character Assessment (LCA Approach directly adapted from the 2002 guidance) and shows the range of factors generally considered to be part of landscape⁶⁶.

Figure 6-3 The range of factors generally considered to be part of landscape



⁶⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/691184/landscape-character-assessment.pdf

Baseline conditions and trends

Wales has a varied and, generally high-quality landscape with over 50% of the land area being nationally valued for its scenic quality and character. Many Welsh landscapes are iconic with a clear sense of place and recognisable identity (SoNaRR, 2016). The country is predominantly rural in character with 60% of the landscape defined as Field Pattern/Mosaic and 20% is categorised as Open Land (SoNaRR, 2016).

National landscape change to 2015 has been small overall, but some changes have been substantial locally. The key contributors to landscape change in the built environment include: the expansion of settlements, commercial and industrial developments, quarries and road improvements, onshore windfarms, turbines and large recreational related developments. In the rural environment examples include: the felling of conifers and replanting with broadleaves, woodland expansion and changing bracken cover.

Climate change over time is likely to have significant impacts on landscape character, local distinctiveness and quality, directly through changing land cover (migrating habitat and species ranges) and indirectly by influencing land use decisions. Landscape changes may also be evident from mitigation measures, such as renewable energy generation, water resource management and adaptation through the planned expansion of woodland. Climate change also poses a risk to landscapes from pests, pathogens and invasive species and from changes in frequency and/or magnitude of extreme weather and wildfire events.

25% of Wales is designated as either National Park or Area of Outstanding Natural Beauty.

Protected Landscapes

Within Wales there are three National Parks; Brecon Beacons, Pembrokeshire Coast and Snowdonia. Each National Park also has local planning authority status in Wales. Combined these National Parks in Wales cover around 20% of the land area of Wales. The locations of the National Parks in Wales are presented on Figure 2 – Landscape Features.

Brecon Beacons

The Brecon Beacons National Park contains some of the most distinctive upland landforms in southern Britain. The Park covers 520 square miles (1344 square kilometres) and lies between rural Mid Wales and the industrial South Wales Valleys. It is a diverse landscape, where sweeping uplands contrast with green valleys, with dramatic waterfalls, ancient woodland, caves, forests and reservoirs. The highest point is Pen y Fan, at the centre of the National Park. Its distinctive table topped summit stands at 886m, and it is climbed by hundreds of thousands of people each year.

The National Park is also home to 33,000 people, over 9000 different plants and animals, and has a strong Welsh heritage and rich economic, social and cultural life. The largest settlement is the cathedral town of Brecon with a population of approximately 7,500⁶⁷.

Snowdonia National Park

The Snowdonia National Park takes its name from Snowdon which, at 1085m (3,560 feet), is the highest peak in Wales. The Snowdonia National Park is rich in landscape and townscape and has 60km of coastline. In addition to this, Snowdonia has extensive areas of woodlands and over 96,000 hectares of moorland. The landscape within the National Park has been formed over millions of years. Since the end of the last Ice Age, 10,000 years ago, the interaction between people and nature has shaped the landscape of the National Park and there are strong cultural associations between people and place. The traditional rural character of settlements is distinct to the National Park and forms part of its historic landscape character. Fourteen towns and villages in Snowdonia have Conservation Areas and there are 1,900 listed buildings, 13 being Grade I and 116 buildings at Grade II*, there are also 21 Historic Parks and Gardens within the National Park. The Welsh language is a fundamental part of the area's culture. Welsh is the spoken and written language of approximately 62% of the population of Snowdonia and in some communities the percentage is as high as 85%. The 2001 Census showed a population of 25,482, with a small increase to 25,745 in the Mid-2006 Population Estimates for National Parks⁶⁸.

⁶⁷ Brecon Beacons National Park Authority Local Development Plan 2007-2022

⁶⁸ Eryri Local Development Plan 2007-2022

Pembrokeshire Coast National Park

Pembrokeshire Coast National Park boasts some of the most spectacular scenery and diverse wildlife in Britain including internationally important nature reserves, geology and archaeology. The Park was designated in 1952 and remains the only UK National Park recognised primarily for its coastline. It is one of the smallest UK National Parks; but has one of the most diverse landscapes – sandy beaches, rugged cliffs and islands, quiet wooded estuary and hill country with big sea views. The Park covers 232.5 square miles (602 sq km). At the widest point, it is about 16km, at its narrowest about 100m. Around 22,500 people live in the National Park⁶⁹.

In Wales, there are five AONBs: Anglesey, Gower, Llŷn, the Clwydian Range and Dee Valley and Wye Valley. See Figure 2 – Landscape Features.

Anglesey AONB

Designated in 1966 the Isle of Anglesey's AONB, has one of the most distinctive, attractive and varied landscapes in the British Isles. It is also home to approximately 7,000 people. Some of the main features of the Anglesey AONB are:

- Low cliffs alternating with coves and pebble beaches;
- Sheer limestone cliffs interspersed with fine sandy beaches; and
- Stretches of sand dunes with beaches.

A number of the habitats found on Anglesey are afforded even greater protection both through UK and European designations because of their nature conservation value, these include:

- 5 Special Areas of Conservation;
- 3 Special Protection Areas;
- 1 National Nature Reserve;
- 31 Sites of Special Scientific Interest; and
- 75 Scheduled Monuments⁷⁰

Gower AONB

The Gower AONB was designated in 1956 for its classic limestone coast and the variety of its natural habitats, it was the first AONB designated in the UK. Rich and diverse, Gower's scenery ranges from fragile dune and salt marsh in the north to the dramatic limestone cliffs along the south coast, intercut by sand beaches. Inland, the hills of Cefn Bryn and Rhossili Down dominate the landscape of traditional small fields, wooded valleys and open commons⁷¹.

Pen Llŷn AONB

The Pen Llŷn was designated as an AONB in 1956, the third to be designated in the UK. The Llŷn Peninsula is renowned for its diverse and interesting coastline. The AONB encompasses around one quarter of the peninsula a total of 15,500 hectares, mostly along the coast, but it also extends inland and includes prominent igneous protrusions. Llŷn, whose complex geology includes ancient pre-Cambrian rock formations, is a natural extension of the Snowdonia massif. The geology is typified by the wide variation of coastal landscapes, ranging from the steep cliffs of Aberdaron Bay and promontories to the sand dune systems in the Abersoch area. The highest point in Llŷn is the Eifl (564m) mountain range which levels out to a plateau that extends towards the sea and the black rocks of Mynydd Mawr at the tip of the Peninsula. The area is typified by narrow and winding roads, farms and whitewashed cottages and also includes open areas of ancient common land⁷².

Clwydian Range and Dee Valley AONB

The Clwydian Range was designated as an AONB in July 1985, then in November 2011 the Welsh Government's Environment Minister confirmed a southerly extension to include much of the Dee Valley from

⁶⁹ <http://www.pembrokeshirecoast.org.uk/?PID=552>

⁷⁰ <http://www.anglesey.gov.uk/planning-and-waste/countryside/areas-of-outstanding-natural-beauty-aonbs/aonbs-in-wales/>

⁷¹ <http://www.swansea.gov.uk/aonb>

⁷² Penrhyn Llŷn Area of Outstanding Natural Beauty, Management Plan, 2010-2015

Corwen to Newbridge along with stunning natural features such as the Eglwyseg Escarpment, Horseshoe Pass and Esclusham Mountain. At the same time the whole area became known as the Clwydian Range and Dee Valley AONB. Its special qualities include historic landmarks such as Pontcysyllte Aqueduct and Canal and the Iron Age hillforts that crown the Clwydian Range. They also include cultural and artistic inspirations such as the eisteddfodau held all over the area, its quarrying and mining heritage⁷³.

Wye Valley AONB

The rich combination of breath taking views, impressive geology, historic legacies and diverse wildlife in the valley of the River Wye between Hereford and Chepstow led to the designation, in 1971, of the valley and adjoining plateaux and hills as an AONB. The Wye Valley AONB covers 92km (58 miles) of the lower reaches of the River Wye totalling an area of 327km². It stretches from Mordiford in the north, just east of the city of Hereford, southwards to the outskirts of Chepstow⁷⁴.

The location of AONBs in Wales are presented on Figure-002 Landscape Features.

Quality of Landscapes

The most detailed landscape baseline in Wales reporting on landscape state, condition and trend is LANDMAP. LANDMAP is an all-Wales landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated. LANDMAP explains the physical, geological, ecological, visual, historic and cultural landscape: the summary descriptions, evaluations and management recommendations aid understanding of landscape and identify important landscape qualities and characteristics. By capturing multi-dimensional landscape information, it ensures that all aspects of the landscape can be taken into account. It is the focus for landscape monitoring in Wales, enabling the tracking of change and identifying key factors determining landscape change, condition and resilience.

Landscape Character Areas (LCAs) are identified at both a local planning authority level and at a national level, with 48 National Landscape Character Areas (NLCA) identifying regional landscapes. They offer overall landscape summaries linked to the five LANDMAP layers, key characteristics, and forces for change, and may be linked to design or sensitivity studies.

Special Landscape Areas that identify areas of high landscape importance, often linked to LCAs, are identified by some authorities (SoNaRR, 2016) within Wales there are many of these landscapes designated.

Marine Character Areas

70% of Wales' coastline is designated or registered AONB, National Park, Heritage Coast or Historic Landscape (Seascapes and Marine Planning in Wales, 2014). Seascape information complements available landscape information and together the two types of information provide an understanding of the cultural benefits to be had from the marine environment. There 29 national Marine Character Areas (MCAs) (National Seascape Assessment for Wales, NRW Evidence Report 80⁷⁵, the 50 Regional Seascapes (Welsh seascapes and their sensitivity to offshore developments, CCW Policy Research Report 08/5, 2009) and the local Seascape Character Assessments (SCA) of Pembrokeshire, Snowdonia and Ynys Mon provide comprehensive seascape information for Wales as a whole.

Landscapes of Historic Importance

The landscape of Wales is a vital resource for social, economic, cultural and environmental well-being. It has also been historically shaped by human activity and is rich in evidence of the past. To recognise the value of historic landscapes, and raise awareness of their importance, Cadw, in partnership with NRW and the ICOMOS UK compiled a Register of Landscape of Historic Interest in Wales. The Register identifies 58 landscapes of outstanding or special historic interest, which are considered to be the best examples of different types of historic landscapes in Wales. Figure 3 – Heritage Features shows the locations of historic landscapes.

The Register provides information to decision makers and landscape managers, to help ensure that the historic character of the landscape is sustained, and that where change is contemplated, it is well-informed (Cadw).

⁷³ <http://www.clwydianrangeaonb.org.uk/landscape/>

⁷⁴ Wye Valley Area of Outstanding Natural Beauty (AONB), Management Plan, 2015 – 2016

⁷⁵ <http://naturalresources.wales/our-evidence-and-reports/marine-character-areas/?lang=en>

Data Gaps

Data relating to transport within, to and from AONB's in Wales.

Data relating to transport to major cultural events in Wales

6.1.3 Dark Skies and Tranquil Areas

Relevance to the WTS

It is recognised that dark skies and tranquil areas can bring benefits to an area including enhancing the environment, attracting visitors and can boost the local economy. The WTS has a key role to play in helping to guide decisions through the planning of new transport networks.

Baseline Conditions and trends

Dark sky areas are a good indicator of very low light pollution. There are three locations in Wales that have been designated as part of the International Dark Sky Places Program. These are:

- Brecon Beacons National Park (Dark Sky Reserve status)
- Snowdonia National Park (Dark Sky Reserve status)
- Elan Valley Estate, Powys (A Silver-tier International Dark Sky Park)

The Countryside Council for Wales (now NRW) commissioned a tranquil areas assessment in 2009, following an earlier assessment in 1997. This identified 55% of Wales (11,600 km²) as tranquil in 2009, a loss of 1500km² of tranquil landscapes from 1997.

The two largest Tranquil Areas on the 2009 Map are both over 1,000km². These areas are parts of the Berwyn Mountains, bordered by the towns of Dolgellau, Bala, Llangollen and Welshpool, and the southern part of the Cambrian Mountains, bordered by Llangurig, Rhayader, Llandovery, Lampeter and Tregaron.

Between 1997 and 2009, there was a loss of Tranquil Areas of nearly 1,500km² of land. This is over 6% of the total land area of Wales; and is greater than the area of the Brecon Beacons National Park.

Data Gaps

No significant data gaps have been identified for this topic at this stage.

6.1.4 Historic Environment, Cultural and Heritage Assets

Relevance to the WTS

Cultural heritage comprises archaeological remains, intact structures and relict landscapes associated with past human activity. This section also covers cultural activities undertaken by the population. Wales has a large number of designated and non-designated cultural heritage assets reflecting its long history of human occupation. Many of these provide important tourist attractions in addition to being central to Welsh cultural identity.

The WTS has a key role to play in the provisioning of access, protection and enhancement of cultural heritage through guiding decisions made in the planning system. New development can have a range of direct and indirect effects on heritage assets which need to be avoided or mitigated. This includes effects from noise and air pollution from construction of busy traffic routes in close proximity to culturally significant areas which may make them less appealing to visit or decrease their visual amenity (indirect effects), it also includes the physical removal of heritage assets as this may be required for the development of new travel infrastructure. Impacts on the historic environment can include the intensification of existing traffic or the construction of new road or rail. Increasing levels of congestion can affect historic towns, cities and the countryside, while development of new transport infrastructure can affect historic landscapes and may cause direct damage to heritage assets.

Transport infrastructure may also be an important historic asset in its own right from prehistoric trackways and Roman roads, to medieval bridges, the development of canals and railways during the industrial revolution and the introduction of motor transport and aviation in the 20th century.

Baseline conditions and trends

Heritage assets in Wales are numerous. This section describes the key types of asset present.

World Heritage Sites

World Heritage Sites are regarded as being universally important and 'belonging to all the peoples of the world, irrespective of the territory on which they are located'. They are listed by UNESCO.

Wales currently has three world heritage sites:

- The Castles and Town Walls of Edward I in Gwynedd at Caernarfon, Conwy, Beaumaris and Harlech in North-West Wales;
- Blaenavon Industrial Landscape in South-East Wales; and
- Pontcysyllte Aqueduct and Canal in North-East Wales.

Each of these cover large areas straddling a number of local authorities and have management plans which detail the planning policies of each authority regarding the protection of the World Heritage Sites. Some, such as Pontcysyllte, have buffer zones to add a supplementary degree of protection within the landscape adjacent to the site while others, such as Edward's Castles, have defined their Essential Setting and Significant Views within the management plan to protect the surrounding area. Each of the Welsh World Heritage Sites, their buffer zone, or their essential setting/significant view contain privately owned houses or land. Figure 3 – Heritage Features shows the locations of the World Heritage Sites in Wales.

Listed Buildings

The National Assembly for Wales is required by law to compile lists of buildings of special architectural or historic interest; and listed buildings. The lists are used to help planning authorities make decisions with the interests of the historic environment clearly identified. Compilation of the lists is undertaken by Cadw. Listed buildings are classified in grades to show their relative importance. The grades are:

- I — Buildings of exceptional, usually national, interest. Currently, fewer than two per cent of buildings listed in Wales qualify for this grade;
- II* — Particularly important buildings of more than special interest; and
- II — Buildings of special interest, which warrant every effort being made to preserve them.

There are over 30,000 Listed Buildings (Grade I, Grade II and Grade II *) within Wales (Cadw) distributed across its counties varying from medieval halls and castles to Edwardian villas.

Scheduled Monuments

Cadw compile and maintain a Schedule of Ancient Monuments. The monuments included on this Schedule are of national importance and cover a diverse range of archaeological sites. Some examples may be completely buried below ground and may only be known through archaeological excavation. Others are more prominent and include the great standing ruins of well-known medieval castles and abbeys. The oldest known example in Wales is a natural cave — found to contain the earliest evidence of people in Wales — dating to a quarter of a million years ago. At the other end of the spectrum are twentieth-century military structures. Scheduled monuments are often in a ruinous or semi-ruinous condition or take the form of earthworks.

Over 4,000 monuments have now been scheduled across Wales and the number is increasing as part of an ongoing planned policy of enhancing the Schedule (Cadw).

Scheduled monuments in Wales are distributed throughout its counties and their locations are presented on Figure 3 – Heritage Features.

Registered Historic Battlefields

The locations where historic battles took place can be significant historic assets. They often retain topographical and archaeological evidence, including war graves, which can increase understanding of these events. To date there is no formal Register of Historic Battlefields in Wales. However, this is something that is being developed by Cadw.

Conservation Areas

There are over 500 conservation areas in Wales. They are designated by local planning authorities for their special architectural and historic interest. Many local planning authorities have undertaken conservation area character appraisals which identify areas where enhancement through development may be desirable (Cadw).

Conservation areas in Wales are distributed throughout its counties and are largely situated within urban settlements from small villages to areas within towns and cities.

Heritage Coasts

Heritage coasts are 'defined' rather than designated, so there isn't a statutory designation process like that associated with National Parks and AONBs. However, they are largely located within areas that are afforded with National Park or AONB status.

Within Wales there are 14 heritage coasts:

- Glamorgan;
- Gower;
- South Pembrokeshire;
- Marloes and Dale;
- St Brides Bay;
- St Davids Peninsula;
- Dinas Head;
- St Dogmaels and Moylgrove;
- Ceredigion;
- Llŷn;
- Aberffraw Bay;
- Holyhead Mountain;
- North Anglesey; and
- Great Orme.

The location of heritage coasts is presented on Figure 3 – Heritage Features.

Historic Parks and Gardens

Wales has a rich inheritance of historic parks and gardens. They form an important and integral part of the historic and cultural fabric of the country.

Cadw has undertaken a comprehensive survey of historic parks and gardens in Wales. Those thought to be of national importance are included on the Cadw / ICOMOS Register of Parks and Gardens of Special Historic Interest in Wales. The Register was compiled in order to aid the informed conservation of historic parks and gardens by owners, local planning authorities, developers, statutory bodies and all concerned with them. Through the Historic Environment (Wales) Act 2016 it is now statutory and has six volumes. It was completed in 2002 however, sites can be added (or subtracted) at any time. There are currently almost 400 sites on the Register.

Sites on the Register are Graded I, II* and II in the same way as listed buildings. Approximately 10% are Grade I and 23% Grade II*. Grade I sites, such as Bodnant, Powis Castle, Dynevor Park, Margam Park, Erddig, Plas Brondanw and Raglan Castle, are of international importance.

Parks and gardens on the Register range from medieval to late twentieth century. Many are multi-period, with features of different styles and periods (Cadw).

Locations of historic parks and gardens are presented on Figure 3 – Heritage Features.

Heritage at Risk

A key element of Cadw's heritage regeneration activity is action related to heritage assets in a deteriorating condition. Cadw have been working to identify the number and type of listed buildings at risk in Wales. Surveys of the condition of listed buildings have been carried out in Wales for more than 15 years. 2015 data shows that the trend for buildings at risk is moving in the right direction. The number of buildings in an 'at risk' or 'vulnerable' condition has decreased since the last comparable data available (2013) and the percentage of buildings at risk has fallen from 8.92% to 8.54%. This figure is calculated using existing survey data and the most up-to-date data available from the 20% of the building stock which has been re-surveyed in the past year (Cadw). The percentage of building at risk over time has fallen since 2013.

Over time, there have been additional buildings given listed status. The Historic Environment (Wales) Act 2016 aims to give more effective protection to listed buildings and scheduled monuments, to improve the sustainable management of the historic environment and to introduce greater transparency and accountability into decisions taken on the historic environment. These seek to preserve the cultural heritage and historic environment of Wales and in turn will provide greater financial gain for the Welsh tourism sector.

Cultural activity

According to the National Survey for Wales⁷⁶ 75% of people attended or participated in arts, culture or heritage activities at least three times in the past year. 68% of people had been to an arts event in the previous 12 months, 40% of people had visited a museum in the last 12 months and 63% of people had visited a heritage site within the past 12 months (88% of these were in Wales).

34% of people had used a public library service in the past 12 months; 98% of these had visited a library in Wales. 5% went at least once a week. 58% of people said they had library in their local area. 39% of people with a library in their local area had visited one in the last 12 months, compared with 28% of those who did not.

When people were asked why they had not attended a museum in the past 12 months, only 3% cited a lack of transport as their reason (consistent with previous years), with 6% saying "Not enough museums close to where I live".

When people were asked why they had not visited a historic place in Wales in the past 12 months, only 5% cited a lack of transport as their reason (consistent with previous years), with 3% saying "Not enough museums close to where I live".

(National Survey for Wales, 2017 – 2018).

When people were asked "Whether they would go to more arts events if they were nearer, 2018-19", 25% strongly agreed and 26% agreed, 21% were neutral, 19% disagreed and only 9% strongly disagreed.

(National Survey for Wales, 2018 – 2019).

Data Gaps

The heritage value of transport infrastructure itself.

⁷⁶ <https://gov.wales/national-survey-wales-results-viewer>

6.2 Key Issues relevant to the WTS and opportunities for it to address them

Issues

Welsh Language

There has been an upward trend since the 1990s in the number of people using the Welsh language, noting large regional variations; there are opportunities to increase levels of fluency.

In some cases, opportunities to use the Welsh language when utilising public transport is limited, such as due to customer service staff not speaking Welsh.

Landscape and Townscape Character

Wales is renowned for its high-quality landscapes with over 50% of the land area being nationally valued for its scenic quality and character. National Parks and Areas of Natural Beauty are internationally recognised Designated Landscapes and cover 25% of Wales. This has implications for new transport infrastructure within these areas with a key challenge for sustainable management being to enable appropriate levels of growth whilst retaining the distinctiveness of places and landscapes. This must also recognise that the natural and historic components of landscape are important to both place and the cultural value of landscape.

The loss of visual amenity and character could have impacts on local people and tourists.

Motor traffic, parking and associated impacts can blight the character of landscapes and townscape.

Historic Environment, Cultural Heritage and Assets

Wales has a wealth of historic and cultural assets which are important components of national cultural identity. Many such assets are at risk from, for example, decay, climatic factors, neglect and inappropriate development. As with other environmental factors, protecting and provisioning fair access to cultural heritage assets is a key challenge for sustainable planning of the transport system.

New development can have a range of direct and indirect effects on heritage assets which need to be avoided or mitigated. This includes effects from noise and air pollution from construction of busy traffic routes in close proximity to culturally significant areas which may make them less appealing to visit or decrease their visual amenity (indirect effects), it also includes the physical removal of heritage assets as this may be required for the development of new travel infrastructure. Effects on the historic environment can include the intensification of existing traffic or the construction of new road or rail. Increasing levels of congestion can affect historic towns, cities and the countryside, while development of new transport infrastructure can affect historic landscapes and may cause direct damage to heritage assets.

Opportunities

Welsh Language

The WTS has an opportunity to protect and promote the use of the Welsh language through the transport system through encouragement of its use in sign posting and employees of bus and train stations. The WTS could seek to ensure that access to Welsh-Medium education facilities is specifically targeted as part of this aim, to support the strategy seeking to expand Welsh-Medium education provision. The WTS could also seek to support the aim to increase the range of services offered to Welsh speakers, and an increase in use of Welsh-language services. The WTS could also seek to 'support the socioeconomic infrastructure of Welsh-speaking communities' through its policies, helping to support the aim of 'Develop[ing] a new regional focus to economic development to help all parts of Wales to benefit from prosperity and support each area to develop its own distinctive identity.' Within the WTS there will be opportunities to promote the Welsh language through its use in station announcements, road signs and signs within rail and bus stations.

Landscape and Townscape Character

The transport system has a major role to play in how future transport infrastructure development will affect landscape, townscape, and sense of place in general.

There is an opportunity for improved access to valued landscapes, townscapes and viewpoints, including by sustainable and active travel modes to reduce the impact of motor traffic.

The WTS has an opportunity to provide high quality transport connections to National Parks for both tourists/visitors and local leisure users..

Historic Environment, Cultural Heritage and Assets

As with landscape, the WTS has a major role to play in the protection and enhancement of cultural heritage through guidance to the transport system. This could include the recognition that non-designated heritage assets are also an important part of the make-up of cultural identity and sense of place and that indirect effects on the setting of assets are also important considerations.

Opportunities also exist for the WTS to promote awareness of cultural heritage and encourage the enhancement of access to cultural education centres.

The WTS could seek to identify and protect transport infrastructure that may be of heritage value in its own right.

The WTS has the opportunity to contribute towards the efficient management of the transport system during major events, including sporting, leisure and recreational activities and cultural events

7 Well-Being Goal: A Globally Responsible Wales

This section provides baseline data relating to the following well-being goal:

'A nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.'

In many ways, this well-being goal relates to all of the ISA topics. However, for the purposes of presentation, the data in this section relate primarily to:

- Energy Consumption, Greenhouse Gas Emissions and Ecological Footprint

7.1 Overview of Baseline Conditions

7.1.1 Energy Consumption, Greenhouse Gas Emissions and Ecological Footprint

Relevance to the WTS

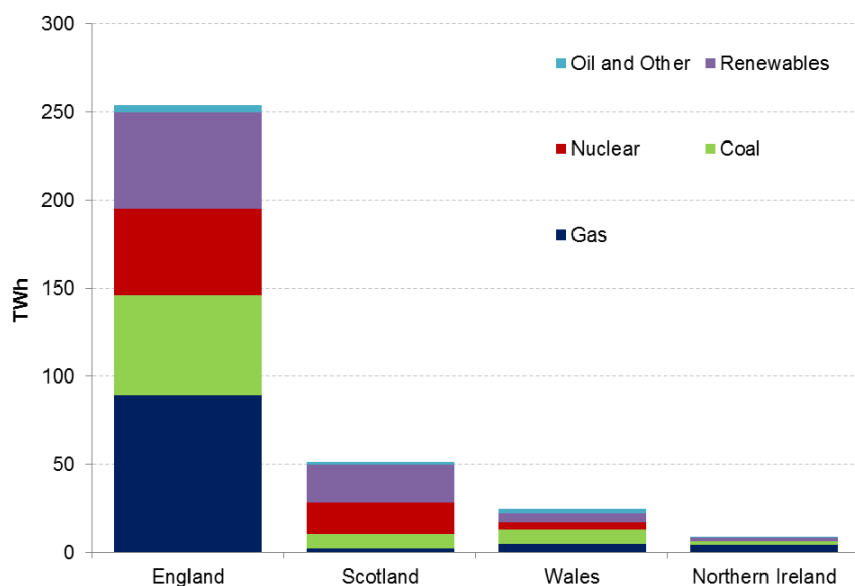
Wales is a globally responsible nation and the WTS has an important role in helping to guide planning and transport in a way that contributes positively to this. In particular energy consumption and greenhouse emissions are two things that occur locally through homes, businesses and transport but contribute to global consequences.

Baseline conditions and trends

Energy Generation

Energy generation in Wales is relatively evenly split between gas, coal, renewable and other sources with generation overall being significantly lower than in England and Scotland. Production has been in decline since 2010, largely due to the decline in energy from gas generation (Welsh Government, Energy Generation and Consumption Biennial Report, 2015). Figure 7-1 below shows energy generation by fuel in 2015 for England, Scotland, Wales and Northern Ireland in 2015.

Figure 7-1 Energy Generation by fuel in 2015 for England, Scotland, Wales and Northern Ireland in 2015



Sources: www.gov.uk

Between 2000 and 2013, the percentage of electricity generated from renewable energy sources has increased from less than 3% to over 10%. This is largely as a result of wind generation. However, this proportion of generation is still lower than any other UK country. The use of renewable energy could help to reduce Wales' carbon footprint over time. The Capacity (in GWh) of renewable energy generated in Wales in a recent study was 5,182.6 GWh (DECC).

Between 2016 and 2017 there was an increase from 12.3% of energy in Wales being generated by renewables to 20.0%, an increase of 7.7% in only a year⁷⁷.

Energy Consumption

Energy use in Wales in 2015 was about 25TWh which is about a 10th of the 250TWh energy used in England. Total energy consumption has been falling since 2005, though more so since 2007, which coincides with the economic downturn (as of 2015). The industry and commercial sector accounts for a large proportion of this decline⁷⁸.

The average energy efficiency of new homes in Wales is monitored. Percentage of dwellings with a Standard Assessment Procedure (SAP) rating of 65 or above is considered adequate. The SAP is a methodology used by Government for assessing the energy performance of dwellings. The SAP rating is expressed on a scale of 1 to 100 – the higher the number, the lower the running costs. Average SAP rating of new homes in Wales in 2008 was 77.6 and in 2009 this was 77⁷⁹.

Greenhouse Gas Emissions

Total greenhouse gas emissions in Wales in 2014 amounted to 46,402 ktCO_{2e}. This compares to 56,620 ktCO_{2e} in 1995, although that figure has fluctuated over the period showing a gradual decreasing trend overall. Total greenhouse gas emissions from Wales have reduced between 1990 and 2014 by 18%, whilst carbon dioxide emissions have fallen by 12%. These emission reductions are mainly due to efficiencies in energy generation and business sector heating, the use of natural gas to replace some coal and other fuels as well as abatement in some chemical industries, and variations in manufacturing output (e.g. in iron and steel, bulk chemical production)⁸⁰.

⁷⁷ Electricity generation and supply figures for Scotland, Wales, Northern Ireland and England, 2014 to 2017 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770766/Regional_Electricity_Generation_and_Supply.pdf

⁷⁸ Welsh Government, Energy Generation and Consumption Biennial Report, 2015

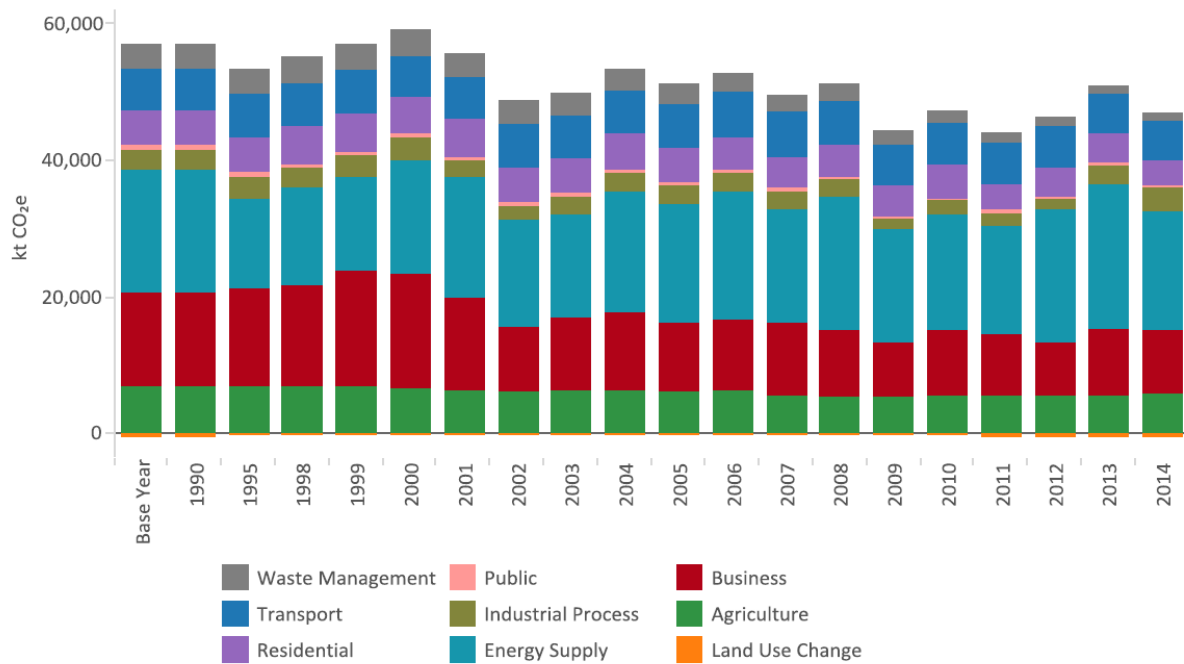
⁷⁹ data.gov.uk

⁸⁰ NAEI Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland: 1990-2014

Wales is moving in the right direction to help combat some of the most serious causes of climate change. The increase of renewable energy production is an example of this. A reduction of overall CO₂ emissions is helping Wales and the whole of the UK meet its reduction targets. However, although moving in the right direction, change needs to happen in Wales and across the UK to ensure reduction targets are met.

Figure 7-2 illustrates the split of emissions between different sources in Wales between 1990 and 2014. This shows that the largest contributor remains the energy supply industry. Since 1990, the sector that has decreased its proportion of emissions the most is the business sector (NAEI Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland: 1990-2014).

Figure 7-2 Total Greenhouse Gas Emissions per Sector in Wales (ktCO₂e)

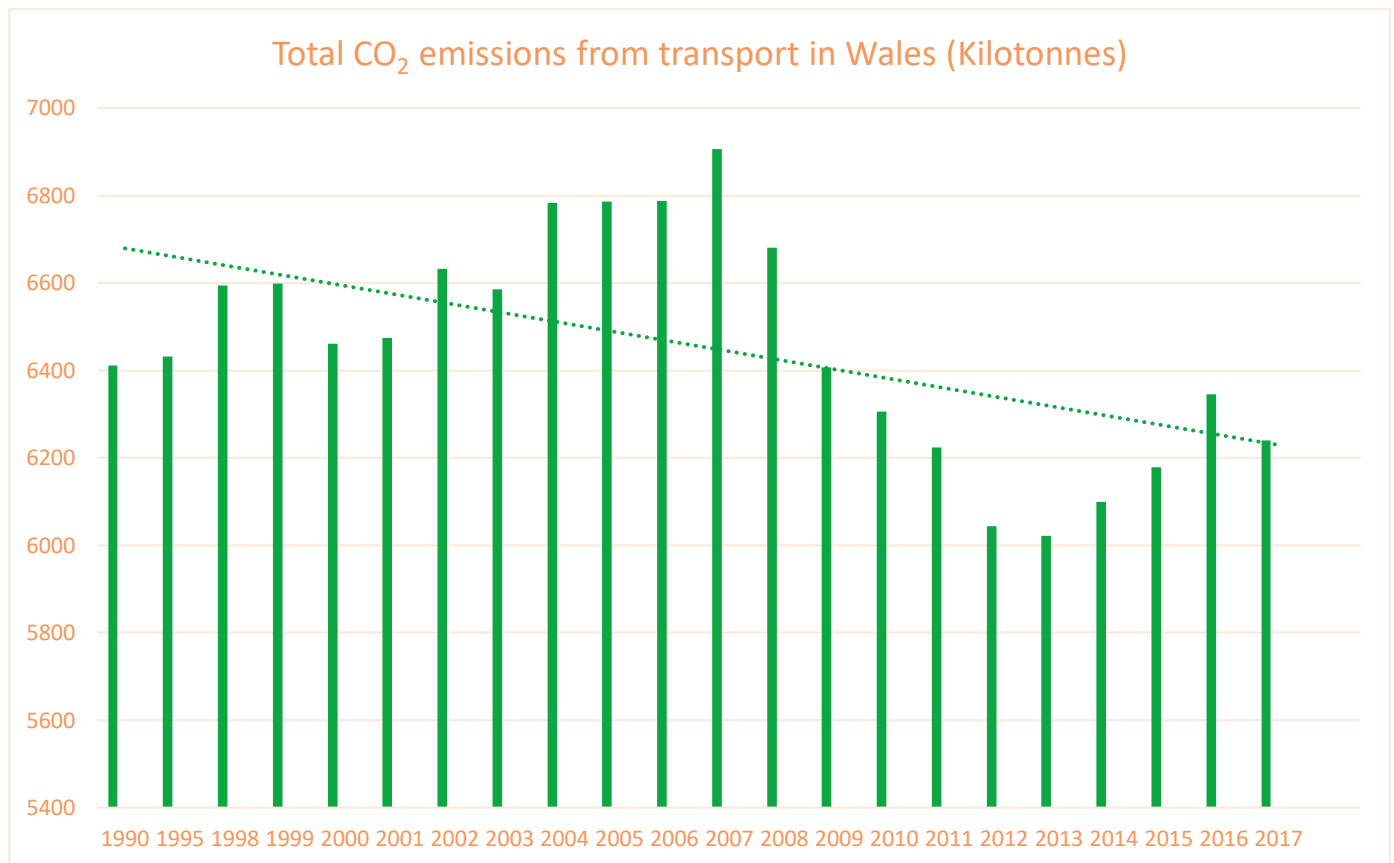


Change in greenhouse gas emissions from the transport sector

According to the National Atmospheric Emissions Inventory there is a declining rate of CO₂ emissions from the transport sector in Wales⁸¹.

⁸¹ <https://statswales.gov.wales/Catalogue/Environment-and-Countryside/Greenhouse-Gas/emissionsofgreenhousegases-by-year>

Figure 7-3 Total CO₂ emissions from the transport sector in Wales (kT)



Energy from renewable sources used by public transport

According to a report on energy generation in Wales⁸², around 91 TWh of energy per year is consumed in the country. 76.1 TWh of this is associated with transport, heating and industry.

7.4 out of 30.2 TWh of electricity generated in Wales is generated by renewable resources in 2018.

Ultra Low Emission Vehicles (ULEV)

There were 39% more licensed ULEVs at the end of 2018 compared to the previous year, this figure representing 200,000 ULEVs across the UK. ULEV's accounted for 0.5% of all licensed vehicles in the UK, regionally Wales had the lowest rate at 0.2% relating to 9,500 vehicles out of 1.9 million total vehicles in the country.⁸³

Journeys made by sustainable travel modes

The number of rail passenger journeys in Wales reached the highest level on record in 2017-18⁸⁴, there were 31 million rail passenger journeys which either started or ended in Wales, an increase of 1.9 per cent compared with the previous year.

⁸² Energy Generation in Wales, 2018 Welsh Government <https://gov.wales/sites/default/files/publications/2019-10/energy-generation-in-wales-2018.pdf>

⁸³ Vehicle Licensing Statistics: Annual 2018, Department of Transport https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/800502/vehicle-licensing-statistics-2018.pdf

⁸⁴ Rail Transport, April 2017 to March 2018 Statistical Bulletin <https://gov.wales/sites/default/files/statistics-and-research/2019-04/rail-transport-april-2017-to-march-2018-824.pdf>

Rail passenger journeys within Wales increased to 21.5 million in 2017-18, a 1.3 per cent increase compared to the previous year. Cardiff was the most common destination for within-Wales journeys, accounting for 41% of all journeys.

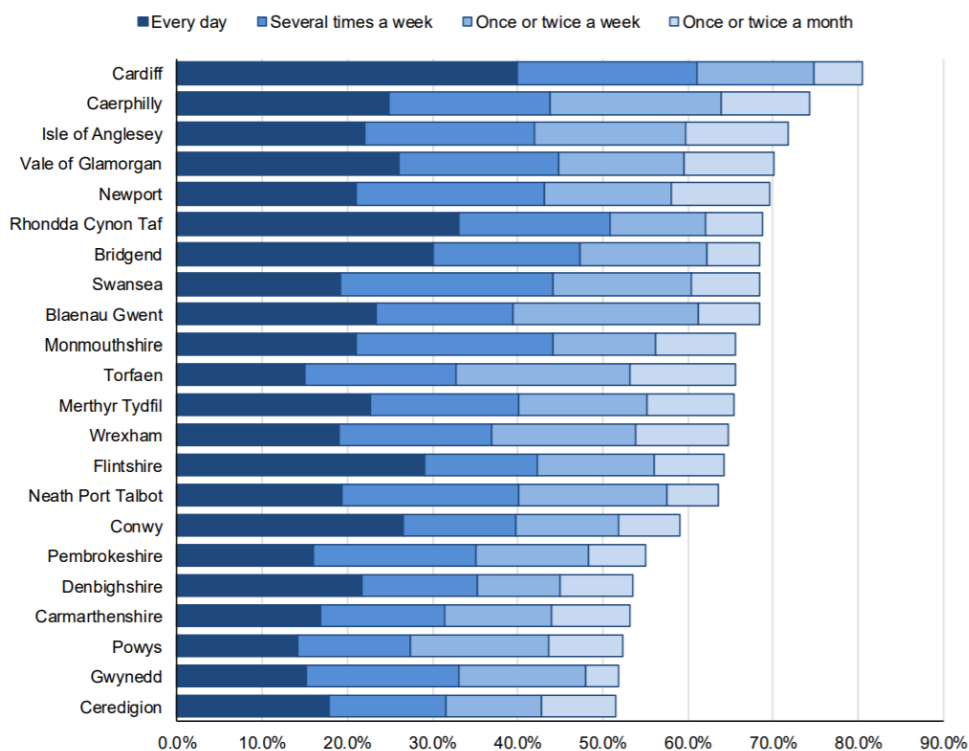
99.9 million passenger journeys were undertaken on local buses in Wales in 2017-18. These services covered a total 99.1 million vehicle kilometres.⁸⁵

Active travel

In a Statistical Bulletin on the use of active travel in Wales (2018-19)⁸⁶, it was found that:

- 6% of adults cycled at least once a week for active travel purposes. This has not changed very much in recent years.
- 57% of adults walked at least once a week for active travel purposes. This is broadly unchanged from the previous year.
- 70% of people in urban areas walked for more than 10 minutes as a means of transport at least once a month, compared with 56% of people in rural areas.
- 44% of children actively travel to primary school, and 34% to secondary school.
- 225 seriously injured pedal cyclists were admitted to hospital in 2018-19.

Figure 7-4 Active Travel by Walking, by Local Authority



Source: gov.wales

Ecological footprint

A study in 2008 estimated that Wales' ecological footprint at 10.05 million global hectares (gha), which is roughly five times the size of Wales, or 3.28 global hectares per capita (gha/c). Wales' carbon footprint is

⁸⁵ Public service vehicles (buses and taxis), 2017-18 Statistical Bulletin https://gov.wales/sites/default/files/statistics-and-research/2019-03/public-service-vehicles-buses-and-taxis-april-2017-to-march-2018_0.pdf

⁸⁶ Walking and cycling in Wales: Active travel, 2018-19 Statistical Bulletin <https://gov.wales/sites/default/files/statistics-and-research/2019-11/active-travel-walking-and-cycling-april-2018-march-2019-073.pdf>

estimated at 34 Mt CO_{2e}, or 11 t CO_{2e} per capita. In comparison with other developed countries, Wales' ecological footprint is significantly higher (Stockholm Environment Institute/University of York).⁸⁷

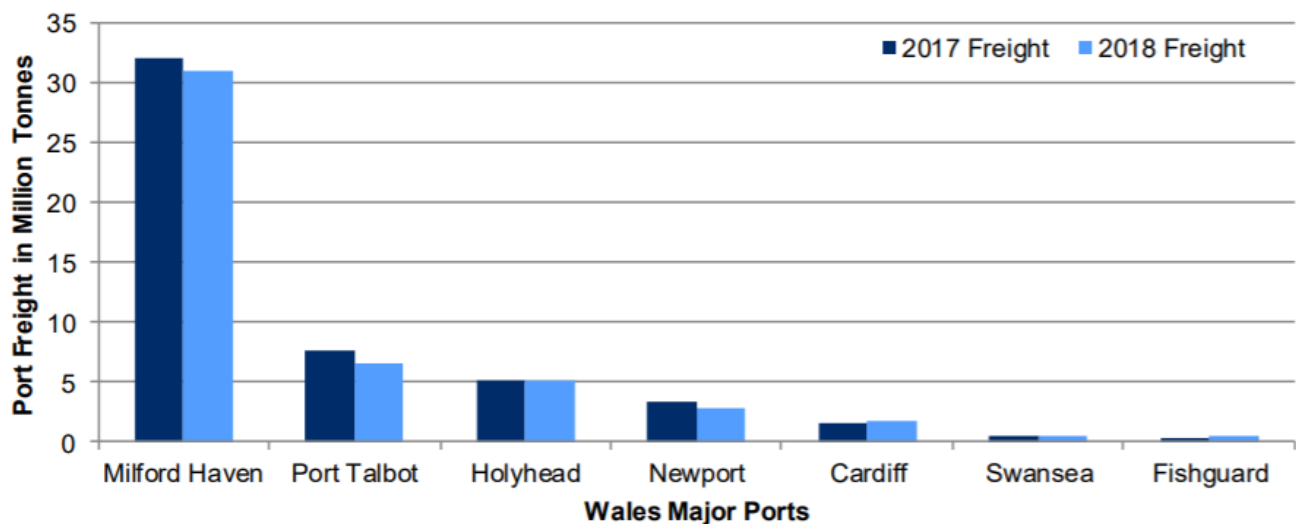
Hectares of healthy ecosystems that form part of the transport network

It states in the Welsh Transport Planning Appraisal Guidance (2008) that about 70% of the Welsh coastline is safeguarded in one way or another and 10% of all the land area in Wales is designated as a SSSI. There are over 1,500 protected sites across the country.⁸⁸

Freight⁸⁹

Freight traffic at Welsh ports was 49.2 million tonnes in 2018, a decrease of 4.8% from the previous year. Figure 7-5 below shows the total freight through major ports within Wales.

Figure 7-5 Total Freight through Wales Major Ports 2017 and 2018.



Source: Welsh Government, 2019.

Milford Haven handles the 5th highest traffic tonnage in the UK, accounting for 6.4% of UK traffic. The decrease in Wales' port traffic can be seen in Figure 7-6 which compares it to other UK countries and their change in port traffic.

⁸⁷ Ecological and Carbon Footprint Report: Wales

⁸⁸ Welsh Transport Planning and Appraisal Guidance <https://gov.wales/sites/default/files/publications/2017-09/welsh-transport-appraisal-guidance-weltag.pdf>

⁸⁹ <https://gov.wales/sites/default/files/statistics-and-research/2019-11/sea-transport-2018-624.pdf>

Figure 7-6 All port traffic inwards and outwards across the UK, 2017 and 2018

	Million tonnes		Per cent	
	2017	2018	% change	2017 to 2018
England				
Inwards	231	240	4.2%	▲
Outwards	105	100	-4.8%	▼
All	336	340	1.4%	▲
Wales				
Inwards	35	33	-5.7%	▼
Outwards	17	16	-3.0%	▼
All	52	49	-4.8%	▼
Scotland				
Inwards	19	20	4.2%	▲
Outwards	48	45	-5.6%	▼
All	67	65	-2.8%	▼
Northern Ireland				
Inwards	17	17	3.7%	▲
Outwards	10	11	6.0%	▲
All	27	28	4.6%	▲
United Kingdom				
Inwards	301	310	3.0%	▲
Outwards	181	173	-4.2%	▼
All	482	483	0.3%	▲

Source: Welsh Government analysis of Department for Transport data

The tonnes of goods transported by freight on the roads in Wales has decreased in the last 15 years⁹⁰.

Table 7-1 Goods transported via road freight in Wales 2004-2019

Year	Million Tonnes
2004	86
2005	94
2006	89
2007	96
2008	89
2009	66
2010	73
2011	64
2012	71
2013	59

⁹⁰ <https://www.gov.uk/government/statistical-data-sets/rfs01-goods-lifted-and-distance-hauled#domestic-road-freight-by-region>

2014	59
2015	63
2016	67
2017	70
2018	62
2019	64

Data Gaps

Data relating to freight transported on railways in Wales.

Data relating to gendered differences in data captured.

Transport Budget Headline Figures

Figure 7-7 Revenue and Capital of rail transport in Wales

2020/21 (£m)

Capital 610

Approx 50% on public transport and active travel, including:

Rail enhancements	47
South Wales Metro	142
North Wales Metro	23
Sustainable and AT	89

Revenue 530

But only around 10% of revenue budget could be considered as discretionary expenditure.

Rail franchise	185
Bus services	58
Trunk road opex	71
Depreciation	188

Source: Economy, Skills and Natural Resources Group, Welsh Government

Figure 7-8 Pounds sterling per kilometre travelled by different transport modes

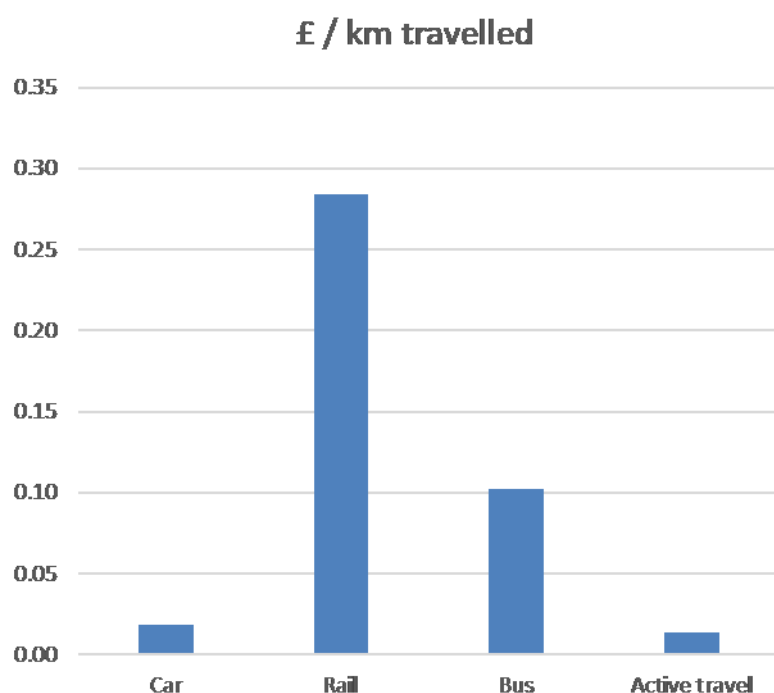


Figure 7-9 Money spent across different transport modes in Wales

	£m spent	Journeys (millions)	Modal share	Distance (billion km)	£ / journey	£ / km travelled
Car	682	849	62%	36.6	0.80	0.02
Rail	397	34	2%	1.3	11.63	0.31
Bus	198	103	8%	0.9	1.92	0.22
Active travel	42	384	28%	1.6	0.11	0.03
Total	1319					

Caveats

1. Funding levels not linear with patronage
2. Latest available data from each source has been used to produce these figures, meaning they are not always from directly comparable time periods
3. Wales-specific data not available for all modes, in which case estimates have been made using data for England

Source: Economy, Skills and Natural Resources Group, Welsh Government

Data Gaps

The largest gap in data is how specifically the transport network interacts with these factors e.g. how many hectares of healthy ecosystems does the transport network cross, how much energy used by the transport network is sourced from renewable resources, how many recycled materials are used in construction of transport infrastructure.

7.2 Key Issues relevant to the WTS and opportunities for it to address them

Issues

Greenhouse gas emissions have been steadily falling in Wales; there is still a long way to go to meet the emissions targets. This reduction is partly as a result of a gradual shift in energy generation to renewable and cleaner fuels together with technological and efficiency improvements in industry. However, again there are challenges to maintain these positive trends.

Wales' high ecological footprint must be maintained and not compromised by transport developments.

Measures must be taken to provision the safety of pedestrians and cyclists on the road in order to promote it as a viable form of transport.

The estimated global footprint of Wales is high compared with other developed countries. There is a challenge to reduce this whilst also accommodating new development and economic growth.

Opportunities

The WTS has an opportunity to help promote low carbon fuels and improved standards of energy efficiency in transport infrastructure.

The WTS should aim to reduce the growth of motor traffic.

The WTS must promote sustainable transport modes (including active travel and Ultra Low Emission Vehicles (ULEVs)).

The WTS presents an opportunity to implement the sustainable transport hierarchy:

Firstly, by reducing the need to travel unsustainably:

- bring services closer to people, integrated planning (communities built around transport hubs)
- ICT, flexible working, homeworking

Secondly, by widening and promoting more sustainable travel choices:

- integration, modal shift.

Thirdly; by make better use of the existing transport network:

- managing demand, facilities, capacity.

Atodiad C Cofnod o Ymatebion i'r Ymgynghoriad Cwmpasu

Integrated Sustainability Appraisal Response Log		Arcadis Response
Q1	Do you support the findings of the review of relevant plans, programmes, and environmental protection objectives? Are there any additional plans, programmes, or environmental protection objectives you think should be added? Are there any that you would like to remove from the review?	
I believe that there should be a comprehensive assessment of the existing transport network throughout Wales to ascertain whether it is fit for purpose. I believe that the lack of a modern transport network is a major contributory factor to the issues of poverty & deprivation and adverse effects on the environment. The paucity of the current network fails to attract the businesses to Wales and does little to stimulate tourism and existing businesses in the rural economy.		Agree, comment noted.
<p>I do not understand what you mean by 'scoping'. Indeed, much of the document is difficult to read and by the time I have read to the end of a paragraph, I can hardly remember the beginning. The document is opaque and regrettably difficult to comprehend. It should be written in far simpler and preferably shorter language.</p> <p>I know I am not all that bright, but I have been to University, have a couple of degrees and have worked in the National Health Service for almost 40 years, talking and communicating with all sorts of people. Would you allow me to raise the unworthy suspicion that your document has been written in such a way so that few people will understand it or write comments on it?</p> <p>Or are the people who wrote it unable to express themselves in plain language?</p> <p>Sorry....</p>		Scoping is the legally required first stage of the ISA process and best efforts have been made to present the diverse and extensive range of data in as-readable as format as possible. Following this stage, all ISA outputs will be accompanied by a non-technical summary to enhance their accessibility.
We should be encouraging Active Travel by providing facilities that children & families can use to get to work, places of education etc., rather than using vehicles		Active travel opportunities will be a key consideration of the WTS and its ISA.
There is no reference to plans for shared resources - for example community owned electric vehicles. There is one such scheme in Bethesda which is very popular. I think it would be great if Wales could be a leading example of best practise in terms of environmental conscientiousness, by providing this kind of cutting edge solution to green transportation		This comment is directed towards the contents of the WTS.

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<p>The Covid-19 aspects should be widened to consider spread of infectious diseases more generally. Transport strategies ought to be considering how they can avoid promoting the spread of disease by spreading the peak load, increasing capacity on mass transit, and promoting active travel. The socio-economic duty was introduced in Scotland in 2018, and the Scottish Government's Transport Strategy, published in February this year, was subject to it. TfW is taking steps to prepare for commencement. The purpose of the duty is to ensure that specified public bodies, when making strategic decisions, such as determining priorities and setting objectives, have due regard to the need to reduce the inequalities of outcome resulting from socioeconomic disadvantage</p>	<p>Advice noted.</p> <p>During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.</p>
<p>The plans set out a lot with regard to the environment but little about transport and its delivery. Although the Town Council supports the policy of environmental protection the scoping plan does not outline what aims and objectives are to be met with regard to transport delivery. Throughout the 58 page document there is little or nothing about change or improvement in public transport services that could result in increased usage</p>	<p>Public transport is a key consideration of the WTS and the Scoping Report.</p>
<p>Jacobs welcomes Welsh Governments commitment to sustainable solutions which aligns with our own PlanBeyond initiative</p>	<p>Noted.</p>
<p>Yes we do and we agree that the WTS should be shaped to help deliver social, economic, environmental and cultural benefits that are consistent with the seven goals of the Wellbeing of Future Generations Act</p>	<p>Agreed.</p>
<p>Reference to the Active Travel (Wales) Act 2013 to be included in the Scoping Report; also current Planning Policy Guidance</p>	<p>Active Travel Wales Act has now been included.</p>
<p>It is noted that existing plans and programmes have been reviewed to shape the ISA. However, it must be emphasized that where proposed schemes, that are well developed and substantially address the 'Well-being of Future Generation Act Goals' (such as Magor and Undy Walkway Station), must not be compromised, undermined or slowed because of the process mechanics of the ISA when they are clearly in line with its aims</p>	<p>It is not anticipated that the ISA could conceivably slow down the delivery of any permitted developments.</p>
<ol style="list-style-type: none"> 1. The scoping should recognise the value and purpose of Wales' National Parks and their contribution to overall national well-being. 2. The review should include 'Valued and Resilient' which sets out the Welsh Government's priorities for the National Parks and AONBs. 	<p>National Parks will be an important consideration of appraisals in the ISA. Valued and Resilient and National Park Management Plans</p>

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NRW/WG guidance advises that National Park Management Plans are of 'national significance' and therefore the relevant Plans for Brecon Beacons, Pembrokeshire Coast and Snowdonia National Parks should be included in the review	now included in the Scoping Report
The plans set out a lot with regard to the environment but little about transport and its delivery. Although the Association supports the policy of environmental protection the scoping plan does not outline what aims and objectives are to be met with regard to transport delivery	The Scoping Report is not intended to outline plans for transport delivery at this stage.
There is no reference to bus service provision with particular regard to rural areas	Bus services are an important element of the baseline data, including for rural areas to avoid and minimise the risk of isolation.
Given recent events and the impacts of the COVID Pandemic it is obvious that focus should also now be on any plans/programmes associated with the pandemic that will directly impact the WTS moving forward. Particular emphasis should be on ensuring consistent and complimentary aims and objectives with the Prosperity for All, Low Carbon Wales and A Climate Conscious Wales policies.	During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.
I have answered such, as I'm not 100% sure what the current document is seeking to deliver. There are many words but the document lacks clarity in its purpose and direction. It appears to be a document which seeks to tick boxes in process, but doesn't deliver much in terms of strategy. Plain language would help the reader. One positive is that a strategy will be delivered for the longer term – 25 years. If this is the case there will need to be a formalised review process every 5 years or so, but this must be adhered to strictly. Finally, Planning Policy Wales (PPW, v10) should be listed in section 3.1 (page 15).	The Scoping Stage is the first legally required stage of the ISA Process and is intended to establish the scope for the appraisal process. Planning Policy Wales Edition 10 added to Section 3.1
CUK broadly supports the findings of the review presented in Chapter 3. We agree that the WTS should be shaped to deliver social, economic, environmental and cultural benefits, in accordance with the seven goals of the Well-being of Future Generations Act, and with the need to identify potential synergies with these wider goals, as well as possible inconsistencies and constraints. We strongly welcome the recognition of the "particular importance" of documents such as <ul style="list-style-type: none"> Prosperity for All: A Low Carbon Wales Prosperity for All: A Climate Conscious Wales 	Public Health Wales' Long Term Strategy and Strategic Plan added. Review Contains Clean Air Action Plan and Connected Communities.

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<p>· The Natural Resources Policy for Wales, incorporating Sustainable Management of Natural Resources (SMNR) principles, such as public access to the natural environment; However, we would suggest adding in references to several plans, programmes and environmental objectives relating to transport's various public health impacts, notably air pollution, physical inactivity, road injuries, noise, and the social isolation (and hence mental and physical health impacts) of road danger on vulnerable groups.</p> <p>The relevant plans, programmes and environmental objectives should therefore also include those set out in:</p> <ul style="list-style-type: none"> · Public Health Wales's Long Term Strategy, and its Strategic Plan 2019-22; · The Clean Air Action Plan for Wales; · Wales's Sport and Physical Activity Strategy ('Climbing Higher'); · The emerging Road Safety Framework for Wales (this was reviewed in 2018, though a final version has yet to be adopted); · The Noise and Soundscape Action Plan; · Tackling Loneliness and Social Isolation through Connected Communities; · Welsh 20mph Task Force Group, Final Report, July 2020; · The National Cycle Network - sustrans.org.uk <p>We welcome the recognition of "Promote sustainable patterns of mobility and enhance sustainable transport provision to improve air quality" as one of the key themes (Table 3-2). However we would suggest adding "and active" after both occurrences of the word "sustainable". This would contribute not just to improving air quality but also to reducing greenhouse gas emissions, ill-health relating to physical inactivity, noise, road injuries, the isolation (and consequent health and well-being impacts) suffered by those most vulnerable to road danger, and the disproportionate burden of these impacts on disadvantaged groups.</p> <p>"Promote sustainable and active patterns of mobility" would therefore contribute not just to the four national well-being goals listed, but also to the goals of a 'more equal' and a 'more cohesive' Wales – for more on this, see our comments (in answer to question 2) on the treatment of these two goals in table 4-1.</p>	<p>Physical activity strategy, Road safety framework, noise and soundscape action plan, 20mph task force report added.</p> <p>"Sustainable and Active patterns..." added to key themes</p>
<p>Yes, the list of plans, programmes and environmental protection objectives appears to be comprehensive</p>	<p>Noted</p>

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<p>We welcome the Integrated Sustainability Appraisal in ensuring that sustainable development will be central to the development of the Wales Transport Strategy and that it will be aligned to the well-being goals of the Well-being of Future Generations (Wales) Act 2015.</p> <p>We welcome the establishment of the ISA Working Group. We hope that women are well represented in the membership of the Group as often women have not been equally represented in policy-decisions relating to transport. Equally, it will be vital that the views and experiences of women are represented during stakeholder engagement on the draft strategy and that the consultation and engagement process reaches those groups who rely on public transport.</p> <p>Under the theme 'Create safe, sustainable, balanced and cohesive communities, including in both rural and urban areas', we would suggest that you consider the Violence Against Women, Domestic Abuse and Sexual Violence (Wales) Act 2015 and the National Strategy on Violence Against Women, Domestic Abuse and Sexual Violence - 2016 -2021. Women need to feel safe on public transport and during active travel. There is also a need to ensure that women, wherever they live, are equally able to access violence against women support services using public transport.</p> <p>We would also suggest that The Future Generations Report 2020 is considered, particularly in relation to the findings and recommendations on transport.</p>	<p>National Strategy on Violence Against Women, Domestic Abuse and Sexual Violence - 2016 - 2021 included in Appendix A.</p> <p>The Future Generations Report 2020 added also.</p>
<p>Generally yes. The document should also consider the Wales Spatial Plan and be consistent with other aims and objectives such Prosperity for All and a Low Carbon Wales along with Tackling Transport Poverty in Wales.</p> <p>Further, the Covid impacts now need consideration.</p>	<p>During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.</p>
<p>We are pleased to see that the ISA provides a long list of relevant plans across a range of departments that will relate to the Wales Transport Strategy. Transport is cross cutting so will relate in some way to</p>	<p>Noted. Wales NRAP and Future Generations 2020 Report added to review.</p>

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<p>most plans and strategies. As a result, there should be a cross-departmental approach to developing the WTS, recognising that transport is essential for the success of strategies across Government.</p> <p>We note that Habitat Regulations Assessments are not being undertaken at this stage and that it is felt that it is more appropriate to consider the protection of the Natura 2000 network at the next stage of transport plan-making and that a letter explaining this decision will be sent to NRW. In the principle of open government, we request that both the letter and any response are shared with stakeholders and that Welsh Government be prepared to reconsider this decision in light of any recommendations that NRW might suggest. We note that NRW has recognized both the climate and nature emergencies and that the Natura 2000 network has an irreplaceable role in addressing both.</p> <p>We welcome the detailed references to ecosystem resilience within the document and the intention to integrate the 5 'building blocks' of Diversity, Extent, Condition, Connectivity and Adaptability into the WTS. We suggest that this might be aided by explicit reference to both Wales's Nature Recovery Action Plan (NRAP) and the Convention of Biological Diversity's Strategic Action Plan that the NRAP supports. We note the recent recommendation in the Future Generations 2020 Report that Wales should aim to become 'an eco-literate nation' and suggest that inclusion of these key plans would contribute towards this. Explicit reference to these strategies will help raise awareness of the state of global ecosystems by helping raise both awareness, and action, on national and international commitments to biodiversity and ecosystem resilience.</p> <p>In addition, we recommend that the Welsh Government considers the DfT's Community Rail Development Strategy, adopted by the Welsh Government, which helps to show how engaging and empowering communities in regards to local transport provision can deliver benefits for sustainability, health, wellbeing and inclusion</p>	<p>DfT's Community Rail Development Strategy added also.</p>
<p>It is important to recognise that transport is a key enabler and essential for people to participate in society. It affects health outcomes both physical and mental by supporting access to services and facilities, social networks, jobs and more. Barriers to accessing transport costs the health service in missed appointments, loneliness and isolation, inability to live independently and so on. We believe that transport impacts on and has a role to play in most if not all of the Welsh Government's plans and strategies so much so that perhaps transport should be integrated into all of these rather than having a</p>	<p>Noted and agreed. The ISA will help to ensure that the cross cutting nature of transport is accounted for.</p>

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<p>separate strategy of its own. The cross-cutting nature of transport should be recognised by all and be addressed through a commitment to joint policy-making & commissioning across sectors and departments to ensure a strategic approach to investment.</p>	
<p>We support the findings of the review. However, we recommend that the following additional plans and programmes are included as part of the review</p> <ul style="list-style-type: none"> • Design Manual Roads and Bridges Volume 11 Section 3, Part 10, Annex I – Environmental Assessment Methods • Road Drainage and Water Environment LA 113; • National Development Framework • Shoreline Management Plans; • Welsh Government Noise and Soundscape Action Plan 2018-23 • Valued And Resilient: Welsh Government's Priorities for AONB's and National Parks 2018 • National Park and AONB Management Plans • Historic Environment and Climate Change Sectoral Adaptation Plan • Tranquillity maps • NRW LANDMAP, Landscape and a Changing Climate full report • National Flood & Coastal Erosion Risk Management Strategy for Wales (new strategy due to be published shortly). We recommend that reference to the following documents should be amended as follows: • The Environment Agency (2013) Groundwater Protection Policy and Protection (GP3) has been replaced with 'The Environment Agency's Approach to Groundwater Protection, February 2018 V1.2'; • Appendix A (Table 1.2, section re: flooding/coastal erosion), PPW Edition 10 should be referenced, not edition 9. • Replace 'Welsh Government (2011) Preparing Wales for Climate Change: Adaptation Delivery Plan' in Table 1.2: with 'Climate Conscious Wales (2019)'; • In Appendix A – National Plans – amend from Bill to Act: Public Health (Wales) Act 2017. 	<p>Comments noted</p> <p>Emerging National Development Framework included</p> <p>Noise and Soundscape Action Plan, Priorities for AONB's and National Parks, National Park Management Plans, Historic Environment And Climate Change Adaption Plan added</p> <p>Amendments made to documents</p>
<p>Welsh version: Cynlluniau a Rhaglenni</p> <p>Mae Deddf Llesiant Cenedlaethau'r Dyfodol yn ganolog i'r strategaeth arfaethedig; ac fel noda'r ddogfen ymgynghorol, mae 'Cymru â diwylliant bywiog lle mae'r Gymraeg yn ffynnu' yn un o'r saith nod llesiant.</p> <p>Mae'r ddogfen ymgynghorol yn rhestru'r dogfennau cenedlaethol sydd 'o bwysigrwydd arbennig' ac y 'bydd Strategaeth Drafnidiaeth Cymru'n gweithio â nhw ac yn rhannu nodau ac amcanion cyffredin.' Nodwn nad yw strategaethau eraill y Llywodraeth o ran y Gymraeg wedi eu rhestru yn y ddogfen ymgynghorol, er eu bod yn cael eu rhestru yn Atodiad 1.</p> <p>Argymhellion</p>	<p>Noted. Most of this comment refers to the contents of the WTS rather than the ISA.</p> <p>Listed documents in this response are now included in the ISA.</p>

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<ul style="list-style-type: none"> Datblygu'r Strategaeth Drafnidiaeth mewn ffordd sy'n ategu gweledigaeth strategaeth Cymraeg 2050: Miliwn o Siaradwyr (2016). Cysylltu'r strategaeth â'r gofyniad ar awdurdodau lleol i hwyluso mynediad at addysg Gymraeg yn unol â Mesur Teithio i Ddysgwyr (Cymru) 2008 a'u Cynlluniau Strategol y Gymraeg mewn Addysg. Cynnwys adran yn y strategaeth am ddyletswydd sefydliadau perthnasol i gydymffurfio â safonau'r Gymraeg yn unol â Mesur y Gymraeg (Cymru) 2011. <p>Rydym yn cytuno â'r cysylltiad rhwng nod llesiant y Gymraeg â'r amcanion canlynol:</p> <ul style="list-style-type: none"> Gwella cysylltedd cymunedau sydd wedi eu cynllunio a'u dylunio'n well, a hybu cyfle mwy cyfartal i bob dinesydd Diogelu a gwella unigrywedd ein tirweddau a'r amgylchedd hanesyddol, asedau hanesyddol a'u lleoliadau Cyfrannu at lesiant y Gymraeg, diwylliant a threftadaeth yn y dyfodol Creu cymunedau diogel, cynaliadwy, cytbwys a chydlynus, mewn ardaloedd gwledig a threfol Hybu twf economaidd cynaliadwy, amrywiaeth a chystadleurwydd busnes Sefydlu economi dwristiaeth gref, gan fanteisio'n sensitif ar asedau amgylcheddol, treftadaeth a hamdden <p>Argymhelliad</p> <p>Cysylltu nod llesiant y Gymraeg â'r amcanion canlynol:</p> <ul style="list-style-type: none"> Gwella iechyd a llesiant corfforol a meddyliol y boblogaeth a lleihau anghydraddoldebau iechyd i greu Cymru iachach Gallai Strategaeth Drafnidiaeth Cymru gynnig cyfle i leihau ynysigrwydd ac annog datblygiad cymunedau integredig y gellir byw ynddynt trwy ddarparu ar gyfer cynhwysiant trafnidiaeth gyhoeddus i ganiatáu i bawb gael yr un lefel o fynediad 	

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<p>English translated version:</p> <p>Plans and Programmes</p> <p>The Wellbeing of Future Generations Act is central to the proposed strategy; and as noted in the consultation document, 'Wales and a vibrant culture where the Welsh language thrives' is one of the of the 7 wellbeing objectives.</p> <p>The consultation document lists the national documents that are 'of special interest' and 'the Wales Transport Strategy will work with them and will share the general aims and objectives'. We note that the Government's other strategies with regards to the Welsh language are not listed in the consultation document, even though they are listed in Appendix 1.</p> <p>Recommendation</p> <ul style="list-style-type: none"> • Develop the Transport Strategy in a way which complements the Cymraeg 2050: A Million Welsh Speakers (2016) strategic vision. • Connect the strategy and requirement on local authorities to facilitate access to Welsh medium education in accordance with the Learner Travel (Wales) Measure 2008 and their Strategic Planning for Welsh in Education. • Include a section in the strategy about the responsibilities of relevant organisations to comply with Welsh language Standards in accordance with Welsh Language (Wales) Measure 2011. • We agree with the connection between the Welsh language wellbeing and the following objectives: • Improve community connectivity which have been designed and planned well, and promoting more equal opportunity for all citizens • Protect and improve the uniqueness of our landscapes and historical environment, historical assets and their locations. • Contribute to the well-being of the Welsh language, culture and heritage in the future • Create communities that are safe, sustainable, balanced and co-ordinated in rural and urban areas • Promote sustainable economic growth, range and competitiveness of businesses • Establish a strong tourism economy, by sensitively taking advantage of environmental, cultural and leisure assets <p>Recommendation</p> <p>Connect the well-being of the Welsh language aim with the following objectives:</p> <ul style="list-style-type: none"> • Improve the population's physical and mental health and well-being and reduce health inequalities to create a healthier Wales <p>The Wales Transport Strategy could offer and opportunity to reduce isolation and encourage the development of integrated and habitable communities by providing for inclusive public transport which would allow the same access to everyone</p>	
<p>The document has a strong public transport focus and, as such, has a reasonably comprehensive coverage at a National Level. However, there is no mention of the various regional level policies produced by the transport consortia in the period to 2014.</p>	<p>Noted</p> <p>Agree, Wales freight Strategy added to the Scoping Report.</p>

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However, freight transport related policies have been ignored and this is then reflected in the final review table. Looking at Appendix A, the Wales Freight Strategy is an obvious omission. If looking at regional level strategies too, then the Marches and Mid Wales Freight Strategy (2018) should also be included.		
Yes we do and we agree that the WTS should be shaped to help deliver social, economic, environmental and cultural benefits that are consistent with the seven goals of the Wellbeing of Future Generations Act		Noted
Q2	Do you agree with the sustainability issues that we have identified? Are there additional issues and opportunities that the ISA should consider? If so, what are they?	
So far as I can understand them...		Comment noted
<p>Long term, people need to be able to feel able to wean themselves off driving their car everywhere. I think there should be safer cycle paths, providing more joined up routes.</p> <p>I also feel there should be more incentives to make greener choices. I personally would give up my car if this was a feasible option, but it can be impossible to get anywhere that is only a 20 minute drive away - by the time you've got the multiple buses there it's time to get the last bus home... I appreciate that running bus services must be expensive, especially if they're not used much, I also feel that bus prices per year should not equate to more than it costs to run a car (including petrol)</p>		Agreed, comment noted
<p>In the Opportunities section for A Prosperous Wales there's potential to mention the ability to support employment through the promotion and support for active tourism e.g. considering the designation of the National Cycle Network as a strategic transport facility which could be adopted by LAs, and expanded and funded to encourage cycle/active tourism with appropriate links to the public transport network. This should also include mention of the potential to introduce additional green infrastructure as part of future transport proposals (biodiversity is mentioned but this should be explicitly stated as well) to support placemaking as well as biodiversity, flora, and fauna. Consider mention of opportunities for inclusion of SuDS approach to reduce impact of new schemes on flood risk. Should this not this refer to road users not just drivers, assuming that the casualties of road accidents are not just drivers. For opportunities, consider inclusion of reduction in unnecessary short distance single-occupancy car journeys to reduce risk to NMUs</p>		<p>Comment Noted</p> <p>Added National Cycle Network and active tourism to Opportunities</p>
The Town Council agrees with the what the ISA should consider and the plan for taking policy forward as set out below subject to our comments on 'transparency and clear aims and objectives'		Support noted

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<p>Yes we do. We recognise that there are sustainability issues associated with the economy, the climate, air quality, noise, biodiversity, flood risk, geology and soils, the water environment, minerals and waste, welsh language, landscape and townscape character, the historic environment and our other cultural heritage and assets</p>	<p>Support noted</p>
<p>In terms of climate change, we're not sure whether current carbon reduction targets are stated and explained in detail: there is a need for sectoral analysis of transport modes and their capacity to change carbon outputs by greater efficiency and new technologies, and the capacity to question sectoral commitments and trajectories</p>	<p>Comment noted</p>
<p>MAGOR (Magor Action Group on Rail) have been lobbying for seven years to open Magor & Undy Walkway Station. This would be the first dedicated 'Walkway Station' to be purpose-built in 100 years. It would be a first for Wale/UK – positioned and designed to allow the majority of residents to walk or cycle to it (with only drop-off and disabled-parking facilities for cars, but assuring bus integration). The station would have the potential to remove up to 100,000 car journeys per year off the B4245. The road carries circa 11000 vehicles per day. The area is in a pollution hotspot. Most of this traffic passes three primary schools. Therefore, the opening of Magor & Undy Walkway Station is an unmissable opportunity for this community, of what will be 10,000 in the next few years. Hence -</p> <ul style="list-style-type: none"> • Creating the conditions within which air quality can be protected and improved where necessary. • Encouraging a reduction in the negative effects of transport on local air quality. • Reducing the likelihood of new Air Quality Management Areas being required through transport initiatives. • Creating the conditions within which potential emissions from traffic and industry may be reduced. • As far as is possible, ensuring that the most vulnerable communities are not disproportionately affected by poor air quality. 	<p>Comment noted</p>
<ol style="list-style-type: none"> 1. An interim version of the 2019 SoNaRR is available and provides more up to date information than the 2016 version cited in the consultation document (section 4.2 and 4.3.1). 2. As part of the rural-proofing of the document it is important to recognise the needs of tourists and leisure users in rural areas. The population of the National Parks is more than doubled during busy holiday periods with visitors which are a crucial element of the local economies. The transport needs of visitors and leisure users differ greatly to those of the usual resident population and high numbers of visitors to popular, natural tourist attractions – mountains, rivers, beaches - has significant impacts in terms of congestion, impact on local communities and the environment. 	<p>Comments noted</p> <p>SoNARR interim report added</p> <p>Added opportunity to provide transport connections to National Parks</p>

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<p>3. Town centres are changing and are likely to experience significant change following the current Covid 19 crisis with regular news of retailers going out of business. These areas need redefinition and repurposing. Our transport systems are set up to bring large number of people into these areas from suburbs or countryside for education, work, retail, health etc but the switch to home-working combined with the short-term cautionary approach of only using public transport where necessary is having an impact on behaviours and choices – some of which may endure into the longer term.</p> <p>4. Improved access may not always mean ‘more’ – it should be ‘appropriate’ in terms of volume and type – and so may mean a shift of mode rather than an overall increase in some places. Examples would be town and city centres and popular tourist attractions (including natural attractions).</p> <p>5. E-bikes and e-scooters need to be taken fully into consideration.</p> <p>6. Opportunity to improve access to valued landscapes, townscape and viewpoints should ensure that all Wales communities have integrated services to connect them with their protected landscapes with further opportunity to promote awareness of cultural heritage and cultural education centres.</p> <p>7. Table 3.2 omits to recognise the significance of connecting Wales’ population with their National Parks thereby losing the contribution they bring to national well-being</p>	<p>During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.</p>
<p>The Association agrees with the what the ISA should consider and the plan for taking policy forward as set out below subject to our comments on ‘transparency and clear aims and objectives’:</p>	<p>Support noted</p>

Integrated Sustainability Appraisal Response Log			Arcadis Response
<div><div>Key Stages in ISA Process</div><div><div>ISA Scoping</div><div>ISA of WTS Options</div><div>ISA of Draft and Final WTS</div><div>Monitor Significant Effects</div></div></div>		<div><div>Key Stages in WTS Process</div><div><div>Evidence gathering and stakeholder engagement</div><div>Develop and consult on main issues, options and preferred option</div><div>Prepare Draft WTS and consultation</div><div>Prepare Final WTS for Assembly consideration</div><div>Publish WTS</div></div></div>	
<p>The Scoping Report obviously needs to be mindful that the environmental, social, economic and cultural baseline from which the sustainability information is developed is an ever evolving dataset, and as the WTS has 25 year horizon, many factors can and will influence its development and require amendment during that period. e.g. impact of COVID</p>			<p>Agree, Comment noted</p> <p>During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.</p>

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Sadly there are some tainted views over the issues and opportunities referenced in table 4.1 of the document, particularly the understanding of minerals issues. These are misleading and does not necessarily reflect Welsh Government policy	Noted. Table 4.1 has been refined further.
<p>We certainly support the broad thrust of the analysis presented in Chapter 4. We agree with the importance of understanding the economic, social, cultural and environmental characteristics of Wales in order to assess the impacts of the WTS.</p> <p>We particularly welcome the ISA's recognition of climate change and ecosystem resilience as "overarching considerations" in preparing and assessing the new WTS (Section 4.3). We very strongly endorse the sentiment that "The WTS could help to lower greenhouse (gas) omissions by promoting active travel and ULEVs as well as implementing the sustainable transport hierarchy:" However, we think the key need, to reduce the growth of motor traffic, should be explicitly identified and endorsed. As regards the summary of key issues and opportunities for the WTS to address (as set out in table 4-1), we make the following comments on points of detail:</p> <p>Well-being goal 1: A prosperous Wales</p> <p>The list of 'key issues' needs to include the economic disbenefits of congestion due to a transport system which is over-dependent on motorised road transport after many decades of failure to plan for and invest adequately in healthy and sustainable alternatives (i.e. walking, cycling and public transport). The 'opportunities' column should include the opportunities:</p> <ul style="list-style-type: none"> · To redesign roads, streets, junctions and public spaces to be safer and more attractive for walking and cycling; · To reallocate road-space in favour of transport modes that make more efficient use of that space (i.e. walking, cycling and public transport); · To improve the integration of walking and cycling with public transport services, enabling more people to use clean and healthy travel for the whole of longer door-to-door journeys; · To reduce the need to travel through better planning, from broadband investment to land-use policies which concentrate new developments where they facilitate shorter journeys and/or journeys that can be more easily be made by walking, cycling and public transport. <p>Well-being goal 2: A resilient Wales</p> <p>We agree with both the 'issues' and 'opportunities' identified.</p>	<p>Support and comments noted. noted</p> <p>Agree, need to reduce the growth of motor traffic added</p> <p>Agree, congestion added to issues for A Prosperous Wales</p> <p>Opportunities to reduce congestion added</p> <p>Support noted.</p>

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<p>that the number of friends and acquaintances people have among their neighbours correlates with the levels of motor traffic on their streets. An overview of these references and other related literature is available at https://discovery.ucl.ac.uk/id/eprint/1540724/1/Street%20Mobility%20Toolkit_What%20we%20know.pdf.</p> <p>It follows that:</p> <ul style="list-style-type: none"> · The 'issues' column should highlight the isolation felt not just by people in rural areas (penultimate bullet-point), but also those living on roads with fast or heavy traffic. · The 'opportunities' column should highlight the potential to overcome this isolation by improving provision for journeys on foot or by cycle, both utilitarian (active travel), and for leisure (active recreation). <p>The 'key issues' column includes the statement "more efforts should be made to provision (sic) the safety of drivers as much as possible". This is wholly inadequate and fails to recognise settled Welsh Government policy to reduce injuries to all road users - not just drivers. UK road casualty data is sophisticated and detailed; the simplistic and erroneous statement that "the number of deaths on the road is remaining consistent (sic) year to year" does not do justice to the readily available statistics. The current WG targets for 2020 are a 40% reduction in casualties since 2013; progress is way off target for two of the three categories.</p> <p>Casualty rates amongst pedestrians and pedal cyclists are similar to each other - but around ten times higher than for car occupants, per billion miles travelled (Pedal Cycling Road Safety Factsheet: March 2018, UK Department for Transport). In striving for a 'more equal Wales' the new WTS needs to address this disparity proactively.</p> <p>Importantly and in addition, road safety is more than the avoidance of being injured. It must also address the perception of risk of harm and freedom from harm and its manifestation at the individual, community and societal levels (Welsh 20mph Task Force Group Final Report, July 2020, p8). The proposed 20mph default speed limit in Wales will improve overall well-being in our communities, but its main aim is road danger reduction (a much preferable, broader, aim than casualty reduction). The new WTS should recognise this.</p> <p>Well-being goal 5: A Wales of vibrant culture and thriving Welsh language</p> <p>The 'issues' column should recognise that road traffic (including noise) and parking can blight the character of landscapes, townscapes, and the settings of environmental, cultural and heritage assets.</p>	<p>Issue of cars travelling through communities promoting isolation added and opportunity added</p> <p>Other road users added to issues</p> <p>Agree, comment noted</p> <p>Agree, comment noted.</p> <p>Motor traffic and parking can blight landscape and townscapes added to issues and opportunities columns</p>

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<p>The 'opportunities' column should note the opportunities to reduce motor traffic, including the blight of noise and parking, through the promotion of sustainable and active travel, and specifically the opportunities to travel to, or through, Wales's environment and landscapes, or its heritage and cultural assets, by walking or cycling. The Welsh Government has set up working groups to discuss proposals (set out in 'Taking forward Wales's Sustainable Management of Natural Resources') to open up most footpaths as multi-user trails. There is an opportunity to blend Rights of Way Improvement Plans with the Active Travel Network Maps (ATNMs), extending the latter out into surrounding areas. This would not only increase opportunities for active travel (e.g. for school pupils in rural areas to walk or cycle safely to schools in nearby towns) but also for active recreation, (e.g. allowing families living in those towns, or visitors staying in those towns, to get out into the surrounding countryside on foot or by cycle, without needing to drive to 'honeypot' locations. The same approach could also reduce car dependence in the most popular areas for outdoor recreation. An enhanced National Cycle Network, adopted as an integral part of the Welsh national transport infrastructure, has a large part to play</p> <p>Well-being goal 6: A globally responsible Wales We agree with both the 'issues' and 'opportunities' identified.</p>	Support noted
Yes, the key sustainability issues have been identified	Support noted
We welcome the comprehensive summary of the key issues and opportunities that the ISA should consider	Support noted
<p>Generally yes. Sustainability in the wider context needs to be considered as there many factors linked to environmental, social, economic and cultural that need consideration.</p> <p>The current pandemic now also needs consideration in regard the wider "sustainability" context</p>	Support and comment noted
<p>We welcome the wide range of issues that the ISA has identified and support this holistic approach in line with the Well-Being of Future Generations Act. As above, we think there is an opportunity to contribute towards an increase in 'eco-literacy' in Wales through inclusion of reference to the Nature Recovery Action Plan, which would also support those considering and implementing the WTS to meet the Environment Act Section 6 duty to maintain and enhance biodiversity and ecosystem resilience.</p> <p>Under Objective 3 - To support sustainable economic growth and diversity, there is an opportunity to consider how the WTS might support the foundational economy, which provides opportunities for local employment and stronger communities. As the First minister has noted, the foundational economy can'</p>	<p>Support and comment noted</p> <p>Nature Recovery action plan added</p> <p>Comment noted</p>

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<p>help keep money in communities, create better employment conditions and increase prosperity across Wales’.</p> <p>It would be useful to know how the WTS will consider the goal of a Globally Responsible Wales and relevant issues here might be consideration of ethical and sustainable supply chains, particularly if there is a prospect that items could be sourced from vulnerable communities or habitats internationally and issues of Modern Day Slavery.</p> <p>We recommend that the role of community engagement and empowerment in delivering positive outcomes for sustainable transport, health, wellbeing and inclusion, is recognised in the WTS and explored in the ISA. A range of research attests to the importance of community engagement and empowerment in achieving more sustainable forms of development, and sustainable transport behaviours. Our experience, across our member organisations, of working with communities in Wales on transport matters also shows the range of positive outcomes that can be delivered, aligning with the Wellbeing of Future Generations Act. We would also raise the importance of community resilience, the benefits of which have been highlighted through the local response to COVID19.</p> <p>Empowering communities to be involved in the development and provision of local transport, and ensuring local knowledge informs developments and transport management and decision-making – going well beyond ‘consultation’ should be central to the WTS. Transform Cymru members have strong links with communities across Wales and the capability this provides should be used to inform and deliver plans. We are able and enthusiastic about advising further on this topic.</p> <p>Finally, there is little direct mention of those with disabilities or mobility impairments, which can be both physical and mental barriers to using the transport network (across all modes). It is important to separate these issues out so that they are not covered in a collective sense, which risks exclusion of those with specific needs</p>	<p>Comment noted</p> <p>Agree and advice noted</p> <p>Advice and comment noted</p> <p>Agree, Advice noted</p> <p>Physical and mental barriers of the transport network added to issues under A More Equal Wales</p>
<p>In exploring sustainability, the scoping report focuses on environmental resilience. We believe that community sustainability and resilience is another aspect that should be included here. Now more than ever, we understand the importance of community resilience and this has relevance to any transport strategy. In particular, we believe that communities should be involved in shaping policy and developing</p>	<p>Agree, comment noted.</p>

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<p>solutions, preferably through co-production rather than traditional methods of consultation where people are generally asked if they agree with things that are being proposed. The Well-being of Future Generations Act commits public bodies to principles of involvement and collaboration however, whilst reference is made in the consultation document to this, it is unclear how it will be realised. Our preferred approach would involve taking steps to listen and understand people's priorities and objectives i.e. What do they want transport to achieve for them? Why do they need transport services? Third sector organisations have strong links with communities with community transport in particular having in-depth knowledge of local transport needs and this should be recognised with steps taken to ensure expertise is fully utilized in the development of this work with continued engagement as the strategy is delivered</p>	<p>Agree, further detail on the Third Sector and community transport added.</p>
<p>We generally support the sustainability issues that have been identified. However, we recommend that the following additional issues and opportunities should be considered by the ISA: Table 4.1. Wellbeing Goal: A Resilient Wales Opportunities for the WTS to address Covid19 • We recommend that the evidence and assumptions underpinning the Wales Transport Strategy, need to be reviewed, to take into account post Covid19 circumstances as set out in the recent Welsh Government Ministerial letter requesting a review of the evidence base underpinning local development plans. Climate and Flood Risk • Consideration of the existing transport infrastructure at the coast and sections that may be affected by coastal adaptation – to ensure that the significant infrastructure in the coastal zone is in a sustainable position and is secure in the long term. Shoreline Management Plans have a key role here. • Coastal erosion: There have been numerous coastal flood/erosion events in recent years which have affected coastal roads and railways, examples are included in the 2013/14 storms Coastal Flooding Review: https://naturalresources.wales/evidence-and-data/research-and-reports/reports-evidence-and-data-on-flooding/wales-coastal-flooding-review-phase-2/?lang=en. We recommend coastal erosion is included as an additional consideration for the WTS to address.</p>	<p>Agree, support and advice noted</p> <p>The impacts of Covid-19 added under A resilient Wales</p>
<p>Welsh version: Ceir cydnabyddiaeth yn y ddogfen ymgynghorol o'r cyfleoedd i hybu'r Gymraeg drwy'r Strategaeth Drafnidiaeth arfaethedig.</p> <p>Argymhelliad</p>	<p>This comment refers to the contents of the WTS, rather than the ISA.</p>

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<p>Cyflwyno dyhead y Llywodraeth i hybu'r Gymraeg drwy'r strategaeth yn glir: drwy gynyddu'r defnydd o'r iaith ar drafnidiaeth gyhoeddus, gwella mynediad at addysg a gwasanaethau Cymraeg, a hwyluso cyfleoedd economaidd a mynediad at weithgareddau cymdeithasol yn yr iaith</p> <p>English translated version</p> <p>The consultation document acknowledges the opportunities to promote the welsh language in the proposed Transport Strategy.</p> <p>Recommendation</p> <p>Presenting the Government's aspiration to promote the Welsh language clearly through the strategy: increasing the use of the Welsh language on public transport, improve access to education and Welsh language services, and facilitate economic opportunities and access to social activities through the medium of Welsh.</p>		
<p>Again, the summary of issues in Table 4-1 has a significant focus on passenger transport and there needs to be a greater recognition of freight transport users of the transport network. This would then also be reflected in the opportunities for the WTS to address. In Figure 4, the Port of Mostyn is omitted, which handles significant traffic for the energy sector (and especially offshore wind). Also, the map neglects to include the Swansea District line which does have a small number of passenger trains per day currently, with a proposal for a Parkway station currently being developed</p>		<p>Agree, advice noted.</p> <p>Freight transport added</p> <p>Port of Mostyn and Swansea District Line added to Figure 4</p>
<p>Yes we do. We recognise that there are sustainability issues associated with the economy, the climate, air quality, noise, biodiversity, flood risk, geology and soils, the water environment, minerals and waste, welsh language, landscape and townscape character, the historic environment and our other cultural heritage and assets</p>		<p>Support noted.</p>
Q3	Are there any particular topics or geographical areas of specific concern to you or your organisation?	
<p>I live in Torfaen and the north of the County continues to suffer from a lack of connectivity. For example there is a World Heritage Centre in Blaenavon that should attract much greater numbers of visitors than at present. I believe the lack of decent transport is wholly responsible for not just this but the general lack of employment and tourism opportunities in the area. People living in the area have to rely on the private car to access employment and retail venues.</p>		<p>This comment is focussed on the contents of the WTS, rather than the ISA.</p>
<p>North Wales</p>		<p>This comment is focussed on the contents of the WTS, rather than the ISA.</p>

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Little happening in North Wales. There is life north of Brecon!	This comment is focussed on the contents of the WTS, rather than the ISA.
The bus routes can be so poorly linked that it takes several hours and costs around £10 to make a journey that would take 20 minutes in a car (I'm thinking of Rachub to Llanberis). In a previous job, it used to be faster for me to cycle to work in Llanbedrgoch, Anglesey, than to get 3 buses, but meant I was exhausted before even starting a 2 day shift	This comment is focussed on the contents of the WTS, rather than the ISA.
Should make reference to addressing gender pay gap, as well as equal pay issues. No mention of regional connectivity	The gender pay gap, gender inequality, and regional connectivity is a key consideration of the baseline data and key issues and is reflected in the ISA framework.
Jacobs believes integration across the whole of the UK is of great benefit and would encourage Welsh Government to consider all linkages across borders in depth. This is particularly important in accommodating Brexit related issues across the Irish Sea	This comment is focussed on the contents of the WTS, rather than the ISA.
Public transport in North Wales and particularly Gwynedd has been decimated over the past 10 years. An integrated, sustainable network cannot be maintained commercially. Promoting services, in particular, providing network timetable booklets essential (well done Yns Mon and Conwy who still do). Competent bus operators should be fully involved in the process if issues such as Padarn and Express Motors are to be avoided	This comment is focussed on the contents of the WTS, rather than the ISA.
Yes there are. The ongoing Covid 19 pandemic has seriously damaged the Welsh economy and employment prospects. Short term interventions may need to be prioritised in order to support economically deprived areas. The WTS should be shaped to assist the development of Wales' national, regional and local economies including those that are largely dependent on recreation and tourism	This comment is focussed on the contents of the WTS, rather than the ISA.
We would cease arbitrary distinctions between strategic and non-strategic transport provision, and include all modes including active travel, recognising the pressing need to rebalance travel as means to achieve greater and more sustainable access to social, economic, and environmental services	This comment is focussed on the contents of the WTS, rather than the ISA.

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<p>Monmouthshire is a county that has relatively poor public transport links. Whilst this is particularly true of the more rural parts, it is also relevant to the Severnside corridor in the south of the county. In Severnside it is believed everyone has access to personal transport. This assumption deprives many people of all age-groups the connectivity to workplaces, education establishments, medical facilities and leisure pastimes</p>	<p>This comment is focussed on the contents of the WTS, rather than the ISA.</p>
<ol style="list-style-type: none"> 1. The three Welsh National Parks. 2. Please see the response to Q2 above. 3. Coastal adaptation is happening in some locations – eg. Newgale in Pembrokeshire. This will have significant implications for transportation and communication links in some locations 	<p>National Parks will be an important element of appraisals in the ISA. Coastal adaptation will also be an important element of appraisals in the ISA.</p>
<p>The geographical area of Mid Wales is rural with small communities. Public transport to these areas is important. A policy with reference to the retention of local buses is essential</p>	<p>This comment is focussed on the contents of the WTS, rather than the ISA.</p>
<p>Ceredigion is obviously supportive of the fact that 'welsh language' and 'rural proofing' impact assessments are to be included in the ISA process</p>	<p>Support noted.</p>
<p>In response to Table 4.1 and in particular page 28 – Minerals and Waste. Firstly, the author has a disappointing, rather archaic and possibly tainted opinion of the minerals industry, demonstrating an ill-informed understanding of the subject. This questions whether or not the document is “fit for purpose”. The section of the report fails to acknowledge the many and substantial benefits of a sustainable minerals industry in Wales, not just supplying the raw materials to build infrastructure, including transport infrastructure, but the significant opportunities to delivery biodiversity net benefit/net gain on a landscape scale. A steady and adequate supply of minerals is essential to deliver society’s needs and never more so has this been demonstrated, than in the recent Covid-19 crisis. This supply of minerals is essential to the economic health of the country. We seek clarification on the author’s statement that “extraction can be very damaging to the natural and human environment”. Indeed we challenge this perception most strongly and trust this is not a representative view of Welsh Government (WG). Through Planning Policy Wales (PPW), the planning system employs the principle of Buffer Zones, together with industry establishing known mitigation measures to ensure the effects of mineral operations on the environment are properly controlled. If WG is to deliver a green revival (infrastructure, energy, etc.), a steady and</p>	<p>Comment noted.</p> <p>The statement “extraction can be very damaging to the natural and human environment” has been removed by the author</p>

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<p>adequate supply of minerals and mineral products is essential. However, it must be stressed that the supply of minerals and mineral products cannot be assumed. It is important that their availability and deliverability should be properly planned when considering the long term objectives of the Wales Transport Strategy. Within this the proximity principle is important for minerals supply, but recognising the criticality of high specification aggregates to Wales' transport system and its wider economy. Further, the issues identified in this section appear somewhat conflicting. The first bullet point makes reference to "substantial resources", whilst the second bullet point refers to the "strain on limited resources". The report also fails to acknowledge the need to safeguard minerals resources from sterilisation from incompatible development. Mineral resources should be afforded the same level of consideration as other matters such as cultural heritage assets and landscape designations to ensure they remain available in the longer term. Once a mineral resource is sterilised, it becomes inaccessible for future generations</p>	
<p>Yes, we wish to see a modal shift in Wales to more environmentally-friendly forms of transport - that is to walking and cycling for short-distances and to public transport for longer distance trips. Walking and cycling offer important health and well-being benefits and contribute to the UK's and the WG's targets for cleaner air and net-zero carbon. This modal shift requires motor traffic reduction, so connects with strategies designed to facilitate a more local, circular or foundational economy, notably in the areas of economic strategy, spatial planning and broadband (e.g. the WG's Circular Economy Strategy). Spatial planning is particularly important for reducing dependence on private motorised travel. Planning policies need to support the aim of minimising the need to travel, by fostering self-contained developments, and/or by guiding development to locations where journeys can most easily be made by walking, cycling and public transport. Shorter journeys are not only less carbon-intensive in themselves, but are also more easily switched to these clean and healthy modes</p>	<p>This comment is focussed on the contents of the WTS, rather than the ISA.</p>
<p>Of key concern to Public Health Wales is the need to recognise the fact that transport, including access to different transport options, is linked to health, both directly and indirectly, in terms of ability to access health services. In addition, health related inequalities may be exacerbated or alleviated by transport systems, depending on the provision and delivery; Public Health Wales is always keen to assess provision of this type to ensure that inequalities are not exacerbated</p>	<p>Health inequalities has been covered in the PPP review, baseline data and is recognised as a key sustainability issue that will be addressed in the ISA.</p>
<p>Since its inception, sustainable development has been at the heart of the WI.</p>	<p>Agree, The WTS must place the necessary investment in public transport, particularly bus and</p>

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<p>One area where WI members find it difficult to be more environmentally friendly is transport. To mark the centenary of the WI in 2015, the NFWI undertook research with WI members. The WI at 100 Report found that while 63% of WI members use public transport to varying degrees, 46% of members say that their use of these services could improve as part of efforts to reduce environmental impact at household level. During the focus groups, members discussed the challenges in accessing public transport in rural areas. They highlighted 'scanty provision' and noted problems in accessing the services that were available, for instance where bus stops were located at a distance and on a road with no footpath.</p> <p>Decline in local bus services – In 2019, WI members passed a resolution calling on local and national governments to take action to address the decline in local bus services. The NFWI's Get on Board for a Better Bus Service campaign is currently taking forward this resolution. The campaign seeks to raise awareness of the importance of local bus services and empower members, WIs and federations to make the case for buses in their local communities.</p> <p>Rural communities - We are concerned about the current provision of bus services in rural communities. Without access to a local bus service, there is concern that those who do not have access to a car are unable to reach local services, particularly those living in rural communities. This can lead to social isolation and impact on the health and wellbeing of individuals who rely entirely on public transport. With 14% of the population of Wales without access to a car, it is vital that communities across Wales have access to affordable and reliable bus services that meet their needs in order to help reduce inequalities and social exclusion.</p> <p>Climate change – Climate change is a key area of concern for the WI. The public transport sector has a key contribution to make in supporting the Welsh Government to reach its ambition of net zero by 2050.</p> <p>Impact of Covid-19 – As the recovery begins, it will be important to build on the increase we have seen in active travel and also to give people the confidence to use public transport in order to help reach the modal shift that is required to cut our carbon emissions and tackle climate change.</p> <p>Provision of bus services that meet the needs of women – Cuts to bus services disproportionately impact on women. In addition, the provision that is available often does not support the travelling patterns of</p>	<p>removing barriers to transport. The ISA will help to ensure that public transport, including regional, rural/urban, and gender inequalities are tackled.</p> <p>During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation</p>

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<p>women. More women than men work part-time and often women also have caring responsibilities that they fit around their work commitments. To achieve long term behavioural change , there needs to be investment in bus services to ensure that the provision meet the needs of women and the wider public in order to address the continuing decline in passenger numbers.</p>	
<p>The WTS needs to fully recognise the regional and local variations and ensure that access to the most deprived areas is critical to ensure there are opportunities to increase prosperity within these communities. Good, affordable transport links and infrastructure are crucial</p>	<p>This comment is focussed on the contents of the WTS, rather than the ISA.</p>
<p>We stress the importance of inclusion for all communities and groups across Wales. The transport network typically supports those who are 'easy to help' and the strategy needs to ensure that all people can access services and facilities regardless of financial status, location, background or ability. We are especially concerned about the impact of COVID19 on transport services, in particular rural services and urge that the WTS explores all options to mitigate this impact and mobilise all opportunities to ensure communities remain connected.</p> <p>Again, we point to the cross-cutting nature of this strategy and the impact other policy areas, strategies and plans could have on its success. For example, national planning guidance should ensure that transport is considered in the initial stages of service design to ensure people can access facilities without needed to rely on a private vehicle which a substantial number of people across Wales do not have access to. The failure to consider access early on in service planning further exacerbates social exclusion and poverty which is unacceptable.</p> <p>In terms of safety, we note that the benchmarking data includes safety 'on public transport' but suggest that access points must be made safe also which includes lighting for car parks and entry ways. In addition, we stress the importance of ensuring that children are able to travel safely across all modes which would include ensuring provision for active travel with segregated cycle-ways and walking routes that would increase levels of confidence for those under 18 and their parents.</p> <p>The scoping report references the need to tackle 'driver stress' which could be reduced through reducing levels of private car use and tackling congestion. Evidence shows that journeys combining active travel and public transport are good for mental health and wellbeing, and even enhance people's productivity at work. We therefore recommend a strong focus on influencing behaviours and achieving modal shift.</p>	<p>This comment is focussed on the contents of the WTS, rather than the ISA.</p> <p>Advice noted Agree, Objective 1 decision aiding question amended to</p>

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<p>There are further opportunities to tackle driver stress through education to enable a better understanding of new active travel facilities from a driver perspective. The Highway Code is likely to be updated in the near future to help with this. The number of killed and seriously injured road users has remained stagnant for some time; whilst the scoping report recognises that efforts need to be made to reduce this, the WTS needs to include clear and achievable goals for road safety across all modes.</p> <p>We welcome the recognition of gendered patterns in transport use and the typical needs of women. We suggest however, that the scoping report could be strengthened with the inclusion of these aspects:</p> <p>1) Gender pay – we welcome the reference to gender pay and importance of taking steps to reduce the gap within the transport sector. We would also advise that transport has a role to play in making sure work pays for women. For example, a paper published by Sustrans and Chwarae Teg in 2013 highlighted the significant difference in pay for full and part-time workers, demonstrating that travel discounts, benefitting those travelling more than 3 days, were aimed at the group of people already financially better off not just because they work more hours but also because the rate of pay for part-time workers is lower on average. As such, the strategy could look to ensure fair fares for part-time workers, ensuring they can purchase multiple tickets for use over a period of time. A more recent article from Campaign for Better Transport calls for flexible season tickets for part-time workers, recognising the change in working patterns created by COVID-19.</p> <p>2) Travel patterns – whilst the scoping report recognises the different ways men and women use transport, the data provided in the baseline report looks at home to work travel suggesting that this is a direct journey. For many parents, this journey is far more complex with women more likely than men to go to work via school (7%), escorting others (5%) or other purpose (2%). ‘Trip-chaining’ as it is known, is attributed to part-time workers more than full-time and women more than men. The rate varies depending on the age of the child but in a household with a child under the age of 5, a working woman will increase her trip-chaining by 54% compared with 19% for men.</p> <p>Finally, we note that the third sector is referenced in the report but require further clarity of the role identified for the sector. As a coalition that has significant representation of third sector organisations, we would advise that authorities should utilise the expertise of these organisations in engaging with</p>	<p>“driver stress and potential stresses caused to other road users”</p> <p>Support and advice noted. It is not expected that the pay gap will be within the Scope of the WTS.</p> <p>Gender pay, travel patterns and trip chaining have been discussed at length in the ISA Scoping Report documents and will be an important consideration of the appraisals.</p>

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<p>communities and drawing on technical expertise, and that the community and voluntary sector as a whole could be involved and empowered to play an important role in the WTS.</p> <p>We also note that whilst there is reference in the scoping report to bus, rail and active travel, there is no mention of community transport which we believe is a significant oversight. The third sector plays a key role in the provision of transport to many communities and individuals who face barriers to access and the impact and potential of these organisations should be recognised in the scoping report. We are happy to advise further on this.</p>	<p>The impacts on the Third Sector will be assessed as part of this ISA.</p> <p>Agree, further detail on the Third Sector and community transport added.</p> <p>Community transport added to Objective 2</p>
<p>Transport for rural communities is a particular concern for us as we know what many communities are poorly served by public transport and community transport services play an important role in mobilising these communities. In some of these areas, there are no transport options at all aside from private cars and that includes no local taxi service. Where there are options, the infrequency of bus for example or cost of taxis creates barriers for those who need to access services outside of their local community. Rural bus routes were already insecure and the current public health crisis (and resulting financial crisis) makes these services especially vulnerable. The future has to provide a focus on sustainable solutions developed at a local level in partnership with communities to resolve the challenges faced by these communities.</p> <p>Following COVID-19, we anticipate a significant reduction in commercial bus and coach operations which will widen the gaps in transport provision across bus networks, school transport and leisure travel. The importance of the third sector in addressing this challenge needs to be recognised in the Wales Transport Strategy. For decades, the sector has delivered socially necessary transport, facilitating mobility through shared modes such as demand-responsive bus, community car schemes, moped hire and more. These are bespoke services developed by community organisations in response to local</p>	<p>This comment is focussed on the contents of the WTS, rather than the ISA.</p> <p>Community Transport added to Objective 2</p> <p>Agree, further detail on the Third Sector and community transport added.</p>

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<p>needs. Through CTA's Connecting Communities in Wales project, CTA has supported the sector to secure £2m additional funding for transport services for an investment of £300k. There is clear potential to develop and grow the community transport sector which would allow many of the problems we face in transport today and are likely to meet in the future to be addressed in a sustainable and inclusive manner.</p> <p>Another concern for us is accessibility for vulnerable groups and those with disabilities. Much of the public transport network serves those who are able-bodied and 'easy to help' which leaves large groups of people excluded and unable to access key services, facilities and social networks, all of which are essential for a basic quality of life. Having access to transport allows people to live independently for longer and in particular, community transport services facilitate this. This is a pressing matter given that we have an ageing population and we must ensure a framework for provision that recognises the needs of these groups and the cost savings for health that are associated with transport provision.</p> <p>A further way of ensuring equity of provision would be for minimum standards of public transport provision to be adopted across Wales, ensuring that good public and community transport is regarded as something that all citizens have a right to wherever they are, moving away from the current situation where levels of service are dictated by a host of circumstances (e.g. historic factors and commercial interests). We suggest that this should be considered to ensure quality of life for all.</p>	
<p>Of key concern to Public Health Wales is the need to recognise the fact that transport, including access to different transport options, is linked to health, both directly and indirectly, in terms of ability to access health services. In addition, health related inequalities may be exacerbated or alleviated by transport systems, depending on the provision and delivery; Public Health Wales is always keen to assess provision of this type to ensure that inequalities are not exacerbated</p>	<p>Comment noted.</p>
<p>Climate Emergency Page 22 Page 22 (Section 4.3.1) of the Integrated Sustainability Appraisal of the Wales Transport Strategy Draft Scoping Report (ISA Report) refers to climate change. We consider that the statement of reducing Wales' contribution towards the causes of climate change (such as greenhouse gas emissions) will reduce the magnitude of climate change impacts needs to acknowledge that even if Wales became carbon neutral, the impacts of climate change would still be felt. We recommend that the paragraph should be amended to recognise the need for climate change adaptation in addition to other measures to help reduce the magnitude of impacts. The Wales Transport Strategy should identify what adaptation measures may be needed to ensure long term resilience.</p>	<p>Agree, advice noted.</p> <p>Adaptation is an element of resilience, which is discussed in length in 4.3.1 just before the text on the impacts of climate change.</p>

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<p>Welsh version</p> <p>Mae angen gwella gwasanaethau trafnidiaeth mewn ardaloedd gwledig sydd â dwysedd uchel o siaradwyr Cymraeg. Byddai cysylltiadau trafnidiaeth effeithiol yn yr ardaloedd hyn yn sicrhau mynediad dirwysr at wasanaethau allweddol yn y Gymraeg, yn creu cyfleoedd economaidd yn yr ardaloedd yn ogystal â hwyluso mynediad at weithgareddau cymdeithasol yn yr iaith.</p> <p>Mae gan y Gymraeg statws swyddogol yng Nghymru, ac mae dyletswydd ar sefydliadau cyhoeddus i hybu'r iaith a darparu cyfleoedd i bobl ei defnyddio lle bynnag bônt yn byw. Dylai darpariaeth trafnidiaeth yng Nghymru hybu mynediad rhwydd at ganolfannau addysg, gwasanaethau, gweithleoedd a gweithgareddau cymdeithasol yn y Gymraeg ar draws Cymru</p> <p>English translated version</p> <p>There's a need to improve transport services in rural areas which have high densities of Welsh speakers. Effective transport links in these areas would ensure unobstructed access to key Welsh medium services, created economic opportunities in these areas together with facilitating access to social activities in Welsh.</p> <p>The Welsh language has official status in Wales, and organisations have a duty to promote the language and provide opportunities for people to use it wherever they live. Transport provision in Wales should promote easy access to educational centre, services, workplaces and social activities in Welsh throughout Wales.</p>		<p>Noted. This comment refers to the contents of the WTS rather than the ISA.</p> <p><i>'Contribute towards an improvement in the accessibility of Welsh medium health/welfare services?'</i> has been added as a decision aiding question in the ISA Framework.</p>
<p>Yes there are. The ongoing Covid 19 pandemic has seriously damaged the Welsh economy and employment prospects. Short term interventions may need to be prioritised in order to support economically deprived areas. The WTS should be shaped to assist the development of Wales' national, regional and local economies including those that are largely dependent on recreation and tourism</p>		<p>Comment noted.</p>
Q4	Are there any changes you consider should be made to the ISA Objectives or Questions?	
<p>There should be more emphasis on economic development</p>		<p>Economic development forms an important element of the ISA including the ISA Framework.</p>
<p>written in simpler language so that I may understand it</p>		<p>Comment noted</p>
<p>"Sustainably manage natural resources and tackle the causes of climate change" -....."A globally responsible Wales"</p> <p>I agree with this whole heartedly, but feel my previous suggestions would make this more genuinely achievable</p>		<p>Support noted</p>

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<p>The ISA objectives seem to support a more integrated approach to transport infrastructure (so Metro within a street environment rather than segregated)</p> <p>The ISA objectives have nothing in respect of affordability. Objective One - suggests a car-focussed approach and that only drivers get stressed on the transport network. This should be reworded to highway users if specifically referring to road users but should apply equally to all transport users in Wales (particularly for public transport users considering their lack of control over travel consistency and in the aftermath of COVID 19)</p>	<p>Advice noted</p> <p>Agree, Objective 1 decision aiding questions amended to “driver stress and potential stresses caused to other road users”</p>
<p>The Town Council supports the policy to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development. This will no doubt be difficult in some areas of transport provision but should be an objective.</p> <p>We would add that environmental issues should be considered at all stages, but they should not be the overriding objective. Welsh Transport Policy needs to be about enhancing services as a priority but taking environmental matters into consideration</p>	<p>This comment is focussed on the contents of the WTS, rather than the ISA.</p> <p>As is best practice for ISA, the economic, environmental and social themes of sustainability are equally weighted and cross-cutting. The ISA accounts for sustainability on the whole, with no theme overriding the other.</p>
<p>Yes there are. The 13 ISA objectives would appear to be equally weighted. Perhaps more weight should be placed on economic objectives at least in the short to medium term. Social, environmental, and cultural objectives are very important but major (transport) interventions are costly, have a long lead in time and need to be affordable, effective and deliverable</p>	<p>The ISA accounts for sustainability on the whole, with no theme overriding the other. Placing greater weight on economic objectives would risk significant adverse effects on environment or social themed Objectives, which would be unacceptable and not best practice.</p>
<p>We're continuing to learn more about the ways in which the Covid-19 pandemic will continue to change the ways in which we live, whether in work or in accessing services and products, especially public</p>	<p>Comment noted</p>

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services. This needs more consideration of proposed outcomes, evidence collecting, and measures adopted for monitoring	During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.
To make sure that schemes that already fit the ISA are promoted for early adoption and used as a model for the future	Comment noted
<p>1. When considering access to health and social care services – take into account the needs of those needing to visit/support users of these services to reduce social isolation. The need to improve access to many health-care services in rural areas is hindered by the WG policy to reduce the number of hospitals which requires patients to travel greater distances – in West Wales this can involve round trips of 70 or 80 miles – with no realistic public transport options. For those supporting those having treatment this is a significant barrier.</p> <p>2. Access to employment – in rural areas the lack of affordable housing requires many people to travel long distances to their place of (typically low-paid jobs) as they cannot afford to live in the same locality. This is particularly true for those working in the tourism sector.</p> <p>3. Table 5.3 should include the need for the Welsh population to have access to and travel around the three Welsh National Parks by means of inexpensive and accessible public transport, walking and cycling (including e-bikes and e-scooters)</p>	<p>Agree, Comment noted</p> <p>Agree, access to national parks included in ISA Objective 1 decision aiding questions.</p>
<p>The Association supports the policy to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.</p> <p>This will no doubt be difficult in some areas of transport provision but should be an objective</p>	Support and comment noted
<p>The Committee supports the policy to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.</p> <p>This will no doubt be difficult in some areas of transport provision but should be an objective</p>	Support and comment noted
Ceredigion believes that the WTS should be a mechanism for contributing to and promoting social, economic and environmental stewardship/sustainability, and suggests that rather than seeking to	Advice and comment noted

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'encourage' within some of the objectives these should be amended to 'contribute', 'enable', 'promote', 'ensure' and a more pro-active emphasis given to its role	Agree, language amended to more pro-active words
Yes, the issue of minerals, mineral products and minerals safeguarding should be appropriately considered in the development of objectives, as outlined above	Comment noted
<p>We support the objectives proposed in Table 5-3, but we suggest slightly rewording one of them, and adding one more.</p> <p>The amendment is to the wording of objective 6. In our opinion “Create the conditions within which greenhouse gas emissions can be reduced” is too indirect. It should simply be “To reduce greenhouse gas emissions from transport”.</p> <p>The additional objective we wish to propose is an explicit one “to reduce the volume of road traffic.”</p> <p>The ‘decision-aiding questions’ for this additional objective could be whether the WTS (or a reasonable alternative) would:</p> <ul style="list-style-type: none"> · Reduce the need to travel · Reduce journey distances · Increase the options available for people to meet their travel needs by walking, cycling and public transport. <p>N.B. An alternative would be to add these ‘decision-aiding questions’ to the objective for reducing greenhouse gas emissions. However we believe it would be preferable to include this additional objective explicitly, to highlight the cultural and societal changes necessary.</p> <p>In addition, we wish to propose a number of changes of detail to the existing proposed Objectives:</p> <p>i) Under Objective 1 (relating to mental and physical health, and tackling health inequalities), in the 3rd bullet point, after “promote healthy lifestyles through...”, we suggest deleting the remaining words of this bullet-point and replacing with “the promotion of active travel”.</p> <p>ii) Again under Objective 1, we suggest deleting the fifth bullet point “improve road safety” and replacing it with “reduce road danger” to take account of the much broader concept which better fits the well-being goals.</p>	<p>Support and advice noted Agree Objective 6 amended to be Reduce Greenhouse Gas Emissions from Transport</p> <p>Reduce the volume of road traffic added to Objective 6</p> <p>Promotion of active travel added to Objective 1</p> <p>Reduce road danger added to Objective 1</p> <p>Third bullet point replaced with “Improve the safety, convenience and accessibility of walking and cycling routes so that walking and cycling are seen as realistic, safe and attractive options for people of all ages, backgrounds and abilities”.</p> <p>Agree – Added education and training to first bullet point of Objective 3</p>

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<p>iii) Again under Objective 1, we suggest deleting the sixth bullet point; its purpose will be covered in the previous point about road danger</p> <p>iv) Under Objective 2 (relating to social cohesion and equality), we suggest replacing the 3rd bullet point with the following question:</p> <ul style="list-style-type: none"> · [Will the WTS] “Improve the safety, convenience and accessibility of walking and cycling routes so that walking and cycling are seen as realistic, safe and attractive options for people of all ages, backgrounds and abilities”. <p>v) Under Objective 3 (relating to sustainable economic growth and diversity), after the word “employment”, we suggest inserting “education and training” before “opportunities”.</p> <p>vi) Under Objective 4 (relating to Welsh culture), we suggest adding “sustainable and” before “resilient”.</p> <p>vii) Under Objective 8 (relating to air quality), we suggest replacing the words of the final bullet-point, to say:</p> <ul style="list-style-type: none"> · [Will the WTS] “Reduce the disproportionate impact of poor air quality on the most disadvantaged and vulnerable communities?” The current wording is unacceptably weak. <p>viii) Under Objective 9 (relating to the protection and enhancement of landscapes and townscapes), add:</p> <ul style="list-style-type: none"> · [Will the WTS] “Reduce the adverse impacts of road traffic and parking (e.g. visual intrusion and noise) on Wales’ valued landscapes and townscapes?” <p>ix) Under Objective 12 (relating to the sustainable use of natural resources), add</p> <ul style="list-style-type: none"> · [Will the WTS] “Increase opportunities to enjoy Wales’ natural environment and rights of way network through all forms of active travel?” <p>There is also a need to clarify the weighting of these objectives and the questions under each objective - and how any such weighting process would operate. Given the statement (on p21) that climate change and ecosystem resilience are “overarching considerations” we suggest that the objectives relating to these considerations are given additional weight.</p>	<p>Agree – Added sustainable before resilient in first bullet point of objective 4</p> <p>Agree – replaced final bullet point of objective 8 with “Reduce the disproportionate impact of poor air quality on the most disadvantaged and vulnerable communities?”</p> <p>Agree – added Reduce the adverse impacts of road traffic and parking (e.g. visual intrusion and noise) on Wales’ valued landscapes and townscapes? to objective 9</p> <p>Agree – added “Increase opportunities to enjoy Wales’ natural environment and rights of way network through all forms of active travel?” to objective 12</p> <p>All ISA Objectives are weighted equally and combine to provide a comprehensive understanding of ‘sustainability’ on the whole.</p>
<p>In terms of ISA objectives, we agree with objective 1, but note that the only direct health harm associated with the transport system that is mentioned is in terms of road safety. There are no questions that refer to emissions affecting air quality and therefore respiratory and cardiovascular health, and no</p>	<p>Comment noted</p>

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<p>questions about noise having similar effects. Another issue that could be covered is the current transport system directly and indirectly limiting the ability to be physically active and the health harms that are associated with this.</p> <p>Driver stress, and the need to reduce it, is listed, but there is no mention of stress for active travellers or public transport users; this implies that driving and driver stress is more important than travel and stress of other road users. If the sustainable travel hierarchy is to be adopted, logically, the system should offer minimal stress for active travellers and public transport users, but be less concerned about driver stress. Low driver stress will encourage continued driving.</p> <p>Healthy lifestyles are referenced and presumably this is intended to cover active travel and public transport use, but it may be useful to be more explicit about this.</p> <p>Mental health is highlighted in the initial objective, but not in any of the accompanying questions. Community severance does account for some of these issues, but not for wider issues associated with loneliness, isolation and stress and anxiety associated with the transport system and, in many cases, speeding traffic.</p> <p>Objective 2 does encompass some of the issues around access to walking and cycling routes and the reference to improving equitable access to these is welcomed. The Active Travel Act is the key, and most important, connection that follows from here in that not only does access need to be equitable, but it needs to be extended. In theory, it would also be possible to make the system equitable by removing it completely. Therefore the availability of routes also needs to be equitable. These routes also need to be safe, and perceived to be safe, in terms of traditional views of crime and also crash and injury risks.</p> <p>Objective 3 highlights the need to reduce travel for work. While we agree with this, it also needs noting that full time home working can have negative effects on mental health. It is also important to ensure that those people who have to travel to and from work have choices in the way they travel and do not suffer disadvantages associated with long journey and travel times.</p> <p>Objective 8 states that the WTS will aim to create the conditions where air quality can be protected and improved where necessary (emphasis added). There is no safe level of air pollution and this is</p>	<p>Agree, Added decision aiding questions on air quality, noise and Objective 1</p> <p>Agree, Objective 1 decision aiding questions amended to “driver stress and potential stresses caused to other road users”</p> <p>Agree, “promotion of active travel” added to third bullet point of objective 1</p> <p>Agree – Added accessibility and availability of public transport to bullet point 2 of objective 2</p> <p>Agree – rephrased bullet point 1 of Objective 8 to “Create conditions within which air quality can be improved and protected”</p> <p>Agree – bullet point 2 of Objective 8 rephrased to “Reduce the negative....”</p>

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<p>recognised in Prosperity for All, which aims to deliver continuous improvements in air quality. The WTS needs to be consistent with these aims.</p> <p>Objective 8 also states that the WTS will aim to encourage a reduction in the negative effects of transport on local air quality. It would be useful if rather than encouraging a reduction, a more robust statement was made. It is also important to be mindful of the fact that electric vehicles do still produce emissions; exhaust emissions are reduced, but production of particulate matter due to tyre and brake wear will still compromise air quality.</p> <p>Finally, objective 8 states that the likelihood of new air quality management areas (AQMA) being needed will be reduced. We feel that this would be better phrased as “reduce traffic pollution to help get rid of existing AQMA and prevent new ones being declared.”</p>	
<p>ISA Objective 1 - Will the WTS contribute towards reducing loneliness and social isolation?</p> <p>ISA Objective 3 - To support sustainable economic growth and diversity, we would suggest that that this objective could consider the impact the WTS could have in supporting access to / promoting local high streets and town centres.</p>	<p>Loneliness and isolation included in decision aiding questions. High Streets will comprise an important element of the more economic themed appraisals.</p>
<p>There needs to be a focus on achieving measurable outcomes rather than vague statements such as “contribute to”.</p> <p>Climate change is a big influencing factor and is not prominent within the document as it stands.</p>	<p>Agree, Comment noted</p> <p>Language amended to more pro-active words</p>
<p>Objective 2. To create the conditions within which an improvement in social cohesion and equality can be achieved</p> <p>In line with our comments above, we recommend that this objective, and the related questions, could overtly recognise the importance of community engagement, empowerment and resilience.</p> <p>Objective 3. To support sustainable economic growth and diversity</p>	<p>Comment noted</p> <p>Comment and advice noted</p>

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<p>We note that there is a question under Objective 3 that asks if the TWS supports and encourages third sector activities. It would be useful to have further clarity on the role of the third sector in the strategy to better understand this question. We believe that there is an important role for the third sector in supporting authorities to engage with communities, providing technical expertise and local knowledge along with the delivery of transport services. Not all of these things would sit under Objective 3 so this needs to be considered and addressed accordingly.</p> <p>We would also highlight that the wording of this objective would align better with global thinking on sustainability, the Wellbeing of Future Generations Act, and the aspirations of communities, if it were to refer to 'sustainable development and diversity'. It is widely documented that the pursuit of economic growth often undermines sustainability objectives, whereas 'sustainable development' is a concept that attempts to marry up economic prosperity and sustainability.</p> <p>Objective 6. To create the conditions within which greenhouse gas emissions can be reduced</p> <p>It might be helpful to include a question to address impact on the National Forest to consider how the WTS could contribute towards maintenance, restoration or creation of this Wales-wide asset and avoid unintended detrimental impact on its ecological connectivity or carbon sequestration capacity. With the current emphasis on the Green Recovery there is a huge opportunity to also consider how infrastructure created by WTS might link with adjacent green spaces and amenity areas to enhance the National Forest and other nature and climate gains.</p> <p>Objective 11. To encourage the conservation and enhancement of biodiversity and geodiversity</p> <p>Section 6 of the Environment Act places a legal duty on public authorities exercising their functions in relation to Wales. It states that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems. Rather than considering if the WTS will encourage the conservation and enhancement of biodiversity and geodiversity therefore we feel that the more pro-active language used in other objectives would be more appropriate here e.g.</p>	<p>Agree, further detail on the Third Sector and community transport added.</p> <p>Amended Objective 3 – “To support sustainable development and diversity.</p> <p>Comments noted</p> <p>Agree, language amended to “promote” rather than encourage</p>

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<p>Objective 11: To create the conditions within which the conservation and enhancement of biodiversity and geodiversity can be increased</p> <p>Or simply, the language of the s6 duty could be used instead</p> <p>Objective 11: To maintain and enhance biodiversity</p> <p>We also note that there is an aspiration to protect geodiversity and invite consideration of whether there could be a simple equivalent question assessing if the WTS will protect biodiversity, particularly as protection may be a more pro-active term, and perhaps more widely-used and understood, than conservation.</p> <p>12. To encourage the sustainable use of natural resources</p> <p>Sustainable management of natural resources is now defined in the Environment Act as: “using natural resources in a way and at a rate that maintains and enhances the resilience of ecosystems and the benefits they provide. In doing so, meeting the needs of present generations of people without compromising the ability of future generations to meet their needs, and contributing to the achievement of the well-being goals in the Well-being of Future Generations Act.”</p> <p>Given increasing awareness of the pressures that Wales’s natural resources are under, we again feel that a stronger and more pro-active term than ‘encourage’ may be helpful. Encouraging something suggests that it is not already the norm, and making sustainable use of natural resources the norm is a clear intention of both the Environment Act and the Well-Being of Future Generations Act.</p> <p>Another way to approach this challenge might be to rephrase this objective as:</p> <p>12. To discourage the unsustainable use of natural resources</p>	<p>Agree, language amended to “ensure”</p>
<p>There are a number of comments we would make on the objectives and corresponding questions which we set out as follows:</p>	<p>Comments noted</p>

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<p>In terms of ISA objectives, we agree with objective 1, but note that the only direct health harm associated with the transport system that is mentioned is in terms of road safety. There are no questions that refer to emissions affecting air quality and therefore respiratory and cardiovascular health, and no questions about noise having similar effects. Another issue that could be covered is the current transport system directly and indirectly limiting the ability to be physically active and the health harms that are associated with this. Driver stress, and the need to reduce it, is listed, but there is no mention of stress for active travellers or public transport users; this implies that driving and driver stress is more important than travel and stress of other road users. If the sustainable travel hierarchy is to be adopted, logically, the system should offer minimal stress for active travellers and public transport users, but be less concerned about driver stress. Low driver stress will encourage continued driving. Healthy lifestyles are referenced and presumably this is intended to cover active travel and public transport use, but it may be useful to be more explicit about this. Mental health is highlighted in the initial objective, but not in any of the accompanying questions. Community severance does account for some of these issues, but not for wider issues associated with loneliness, isolation and stress and anxiety associated with the transport system and, in many cases, speeding traffic. Objective 2 does encompass some of the issues around access to walking and cycling routes and the reference to improving equitable access to these is welcomed. The Active Travel Act is the key, and most important, connection that follows from here in that not only does access need to be equitable, but it needs to be extended. In theory, it would also be possible to make the system equitable by removing it completely. Therefore the availability of routes also needs to be equitable. These routes also need to be safe, and perceived to be safe, in terms of traditional views of crime and also crash and injury risks. Objective 3 highlights the need to reduce travel for work. While we agree with this, it also needs noting that full time home working can have negative effects on mental health. It is also important to ensure that those people who have to travel to and from work have choices in the way they travel and do not suffer disadvantages associated with long journey and travel times. Objective 8 states that the WTS will aim to create the conditions where air quality can be protected and improved where necessary (emphasis added). There is no safe level of air pollution and this is recognised in Prosperity for All, which aims to deliver continuous improvements in air quality. The WTS needs to be consistent with these aims. Objective 8 also states that the WTS will aim to encourage a reduction in the negative effects of transport on local air quality. It would be useful if rather than encouraging a reduction, a more robust statement was made. It is also important to be mindful of the fact that electric vehicles do still produce emissions; exhaust emissions are reduced, but production</p>	<p>Comments noted</p> <p>Agree, decision aiding questions on air quality and noise added to Objective 1</p> <p>Agree, Objective 1 decision aiding questions amended to “driver stress and potential stresses caused to other road users”</p> <p>Comments noted</p> <p>Agree, Objective 8 amended to “Improve air quality in order to get rid of existing Air Quality</p>

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<p>of particulate matter due to tyre and brake wear will still compromise air quality. Finally, objective 8 states that the likelihood of new air quality management areas (AQMA's) being needed will be reduced. We feel that this would be better phrased as "reduce traffic pollution to help get rid of existing AQMA's and prevent new ones being declared."</p>	<p>Management Areas and reduce..."</p>
<p>Table 5.3 ISA Objectives and Questions</p> <p>Objective 1: 'To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales': Page 39 We advise that the reference to health protection in the objectives could be made more explicit as an outcome. We recommend that the significance of the protection and improvement of physical and mental health, and improving air quality, is highlighted as a specific objective. Objective 6 'To create the conditions within which greenhouse gas emissions can be reduced'; Page 40 We recommend that the wording for the following objective, 'To create the conditions within which greenhouse gas emissions can be reduced', should be amended as follows: 'To enable greenhouse gas emissions to be reduced'. This wording change is recommended because it would strengthen the objective to be more positive with the expected outcome. Objective 7: 'To encourage climate change resilience': Page 41 We advise that an additional decision aiding question is included: 'Will the WTS reduce the risk of flooding and/or coastal flooding and promote protection of floodplains or areas of managed flood risk having regard to Shoreline Management Plans and coastal management proposals?' We recommend that this question is included to place greater emphasis on planning for sustainable transport infrastructure which has regard to Shoreline Management Plans and coastal adaptation proposals. Objective 7: 'To encourage climate change resilience': Page 41 We advise that this ISA objective should also encourage measures that prioritises green infrastructure that contributes climate change resilience by maximising ecosystem resilience and ecosystem functions. This could be assessed as a new question: 'Will the WTS maximise opportunities for improving ecosystem resilience and functions that help reduce climate vulnerability?'. Objective 7: 'To encourage climate change resilience': Page 41 We also recommend the addition of a further decision aiding question to the objective: 'Will the WTS contribute to the implementation of coastal adaptation?' so that it encompasses avoiding/ minimising adverse effects from the inappropriate location of assets. Recommendation of New Objective regarding 'Water Quality': Page 41 We recommend that there is a new objective for water quality, separate from air quality. We advise this is worded as: 'To encourage the protection and improvement of water quality'. We also advise that a decision aiding question is added to this objective, 'Will the WTS ensure a reduction in diffuse pollutant</p>	<p>Comments noted</p> <p>Air quality added to decision aiding questions of Objective 1</p> <p>Objective 6 amended to "reduce greenhouse gas emissions from transport"</p> <p>Decision aiding question added</p> <p>Decision aiding question added</p>

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loading, notably for water resources in the longer term?'. This is particularly important if greater seasonality and hence water-scarcity is going to become a norm.		
<p>Welsh language version: Fel nodwyd uchod, dylid cysylltu nod llesiant y Gymraeg ag amcanion eraill sy'n ymwneud ag iechyd a llesiant unigolion yn y strategaeth. Mae mynediad at wasanaethau iechyd a lles drwy gyfrwng y Gymraeg yn angen clinigol, ac mae hyn yn arbennig o wir pan ystyrir plant, pobl hŷn ac unigolion bregus, er enghraifft pobl yn byw â dementia neu ag anhwylderau iechyd meddwl</p> <p>English translated version: As noted above, the well-being of the Welsh language should be linked to the other objectives in the strategy which relate to the health and well-being of the individual. Access to health and welfare services through the medium of Welsh is a clinical need, and this is particularly the case when considering children, older people and vulnerable individuals, for example, people living with dementia or have mental health disorders.</p>		Access to Welsh language medium health and welfare services will form an important part of the ISA in terms of assessments against health and welfare, as well as Welsh language. ' <i>Contribute towards an improvement in the accessibility of Welsh medium health/welfare services?</i> ' has been added as a decision aiding question in the ISA Framework.
Given the above, there is a need to ensure that freight is included within the decision aiding questions. In terms of the ISA Objectives, we note that only one relates to economic issues and that there may need to be a greater focus on this as it links to the achievement of other objectives		Advice noted Freight transport added to decision aiding questions
Yes there are. The 13 ISA objectives would appear to be equally weighted. Perhaps more weight should be placed on economic objectives at least in the short to medium term. Social, environmental and cultural objectives are very important but major (transport) interventions are costly, have a long lead in time and need to be affordable, effective and deliverable.		Advice noted.
Q5	Do you have any comments regarding how reasonable alternatives should be developed?	
Your group who wrote a previous questionnaire for children should be involved		Comment noted
I feel it is fair enough that prices for bus tickets are what they are. However I think your annual tickets should be significantly more affordable. Community vehicles would be a good idea - even if they aren't electric. The concept of sharing common resources is something that should be promoted for a resilient future		Comment noted

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There needs to be greater emphasis on Active Travel as one of the key ways to tackle climate change and reinforce the desired hierarchy	Comment noted
Services should be accessible to all and not just local residents. Demand responsive services will not attract tourists and casual users and local users may not be able to plan their journeys in advance	Comment noted
Alternatives should be developed in collaboration with others and in consultation with stakeholders. They should be designed to deliver social, economic, environmental and cultural benefits. Non-essential journeys should be discouraged. Modal shift should be encouraged. That is to say, the WTS should encourage more and better use of public transport (when Covid 19 allows) and of low emission vehicles and of active travel (walking and cycling) for short trips. Use of the private car for non-essential journeys should be discouraged	Comment noted
These should be open to a wide range of public and political stakeholders, acknowledging that there may be new voices and visions to be captured through the consultations on wellbeing goals. This may involve new ways of engaging stakeholders	Comment noted
1. Section 4.3 and Table 4.1 fails to reference the need for Wales' population to connect with the three National Parks as a key sustainability issue and opportunity. The existing wording – “There is an opportunity for improved access to valued landscapes, townscapes and viewpoints” fails to convey the importance of access to the Parks to national well-being of the population having access to the cultural ecosystem services within	Comment noted
Significant thought and co-ordination needs to take place in relation to integrated transport (including the ongoing review of bus services and development of a freight network) and the introduction/promotion of EV and Hydrogen alternatives and how this would be facilitated across the network. Linkages and funding opportunities need to be strengthened and aligned in order to develop and deliver a coherent national approach and strategy. Ambitious targets need to be established, but these need to be supported by appropriate funding on a national basis for infrastructure improvements and a clear lead provided by Welsh Government	Comment noted
Yes, the issue of minerals, mineral products and minerals safeguarding should be appropriately considered in the development of alternatives, as outlined above	Comment noted
The development of one or more “reasonable alternatives” should take account of the seven well-being goals, the Welsh Government's legal obligations to reduce greenhouse gas and pollutant emissions, and the recognition in this framework of climate change and eco-system resilience as “overarching	Comment noted

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<p>considerations". The proposed WTS and the 'reasonable alternatives' should therefore be developed as alternative approaches for achieving these goals. There should be no preconception that the (initially) 'preferred' WTS will necessarily perform better in meeting the proposed objectives than the "reasonable alternative(s)". On the contrary, there needs to be an openness to the possibility of adopting the reasonable alternative(s), or elements from them, if it turns out that they score better against the ISA framework.</p> <p>One approach might be to develop a WTS that was focussed more on technological solutions (e.g. electric vehicles, use of broadband to reduce the need to travel), and another that was focused more on improved infrastructure for walking and cycling, on the assumption that both strategies would be supported with similar budgets. A composite strategy could then be developed (again, with an assumption of a similar overall budget, so that this composite strategy didn't automatically 'win'). This would help determine an optimal mix between investment in measures to reduce the need to travel, decarbonise existing motor travel, and replace existing motor travel through investment in healthy and sustainable alternatives</p>	
<p>Reasonable alternatives need to focus on technological advancements and where transport is likely to move in the future e.g. hydrogen, active travel, etc</p> <p>There needs to be consideration of whether Covid has now given an environment where the old ways are no longer the right ways. Consideration of what the "new norm" will look like needs to be built into the document</p>	Comment noted
<p>The role of the third sector in the Wales Transport Strategy should be explored and developed in partnership with the sector. We advocate for a co-production approach to ensure the strategy reflects the role and capability of the third sector appropriately and offer our support to facilitate this</p>	<p>Comment noted</p> <p>Agree, further detail on the Third Sector and community transport added.</p>
<p>We have identified some small tweaks in our response to Q4 but in terms of representing the third sector appropriately in this scoping work, we would suggest engagement with key stakeholders to ensure the sector's role is reflected appropriately</p>	<p>Comment noted</p> <p>Agree, further detail on the Third Sector and community transport added.</p>

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<p>We acknowledge that until the Wales Transport Strategy is developed further it is challenging to set reasonable alternatives out in detail. However, we recommend the options for reasonable alternatives include:</p> <ul style="list-style-type: none"> • The Covid19 pandemic has resulted in increased home working. We advise that an alternative option should be to permanently reduce road traffic levels if people continue to work from home and hence reduce the pollution loading to air, soils and water. Greater resourcing on improving the ethernet/computer network across Wales, thereby reducing the need to travel for many who are able to work from home. • Increasing the rail network/public transport network as an alternative to developing the road network because of less need for road traffic. The positive consequences would be less congestion; improved wellbeing; reducing the contaminant loading on air quality, soils and water; benefits for biodiversity and human health, as a result of reduced road users. 		Comment noted
Engaging with a wide range of stakeholders throughout the development process for the WTS is essential		Comment noted
<p>Alternatives should be developed in collaboration with others and in consultation with stakeholders. They should be designed to deliver social, economic, environmental and cultural benefits. Non-essential journeys should be discouraged. Modal shift should be encouraged. That is to say, the WTS should encourage more and better use of public transport (when Covid 19 allows) and of low emission vehicles and of active travel (walking and cycling) for short trips. Use of the private car for non-essential journeys should be discouraged</p>		Comment noted
Q6	Do you have any further suggestions regarding the scope of the ISA and its proposed appraisal of the Wales Transport Strategy?	
There seems to be an assumption throughout this appraisal that the current infrastructure is fit for purpose when it clearly is not. Any appraisal needs to recognise this as a fact		Comment noted
You have taken little note of the lesser railways of Wales. Note that Porthmadog Harbour has more passengers in a year than Llandudno		Comment noted
There is a need to give high level recognition in the ISA to issue of public safety on the road network in Wales. This could be alongside but separate from health impacts. Sadly the rate of road accidents in Wales, especially on rural trunk roads, is worse than in many other parts of the UK. The location and seriousness of road accidents should be identified in the ISA and there should be a clear commitment to		Comment noted

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<p>resolving the most significant hazard locations by effective remedial measures. In certain circumstances minor safety improvements may suffice but in others more substantial improvement works will be appropriate, Where significant improvement is needed to resolve a safety issue there should of course be attention to mitigating environmental impacts and the incorporation of active travel provision</p>	
<p>The language is non-committal in Table 4-1. "Could", "can", "could consider" etc. We also note that under the Environment Habitat Assessment that TfW have no licence to operate. However During the CVL Vegetation Programme we successfully negotiated with Natural Resources Wales the Bats on Tress/Bridges and Dormice Working Licence 5 years certificate. The first licence issued in Wales</p>	<p>Comment noted</p> <p>Agree, language amended to more pro-active words</p>
<p>In clause 1.2 it states 'Covering all modes, it sets out our strategic priorities and desired outcomes, providing a link to the wider priorities as well as plans at the local authority level.' However, the Town Council cannot identify clear priorities or desired outcomes.</p> <p>In clause 3.2 it sets out 'Key Themes Resulting from the Review' but all it says in the column headed 'National well-being goals' is a list of headings 'A prosperous Wales A resilient Wales A healthier Wales A globally responsible Wales'. This does not set out any aims or objectives regarding transport. The aims and objectives should be included from those plans into the Transport Strategy in a similar way to the impact assessments referred to.</p> <p>The appraisals in themselves are good as a base for taking forward objectives, however these have not been identified in an understandable way. The plan lacks substance in 'what is actually going to be done'. It is suggested that a clear schedule of aims and objectives is included so that the plan can be measured. As an overriding comment there is a lot of content about aims etc but nothing on strategy – ie how anything is going to be done.</p> <p>On many occasions the Town Council has discussed cycling and the danger that it poses to pedestrians by allowing cyclists to use the same pathway. 'The active travel wales act (2013) should be amended so as to keep cyclists and pedestrians apart. We would strongly urge that the WG policy is to keep pedestrian and cyclists apart at all times with no future combined facilities considered. In addition all existing combined facilities below the design width of 10 feet should be closed to either pedestrians or</p>	<p>Comment noted</p> <p>As part of the ISA and WTS process, the scoping report is an evidence gathering stage and involves engaging with stakeholders. The next stage is to develop and consult on the main issues , priorities and outcomes</p> <p>The key themes are identified from the review of plans, programmes and environmental objectives and are considered against the seven well-being goals. The ISA objectives are then presented in Table 5-3 which were initially designed to reflect these key themes</p>

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cyclists. There is evidence that an impact of 17 .6 mph between a pedestrian and a cyclist may result in death to the pedestrian. This is supported by judgements in the common law.	
All forms of public transport should be treated equally. Far more journeys are made by bus yet receive a fraction of the support given to TfW rail services	Comment noted
We live in an age of uncertainty. The integrated sustainability appraisal framework should be stress-tested in order to ensure it delivers robust results	Comment noted
<p>"Transport" can be open to interpretation as means / modes of giving access to places of work, education and health services, and to the supply of goods and materials. These should be challenged if they are not open to question as the most suitable and sustainable solutions to the movement of people and produce.</p> <p>There is also a need to have fair, equitable, and robust measures of economic and social benefits and disbenefits</p>	Comment noted
Wales' National Parks are a National resource for all to enjoy and an important contributor to well-being. Affordable access to and around the National Parks is essential for everyone to be able to enjoy them without the environmental impact of car travel. Failure to address this will result in a significant proportion of the population being excluded from enjoying this rich and natural resource, whilst the continued increase in visitors arriving by cars fails to address key objectives of factors contribute to climate change, environmental and health impacts	Comment noted
<p>In clause 1.2 it states 'Covering all modes, it sets out our strategic priorities and desired outcomes, providing a link to the wider priorities as well as plans at the local authority level.' However we cannot identify clear priorities or desired outcomes.</p> <p>In clause 3.2 it sets out 'Key Themes Resulting from the Review' but all it says in the column headed 'National well-being goals' is a list of headings 'A prosperous Wales A resilient Wales A healthier Wales A globally responsible Wales'. This does not set out any aims or objectives regarding transport. The aims and objectives should be included from those plans into the Transport Strategy in a similar way to the impact assessments referred to.</p> <p>The appraisals in themselves are good as a base for taking forward objectives, however these have not been identified in an understandable way.</p> <p>The plan lacks substance in 'what is actually going to be done'.</p>	<p>Comment noted</p> <p>As part of the ISA and WTS process, the scoping report is an evidence gathering stage and involves engaging with stakeholders. The next stage is to develop and consult on the main issues, priorities, and outcomes</p>

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It is suggested that a clear schedule of aims and objectives is included so that the plan can be measured. The details of how the aims and objectives are to be delivered will no doubt be in future documents.	The key themes are identified from the review of plans, programmes and environmental objectives and are considered against the seven well-being goals. The ISA objectives are then presented in Table 5-3 which were initially designed to reflect these key themes
Whilst the ISA should rightly consider all other relevant plans and programmes the WTS should not be constrained, nor its vision compromised unduly by those. Delivery of the WTS is key to the future social, economic and environmental sustainability of the nation, and it is therefore essential that deliverability is not compromised	Comment noted
Yes, the issue of minerals, mineral products and minerals safeguarding should be appropriately considered in the scope of the ISA and its appraisal of the WTS	Comment noted
The scope is broad, and the objectives are probably about right. However, as noted in our response to question 4, the report does not state what weight is attached to each objective. We recommend giving additional weight to objectives relating to climate change and ecosystem resilience, given their recognition as “overarching considerations”. A mechanism for this weighting will need to be developed	Comment noted
The scope should clearly now also consider what the “new norm” is likely to look like in recognition of the recent changes as a result of the pandemic.	Comment noted During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.
The ISA references a range of modes such as bus, rail and active travel. We note, however, the absence of community transport in the scoping report. Community transport provides essential services for many communities and should be acknowledged in the scoping exercise	Comment noted

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	Community transport added to Objective 2
<p>The scoping report references public transport, bus, rail and active travel but excludes community transport completely. We welcome the commitment to ‘recognising and promoting the Third Sector’ however, this commitment could be evidenced by providing specific information about how the sector is expected to be involved in the development or delivery of the strategy.</p> <p>Community transport operators provide essential services across Wales which help to address transport poverty and exclusion. The Minister himself has said that there cannot be an integrated transport network for Wales without community transport. The sector must be explicitly referenced in these plans in an appropriate manner. The Community Transport Association is able to support colleagues to ensure this is developed in line with the sector’s role and capabilities.</p>	<p>Comment noted</p> <p>Community transport added to Objective 2</p>
<p>Table 3.1: We recommend a reference to the Environment (Wales) Act in Table 3.1 would be appropriate as it underpins the Natural Resources Policy and SoNaRR and connects these with the Wellbeing of Future Generations Act.</p> <p>Table 5-3 (ISA objective 7): We recommend that reference is made to coastal erosion in this section. Whilst it is currently focused on ‘flood’ issues it should also address wider representatives of climate change impacts.</p> <p>Table 3.2 Key Themes page 18: We suggest the following wording change in bold to ‘Protect and enhance the distinctiveness of our landscapes, National Parks and AONBs, Seascapes, historic environment....’, to ensure protection of designated landscapes isn’t overlooked.</p> <p>Table 3.2 also refers to green infrastructure, but it would also be appropriate to refer to resilient ecological networks (RENs) alongside this. Green infrastructure can be considered alongside RENs, distinguished from them by the specific recognition they receive within the land use planning system.</p> <p>Section 4.3.1: Overarching considerations: Climate Change and Ecosystem Resilience:</p> <p>Section 4.3.1 refers to the aspects of ecosystem resilience as defined in the Environment Act. The Act acknowledges that these aspects are not exhaustive and as part of its ongoing work NRW has identified two further significant aspects, recovery and resistance, that are important to consider and would be appropriate to refer to as part of the building blocks list of aspects.</p>	<p>Comment noted</p> <p>Agree - Environment (Wales) Act added to Table 3.1</p> <p>Agree – Coastal erosion added to decision aiding questions for Objective 7</p> <p>Agree – Changed Key theme to ‘Protect and enhance the distinctiveness of our landscapes, National Parks and AONBs, Seascapes, historic environment....’,</p>
<p>We live in an age of uncertainty. The integrated sustainability appraisal framework should be stress-tested in order to ensure it delivers robust results</p>	<p>Comment noted.</p>

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Q7	Do you support the approach to the integration of the impact assessments?	
	Not sure what you mean	Comment noted
	The document is almost identical to the ISA for the National Development Framework which was consulted on in 2017. The WTS needs a different approach to that of the NDF	Comment noted
	To consider all impact assessments together is a much better approach than having separate ones which need to be collated	Support noted
	Whilst the integration of the impact assessments is to be welcomed, as it allows advantage to be taken of synergies and opportunities, it is unclear how potential inconsistencies and constraints will be addressed if they adversely impact the aspirations of the WTS, and its delivery of the improvements it seeks to achieve and direction it looks to set	Support and comment noted
	An integrated approach would be beneficial, but greater clarity is needed over what this will entail and ultimately seek to deliver	Support and comment noted
	Yes, in principle. We strongly commend the aim of integrating the assessment of health and equality impacts into the process for carrying out Strategic Environmental Assessments. However, as we have said before, this does not appear to have been done sufficiently comprehensively. We feel the assessment framework needs to better reflect the range of public health impacts of the transport system (i.e. physical inactivity, air pollution, noise, road safety and casualties, and isolation), together with the fact that these impacts fall disproportionately on lower income and other disadvantaged groups	Support and comment noted
	Yes, bringing the assessments together is important to avoiding duplication. It also allows for a more balanced view of the relative importance of different initiatives and the potential for assessment of actions that will benefit one area contributing to harms in another	Support and comment noted
	Yes, we very much support this approach. It is important that impact assessments are not carried out in isolation	Support noted
	In general yes. The approach recognises the importance and coverage of Wellbeing of Future Generations	Support noted
	We support the approach to integrate the impact assessments and believe this is a sensible way to assess all aspects	Support noted
	Yes. We believe it is a sensible approach to integrate the necessary impact assessments although it is important to ensure they remain robust	Support and comment noted

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Yes, bringing the assessments together is important to avoiding duplication. It also allows for a more balanced view of the relative importance of different initiatives and the potential for assessment of actions that will benefit one area contributing to harms in another.		Support noted
We support the approach to the integration of the impact assessments subject to regulatory requirements of SEA Regulations being met		Support noted
<p>Welsh language version: Er bod y ddogfen ymgynghorol yn talu sylw i'r Gymraeg mewn sawl adran, a bod rhai o'r prif ystyriaethau perthnasol yn cael eu hamlinellu ar dudalen 31, credwn y dylid integreiddio anghenion y Gymraeg a'i siaradwyr fel thema lorweddol ar draws y strategaeth, ac nid ei thrin fel mater unigol i'w thrin ar wahân yn unig. English translated version: Even though the consultation document pays attention to the Welsh language in several sections, and that some of the main relevant considerations are outlined on page 31, we believe that the needs of the Welsh language and its speakers should be integrated as a horizontal theme across the strategy, and not treated like a singular matter to be treated separately.</p>		Noted and agreed. The ISA Scoping Report sets out baseline data, key issues and Objectives for each topic of the ISA. In practice, the ISA appraisals will provide appraisals on an individual-topic basis followed by amore holistic and cumulative appraisal that treats the topics 'horizontally'
Q8	Do you support the findings of the initial screening work for the impact assessments?	
Again, I am not sure what you mean		Comment noted
The document is almost identical to the ISA for the National Development Framework which was consulted on in 2017. The WTS needs a different approach to that of the NDF		Comment noted
<p>To a limited extent yes. The impact assessments have little reference to rail use and the provision of improved rail services. Further study is required to assess both the existing rail passenger issues and those which can be identified into the future. Without a sustainable plan for rail services it will lag behind demand as has happened in the past. For example the last rail Franchise to Arriva Trains Wales was based on no growth in passenger numbers.</p> <p>It is recognised that Covid 19 may have an impact on future travel but as things stand Government appears to hold the view that life will return to normal at some point in the future few years. It is unlikely to do so with the certainty that commuter travel will be less and that will impact on the revenue from key sectors such as Chester to Manchester, Crewe to Manchester, Shrewsbury to Birmingham and the Valley Lines into Cardiff.</p>		<p>Comments noted</p> <p>During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.</p> <p>Rail, and public transport, is a key consideration. Extensive baseline</p>

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Once again, the Town Council has to comment that there is nothing in the ISA about improved rail services and what are the key passenger issues giving the impression that those key user issues are unrecognised	data provided on rail in the appendices and it will be an important consideration of the appraisals.
Yes we do but we notice that there is no mention of the national cycle network which needs to be maintained, developed and improved and which offers social, environmental, economic and cultural benefits. This network has the potential to deliver economic (recreation and tourism) benefits in sparsely populated and economically deprived areas	Support and comment noted. National Cycle Network is shown on Figure 4.
Yes, subject to the need for further immediate research into the impact of Covid-19, with input from that into impact assessments; and the need to take into account the urgent timescale of climate change and loss of biodiversity, to which the Wales Transport Strategy must contribute	Support and comment noted
To a limited extent yes. The impact assessments have little reference to rail use and the provision of improved rail services. Further study is required to assess both the existing rail passenger issues and those which can be identified into the future. Without a sustainable plan for rail services it will lag behind demand as has happened in the past. For example the last rail Franchise to Arriva Trains Wales was based on no growth in passenger numbers). It is recognised that Covid 19 may have an impact on future travel but as things stand Government appears to hold the view that life will return to normal at some point in the future few years.	Comment noted. During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.
The need for local buses in rural areas is essential, particularly along the west coast of Wales	Comment noted
See comments above. Clearly further consideration needs to be given to the role played by the Minerals Industry in supporting the achievement of the well being goals. A better understanding of the industry would be beneficial	Comment noted
The left hand column of Table 2-1 identifies the right overall headings. However the summary of the screening results for 'health' (top line of the table) again fails to mention the range of public health impacts, and the issue of 'health inequalities', as set out in Q7 and previous answers	Comment noted
We believe there are some gaps in the initial screening as evidenced above and would welcome the inclusion of the points raised in this response.	Comment noted
It is not clear the range of options for classifying impact but the WTS will have a definite impact on all aspects rather than 'potential' as stated. This has the potential to be either positive or negative. The	Comment noted

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summary of issues and opportunities provides a balanced view of issues which evidences the positive and negative impacts that the strategy could address		
Yes we do but we notice that there is no mention of the national cycle network which needs to be maintained, developed and improved and which offers social, environmental, economic and cultural benefits. This network has the potential to deliver economic (recreation and tourism) benefits in sparsely populated and economically deprived areas		Support and comment noted
Q9	Are there additional pieces of baseline data or evidence that the ISA should consider with specific regard to the impact assessments?	
	This seems to be focussed on environmental impact etc. and can be interpreted as against the construction of improved infrastructure and more on better ways to make do with the existing networks	Comment noted
	Traffic returns from bus and railway companies. I saw no reference - or I forgot it in the fog of uncertainty as to what you mean - to figures from the use of roads. Enough roads have rubber traffic measures on them	Comment noted
	Has there been any data to confirm if the previous Wales transport strategy met with its objectives? This would help determine where further work was required on Impact assessments	This is a comment for the WTS itself, and not the ISA.
	<p>The impact of reduced capacity on our trains leads to the following:</p> <ul style="list-style-type: none"> i) People not wanting to use the trains due to it being uncomfortable. ii) Trains being overcrowded to an extent where health and safety are an issue. iii) Fares should be at affordable levels for those on lower incomes and who cannot afford a car. If those in this bracket do not have access to public transport then they will find themselves in a restricted job market. iv) If a good rail service delivery is not achieved then people will continue to use private transport. Public transport (buses, taxis and trains) should be integrated in the centre of major settlements (ie Rhyl, Flint, Prestatyn, Bangor, Llandudno and Llandudno Junction) where-ever possible. This to date has not be well achieved anywhere in the UK outside of the major cities. <p>From the perspective of a North Wales Town Council we would add that if rail ridership numbers are to increase then the cost per mile rail fares in north Wales compared to south Wales should be eliminated</p>	This is a comment for the WTS itself, not the ISA specifically.

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Why are services not being used? A few years ago, evening journeys were operated on Lloyds Coaches 28 service between Tywyn and Dolgellau to measure if there was a need. This was conducted in the winter. Surprise, surprise - uptake was low. Was the timing deliberate?	This is a comment for the WTS itself, not the ISA specifically.
Demographics. The WTS should be forward looking, we need to plan for the future	This is a comment for the WTS itself, not the ISA specifically.
As Q4 and Q8, above. The use of timeline baseline data should be considered and adopted where feasible for all transport modes, without distinction between 'strategic' and other transport modes: this includes active travel modes	Comment noted
Studies and reports that have been carried out for specific projects, e.g. GRIP reports and technical assessments that have been or are being prepared for 'New Station Fund' and 'Reversing Beeching/Your Ideas Fund' bids, should be appraised	This is not within the scope of the ISA.
Please see comments above in relation to the inclusion of National Parks and their contribution toward national health and well-being. 2. The current COVID19 crisis has prompted the need for instant change of behaviour. Whilst the timescales for taking account of any lessons learned from the lockdown and outcomes post-lockdown, this would be an important consideration in terms of travel impacts and how we recover from such imposed change	Comment noted During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.
The impact of reduced capacity on our trains leads to the following: i) People not wanting to use the trains due to it being uncomfortable. ii) Trains being overcrowded to an extent where health and safety are an issue. iii) Fares should be at affordable levels for those on lower incomes and who cannot afford a car. If those in this bracket do not have access to public transport then they will find themselves in a restricted job market. iv) If a good rail service delivery is not achieved then people will continue to use private transport.	Comment noted

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Public transport (buses, taxis and trains) should be integrated in the centre of major settlements (ie Rhyl, Flint, Prestatyn, Bangor, Llandudno and Llandudno Junction) where-ever possible. This to date has not be well achieved anywhere in the UK outside of the major cities.	
The data considered in Appendix B, para 3.1.7 is dated 2014. Whilst this may well be based upon data obtained from the SoNaRR 2016 report, more up to date minerals production data is available from the Regional Aggregate Working Party reports for North and South Wales. Further, and going forward UK Government is in the process of undertaking the AM2019 survey, the results of which should be available later in 2020. Such data should be used in considering aggregate production going forward, if this is available	Comment noted
<p>1. We believe it will be important to consider regional variations across Wales.</p> <p>2. We have suggested public health as an area that does not seem to have been sufficiently broadly considered. There is extensive, relevant, public health data that does not seem to have been reviewed. Much of this is available in the health-related (and other) strategies we have listed in our response to question 1.</p> <p>3. There is a mass of road safety data that has not been adequately reviewed. Road safety, in the broad sense of road danger reduction that we have recommended above (see our answer to Q2), must be a central issue in any new WTS</p>	<p>Comment noted</p> <p>Datasets have been reviewed and updated. Public health and safety will be a key consideration of the WTS and the ISA.</p>
<p>In terms of evidence, we note Oxfam Cymru's report 'The Welsh Doughnut 2020' which includes a section on transport. The report points to the lack of data on transport and inclusion which creates a challenge for the delivery of access and inclusion and makes it extremely difficult to assess and tackle transport poverty. We suggest that consideration could be given to a review of transport data to identify ways to strengthen the evidence base to ensure access and inclusion.</p> <p>We have already provided information on gender which we raise again here and we also suggest that further data is sought on safety of access to public transport in addition to that identified for safety on the vehicles.</p> <p>We believe there may be additional indicators to explore on children's access to transport and the impacts of this on their opportunities. For example, we know that in rural areas children may miss out on after-school activities due to bus times if the family does not have access to a private vehicle.</p>	<p>Comments noted</p> <p>The Welsh Doughnut 2020 added to policies review</p>

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<p>Finally, we know that a lack of transport leads to a significant number of missed health appointments and so suggest this is considered as an indicator in the report</p>	
<p>Earlier this year, CTA was involved in the development of 'A Welsh Doughnut 2020: A framework for environmental sustainability and social justice' published by Oxfam Cymru¹ which describes a social floor and environmental ceiling and provides indicators that set boundaries for delivering a decent standard of living whilst remaining within environmental limits. Transport is understood to play a central role in social exclusion and poverty with accessibility in terms of availability and price identified as a critical issue in 'The Wales We Want'. The report points to the lack of data available for transport in Wales which prevents the benchmarking required to identify issues and measure progress. Dr Karen Lucas, a research associate at the Transport Studies Unit at Oxford University, promotes an improvement in data and metrics for transport and inclusion which is something we support. The Oxfam report has identified an indicator from the National Survey for Wales which asks people about services available in their local area whilst recognising that the indicator does not assist with the identification of transport availability. In developing the WTS, Welsh Government may wish to strengthen data collected on transport access and inclusion.</p> <p>In terms of the data provided in the baseline report, we welcome the recognition that community transport offers transport services for older people but stress that services support all those who face barriers to access such as those in rural areas with little or no public transport provision and sometime long distances to travel; those who need to travel out of hours perhaps for hospital visiting or social activities; and those who are marginalised in some way such as people with disabilities, asylum seekers and so on.</p> <p>As identified in the report, WIMD provides data on access to services. In addition, it may be useful to include data on missed medical appointments given that we know a major reason for this a lack of transport and can evidence projects that have supported hospitals and surgeries to reduce the number of missed appointments and the costs associated with this through community transport support. A project support by CTA's Connecting Communities in Wales project was featured in the NHS Confederation Wales report on community transport and health 'Making Health Accessible to All'. The case study highlights the number of missed appointments due to a lack of accessible transport options and the pressures created by infrequent public transport services, estimating the cost of this to be £9.56m for Betsy Cadwaladr UHB alone.</p>	<p>Comment noted The Welsh Doughnut 2020 added to policies review</p>

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<p>We recommend that the following pieces of evidence should be considered by the ISA, with regard to the impact assessments:</p> <p>Additional Evidence Requirements</p> <p>WINS Maps</p> <ul style="list-style-type: none"> • We recommend that The WINS maps are evidence that should be considered by the ISA. They aim to promote more holistic management of natural resources through spatial mapping of opportunity areas for land management interventions at a regional scale. The mapping focusses on priorities of the Welsh Government Natural Resources Policy (2017), which puts an emphasis on taking a place-based approach and delivering nature-based solutions. • The four policy themes, drawn from the NRP, were: <ol style="list-style-type: none"> 1. Marine and Freshwater Water Quality 2. Natural Flood Management 3. Woodland Planting (for various objectives) 4. Urban and Peri-Urban Green Infrastructure <p>Groundwater</p> <ul style="list-style-type: none"> • Data on groundwater (saline intrusion) in coastal settings as a result of predicted sea-level rise from a changing climate: somewhere in the order of 0.5m to 1m depending on the scenario modelled. For example, this may lead to more corrosion risks of steel infrastructure in coastal settings. <p>Drainage System Failures</p> <ul style="list-style-type: none"> • Data of failing sewers; drainage and stormwater systems resulting in leakages; capacity and conveyance constraints; treatment limitations and diffuse pollution increases. Some of these risks may be worsened as a result of warmer, wetter winter events arising from a changing climate. <p>Areas of Hardstanding</p> <ul style="list-style-type: none"> • Monitoring data on increases in areas of hardstanding over time from infrastructure buildout resulting in greater volumes of stormwater runoff and management requirements and reduced aquifer recharge. <p>Water Demand in Wales Report</p> <ul style="list-style-type: none"> • Reference should be made to the 'Water Demand in Wales Report from May 2020 (authored by Arups for NRW and Welsh Government) as there are a number of threads associated with various Climate Change Risk Assessment scenarios (CCRA2 and CCRA3) in the report that are relevant to the ISA of the Wales Transport Strategy. <p>Role of Local Authorities</p>	<p>Comments noted</p> <p>Natural resources will be considered in detail through the ISA. At this stage WINS data has not been included in the data review.</p>

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<p>https://llyw.cymru/sites/default/files/publications/2019-05/adroddiad-y-grwp-gorchwyl-a-gorffen-ar-yr-iaith-gymraeg-a-datblygu-economaidd.pdf</p> <p>Y Gymraeg a'r economi: adolygiad o'r dystiolaeth a'r dulliau https://llyw.cymru/sites/default/files/statistics-and-research/2020-02/y-gymraeg-ar-economi-adolygiad-or-dystiolaeth-ar-dulliau.pdf</p> <p>Gweithgor ar yr iaith Gymraeg ym maes Datblygu Economaidd a Gweinyddu Llywodraeth Leol https://llyw.cymru/sites/default/files/inline-documents/2018-11/datganiad-ysgrifenedig-gweithgor-ar-yr-iaith-gymraeg-ym-maes-datblygu-economaidd-a-gweinyddu-llywodraeth-leol.pdf</p> <p>Ymateb Comisiynydd y Gymraeg i ymgynghoriad ar y Fframwaith Datblygu Cenedlaethol drafft http://www.comisiynyddygymraeg.cymru/Cymraeg/Rhestr%20Cyhoeddiadau/20191115%20LL%20C%20Ymateb%20i%20ymgyngoriad%20y%20Fframwaith%20Datblygu%20Cenedlaethol.pdf</p> <p>English translated version:</p> <p>You refer to the source data used in Appendix B. Furthermore, recommend that you refer to the relevant following reports: Report of the Welsh Language and Economic Development Task and Finish Group to the Minister for Economy, Science and Transport https://gov.wales/sites/default/files/publications/2019-05/report-of-the-welsh-language-and-economic-development-task-and-finish-group.pdf</p> <p>The Welsh language and the economy: a review of evidence and methods https://gov.wales/sites/default/files/statistics-and-research/2020-02/the-welsh-language-and-the-economy-a-review-of-evidence-and-methods.pdf</p> <p>Working Group on the Welsh Language in Local Government Administration and Economic Development https://gov.wales/sites/default/files/inline-documents/2018-11/written-statement-working-group-on-the-welsh-language-in-local-government-administration-and-economic-development.pdf</p> <p>The Welsh Language Commissioner's response to the draft National Development Framework consultation http://www.comisiynyddygymraeg.cymru/English/Publications%20List/20191115%20LL%20S%20Ymateb%20i%20ymgyngoriad%20y%20Fframwaith%20Datblygu%20Cenedlaethol.pdf</p>	
<p>There are significant shortcomings in the understanding of existing freight data in the context of section 7 (A Globally Responsible Wales). The statement that there is no data relating to freight transported on</p>	<p>Comment noted</p>

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roads in Wales is incorrect. Regional figures for road freight can be found here: https://www.gov.uk/government/statistical-data-sets/rfs01-goods-lifted-and-distance-hauled (sets RFS0121 - RFS0124). We acknowledge that rail freight statistics for Wales are not readily available (but could be obtained through working with Network Rail). Air freight statistics could also be included, at least for Cardiff Airport, through Civil Aviation Authority statistics		Freight data has been included in Appendix B.
Demographics. The WTS should be forward looking, we need to plan for the future		Comment noted
Q10	Do you have any other comments?	
The use of some roads is highly seasonal - this is the case on North Wales. You can go through the winter months without traffic trouble, but as soon as summer comes, there are traffic jams. My father used to say he was imprisoned for three months; I tend to clear off elsewhere for those same months - even England		This comment refers to the contents of the WTS rather than the ISA.
I think that transport options and alternatives should be part of the curriculum in schools - so that the next generation can be open to making more ethical choices than everyone having a car each and constantly driving everywhere. It shouldn't be seen as 'only poor people get the bus'. Which is a sad reality at the moment. I could afford a car at age 26 and it has transformed my life - but only because the buses are not sufficient. It's now really hard to go back to my more green younger lifestyle. People are significantly disadvantaged if they are relying on bus services in rural areas - socially and in terms of work		This comment refers to the contents of the WTS rather than the ISA.
The document is repetitive, with an increasingly complex policy integration picture and we question who the intended audience is?		This comment refers to the contents of the WTS rather than the ISA.
The document is full of words with little substance as to what is the overall delivery plan actually means. A summary with the objectives and aims of the scoping plan is recommended so everyone knows what we are actually going to do to achieve the objectives. The Town Council would like to suggest that the following policies should be included in the scoping plan: i) That train services into the future provide not only for existing passenger numbers but future demand. This as a minimum should mean retention of the current number of seats per train.		This comment refers to the contents of the WTS rather than the ISA.

Integrated Sustainability Appraisal Response Log	Arcadis Response
<p>ii) ii) The buses for both town and rural areas are an important part of any strategy which removes cars off the roads. A policy of retaining a public transport service to as many areas as possible should be part of the scoping strategy</p>	
<p>At one time, you could travel all over Gwynedd and the surrounding areas with ease. Those in charge of planning services came from the industry and worked hard to provide a cohesive network, backed up with the provision of timetables. They took a holistic approach to planning. This no longer happens. In particular, issues with Padarn, Express and Tacsí Gwynedd has led to crisis management and a further erosion of services. To conclude, work to create an integrated transport network for the future needs to draw on a highly trained staff with the necessary expertise to move the project forward and not newly trained graduates, fresh from university. Experience matters</p>	<p>This comment refers to the contents of the WTS rather than the ISA.</p>
<p>We need to get the most out of the roads we have, to make our roads safer, to encourage modal shift and to enable more and better use of public transport, active travel and ultra-low emission vehicles (ULEV). Effective planning and development control will need to be applied in order to limit and manage the demand for transport. We should encourage home-working and make more and better use of information technology for business and other purposes.</p> <p>Your email address given does not work, here is the text from the full response (excluding the specific questions)</p> <p>Dear Sir or Madam,</p> <p>We appreciate having this opportunity to comment on the Wales Transport Strategy (WTS) Scoping Report. Our response comes in three parts: firstly we have some introductory remarks, secondly, we respond to the specific questions that you have posed and thirdly we draw some conclusions and make some concluding remarks.</p> <p>Introductory Remarks</p> <p>The Institution of Civil Engineers is an independent professional association for civil engineers and a charitable body in the United Kingdom. Based in London, the ICE has over 95,000 members, of whom three-quarters are located in the UK, while the rest are located in more than 150 other countries. We award professional qualifications that are the industry standard, lead debates around infrastructure and the built environment and provide an unmatched level of training, knowledge and thinking on infrastructure.</p>	<p>Comments noted.</p> <p>Much of this comment refers to the contents of the WTS rather than the ISA.</p>

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<p>ICE Wales Cymru supports and represents more than 3,600 civil engineers working and living in Wales. It aims to influence public infrastructure policy, promote the civil engineering profession and provide support, training and networking opportunities for ICE members.</p> <p>This year's ICE State of the Nation 2020 report: 'Infrastructure and the 2020 Net-Zero Target' builds on the Committee on Climate Change's (CCC) Net Zero - The UK's contribution to stopping global warming by examining the role the UK's infrastructure networks and wider built environment sector can play in meeting the target.</p> <p>We note that the current WTS, which was published in 2008, set out to achieve social, economic and environmental outcomes. The scoping report for the new (2020) WTS has added a fourth category – cultural outcomes. This, we recognise, is particularly important here in Wales which has a rich cultural heritage which needs to be cherished and protected.</p> <p>The current (2008) WTS identified five strategic priorities:</p> <ol style="list-style-type: none"> 1. Reducing greenhouse gas emissions and other environmental impacts; 2. Integrating local transport; 3. Improving access between key settlements and sites; 4. Enhancing international connectivity; and 5. Increasing safety and security. <p>These are all important today but it's probably fair to say that the first two are even more pressing now than they were in 2008. The first because of the climate emergency and the second because of the predominance of the private car recently recognised in the work of the South East Wales Transport Commission.</p> <p>The 2008 WTS identified 3 key actions:</p> <ol style="list-style-type: none"> 1. Shifting freight from road to rail. Using freight facilities grant, support for intermodal transfer facilities and freight quality partnerships; 2. Encouraging short sea shipping by improving access to ports and support for port development; and 3. Modal shift to public transport, park and ride, walking and cycling. Providing more infrastructure to support that shift. Education and promotion of alternative modes. <p>Rail freight undoubtedly has a part to play but is best suited to the regular shipment of large amounts of heavy materials over long distances. Our motorways and trunk roads on the other hand provide suitable routes for heavy commercial vehicles carrying a wide range of products. The problem is that they are</p>	<p>Support noted</p>

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<p>often congested with single occupancy private cars that are used for commuting between home and work at peak periods. Wales' ports continue to be important for passenger and freight movements to and from Ireland and the continent. The third key action listed above is perhaps more important and urgent today than it was 12 years ago. We do need to discourage unnecessary trips, to encourage home-working, peak spreading, modal shift, more and better use of public transport and active travel (walking and cycling) for short purposeful journeys.</p> <p>Closing Remarks</p> <p>The need to mitigate climate change is not new. The impacts of climate change are already being felt. The Earth is warming, rainfall patterns are changing and sea levels are rising resulting in an increased severity and frequency of heatwaves, floods, droughts and fires. Climate change presents a major threat to the world's people, environment, economies and public health.</p> <p>We have long known about the importance of reducing greenhouse gas emissions. The UK has had a statutory target for reducing emissions since 2008. But the establishment of the net-zero target in mid-2019 has refocused this mission and brought a renewed sense of urgency to the task. Achieving the net-zero carbon target by 2050 will require an unprecedented transformation of infrastructure systems. The vital infrastructure systems on which the UK is built – such as energy, transport and utilities – currently contribute the majority of the UK's emissions. Transport and energy alone account for around 60% of the UK's CO2 emissions. Given the urgency of the climate emergency and the long lead times and life cycles of infrastructure, the challenge of transitioning these systems over the next 30 years will be immense.</p> <p>Meeting the net-zero target will require unparalleled innovation across the economy – innovation not just in new technologies and processes, but in new and better ways of deploying existing infrastructure and technologies. This will require new business models, new consumer services and, most importantly, new policy, regulation and market design.</p> <p>The new Wales Transport Strategy will have a critical role to play in order to help the UK achieve its net-zero carbon target. Wales has, in recent years, introduced some ground-breaking legislation – the Active Travel Wales Act , the Wellbeing of Future Generations Act, and Planning Policy Guidance. We now have an opportunity to deliver an effective and forward looking Wales Transport Strategy.</p> <p>Yours sincerely, Keith Jones, Director ICE Wales Cymru</p>	

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<p>John Mather, Secretary, ICE North Wales Branch Institution of Civil Engineers (ICE) Founded in 1818, the Institution of Civil Engineers (ICE) is a UK-based international organisation with over 95,000 members, ranging from students to professionally qualified civil engineers. As an educational and qualifying body, with charitable status under UK law, we support our members throughout their careers, and help society to have trust and confidence in infrastructure professionals. Under our Royal Charter, ICE has become recognised worldwide for its excellence as a centre of learning, a public voice for the profession and a leading source of expertise in infrastructure and engineering policy.</p>	
<ol style="list-style-type: none"> 1. Appendix B – include ERAMMP information and STEAM data. 2. Figure 2 – National Parks are a landscape designation with a public health purpose and not merely a ‘landscape feature’. 3. Table 3.2 – last key theme – this could be more ambitious – “The WTS aims to develop world-leading public transport, promoting sustainability, quality, social integration and inclusion to a degree that make it effortlessly preferable over private transport.” 	<p>Comment noted</p> <p>The SEA directive takes a proportionate approach with regard to targeted data collection to identify the issues, and it is not necessary to include every data set available, as this would not be efficient.</p>
<p>The document (in our view) is full of words with little substance as to what is the overall delivery plan actually means. A summary with the objectives and aims of the scoping plan is recommended so everyone knows what we are actually going to do to achieve the objectives.</p> <p>The Association would like to suggest that the following policies should be included in the scoping plan:</p> <ol style="list-style-type: none"> i) That train services into the future provide not only for existing passenger numbers but future demand. This as a minimum should mean retention of the current number of seats per train. ii) The buses for both town and rural areas are an important part of any strategy which removes cars off the roads. A policy of retaining a public transport service to as many areas as possible should be part of the scoping strategy. 	<p>Comment noted</p>
<p>It is important that the resource implications of the Wales Transport Strategy are considered at the earliest opportunity, through the provision of a resource assessment. Further, this should also detail supply chain considerations to ensure materials are available to facilitate the delivery of the strategy. An effective and efficient transport network is essential to ensure minerals and mineral products aswell as</p>	<p>Comment noted</p>

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<p>other goods, can be delivered to market. This transport network is also uniquely reliant on the effective and efficient delivery of minerals and mineral products to ensure roads and rail can be maintained. Recycled and secondary sources of construction aggregates supplied 28% of total demand in Great Britain in 2018, well ahead of the European average. MPA Members are at the forefront of delivering such materials. This includes materials such as road planings and spent ballast, for use in downstream markets. More detail is available in the attached document link.</p> <p>https://mineralproducts.org/documents/Contribution_of_Recycled_and_Secondary_Materials_to_Total_Aggregates_Supply_in_GB_in_2018.pdf</p> <p>WG may wish to consider specifications used in the road transport network. Overspecification may lead to an unnecessary increase in transport miles associated with a development, when in reality, a lower specification of materials may bring more local sources of material in to play. Over specification also increases pressure on the use of those resources that can only be used for high specification end uses</p>	
<p>The new WTS should fully recognise the importance of the Welsh part of the UK National Cycle Network. The NCN should become an integral part of the national transport infrastructure (it is noticeably missing from the national map at Appendix 4), in accordance with the key themes identified in the scoping report of promoting both well-being and our sustainable tourist industry</p>	<p>Comment noted</p> <p>National Cycle Network is shown on Figure 4</p>
<p>Other issues that may need to be considered:-</p> <p>Active travel to school is important, but there needs to be a recognition that much of this occurs within the context of trip chaining. It is only once it is firmly embedded in the context of adult travel that sustainable change will be possible.</p> <p>Please refer to road traffic crashes, rather than accidents. Accident implies that the crash is not preventable, when in reality it is.</p> <p>In relation to inequalities, it is worth noting how narrowing of the inequalities gap is brought about in relation to transport access:-</p> <ol style="list-style-type: none"> 1) Increase access for the most deprived more than the least deprived 2) Increase access for the most deprived and hold the least deprived constant 3) Reduce access for the most deprived but reduce access for the least deprived more 4) Reduce access for the most deprived but hold the least deprived constant. 	<p>Comment noted</p> <p>Active Travel (Wales) Act added to important national documents</p>

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<p>5) Make no change to the most deprived but reduce least deprived access.</p> <p>It is worth considering whether the WTS needs to make it acceptable to only narrow inequalities by means of the approaches listed in points 1 and / or 2 only.</p> <p>The WTS will be delivered in a Wales where the Active Travel Act is already in place, but there is relatively little recognition here of the scale of ambition and opportunities stated there. It would be useful to see these reinforced in the WTS, as well as show how the WTS will contribute to, and enhance the ambition of, the Active Travel Act.</p>	
<p>As part of its Get on Board for a Better Bus Service campaign, the NFWI has been gathering case studies of members' views and experiences of local bus services. In addition, during the coming months, the NFWI will be launching a survey to gather further quantitative and qualitative data from WI members, focusing on their access to local bus services, and the impact this has had on their lives.</p>	<p>Comment noted</p>
<p>We welcome the discussions we have had so far with Welsh Government and repeat our commitment to supporting the development of the WTS in whatever way we can. We would suggest that this engagement should continue as the strategy is implemented to ensure we can support successful delivery.</p> <p>The recent Covid-19 pandemic has resulted in a big shift in travel patterns and behaviour (albeit largely temporarily) including a big uptake in active travel. There is an opportunity to gather relevant data from this situation to help inform the WTS to show what is possible, as opposed to a more traditional predict and provide approach</p>	<p>Comment noted</p> <p>Agree – continued engagement is important as the strategy develops and is implemented.</p> <p>During the preparation of the WTS careful consideration will be given to the potential impacts of Covid-19 including how it could influence the WTS and its implementation.</p>
<p>In terms of engagement, we would stress the importance on continued engagement as the strategy is implemented, recognizing that the range of expertise that has been contributed in the development stage, is also valuable in the delivery stage. Ensuring those involved in the development of the strategy remain 'in the loop' on an ongoing basis will be important for success</p>	<p>Comment noted</p>

Integrated Sustainability Appraisal Response Log	Arcadis Response
	Agree – continued engagement is important as the strategy develops and is implemented
<p>Other issues that may need to be considered:- Active travel to school is important, but there needs to be a recognition that much of this occurs within the context of trip chaining. It is only once it is firmly embedded in the context of adult travel that sustainable change will be possible. Please refer to road traffic crashes, rather than accidents. Accident implies that the crash is not preventable, when in reality it is. In relation to inequalities, it is worth noting how narrowing of the inequalities gap is brought about in relation to transport access:- 1) Increase access for the most deprived more than the least deprived 2) Increase access for the most deprived and hold the least deprived constant 3) Reduce access for the most deprived but reduce access for the least deprived more 4) Reduce access for the most deprived but hold the least deprived constant. 5) Make no change to the most deprived but reduce least deprived access.</p> <p>It is worth considering whether the WTS needs to make it acceptable to only narrow inequalities by means of the approaches listed in points 1 and / or 2 only. The WTS will be delivered in a Wales where the Active Travel Act is already in place, but there is relatively little recognition here of the scale of ambition and opportunities stated there. It would be useful to see these reinforced in the WTS, as well as show how the WTS will contribute to, and enhance the ambition of, the Active Travel Act.</p>	Comment noted
<p>Section 5</p> <p>This section should be redrafted to reflect the potential longer-term implications of the Covid19 pandemic lockdown on the Wales Transport Strategy e.g. increased working from home; need for faster broadband connectivity, increased active travel and consequential implications for future land use and allocation.</p> <p>Table 3.2</p> <p>The key theme around flood risk is missing a word. It should read as “reduce the risk of flooding and/ or coastal erosion....” The 6th key theme in the table (bottom of page 17), we recommend that this should also identify the need for climate change adaptation.</p> <p>Section 4.3.1</p> <p>This section refers to attributes and aspects interchangeably. Aspects of ecosystem resilience include diversity, condition, extent, and connectivity, adaptability, recovery and resistance. Ecosystem attributes are those aspects of ecosystem resilience which are well understood and measurable. The ecosystem attributes listed in section 4.3.1 currently only includes diversity, condition, extent, and connectivity. It</p>	<p>Comments noted</p> <p>Implications of Covid-19 added to Section 5</p> <p>Agree-Added erosion to 4th theme of Table 3-2.</p> <p>Agree – recovery and resistance added</p>

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<p>would be appropriate to make this distinction within the text and to emphasise that resilient ecosystems only arise as a result of an interplay between all four ecosystem attributes, as such they should not be considered in isolation from one another.</p> <p>Table 4.1</p> <p>Table 4.1 (Resilient Wales section) refers to biodiversity, flora and fauna but given the legislative context in Wales it would be more appropriate to refer to biodiversity and ecosystem resilience. This section should also include reference to Sites of Special Scientific Interest, protected species, section 7 habitats and species, and to resilient ecological networks. It would be appropriate to consider and brigade the key issues and opportunities for biodiversity and ecosystem resilience in Table 4.1 against the ecosystem attributes of diversity, extent, condition and connectivity to reflect and provide a clearer read across from the legislative requirements of the Environment (Wales) Act. The potential impact that fragmentation can have on the commuting, dispersal, movement routes of certain species should be referred to in Table 4.1. The opportunity that active transport links could play in helping to reinforce resilient ecological networks could also be emphasised in Table 4.1.</p> <p>Appendix B It would be appropriate for appendix B to include an analysis of resilient ecological networks – level II networks developed as part of NRW's Habitat Networks spatial data set for various terrestrial habitats would be a useful starting point for consideration (available for download via Lle).</p>	<p>Added ecosystem resilience.</p>
<p>Welsh Language version: Nodwn fod y ddogfen ymgynghorol ar gael yn Gymraeg, ond nid yr atodiadau</p> <p>English translated version: Please note that this consultation document is available in Welsh, but not the appendices</p>	<p>Noted</p>
<p>We need to get the most out of the roads we have, to make our roads safer, to encourage modal shift and to enable more and better use of public transport, active travel and ultra-low emission vehicles (ULEV). Effective planning and development control will need to be applied in order to limit and manage the demand for transport. We should encourage home-working and make more and better use of information technology for business and other purposes.</p>	<p>Comment noted</p>

Atodiad D **Canlyniadau Asesu**

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1 Summary of the B1 Compatibility Tests

The WTS Vision and Ambitions have been tested for their compatibility with each ISA Objective, as per the following key:

Compatible	✓
Incompatible	✗
Neutral	○
Uncertain	?

Table 1-1: Compatibility scores recorded during the B1 Compatibility Tests

WTS	1. Health	2. Cohesion & equality	3. Economic development	4. Welsh culture	5. Welsh language	6. GHG emissions	7. Climate change resilience	8. Air quality	9. Landscape & townscapes	10. Heritage	11. Ecosystems	12. Natural Resources	13. Tranquility
Vision	✓	✓	✓	✓	✓	?	✓	?	✓	✓	✓	✓	✓
Ambitions													
1. Good for People and Communities	✓	✓	✓	✓	✓	✓	○	✓	○	○	○	○	○
2. Good for the Environment	✓	○	✓	✓	○	✓	✓	✓	✓	✓	✓	✓	✓
3. Good for the Economy and Places in Wales	✓	✓	✓	✓	○	✓	○	✓	○	○	○	✓	○
4. Good for Welsh Language and Culture	✓	✓	✓	✓	✓	○	○	○	✓	✓	○	○	○

2 WTS Vision – B1 Compatibility Test

The WTS presents the following Vision:

“Our vision is for

An accessible and sustainable transport system.

What does this mean?

- *‘Accessible’ – means a transport system that is accessible to all because transport providers are taking action to address the barriers that can prevent people using transport including physical, financial and attitudinal barriers.*
- *‘Sustainable’ – means a transport system that is good for people and communities, good for the environment, good for the economy and places and good for Welsh language and culture and meets the wider national well-being goals.*

Transport system’ – means transport infrastructure (such as footpaths, cycle paths, roads and rail) as well as transport services (such as aviation, public transport, and logistics). The wider system encompasses transport providers (the organisations involved in delivering transport services) as well as transport governance (the system of legislation, regulation, and governance) that supports these.”

This Vision has been tested for its compatibility with each ISA Objective using the following key:

Compatible	✓
Incompatible	✗
Neutral	○
Uncertain	?





ISA Objective	Score	Compatibility Test – WTS Vision
1. To contribute to an improvement in physical, mental, and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	✓	<p>Compatible – a transport system which is good for people and the environment would help to improve well-being and is compatible with the Objective.</p> <p>In making public transport accessible for all, more people would be able to use public transport for accessing the services they need, which includes health and social care facilities, exercise/leisure opportunities and outdoor semi-natural habitats. This could help to combat health inequalities, as residents in more deprived areas and the elderly are generally more likely to be relying on public transport for accessing services. An increase in public transport options and a greater uptake in use could contribute towards combatting the causes of social isolation, as public transport generally allows for more social cohesion and community interactions than other forms of transport.</p> <p>A transport system that is good for the environment would include more lower-emission options, which would help to combat adverse effects of air pollution on human health. It would also lead to more and enhanced active travel opportunities that enable an increase in rates of walking and cycling (for both leisure and commuting purposes, including for children travelling to school and back), thereby providing benefits to both physical and mental health for all people.</p> <p>A sustainable system that is good for people and communities would need to reduce danger from road traffic as well as driver stress, such as by reducing traffic flow through town centres and residential areas.</p>
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	✓	<p>Compatible – a transport system that is good for communities would aim to improve social cohesion and so it clearly demonstrates compatibility with the Objective.</p> <p>A system which is accessible for, and utilised by, a diverse range of people across society irrespective of background, gender, age, and disability would help to eradicate inequalities of access and to improve social cohesion. Travel options that are more affordable are likely to be particularly beneficial for residents in more deprived areas of Wales who rely on public transport more. Breaking down attitudinal barriers could also encourage an increase in public transport use by more affluent residents. Combined, this could lead to greater social cohesion and improved equality of opportunity and access, such as more equal access to education opportunities.</p>
3. To support sustainable economic development and diversity	✓	<p>Compatible – compatibility with this ISA Objective is clearly demonstrated through a transport system that is good for the economy and is accessible for all, improving diversity.</p> <p>In making public transport accessible for all, more people could have improved access to a broader range of employment, education and training opportunities. This would help to facilitate more equitable access across society and reduced economic inequalities.</p>
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	✓	<p>Compatible – compatibility with the Objective is clearly demonstrated through the inclusion of a transport system which is good for Welsh language and culture.</p> <p>A better-connected transport system would be likely to enhance the accessibility of recreational spaces and cultural and heritage assets, and the Vision aims to do this in a sustainable way for people of all communities. This could lead to increased numbers of residents and tourists visiting cultural and recreational places, thereby leading to increased income and new investment that helps to enhance their economic viability going forwards.</p>
5. To encourage the protection and promotion of the Welsh Language	✓	<p>Compatible – the Vision seeks to ensure that there is a transport system that is good for Welsh language and culture, which clearly is compatible with the Objective.</p> <p>A system that is accessible for all must account for accessibility for Welsh-speaking people, such as through the inclusion of the Welsh language in all station announcements, road signs, and signs within bus and rail stations. Not only would this help to ensure that Welsh speakers have equal access to the transport system, but it could also help to promote the language and to encourage its regular use. An enhanced public transport system could also improve the accessibility of educational facilities, including Welsh-Medium education facilities.</p>

ISA Objective	Score	Compatibility Test – WTS Vision
6. To reduce greenhouse gas emissions from transport	?	<p>Uncertain – the Vision is largely compatible with this Objective due to the focus on enhanced infrastructure for low-emission modes of travel, such as public and active transport, as part of a transport system which is good for people and the environment. However, there is a risk of this being undermined by a continued commitment to aviation.</p> <p>Increases in the rate of walking, cycling and public transport would help to reduce carbon emissions associated with the transport sector in Wales. It is likely that this would be particularly effective in urban areas where opportunities for walking, cycling, or using public transport are generally greater than they are in more rural areas. In rural areas, local people often need to travel longer distances to access certain key services and amenities and typically have very limited walking, cycling or public transport options for doing so.</p> <p>Freight logistics are essential to the operation of Wales' economy. However, freight vehicles can be particularly large sources of GHG emissions. Improvements to the efficiency of freight movements could help to reduce these emissions.</p> <p>Aviation is an important part of Wales' transport sector and economy but is a significant source of GHG emissions. The Vision includes a reference to aviation and could potentially help to encourage more frequent use of airports and flight. There is uncertainty around the extent to which this may take place. Should people in Wales want or need to fly they may opt to travel to an airport in England should the services not be available in Wales, which would be less sustainable than them flying out of Wales. However, reducing GHG emissions from the aviation sector is going to be essential in order to successfully meet carbon budgets and so any increase in the scale of the aviation industry in Wales would conflict with this ISA Objective. Given the uncertainty around this, the overall compatibility with this ISA Objective is considered to be Uncertain.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • The definition of the transport system could potentially demonstrate the hierarchy of preference, with low-carbon modes at the top. • Over half the GHG emissions from transport in Wales are caused by cars; low carbon vehicle infrastructure could be referred to.
7. To enable climate change resilience	✓	<p>Compatible – the Vision is compatible with this ISA Objective due to the inclusion of enhanced infrastructure for greener modes of travel, such as public and active transport, as part of a transport system which is good for people and the environment.</p> <p>Transport infrastructure with GI elements could help to more sustainably manage surface run off and reduce flood risk.</p> <p>The Vision encourages the use of greener modes of transport, such as cycling, walking and public transport, instead of private cars. Subsequent reductions in GHG emissions could help to limit the effects of climate change on Wales.</p> <p>A system which is accessible for all is likely to recognise the inequalities experienced in relation to access to transport in extreme weather events, such as during heavy snowfall, and would help to tackle this.</p>
8. To protect and improve air quality	?	<p>Compatible – the Vision is broadly compatible with this Objective due to the inclusion of enhanced infrastructure for low-emission modes of travel, such as public and active transport, as part of a transport system which is good for people and the environment.</p> <p>Increase in the uptake of walking, cycling, and public transport could help to reduce air pollution associated with Wales' transport sector. The only potential conflict, as with ISA Objective 6, relates to the continued commitment to aviation, which is a significant source of air pollution. Achieving air quality improvement targets could therefore be made more difficult as a result of this.</p>
9. To protect and enhance the local distinctiveness of	✓	<p>Compatible – a transport system that is good for the environment and the Welsh culture is likely to be largely compatible with the Objective to protect and enhance local landscapes and townscapes.</p>





ISA Objective	Score	Compatibility Test – WTS Vision
our landscapes and townscapes		A transport system that is good for communities and for the Welsh culture would be designed in such a way as to preserve local townscape character. Furthermore, an increase in active transport and public transport (alongside better-connected systems) would help to reduce car use and subsequently reduce the effects of large volumes of road traffic (e.g. noise and visual intrusion), particularly in valued, remote landscapes, such as National Parks.
10. To promote the conservation and enhancement of heritage assets	✓	<p>Compatible – compatibility with the Objective is demonstrated through the inclusion of a transport system which is good for Welsh culture, which would aim to preserve historic assets.</p> <p>Some heritage assets may be transport assets themselves, such as historic bridges or railway stations; upgrading these in a historically sensitive way would simultaneously improve transport links whilst enhancing the heritage asset.</p> <p>New investment in existing transport infrastructure would be likely to provide opportunities for ensuring that transport infrastructure makes a positive contribution towards the setting of nearby heritage assets or historic areas.</p>
11. To promote the conservation and enhancement of biodiversity, geodiversity, and ecosystems	✓	<p>Compatible – although there is limited cross-over in this section, the Vision is compatible with this Objective through the inclusion of a sustainable transport system that is good for the environment.</p> <p>In aiming to be good for the environment, the Vision is likely to promote a design of transport infrastructure that would secure biodiversity benefits and conserve designated nature conservation sites. An increase in active travel and public transport, i.e. low-emission modes of travel, would improve air quality which may benefit biodiversity and ecosystems, and reduce habitat disturbance caused by cars. However whilst the Vision would help to reduce the existing adverse effects of the transport system on biodiversity, it is unlikely it would lead to net gains.</p>
12. To ensure the sustainable use of natural resources	✓	<p>Compatible – although there is limited cross-over in this section, the Vision is compatible with this Objective through the inclusion of a sustainable transport system that is good for the environment.</p> <p>Enhancements to active travel and public transport would be likely to have a positive impact on reducing natural resource usage in private cars. A sustainable system should encourage the use of recycled and sustainable materials in the development of transport infrastructure where possible.</p>
13. To enable the protection of tranquil areas and prevention of noise and light pollution	✓	<p>Compatible – in being good for the environment, people and communities, the Vision must aim for a transport system that protects tranquil areas and is therefore compatible with this ISA Objective.</p> <p>For the benefit of people and communities, there would need to be a reduction in, or mitigation of, noise and visual disturbances. Fewer private cars in use due to the increase in rates of active travel and public transport would be likely to lead to some positive effects on the protection of tranquil areas due to decreased disturbances.</p>










3 WTS Ambitions – B1 Compatibility Tests

The Ambitions in the WTS have been tested for their compatibility with each ISA Objective using the following key:









Compatible	
Incompatible	
Neutral	
Uncertain	






Chapter 2: Good for People and Communities

ISA Objective	Score	Compatibility Test – Chapter 2: Good for People and Communities
1. To contribute to an improvement in physical, mental, and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales		Compatible – this Ambition seeks to improve the uptake of walking and cycling rates. Cycling to work is effective at delivering positive health incomes; various studies and datasets show it to be significantly better for health compared to walking and it can significantly reduce obesity/heart disease/premature death arising from sedentary lifestyles. Only around 6% of people in Wales cycle at least once a week for active travel and so this Ambition could help to deliver positive outcomes for people across Wales. This Ambition also recognizes the need to improve the safety of transport infrastructure. The recent pandemic and lockdowns have reduced people's confidence in using public transport. Making public transport safer and more welcoming would help to combat this.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved		Compatible – this Ambition seeks to contribute towards a more equal Wales. It would do so by enhancing the safety of public transport and making it more welcoming. It would also achieve this by helping to combat attitudinal, digital, financial, and physical barriers to public transport and active travel links, which would help to combat isolation and inequalities of access. It is somewhat uncertain the extent to which this would be achievable in some of the most isolated rural areas where existing public transport opportunities are severely limited.
3. To support sustainable economic development and diversity		Compatible – more equal access to transport would mean more people, and a more diverse range of people, are able to access employment opportunities and economic areas, having a positive impact on development and the economy. Improved transport infrastructure would also be likely to provide a boost to Wales' tourism industry.
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces		Compatible – more equal access to active travel routes and public transport would improve the accessibility of cultural and recreational spaces.










ISA Objective	Score	Compatibility Test – Chapter 2: Good for People and Communities
5. To encourage the protection and promotion of the Welsh Language		Compatible – the focus is on giving all groups access to public transport and making them feel welcome; this includes Welsh speakers so could bring about a wider use of the Welsh language within the transport sector. It is assumed that 'Welsh language', where it is a barrier to people's access (e.g. Welsh speakers not being comfortable using public transport due to communication being in English), falls within 'physical, economic, social and attitudinal barriers' and so combatting these would help to enhance the accessibility of more sustainable travel modes for Welsh speakers.
6. To reduce greenhouse gas emissions from transport		Compatible –an increase in walking and cycling, coupled with an increase in the usage of public transport, would lead to a decrease in GHG emissions associated with the transport sector.
7. To enable climate change resilience		Neutral
8. To protect and improve air quality		Compatible – an increase in walking and cycling, coupled with an increase in the usage of public transport, would lead to a decrease in air pollution associated with the transport sector.
9. To protect and enhance the local distinctiveness of our landscapes and townscapes		Neutral
10.To promote the conservation and enhancement of heritage assets		Neutral
11.To promote the conservation and enhancement of biodiversity and geodiversity		Neutral
12.To ensure the sustainable use of natural resources		Neutral
13.To enable the protection of tranquil areas and prevention of noise and light pollution		Neutral





Chapter 2: Good for the Environment

ISA Objective	Score	Compatibility Test – Chapter 2: Good for the Environment
1. To contribute to an improvement in physical, mental, and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales		Compatible – improvements to the natural environment are likely to be of benefit to people's physical and mental well-being. This could be as a result of improved air quality, enhanced access to open space and semi-natural habitats, and health benefits associated with higher rates of walking/cycling.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved		Neutral
3. To support sustainable economic development and diversity		Compatible – reduced wastage and sustainable use of current transport infrastructure will likely reduce government spend in the transport infrastructure. Enhancements to the natural environment would benefit Wales' tourism industry.
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces		Compatible – the conservation and enhancement of the natural environment could potentially benefit recreational and cultural spaces, particularly those outdoors.
5. To encourage the protection and promotion of the Welsh Language		Neutral
6. To reduce greenhouse gas emissions from transport		Compatible – this Ambition seeks to ensure that there is a significant reduction in GHG emissions associated with Wales' transport sector. Recommendation: This Ambition could specifically refer to Wales' carbon budgets when referring to 'significant' reductions in GHG emissions.
7. To enable climate change resilience		Compatible – by improving sustainable land management and future-proofing existing infrastructure, the Welsh transport system will help to make itself more resilient to the effects of climate change. In aiming for a shift towards zero- and low-carbon transport options, the impacts of climate change may also be reduced.
8. To protect and improve air quality		Compatible – transport is clearly outlined as a significant contributor to air quality issues, along with options to improve them such as active travel and electric vehicle use which will reduce emissions.










ISA Objective	Score	Compatibility Test – Chapter 2: Good for the Environment
9. To protect and enhance the local distinctiveness of our landscapes and townscape		Compatible – improvements to and preservation of the environment could help to protect and enhance natural landscapes.
10. To promote the conservation and enhancement of heritage assets		Compatible – the conservation and enhancement of the natural environment could potentially benefit sensitive heritage assets and historic areas, such as by enhancing their setting or screening them from the visual impacts of new development. It would also be likely to help benefit historic landscapes.
11. To promote the conservation and enhancement of biodiversity and geodiversity		Compatible – through more sustainable land management strategies and incorporating ecosystem resilience into transport operations there will likely be a positive effect on biodiversity and habitat protection. This Ambition specifically seeks to ensure that transport operations protect and enhance biodiversity and soils.
12. To ensure the sustainable use of natural resources		Compatible – natural resources can be used more sustainably through increasing renewable energy opportunities. This Ambition would be likely to help to reduce the consumption of natural resources by reducing waste and increasing the uptake of more efficient forms of transport.
13. To enable the protection of tranquil areas and prevention of noise and light pollution		Compatible – more sustainable land management strategies are likely to have a positive impact on tranquil areas. A reduction in car travel and the electrification of vehicles will likely reduce noise and visual disturbances and pollution associated with transport.





Chapter 2: Good for the Economy and Places in Wales

ISA Objective	Score	Compatibility Test – Chapter 2: Good for places and the economy
1. To contribute to an improvement in physical, mental, and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales		Compatible – through increasing access to leisure and services, such as health and social care facilities, there would be an improvement in health and well-being. Access to work and training is also proven to be beneficial to people's health and well-being.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved		Compatible – increasing access to work, leisure, education, and services for all communities would increase social cohesion and help to combat inequality.
3. To support sustainable economic development and diversity		Compatible – through a more sustainable supply chain, increased access to work and education, and supporting innovations in the transport sector, the Welsh economy will likely be stimulated and able to grow and diversify.
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces		Compatible – increased access to leisure will conclude better access to cultural and recreational spaces, particularly in rural areas.
5. To encourage the protection and promotion of the Welsh Language		Neutral
6. To reduce greenhouse gas emissions from transport		Compatible – by supporting people and businesses to choose more sustainable transport options, including the development of technological and digital innovations which allow people to work remotely, there will likely be less use of private cars, decreasing GHG emissions.
7. To enable climate change resilience		Neutral
8. To protect and improve air quality		Compatible – tackling congestion will improve local air quality, and an increase in sustainable transport modes will reduce emissions.
9. To protect and enhance the local distinctiveness of		Neutral

ISA Objective	Score	Compatibility Test – Chapter 2: Good for places and the economy
our landscapes and townscape		
10. To promote the conservation and enhancement of heritage assets		Neutral
11. To promote the conservation and enhancement of biodiversity and geodiversity		Neutral
12. To ensure the sustainable use of natural resources		Compatible – by supporting the use of a more sustainable Welsh supply chain, there will likely be less wastage and an increase in sustainable options that do not deplete natural resources.
13. To enable the protection of tranquil areas and prevention of noise and light pollution		Neutral

Chapter 2: Good for Welsh Culture and Language

ISA Objective	Score	Compatibility Test – Chapter 2: Good for Welsh Culture and Language
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales		Compatible - cultural spaces and events can be highly beneficial to people's mental health and well-being. This Ambition seeks to ensure that such spaces are accessible and protected.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved		Compatible – this Ambition seeks to enhance cohesion for Welsh-speaking communities and to provide access to sporting and cultural events for a wide range of people, thereby improving the equality of opportunity for all.
3. To support sustainable economic development and diversity		Compatible – through improving ease of access to cultural events and historic environment assets, footfall and subsequently spending would likely increase in these nearby centres and high streets. Large cultural events are also an important part of Wales' economy.
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces		Compatible – there are clear steps being sought to promote the Welsh culture and improve access to a range of events and recreational areas and activities.
5. To encourage the protection and promotion of the Welsh Language		Compatible – by providing bilingual services and encouraging transport providers to meet Welsh language standards, the transport sector would help to protect and promote the Welsh language.
6. To reduce greenhouse gas emissions from transport		Neutral
7. To enable climate change resilience		Neutral
8. To protect and improve air quality		Neutral
9. To protect and enhance the local distinctiveness of our landscapes and townscapes		Compatible – through the preservation and enhancement of the historic environment and cultural heritage, the traditional townscapes of Wales are more likely to be protected and promoted.

ISA Objective	Score	Compatibility Test – Chapter 2: Good for Welsh Culture and Language
10. To promote the conservation and enhancement of heritage assets		Compatible – in contributing to a Wales of vibrant culture, heritage assets, including Wales' transport heritage, heritage assets and historic areas would be likely to be protected and enhanced.
11. To promote the conservation and enhancement of biodiversity and geodiversity		Neutral
12. To ensure the sustainable use of natural resources		Neutral
13. To enable the protection of tranquil areas and prevention of noise and light pollution		Neutral

4 WTS Priorities – Detailed Appraisals

Priority 1: Planning for better connectivity

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 1: Planning for better connectivity
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Low	<p>This priority is highly compatible with ISA Objective 1 and the successful achievement of this priority would make a significant positive contribution towards this ISA Objective. However, there is uncertainty around the extent to which it would be achievable using the measures set out in the WTS and, overall, only a minor reduction in the need for car-use is likely.</p> <p>Reducing the need to travel by private car would be likely to help deliver improvements to air quality and noise from traffic, with subsequent benefits to people's physical and mental health and well-being. It would be likely to lead to higher rates of walking and cycling, which would be of significant benefit to people's health and well-being. This is set out in the priority, seeking to plan for transport that can reduce sedentary lifestyles. Although not specified, changing the pattern of demand, could lead to a reduction in road building, and therefore, a reduction in the potential for severance from new road building, as well as reducing traffic levels on existing roads, that may form barriers to community interaction.</p> <p>More efficient transport networks with better integrated active travel and public transport links could help to reduce the time it takes to reach places people need to go. This would allow people to better spend their time doing what they want to do, rather than commuting for example, with likely benefits to their mental well-being.</p> <p>The priority provides future proofing measures, and seeks to align with Future Wales, which could support the integration of new developments into the transport system and provisioning them near to essential services, so that active travel can be promoted and community transport needs are met.</p> <p>Ensuring that people are situated in proximity to the services they need would help to ensure that they have good access to necessary health services including hospitals and GP services, including Welsh medium services, for people who cannot rely on private car use e.g. children and elderly people, which could help to improve the equality of access to health services.</p> <p>The priority accepts that people in rural areas are less able to travel via modes other than the private car. This is the case for many trips including for work, personal, business and leisure trips. However instances of walking and cycling for leisure purposes may be more prevalent. It is probable that through planning better physical and digital connectivity, people in rural areas will have increased options of access routes to health and social facilities.</p> <p>By designing policies based around reducing the amount of vehicles on the road and promoting working from home, it is considerable that there would be a reduction in driver stress and road traffic accidents, because the frequency of vehicles on the road will be lessened, however there is a high degree of uncertainty surrounding this. This would also</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 1: Planning for better connectivity
			<p>have no distinction as to the type of groups who the risk would be lowered for, it would be an overall reduction in the risk due to statistics.</p> <p>The encouragement for people to work from home would help to reduce car-use, but there is uncertainty around the potential health impacts of this. For many people, walking or cycling to and from work is a key opportunity for exercise. Working alone at home could also lead to some detrimental effects on people's mental well-being, as a result of isolation.</p> <p>The future impacts of COVID-19 and potential other future pandemics will affect the future of the transport system e.g. more spread out seating, hand sanitiser stations, mask wearing etc. And whilst private vehicle travel is much safer, steps can be taken to ensure the safety of travellers on public transport.</p> <p>By improving active travel, the priority could encourage more people to access the open spaces they have available to them e.g. public parks, accessing these spaces and community areas will help to build stronger communities, helping to reduce the risk of loneliness and isolation. If improvements are brought to more rural transport services then these would also extend to the access of the countryside and open spaces for people who live in city and town centres, however there is a high degree of uncertainty around this.</p>
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	+	Long-term Low	<p>This priority is highly compatible with ISA Objective 2 and the successful achievement of this priority would make a significant positive contribution towards this ISA Objective. However, there is uncertainty around the extent to which it would be achievable using the measures set out in the WTS and, overall, only a minor reduction in the need for car-use is likely. However, as a supportive document to 'Future Wales', in combination, significant benefits could be achieved, particularly in relation to new public sector developments.</p> <p>Improvements to public transport could help to address inequalities in access to bus and rail and ensure that public transport is equitable.</p> <p>By improving access between and within communities the priority may lead to an increase in the rates of satisfaction of the people within those communities, as there may be more options for essential and recreational services. This increase in accessibility could help to create equality of access for all people to health care facilities, employment opportunities and education services, helping to reduce inequalities in all aspects. However there is a high degree of uncertainty surrounding this.</p> <p>It appears unlikely that this priority would address the limited access to public transport for people in rural locations, and they will be required to continue relying on car use. However, it is probable that through planning better physical and digital connectivity, people in rural areas will have increased options of access routes to community facilities.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The WTS could usefully reference the Social Model of Disability, when focussing on improving public transport.
3. To support sustainable economic	++	Medium to Long-term	<p>This priority is compatible with ISA Objective 3, due to the focus on accessibility. Maximising the potential of existing transport infrastructure, such as ports and railway stations, as sites for investment and growth, could lead to positive effects against this objective. Further, encouraging the development of new 'work hubs' through initiatives, such as</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 1: Planning for better connectivity
development and diversity		Medium	<p>Transforming Towns, as well as supporting the initiatives in Future Wales, could lead to significant positive cumulative effects, in the longer term.</p> <p>Further benefits could be achieved through reducing congestion and a national digitisation strategy.</p> <p>This could lead to increased access to jobs, helping to reduce unemployment in Wales, by increasing access within and to different communities and areas, it will increase the amount of employment opportunities accessible to people of different communities and likely help to reduce employment inequality within Wales.</p> <p>There is also plenty of scope for development with this integrated approach – “Make sure that new developments have access to public transport, integrate provision for walking and cycling and take account of transport innovations such as charging and electrification”, and the promotion of economic flexibility “encourage employers to facilitate homeworking for as many workers as possible and invest in new work hubs through initiatives such as Transforming Towns”.</p> <p>The priority seeks to ensure that land is set aside for future transport hubs (e.g. around stations), but it is uncertain how this would be implemented, as development land in these areas is at a premium.</p> <p>The priority encourages the reduction in need to travel for work by helping to promote working from home through improved digital connectivity and encouraging employer benefits. This will also help to diversify the employee market as location will have less of a bearing on job opportunities; meaning that it may create an employment opportunity equality between rural and urban areas, however there is a high degree of uncertainty surrounding this.</p> <p>Through the increased access and increased equity of access, it is likely that underperforming areas will see growth, due to more employment opportunities for those living in these areas, there is also a level of encouragement towards inward investment and future proofing of the transport system and facilities, however there is a high degree of uncertainty surrounding this.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Employers should be encouraged to offer working from home as an option but maintain flexibility for people wishing to continue in a more formal work environment. • Employers should be encouraged to provide cycle-to-work schemes. particularly where places of work are highly accessible via walking and cycling as well as public transport. Car-parking spaces at places of work, where they are highly accessible via active travel and public transport, could be discouraged due to the availability of other means. • Promoting sustainable travel options such as active travel will likely extend to the tourist industry, this would mean appropriate signage would be required to direct active travel route users towards tourist attractions. • The resilience and growth of the current rail and freight network provisioned by this priority will mean the protection of the internal movement of goods, however provision should be made for international travel via ports and airports. • Detail with regards to setting aside land for future transport hub should be included, or a cross-reference added to how this may be implemented.

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 1: Planning for better connectivity
			<ul style="list-style-type: none"> There is not any specific indication of any support given to the enhancements of the rural economy or diversification.
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Medium	<p>This priority is generally compatible with ISA Objective 4 as it states “Ensure that all future public sector developments are accessible by public transport and active travel”, but there is no mention specifically of promoting access to cultural spaces, even though it may be implied and included in “public sector developments”.</p> <p>A potential knock-on effect of reduced vehicles on the road is that the setting of many cultural heritage sites and assets will be improved due to less noise and air pollution from that source, however there is a high degree of uncertainty surrounding this.</p> <p>During peak times, better public transport links and services will likely put less stress on tourist and the travel network as there will be a higher frequency of links and an improved quality of facilities leading to an all-round better experience. Better active travel routes will also help to alleviate the stress on the transport network due to tourists allowing for easier management in tourist areas.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> In addition to public sector developments, there is potential scope to require/encourage/recommend that cultural spaces and places in Wales are accessible via active travel and public transport
5. To encourage the protection and promotion of the Welsh Language	+	Long-term Low	<p>The increase in sustainable travel access to all facilities, could include Welsh language education facilitates, however this is not specified. As the priority seeks to support the implementation of the measures in Future Wales, some indirect positive effects on the Welsh Language may result.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Greater focus could be given to non-English communities (other than Welsh communities), who might have their own challenges in accessing public transport.
6. To reduce greenhouse gas emissions from transport	+	Long-term Medium	<p>This priority is generally compatible with ISA Objective 6, as it states; “<i>We need to drive the behaviour change that reduces car use and greenhouse gas emissions</i>” – by reducing the need for private car and vehicle travel, there will be less greenhouse gas and CO₂ emissions from the transport sector.</p> <p>Under priority 1, cleaner technology for transport is promoted including the use of electric vehicles for public transport and setting aside land for future transport hubs.</p> <p>Promoting working from home will reduce the need for travelling and reduce congestion during peak times. Supporting the implementation of Future Wales, with regards to the development of sustainable places, could also lead to positive effects. However, effects are considered to be minor, due to the lack of specific implementable measures on a national scale, which could have wide ranging effects.</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 1: Planning for better connectivity
			Recommendations: <ul style="list-style-type: none"> Showing leadership could potentially include efforts to limit parking provision at public sector developments, and to include high-quality and secure cycle storage. More detail could be included on walking and cycling links – ideally, these would be safe and attractive routes that encourage people to walk or cycle. They would be of high biodiversity value that link with the wider GI network, which provide natural benefits to all spheres of sustainability including enhancing the public realm (social and economic benefits); health benefits; biodiversity and visual amenity value; flood defence; air quality; soil enrichment; wildlife corridors. Potential commitment to provide financial, or other, support to community cycling groups. These can be particularly active organisations and there are examples of instances where significant efforts are being made to change people's behaviour around cycling. The WTS could potentially commit to subsidising purchases of electric vehicles. This could be particularly effective for those who have limited access to public transport or active travel links, or where reliance on the private car may be greater, such as in rural areas. Energy efficiency within public transport infrastructure is not mentioned but could provide further traction towards zero energy sources/zero carbon.
7. To enable climate change resilience	+	Long-term Low	<p>This priority is generally compatible with ISA Objective 7, as it states; “Make sure that new developments have access to public transport, integrate provision for walking and cycling and take account of transport innovations such as charging and electrification”, by investing in more sustainable forms of transport and technology, it will help to future proof the Welsh transport system.</p> Recommendations: <ul style="list-style-type: none"> More detail should be given on incorporating GI into the transport network and providing ecosystem resilience and helping to reduce climate vulnerability.
8. To protect and improve air quality	+	Long-term Low	<p>This priority is generally compatible with ISA Objective 8, as reduced use of private cars and a reduction of vehicles on the road in general will reduce emissions and therefore increase the air quality of Wales. Limiting car use will help to reduce GHG emissions, but also other forms of pollution e.g. atmospheric nitrogen deposition.</p> Recommendations: <ul style="list-style-type: none"> There is scope for the WTS to focus on reducing car use on areas where air quality is particularly bad, such as at and near AQMAs.
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	+	Long-term Low	<p>This priority is generally compatible with ISA Objective 9, as less access by cars and the importance of urban areas being made more pedestrian friendly will provide a more distinctive townscape. Reduced investment in road development may also imply that more landscapes will be protected.</p> <p>There will also likely be knock-on effects of reduced noise and air pollution from traffic, creating a more pleasant setting for landscape and townscape features, as well as tranquil areas.</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 1: Planning for better connectivity
			Through setting aside land around stations for development and planning for logistic hubs and shared solutions, it is likely that this will reduce the spread of infrastructure throughout a city or town, meaning there will likely be less chance for impact upon the townscape.
10. To promote the conservation and enhancement of heritage assets	+	Long-term Low	<p>This could be considered compatible in a very minor way as the reduction of road traffic will likely lead to improvements to air quality and a reduction to noise disturbance, meaning that the setting of these conservation and heritage assets will be improved, however there is a high degree of uncertainty associated with this.</p> <p>Increasing access by active travel and public transport links could also lead to an increase of visitors to conservation and heritage areas, leading to increased investment, however there is an even higher degree of uncertainty associated with this.</p>
11. To promote the conservation and enhancement of biodiversity and geodiversity	+	Long-term Low	<p>This priority is generally compatible with ISA Objective 11, as more efficient development and fewer cars encouraged on the road will lead to less habitat disturbance by roadways, however this is not stated directly.</p> <p>There will likely be indirect positive effects from fewer vehicles on the roads, less air pollution and less noise pollution will lead to less habitat disturbance and cause less stress to flora and fauna providing a better environment for an increase in biodiversity.</p> <p>Fewer developments of roadways and transport infrastructure could possibly mean less development in general and therefore fewer instances of intrusive groundworks, helping to contribute to the protection of geodiversity. However there is a high degree of uncertainty around this.</p> <p>Improving active travel routes and public transport links will likely grant easier access to wildlife areas and open green spaces, making them more accessible for all people and not only those who have access to a private car.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • More work could be included on walking and cycling links – ideally, these would be safe and attractive routes that encourage people to walk or cycle. They would be of high biodiversity value that link with the wider GI network, which provide natural benefits to all spheres of sustainability including enhancing the public realm (social and economic benefits); health benefits; biodiversity and visual amenity value; flood defence; air quality; soil enrichment; wildlife corridors.
12. To ensure the sustainable use of natural resources	+	Long-term Low	<p>This priority is generally compatible with ISA Objective 12, as it states; “Make sure that new developments have access to public transport, integrate provision for walking and cycling and take account of transport innovations such as charging and electrification” by adapting to more sustainable technologies there will be less reliance on natural (non-renewable) resources.</p> <p>Fewer vehicles on the road means fewer pollutants from exhaust or spills falling onto the tarmac, there is then less chance of surface water run off carrying these pollutants into the soil, groundwater and surface water, therefore enhancing their quality. However there is a high degree of uncertainty surrounding this.</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 1: Planning for better connectivity
			Potentially fewer road network developments means fewer materials necessary and more scope to use recycled materials as there will be reduced usage of them, fewer developments will also likely lead to less waste. However there is a high degree of uncertainty surrounding this.
13. To enable the protection of tranquil areas and prevention of noise and light pollution	+	Long-term Low	This priority is generally compatible with ISA Objective 13, as a reduction in the use of private cars and vehicle travel will reduce noise from roads and therefore reduce noise pollution, however this is not stated directly. Fewer vehicles on the road will likely lead to less noise and light pollution from traffic and put less stress on tranquil areas.

Priority 2: Public transport services that people can use, want to use and do use

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 2: Public transport services that people can use, want to use and do use.
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>This priority is compatible with ISA Objective 1, as it states; “<i>if all of us make greater use of public transport, we help to sustain services for those that have no other option.</i>” Having cleaner more reliable transport options will help to contribute to better, physical, mental and social health, through walking, as well as increased community interaction, and improved access to services and facilities. Through continuing to support socially necessary public transport, this will help to reduce inequalities, especially with regards to health.</p> <p>By shaping the public transport services by user feedback it will help ensure that services are able to provide to those who need it e.g. rural communities, by improving connections via different modes of transport e.g. rail and cycle lanes, it will increase the connectivity and ease of access across Wales for all including to health and welfare facilities, employment and education opportunities, and recreational activities, helping to make access equitable for all.</p> <p>By making public transport cleaner and safer it will be more appealing to at risk groups who may need to use public transport to access health services e.g. children and the elderly, this will likely help reduce health inequality, equally by promoting active travel by improving active travel routes, it will help promote a healthy lifestyle, through this exercise.</p> <p>By improving transport connectivity and integrating different modes of transport into journeys there will likely be increased connectivity between communities and there will be more options for travel and infrastructure implementation so the risk of community severance will be reduced.</p> <p>It is likely that with more attractive public transport options, people will be more inclined to use public transport and less likely to use private cars. This could lead to fewer cars on the road, improving road safety, and lessening air pollution and noise pollution from transport, leading to fewer stressors on human health.</p> <p>Improved public transport options will make the act of taking public transport more appealing. This is usually a less isolating experience than private car use, this could lead to less loneliness and isolation in Welsh people as more chances for human interaction would be available to them. However there is a high degree of uncertainty associated with this.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The section could refer to the heightened need for cleanliness and space in light of the global pandemic.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	++	Long-term High	<p>This priority is compatible with ISA Objective 2, as it states; “One of our core principles is a ‘people first – user centred’ approach to transport.” and ‘Continue to support socially necessary public transport services’ this will help to improve social cohesion and equality, having cleaner more reliable transport options will likely also help to harbour a sense of pride in the community, leading to a greater sense of social cohesion.</p> <p>By creating a better sense of community and social cohesion through cleaner and safer public transport there would likely be a reduced number of cases of crime on public transport services, however there is a high degree of uncertainty around</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 2: Public transport services that people can use, want to use and do use.
			<p>this as if public transport is promoted and more people use it, there will be safety in the large number of people using the transport, but there could also be a statistically higher rate of crime due to there just being more people using it.</p> <p>Through supporting community transport options and necessary transport services through funding it will help to improve equal access without the barrier of income or location.</p> <p>By increasing the safety and cleanliness of public transport it will promote their use, the more people who use them will also possibly increase the safety of the users as well, especially the safety of women, BAME and LGBTQ+ people. By connecting active travel routes and integrating them into other transport options it will make active travel more accessible for people who may struggle to walk long distances e.g. children, disabled people or the elderly.</p> <p>By improving the connectivity of public transport overall, it will make access easier for all people and therefore increase the equitable availability of it. Increasing the access of public transport will also likely increase user satisfaction with their own neighbourhood and local environment as they are no longer limited to only accessing the facilities within their local surroundings, this will also help to improve equality as people are not limited to the employment opportunities or educational facilities within their own communities, but can access any. Through increased journey connectivity, it will even improve the access of rural communities to the same opportunities, to some degree.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • The people first, user centred approach would help to ensure that the diverse needs of different groups could be met. However, it could be made more clear when and how these views would be collated. • The priority should refer to the Model of Social Disability and specifically set out how disabled users will be equally treated in terms of public transport provision.
3. To support sustainable economic development and diversity	++	Long-term Medium	<p>This priority is compatible with ISA Objective 3, as it states that journeys on public transport “<i>are better for the economy because they reduce congestion in urban areas</i>”. Public transport use is correlated with a stronger economy, due to spending on the transport service itself and ancillary services such as food and drink outlets in the vicinity of train stations. Further, public transport connectivity means that employers are able to garner a larger employment base, which could mean a more diverse economy and inward investment. All of these factors lead to a more stimulated economy. More attractive public transport options will make people more likely to use these services to access urban centres and shops to spend money, meaning there will likely be an indirect increase to the diversity and development of the economy, it could also provide a boost to underperforming or difficult to access economic areas.</p> <p>Through increased access and connectivity of different communities there will likely be increased access to employment opportunities, this will also make these opportunities more equitable as the transport barrier is reduced.</p> <p>This increased connectivity and integration of different travel modes into journeys could lead to increased access to many facilities including tourist attractions and the countryside, this countryside connectivity could also help rural communities to access more job opportunities. However this is not stated directly in the text so there is a high degree of uncertainty surrounding this.</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 2: Public transport services that people can use, want to use and do use.
			Under this priority, inward investment is encouraged through the improvement of transport infrastructure and investment in low carbon technology for transport infrastructure, this will help to future proof the industry and could lead onto improvements in freight transport and international travel, however there is a high degree of uncertainty surrounding this.
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Low	<p>Through improving the safety, access and connectivity of the public transport system/active travel options and making them a more appealing option it will likely lead to more people choosing public transport options and less people choosing private vehicles, this will lead to fewer vehicles on the roads. This will have a knock-on effect of reduced air pollution and noise pollution, improving the setting of many cultural and recreational spaces. However there is a high degree of uncertainty surrounding this.</p> <p>Increasing access and connectivity by integrating different transport modes into journey routes, it will help to increase access for everyone, including to recreational and cultural spaces.</p>
5. To encourage the protection and promotion of the Welsh Language	+	Long-term Low	<p>This priority is generally compatible with ISA Objective 5, although it is not stated directly, by incorporating user feedback into the development of the public transport services there will likely be more Welsh language being spoken on transport providing more accessibility to Welsh speakers and promoting the culture.</p> <p>Increasing access and connectivity by integrating different transport modes into journey routes, it will help to increase access for everyone, including to Welsh language educational facilities. By making these options safer and cleaner it also means people will be more likely to use them to access these services. However there is a high degree of uncertainty surrounding this.</p>
6. To reduce greenhouse gas emissions from transport	++	Long-term Medium	<p>This priority is compatible with ISA Objective 6, as it states; “<i>Journeys on public transport are better for the environment as they involve lower carbon emissions per person than cars</i>”, whilst this is not a necessary focus of this priority, if people are more likely to use public transport then they are less likely to use private cars as transport, this will then likely lead to reduced emissions from the transport sector. Further, the promotion of ‘better’ public transport, including low carbon services, could lead to significant improvements against this objective.</p> <p>By promoting the safety and cleanliness of active travel routes and incorporating these routes into journeys, it will help to promote zero emission travel options and lead to further reductions in CO₂ and greenhouse gas emissions. The use of active travel over public transport will also have a knock-on effect of energy savings from public transport, however there is a high degree of uncertainty surrounding this.</p>
7. To enable climate change resilience	+	Long-term Medium	<p>This priority will help to provide climate resilience through the improvement of public transport with regards to flood risk adaption and emergency procedures to protect from flooding in unexpected circumstances. These adaptations will also help to improve equality of climate emergency safety as the public transport system will likely be more accessible to all.</p> <p>Public transport will also be improved through being more adaptable to other kinds of emergencies, both climate related and pandemic related.</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 2: Public transport services that people can use, want to use and do use.
8. To protect and improve air quality	+	Long-term Medium	<p>This priority is generally compatible with ISA Objective 8, as it states; “<i>Journeys on public transport are better for the environment as they involve lower carbon emissions per person than cars</i>”, whilst this is not a necessary focus of this priority, if people are more likely to use public transport and active travel options then they are less likely to use private cars as transport, this will then likely lead to reduced emissions from the transport sector and therefore help to improve air quality in Wales.</p> <p>By making improvements to public transport by investing in low carbon or low emission technology there will likely be a further reduction in air pollution from the transport sector</p>
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	+	Long-term Low	<p>This priority is generally compatible with ISA Objective 9 as lower traffic levels and ‘better’ public transport, may create a more attractive townscape and less disturbance of natural landscapes, however there is a high degree of uncertainty associated with this.</p> <p>Through the improvement in cleanliness and safety of public transport and active travel routes, it will likely lead to a cleaner and safer townscape, if this includes the street furniture associated with public transport (such as bus stops).</p> <p>Through improving the safety, access and connectivity of the public transport system/active travel options and making them a more appealing option it will likely lead to more people choosing public transport options and less people choosing private vehicles, this will lead to fewer vehicles on the roads. This will have a knock-on effect of reduced air pollution and noise pollution, improving the setting of the towns and landscapes. However there is a high degree of uncertainty surrounding this.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The ‘better’ public transport element of the priority could mention that associated buildings and street furniture should also be ‘better’.
10. To promote the conservation and enhancement of heritage assets	+	Long-term Low	<p>Through improving the safety, access and connectivity of the public transport system/active travel options and making them a more appealing option it will likely lead to more people choosing public transport options and less people choosing private vehicles, this will lead to fewer vehicles on the roads. This could have a knock-on effect of reduced air pollution and noise pollution, improving the setting of many heritage assets. However there is a high degree of uncertainty surrounding this.</p> <p>Increasing access and connectivity by integrating different transport modes into journey routes, it will help to increase access for everyone, including to heritage assets.</p>
11. To promote the conservation and enhancement of	+	Long-term Low	<p>This priority is generally compatible with ISA Objective 11, as it states; “<i>Journeys on public transport are better for the environment as they involve lower carbon emissions per person than cars</i>”, which could have knock on effects of</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 2: Public transport services that people can use, want to use and do use.
biodiversity and geodiversity			<p>improving habitat quality due to reduced emissions in the local area and therefore increasing biodiversity of flora and fauna.</p> <p>With more investment in active travel and public transport there may be less investment in existing road networks, although a reduction in new road building is likely to have greater benefits. However there is a high degree of uncertainty associated with this. Less road developments may also mean less need for geological resources for construction, helping to preserve geodiversity.</p>
12. To ensure the sustainable use of natural resources	+	Long-term Medium	<p>This priority is generally compatible with ISA Objective 12, as it states; “<i>Journeys on public transport are better for the environment as they involve lower carbon emissions per person than cars</i>”, due to less private car use and more public transport use. The priority also seeks to make public transport ‘better’ including using low carbon solutions, which may include electric vehicles. There may be a neutral effect overall due to the resources used in creating more public transport infrastructure.</p> <p>Through improving the safety, access and connectivity of the public transport system/active travel options and making them a more appealing option it will likely lead to more people choosing public transport options and less people choosing private vehicles. Fewer vehicles on the road means fewer pollutants from exhaust or spills falling onto the tarmac, there is then less chance of surface water run off carrying these pollutants into the soil, groundwater and surface water, therefore enhancing their quality. However there is a high degree of uncertainty surrounding this.</p> <p>Potentially fewer road network developments means fewer materials necessary and more scope to use recycled materials as there will be reduced usage of them, fewer developments will also likely lead to less waste. However there is a high degree of uncertainty surrounding this.</p>
13. To enable the protection of tranquil areas and prevention of noise and light pollution	+	Long-term Low	<p>This priority is generally compatible with ISA Objective 13 “<i>Journeys on public transport are better for the environment as they involve lower carbon emissions per person than cars</i>”, due to a reduced number of private cars on the road from promoting and improving the active travel and public transport networks. This could mean less disturbance of noise and light from traffic.</p>

Priority 3: Safe, accessible, well-maintained transport infrastructure

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 3: Safe, well maintained transport infrastructure
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>This priority is generally compatible with ISA Objective 1, and it seeks to improve the accessibility of transport infrastructure.</p> <p>Through continuing to meet highway authority standards on the road network and improving the management and maintenance of the public transport system, it would help to provision access to health facilities and services for all people, of all backgrounds and even extend to improving access from rural locations due to faster commutes and less congestion. This improved access would help to improve the equality of access for all people. Safe, well-maintained and future proofed public transport would be particularly beneficial to children, elderly people and people from disadvantaged groups in terms of their access to health facilities.</p> <p>Improving and maintaining cycle paths and active travel routes would help to promote healthy lifestyle choices in citizens and make active travel a more attractive and appropriate option for all people as it will be safer and cleaner e.g. reduced barriers for women or LGBTQ+ people.</p> <p>By improving accessibility, there would likely be increased connectivity between communities and there would be more options for travel and infrastructure implementation and so the risk of community severance would be reduced. This improved connectivity may also apply to green and open spaces, thereby allowing for more physical exercise options, especially for those who may not have access to private vehicles.</p> <p>This priority would be likely to lead to higher rates of public transport usage. Public transport is usually a less isolating experience than private car use as there are more chances for human interaction, and so there could be a reduction in loneliness and isolation associated with the transport sector. However, there is a high degree of uncertainty associated with this. This should also be seen in the context of the changing needs of people and improvements to digital infrastructure which, particularly during the pandemic in 2020, there is a reduced need to travel to and from places of work.</p>
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	+	Long-term High	<p>This priority is generally compatible with ISA Objective 2, and it seeks to improve the accessibility and affordability of transport infrastructure.</p> <p>Better management of public and active transport options would be likely to lead to increased safety measures, protecting those most vulnerable in society (including children, women, LGBTQ+, BAME, and the elderly) from crime and reducing the frequency of unsafe or dangerous events within infrastructure and on public transport/active travel routes. This better management, affordability and maintenance of routes could help to improve the equality within the public transport system as more routes are accessible to people from any background and community. This increase in access would mean greater equality in many factors, as it means people would have more equal access to educational facilities, employment opportunities and health facilities. This increase in accessibility would also allow people a greater satisfaction with their</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 3: Safe, well maintained transport infrastructure
			<p>own neighborhood as they will not be limited to only local amenities and recreational facilities, in their local area. It will help to create conditions where many inequalities can be reduced.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> • The safety issues on public transport (crime) are different to the road safety issues or perceptions of cycling. This could be addressed as different points. • Affordability could be mentioned in the bulleted text, for greater emphasis, as it is only mentioned in the text in italics. • The priority could usefully include the word 'inclusive' alongside 'accessibility'.
3. To support sustainable economic development and diversity	++	Long-term Medium	<p>This priority is generally compatible with ISA Objective 3, as it sets out to, <i>inter alia</i>; “Future-proof current transport infrastructure to make safe and attractive active travel provision, tackle congestion, improve accessibility, embrace innovation and respond to climate change”. Future proofing is not only good for environmental sustainability but also economic sustainability. Embracing innovation may enable new markets and economies to develop.</p> <p>A better managed and maintained public transport system would be likely provide better access to education, training, jobs and employment opportunities to all residents. Further, public transport connectivity means that employers are able to garner a larger employment base, which could mean a more diverse economy and inward investment.</p> <p>With the inclusion of active travel routes it would also provide easier access to town and city centres, helping to stimulate the economy. This would then also likely extend to tourist attractions, rural areas and underperforming economic areas.</p> <p>Investing in data solutions would likely lead to a more efficient transport system, as well as the potential to create employment in this sector.</p> <p>Under this priority there is a lot of scope for inward investment through future proofing the transport system and investing in future technology's such as electric vehicle charging points.</p>
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Low	<p>Through improved management and maintenance of the public transport system/active travel options and making them a more appealing option it would be likely to lead to more people choosing public transport options and less people choosing private vehicles, which would lead to fewer vehicles on the roads. This would have a knock-on effect of reduced air pollution and noise pollution, improving the setting of many cultural and recreational spaces. However, there is a high degree of uncertainty surrounding this as it depends on the specific location of new investment in relation to cultural and recreational places.</p> <p>Increasing access and connectivity would also likely help to increase access for everyone, including to cultural and recreational spaces, reducing access inequality to these spaces.</p> <p>Improved management and reduction of congestion through promotion of active travel options would help with high peak transport management during major events (such as sporting events) and access to tourist attractions during high peak tourist season.</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 3: Safe, well maintained transport infrastructure
5. To encourage the protection and promotion of the Welsh Language	+	Long-term Low	Through improved management and maintenance of the public transport system it should make it easier for people to access Welsh language education facilities.
6. To reduce greenhouse gas emissions from transport	++	Long-term Medium	<p>This priority is generally compatible with ISA Objective 6. It sets out that the WTS will, <i>inter alia</i>, “Future-proof current transport infrastructure to make safe and attractive active travel provision, tackle congestion, improve accessibility, embrace innovation and respond to climate change”. Developing future proof infrastructure will have long term benefits for the environment, as it will lead to lower greenhouse gas emissions from vehicles.</p> <p>By improving the maintenance of active travel routes and incorporating these routes into journeys and the existing road network, it would help to promote zero emission travel options and lead to further reductions in CO₂ and greenhouse gas emissions.</p> <p>Implementing more electric vehicle charging points and making owning an electric vehicle a more realistic option over a standard private vehicle would also help to contribute to lowering emissions overall.</p> <p>Better management of roads, including working with the UK government on links with England, should ensure better management of the strategic road network, which could reduce emissions in the short or medium term.</p> <p>The investment in data solutions could further increase the significance of positive effects leading to cumulative benefits against this objective.</p>
7. To enable climate change resilience	+	Long-term Medium	This priority is generally compatible with ISA Objective 7. It sets out that the WTS will, <i>inter alia</i> , “Future-proof current transport infrastructure to make safe and attractive active travel provision, tackle congestion, improve accessibility, embrace innovation and respond to climate change”. Better management of climate emergencies and flood risk would help protect transport infrastructure and communities from the effects of climate change. However, how this will be implemented, is unclear.
8. To protect and improve air quality	+	Long-term Medium	<p>This priority is generally compatible with ISA Objective 8. Developing future proof infrastructure would have long term benefits for the environment, as it would lead to lower carbon emissions from private car use and therefore reducing the pollution of air quality from transport. Through improved management and maintenance of the existing transport infrastructure network, which may include increased vegetation, air quality improvements through the reduction in, and sequestration of, pollutants may occur.</p> <p>Implementing more electric vehicle charging points and making owning an electric vehicle a more realistic option over a standard private vehicle would also help to contribute to lowering emissions overall and reducing air pollution from transport.</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 3: Safe, well maintained transport infrastructure
			Better maintained and safer active travel routes would also be likely to reduce the use of private cars and public transport as they will become more accessible options for all people, this will reduce the amount of vehicles on the road and lead to further reduced air pollution from transport.
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	+	Long-term Low	<p>This priority is generally compatible with ISA Objective 9, as developing public transport and active travel solutions could lead to more attractive towns and communities. Improved management and maintenance of the existing transport infrastructure network could lead to benefits for landscapes and townscapes through the implementation of enhancement measures.</p> <p>Through improved management and maintenance of the public transport system/active travel options and making them a more appealing option it would be likely to lead to more people choosing public transport options and less people choosing private vehicles, which would lead to fewer vehicles on the roads. This would have a knock-on effect of reduced air pollution and noise pollution, thereby protecting and potentially enhancing the character of many townscapes and landscapes.</p>
10. To promote the conservation and enhancement of heritage assets	+	Long-term Low	<p>Through improved management and maintenance of the public transport system/active travel options, they could become a more appealing option, which could lead to more people choosing public transport options and less people choosing private vehicles, leading to fewer vehicles on the roads. This would have a knock-on effect of reduced air pollution and noise pollution, thereby conserving and potentially enhancing the setting of many heritage assets and historic areas.</p> <p>Increasing access and connectivity will also likely help to increase access for everyone, including to conservation and heritage assets, reducing access inequality to these spaces.</p>
11. To promote the conservation and enhancement of biodiversity and geodiversity	+	Long-term Medium	<p>This priority is generally compatible with ISA Objective 11. A reduction in air pollution associated with transport would help to reduce the adverse effects currently taking place at pollution sensitive habitats, such as those currently experiencing elevated rates of atmospheric nitrogen deposition.</p> <p>Improved management and maintenance of the existing transport infrastructure network could lead to benefits for biodiversity through the implementation of enhancement measures, such as where new green infrastructure elements are incorporated into the design of new or improved transport infrastructure.</p> <p>Increasing access and connectivity would also be likely help to increase access for everyone, including to conservation and wildlife areas, reducing access inequality to these spaces.</p> <p>A focus on improving the existing transport infrastructure, whilst reducing the number of vehicles on the roads, would help to avoid the risk of new roads being built that fragment habitats and isolating species.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The Priority could specify the need to improve biodiversity as part of future proofing the current transport network. This could include measures to improve green infrastructure, such as improving and maintaining

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 3: Safe, well maintained transport infrastructure
			<p>roadside verges and biodiversity pathways alongside and within transport routes and incorporating habitat bridges into future designs.</p> <ul style="list-style-type: none"> The Priority could usefully set out that the WTS will not encourage or support the development of new road infrastructure, particularly where this is the dominant mode of transport.
12. To ensure the sustainable use of natural resources	+	Long-term Medium	<p>This priority is generally compatible with ISA Objective 12. Improving the management and maintenance of the existing transport network could reduce the need for increased road building. It would also allow road users to travel more efficiently and subsequently consume less natural resources. Encouraging the use of electric vehicles could also enable a reduction in the reliance on fossil fuels.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Hydrogen Power could be included as part of the strategy, rather than a potential overreliance on electric vehicles as an alternative low carbon fuel. The priority could specify that the delivery of new infrastructure would need to meet strict sustainability requirements, and the development of new infrastructure for fossil fuel based vehicles will not be prioritised.
13. To enable the protection of tranquil areas and prevention of noise and light pollution	+	Long-term Medium	<p>This priority is generally compatible with ISA Objective 13. Developing future proof infrastructure would have long term benefits for the environment, with fewer vehicles on the road if more people are using public transport, resulting in less noise and light pollution coming from transport.</p> <p>Implementing electric vehicle charging points and promoting electric vehicles as a realistic option over standard private vehicles would lead to quieter vehicles on the road, leading to less noise pollution from transport.</p>

Priority 4: Behaviour Change

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 4: Behaviour change
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>The priority demonstrates compatibility with Objective 1 by encouraging the use of active transport, which has numerous benefits on physical and mental health and well-being.</p> <p>The WTS supports a range of incentives such as workplace travel schemes, as well as investing in infrastructure to help integrate walking and cycling with other transport modes. This would encourage people to walk and cycle more, which would improve both physical and mental health through the exercise itself but also the increased time spent outdoors. In order to reduce health inequalities across Wales, it is important that these incentives are available to as broad a range of people as possible.</p> <p>By improving the reliability and punctuality of bus and train services, people would be likely to be less stressed by travelling and the prospect of travelling, in particular commutes or long journeys. Likewise a system that is integrated between modes will be easier to navigate, resulting in a more relaxing journey. The WTS aims to understand customers' experiences in order to make improvements, and these factors together will help transport have a positive impact on mental health. An improved experience when travelling could also encompass ways to bring people together, reducing loneliness and social isolation.</p> <p>A system that is reliable and punctual should also mean users have to spend less time travelling, leaving more time for exercise or leisure activities, improving mental and physical health.</p> <p>The priority addresses potential inequalities, recognising that there may be fewer options in rural areas. The priority includes that disincentives to car use should take into account equality issues.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • People have lost confidence in public transport recently due to health concerns around COVID-19. People are likely to be reluctant to use public transport unless absolutely necessary over the coming months and years, and the WTS needs to address this. Public perception of safety on public transport is extremely important, and by widely advertising what transport providers are doing to help combat the virus will help restore people's confidence in travelling by public transport again. • As well as workplace travel schemes, schemes could be considered to provide bikes and cycling equipment to residents in deprived areas who cannot afford to buy their own. This would help reduce health inequality by giving everyone equal access to exercise opportunities they may otherwise not have. • Ensure access to electric vehicles is more equitable, through affordability and electric vehicle charging infrastructure. This is of particular importance in rural and isolated areas, where public transport use is not an option.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	+	Long-term High	<p>The priority demonstrates compatibility with Objective 2 by addressing potential inequalities. The priority addresses potential inequalities, recognising that there may be fewer options in rural areas. The priority includes that disincentives to car use should take into account equality issues. How the WTS would make car use 'more equitable' is unclear.</p> <p>Investing in infrastructure that integrates walking and cycling with other transport modes would encourage more people to adopt active travel methods. Through an increase in informal community interactions as a result of more people being outside, social cohesion could be improved. Community cohesion could also be improved through an increase in people travelling together on public transport, rather than alone in private cars.</p> <p>In many areas, there is currently a negative general perception of public transport and those who have the choice will often chose not to use it, and these are often the more affluent members of society. Through successful marketing</p>

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			<p>campaigns and an improved service for the customer, as well as effective deterrents on car use, these individuals may be more inclined to use public transport and integrate with other groups in society, which will have a hugely beneficial impact on social cohesion.</p> <p>Better integrated transport systems could make journeys for those who frequently trip-chain easier, more efficient, and more affordable.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Some transport users may not have internet access, or mobile data, or other access to technologies which would allow them to receive transport data. The issue of digital inclusion should be addressed here, highlighting the “<i>other means</i>” that would be used to share information so as not to exclude certain users.
3. To support sustainable economic development and diversity	+	Long-term Medium	<p>Through improving bus and train reliability and punctuality, this Objective is compatible with the priority.</p> <p>Freight movement and business to business connections will be improved, helping to support sustainable economic development. Through improved connectivity, businesses will be able to operate in a wider market</p> <p>By improving bus and train reliability and punctuality and offering an improved customer service, individuals are more likely to arrive at work less stressed and will be more productive, having a positive impact on the economy. If journeys can be a more enjoyable experience, individuals may be more inclined to travel where necessary in order to further grow their businesses.</p>
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	O		Neutral
5. To encourage the protection and promotion of the Welsh Language	O		Neutral
6. To reduce greenhouse gas emissions from transport	+	Long-term Medium	<p>The priority is compatible with Objective 6 through encouraging an increase in public and active transport modes, and a decrease in private car use, particularly petrol and diesel.</p> <p>By supporting incentives to encourage people to walk, cycle or use public transport and exploring ways to disincentivise car use, use of private vehicles will decrease, subsequently reducing GHG emissions.</p> <p>Incentives to use cleaner vehicles, particularly in areas or for certain individuals where car use is the only viable option, could also help reduce greenhouse gas emissions from transport.</p>
7. To enable climate change resilience	O		Neutral

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 4: Behaviour change
8. To protect and improve air quality	+	Long-term Medium	The priority is compatible this Objective through encouraging an increase in public and active transport modes, and a decrease in private car use, particularly petrol and diesel. By supporting incentives to encourage people to walk, cycle or use public transport and exploring ways to disincentivise car use, use of private vehicles will decrease, subsequently reducing emissions and improving air quality. Incentives to use cleaner vehicles, particularly in areas or for certain individuals where car use is the only viable option, could also help to improve local air quality.
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	+	Long-term Medium	Although there is little overlap, the priority is compatible with Objective 9 in that it disincentivises car use, and cars tend to have negative impacts on townscape character. Road traffic and parking create noise disturbances and visual intrusions on traditional townscape character. By exploring measures that will deter car use, these negative impacts will be reduced.
10. To promote the conservation and enhancement of heritage assets	O		Neutral
11. To promote the conservation and enhancement of biodiversity and geodiversity	O		Neutral
12. To ensure the sustainable use of natural resources	+	Long-term Medium	Compatibility with this Objective is demonstrated through encouraging an increase in public and active transport modes, and a decrease in private car use, particularly petrol and diesel. By supporting incentives to encourage people to walk, cycle or use public transport and exploring ways to disincentivise car use, use of private vehicles will decrease, subsequently reducing fossil fuel use. Incentives to use cleaner vehicles, particularly in areas or for certain individuals where car use is the only viable option, could also help reduce use of fossil fuels.
13. To enable the protection of tranquil areas and prevention of noise and light pollution	+	Long-term Medium	The use of electric vehicles as part of “ <i>ultra low emissions vehicles</i> ” will reduce noise pollution from the transport sector, demonstrating compatibility with Objective 13.

Priority 5: Adopt innovations that deliver more sustainable transport choices

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 5: Adopt innovations that deliver more sustainable transport choices
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>This priority is compatible with Objective 1, as many of the digital initiatives supported by the WTS surrounding data use in transport will be used to ensure a more convenient, efficient and stress-free journey for the passenger, thereby having a positive impact on their mental health. Real-time public transport information will allow passengers to better plan their journeys, and integrated ticketing across multiple transport modes will make complicated journeys easier with less to worry about. If road congestion can be reduced through smart technology, this will reduce driver stress.</p> <p>The aim of digital initiatives would in part be to produce a more efficient public transport system, which could encourage higher levels of public transport use. This in turn will reduce private car use which will lower emissions and improve air quality, having a cumulative positive impact on people's physical health.</p> <p>Additionally, if the data innovations succeed in producing a shorter journey time, this equates to less time spent on public transport or sat in private cars, and more time for exercise or leisure activities which could improve both physical and mental health.</p> <p>The priority mentions “<i>operational innovation that can help deliver on wider social ambitions</i>” and includes bike sharing, which could encourage active travel and improve physical health.</p> <p>The priority addresses the issue of digital inclusion in transport, which will, in theory, help reduce inequality, including health inequality, by enabling more people to access the same health and social care services in an easier way. However, the elderly tend to have a greater requirement to access health facilities and rely heavily on public transport, and they are a majority group who, in general, have poorer access to and capability in using mobile technology. By introducing transport systems which rely on digital technologies to plan journeys, the elderly could find themselves even more isolated from the system and in a worse position to access health and social care facilities – and even more isolated in general. However, the WTS includes the support of initiatives to address ‘issues of digital inclusion in transport, for users who don't have access to mobile technology’, which could mitigate this potential effect.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Although bike sharing is mentioned, this is the only inclusion of active travel, which is beneficial to people's mental and physical health. The “new open data store for Wales providing up to date and accurate information” may include details of walking and cycling links, maps, topography etc., but this should be highlighted in the WTS.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	+	Long-term Medium	<p>The priority is generally compatible with this Objective through “<i>addressing issues of digital inclusion in transport for user who don't have access to mobile technology</i>” which will help improve equality and social cohesion by enabling more people to access the same services in an easier way.</p> <p>However, the elderly are a particular group who tend to rely heavily on public transport, and they are a majority group who, in general, have poorer access to and capability in using mobile technology. By introducing transport systems which rely on digital technologies to plan journeys, the elderly could find themselves even more isolated from the system. In addressing the issues of digital inclusion in transport users, particular vulnerable groups such as the elderly need to be given special consideration so as not to increase age inequality in Wales. Additionally, there are inequalities in broadband and mobile data access between rural and urban areas in Wales, and a transport system that leans heavily on data usage could in fact further ostracise those living in rural areas unless this issue is resolved.</p>

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			<p>Innovations such as car and bike sharing and mobility as a service could encourage social cohesion and bring communities together, and innovations in community transport could support rural communities and reduce the inequalities between rural and urban areas, though what specifically this would involve is not clear.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Further details could be given about how the issues surrounding data inclusion, in particular regarding the elderly and those in rural areas, are going to be addressed.
3. To support sustainable economic development and diversity	++	Long-term Medium	<p>The priority is compatible with Objective 3 through its support of sharing solutions and innovations in the freight and logistics sector and how they will “<i>facilitate operational innovation that can help deliver on our wider... economic ambitions</i>”.</p> <p>Data-based solutions and sharing opportunities in the cargo, freight and logistics sectors will benefit businesses in the sector and subsequently the economy in general. More sustainable transport choices such as electrification could end up being giving companies an economic advantage. Technologies that will improve the service life, speed of construction and maintenance of the transport system will benefit freight and logistics companies who use this system heavily. Support for sustainable technological innovation will help these sectors grow, supporting sustainable economic development.</p> <p>Digital innovations that allow integrated transport systems across the country could enhance connectivity and allow business to expand and function in a wider market more easily and more economically. If journeys are easier and more efficient, people are more likely to be willing to travel further to grow their businesses.</p> <p>By supporting innovations in community transport, rural economies could be improved. Increased accessibility of the transport system, both through community transport and through addressing the issues of digital inclusion, could support equal access to employment, education and training opportunities.</p> <p>The priority addresses more sustainable aviation operations, which could promote international transport links both for business and leisure, potentially opening Wales up to international tourism in a sustainable way.</p> <p>An improved, efficient commute as brought about by the implementation of digital initiatives in the public transport system could mean employees arrive less stressed and able to work more productively, generally improving the economy.</p>
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Medium	<p>By improving ease of movement around the country through digital innovation, access to cultural events and recreational spaces would be enhanced, and as such the priority is generally compatible with this Objective.</p> <p>Currently, people may be put off visiting new or distant areas to access cultural or heritage assets due to the complexity of travel and the lack of knowledge regarding what the transport links will be like closer to the site. This is especially true considering many of these assets will be located in cities, which have large, complicated transport systems, or very rural, where there may be an apparent lack of or infrequent public transport that requires forward planning. With integrated, digitalised systems in place, people can access transport information from afar and easily plan their journeys, thereby promoting easy access to Wales’ cultural and heritage assets.</p> <p>Smart technology will be vital in the efficient management of the transport system during major events, such as sporting or cultural events. The system is put under heavy strain at these times, but with large amounts of data gathered and technologies allowing the system to be managed in real time, the transport system should be resilient to the numbers of users and continue to function efficiently.</p>

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			Similarly, travel in tourist areas during peak times can be monitored and the data used to decide on appropriate modes of travel to be implemented in these locations, with the aims both to improve access for visitors but also to safeguard the location if it is of particular environmental or cultural importance.
5. To encourage the protection and promotion of the Welsh Language	O		<p>Neutral</p> <p>Recommendation:</p> <ul style="list-style-type: none"> Any innovations, such as the development of apps, should be provided bilingually.
6. To reduce greenhouse gas emissions from transport	+	Long-term Medium	<p>The priority is compatible with this Objective as it says that the WTS will support “<i>sustainable transport choices</i>”. By supporting technologies such as electrification and new fuels such as hydrogen in place of fossil fuels, carbon emissions from transport should hopefully be reduced. Aviation is clearly a big source of GHG emissions, and this could potentially be reduced through technologies that support more sustainable aviation, though there is little detail as to what this could entail.</p> <p>The aim of digital initiatives would in part be to produce a more efficient public transport system, which would hopefully encourage higher levels of public transport use. This in turn will reduce private car use which will lower levels of GHG emissions. Additionally, the idea of mobility as a service could also help decrease private car use.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> The idea of technologies to develop modes of transport specifically with low-carbon emissions could be more clearly spelt out, particularly with regards to aviation.
7. To enable climate change resilience	O		<p>Neutral</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Data infrastructure could be used to make a system that is more responsive to extreme events, such as flooding. Data could be collected automatically and therefore immediately on events that have occurred affecting the public transport system or road network, which could then be used to inform the decision as to how it can be dealt with or resolved. Real-time updates could give the public detailed information regarding the event and advice on how to travel in light of it. This would help reduce inequalities around access to transport during extreme weather events As well as focussing on more sustainable transport, technological innovations could include transport that will cope better in extreme weather conditions in rural areas, such as snowfall, than current transport modes can. The challenges we face from the climate are changing, and new transport technologies need to reflect that.
8. To protect and improve air quality	+	Long-term Medium	<p>The priority is compatible with Objective 8 as it says that the WTS will support “<i>sustainable transport choices</i>”. By supporting technologies such as electrification and new fuels such as hydrogen in place of fossil fuels, carbon emissions from transport should hopefully be reduced, improving air quality locally. Aviation is clearly a big source of emissions, and this could potentially be reduced through technologies that support more sustainable aviation, though there is little detail as to what this could entail.</p> <p>The aim of digital initiatives would in part be to produce a more efficient public transport system, which would hopefully encourage higher levels of public transport use. This and the idea of mobility as a service would also help decrease private car use, leading to a lower level of emissions and improved air quality.</p>

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 5: Adopt innovations that deliver more sustainable transport choices
			Recommendation: <ul style="list-style-type: none"> The idea of technologies to develop modes of transport specifically with low-carbon emissions could be more clearly spelt out, particularly with regards to aviation.
9. To protect and enhance the local distinctiveness of our landscapes and townscape	O		Neutral
10. To promote the conservation and enhancement of heritage assets	O		Neutral
11. To promote the conservation and enhancement of biodiversity and geodiversity	+	Long-term Medium	<p>By supporting technology that works towards sustainable transport and materials innovation to improve service life, the priority should help reduce environmental impacts, thereby conserving biodiversity and demonstrating compatibility with Objective 11.</p> <p>Through sustainable transport choices, GHG emissions will be reduced which will help decrease the negative impacts of the transport sector on the environment, which will have the knock-on effect of improving habitat quality and thereby increasing biodiversity in Wales.</p> <p>In supporting innovation in materials that will increase the service life of physical infrastructure, there is less depletion of natural resources and less waste, which is beneficial to the environment.</p>
12. To ensure the sustainable use of natural resources	+	Long-term Medium	<p>The priority is compatible with this Objective in that it supports materials innovation that will increase the service life and maintenance of infrastructure, reducing the need to deplete natural resources to re-build on a more regular basis. This will also reduce waste from old infrastructure.</p> <p>Electrification and the use of new fuels such as hydrogen in vehicles will reduce the requirement on fossil fuels, a natural resource.</p> <p>The aim of digital initiatives would in part be to produce a more efficient public transport system, which would hopefully encourage higher levels of public transport use. This and the idea of mobility as a service would also help decrease private car use, again decreasing fossil fuel use.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Text around the development of new materials technologies could include mention of the use of recycled materials. Specifically mention the use of sustainable materials in new transport technologies and any new infrastructure.
13. To enable the protection of tranquil areas and	+	Long-term Medium	<p>The use of electric vehicles will reduce noise pollution from the transport sector, demonstrating compatibility with Objective 13.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> Technological innovation could also consider technologies that reduce or mitigate noise and light pollution.

ISA Objective	Initial Score	Duration Certainty	Review/appraisal – Priority 5: Adopt innovations that deliver more sustainable transport choices
prevention of noise and light pollution			

5 WTS Mini Plans – Detailed Appraisals

Mini Plan for Active Travel

ISA Objective	Score	Duration Certainty	Appraisal – Active Travel
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>This mini plan is generally compatible with ISA Objective 1, as it states that barriers to walking and cycling will be addressed and therefore, more people will walk or cycle. By 2040, the mini plan states that everyone will feel safer when walking and cycling, through the introduction of 20mph default speed limits, designated cycle tracks and more space for walking and cycling. Improving safety for people may mean there could be less of a barrier for particular groups, including women, children and young people.</p> <p>The plan overall does promote healthy lifestyles; however, it is slightly generic and could be improved by being more specific on how it will target reducing particular health inequalities. The plan does mention that new developments, including new health facilities, will make provision for walking and cycling; the plan should also mention improving access to existing health facilities.</p> <p>Recommendations</p> <ul style="list-style-type: none"> • The mini plan mentions encouraging young people to cycle but not improving the walking and cycling environment for older people or those with mobility issues • The mini plan does not acknowledge health inequalities, and how people living in deprived areas might be affected / how improved potential for active travel could help work towards reducing inequalities • Access by sustainable travel modes such as walking and cycling to existing health and social care services should be included. <p>The mini plan includes mention that access to national parks and national cycle networks will have been improved but does not include a delivery plan to specifically address this. This could usefully be included specifically, e.g. the WTS will invest in the national cycle network.</p>
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	+	Long-term High	<p>The active travel mini plan is compatible with ISA Objective 2, as it aims to remove the barriers that stop people from cycling and walking, therefore potentially leading to more cohesive communities. It goes some way towards addressing inequality and mentions the need to understand uptake overall for particular groups, although it does not detail how inequalities may be addressed. The mini plan states that by 2040, everyone will feel safer when walking and cycling, making it highly compatible with Objective 2.</p> <p>Recommendations</p> <ul style="list-style-type: none"> • Inequalities between active travel in rural and urban areas is not addressed. • More detail could be provided around what the barriers to walking and cycling are and how inequalities will be addressed – for example, how gender inequalities in cycling may be overcome. • The mini plan does not address inequality by virtue of age or availability of active travel (for example there may be variations between urban and rural areas). • A further area for inclusion relates to how walking and cycling can be made more accessible for those with mobility issue or how routes themselves can be made more accessible. • The mini plan makes reference to new developments, but emphasis should also be placed on improving and extending existing routes to reduce severance and improve take-up of walking and cycling.

ISA Objective	Score	Duration Certainty	Appraisal – Active Travel
			<ul style="list-style-type: none"> 'Closing roads for vehicle traffic' as a way of encouraging active travel should not be at the detriment to those that rely on the car to travel, particularly those living in rural areas, elderly populations or those who have mobility problems.
3. To support sustainable economic development and diversity	+	Long-term Medium	<p>The active travel mini plan is highly compatible with ISA Objective 3 as it states that by 2040, active travel will deliver benefits to the economy throughout Wales, with more people using active travel to get to work, through the uptake of schemes such as e-bikes, by supporting workplace schemes encouraging active travel to employment and by developing workplace travel plans. The mini plan states that by 2040, the economy of Wales will have benefited from growth in the active travel sector, although further detail into how this can be achieved could be provided.</p> <p>Recommendation</p> <ul style="list-style-type: none"> There is a growing body of evidence for how active travel can contribute to economic performance, including by reducing congestion, supporting local businesses and high streets, improving business efficiency and through direct job creation (for example the Active Travel Toolbox and Sustrans). Specific reference could be made to these benefits to the economy.
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Low	<p>The mini plan is compatible with ISA Objective 4 as it seeks to repurpose redundant transport infrastructure to form active travel routes, thereby encouraging more people to walk and cycle. This can be particularly beneficial for routes which assist with accessing Wales' historic sites and monuments, national parks and landscapes and coastal areas. However, the priorities and measures do not mention this aspect further, so it is unclear how this will be delivered specifically.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> The mini plan includes mention that access to national parks and national cycle networks will have been improved but does not include a delivery plan to specifically address this. This could usefully be included specifically, e.g. the WTS will invest in the national cycle network and green infrastructure network as part of a holistic approach.
5. To encourage the protection and promotion of the Welsh Language	?	Long-term Low	<p>The mini plan, under the heading 'Help Welsh language and culture thrive', focuses predominantly on culture and access to cultural sites rather than the protection and promotion the Welsh language.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> Include measure on how the Welsh language can thrive, which may include bi-lingual signage on active travel routes could be promoted in order to promote and protect the Welsh language as equal to the use of English Possibility of supporting improved access by active travel to Welsh-medium education facilities as part of regional transport plans.
6. To reduce greenhouse gas emissions from transport	++	Long-term Medium	<p>The mini plan is highly compatible with ISA Objective 6. Active travel can help to reduce greenhouse gas emissions from transport, particularly for shorter journeys. By 2040, the mini plan states that there will be fewer greenhouse gas emissions and air quality will have improved because more people have replaced car journeys with active travel. Decarbonisation will be addressed by replacing car journeys with active travel.</p>

ISA Objective	Score	Duration Certainty	Appraisal – Active Travel
7. To enable climate change resilience	+	Long-term Medium	<p>The mini plan is compatible with ISA Objective 7 as it states that there is a 'lower risk of flooding due to surface water on active travel networks and ecosystems will be more resilient because active travel networks are managed better'.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> Should mention how the Wales Coastal Path may have to adapt/be maintained due to coastal erosion and coastal flooding.
8. To protect and improve air quality	++	Long-term Medium	<p>The mini plan is highly compatible with ISA Objective 8, as active travel will help to reduce emissions from transport, particularly for shorter journeys. By 2040, the mini plan states that air quality will have improved because more people have replaced car journeys with active travel. The five ways of working also state that further problems will be prevented and decarbonisation will be addressed by replacing car journeys with active travel.</p>
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	+	Long-term Medium	<p>This mini plan is generally compatible with ISA Objective 9. Reducing car usage and making areas more attractive for walking and cycling can help protect and enhance our townscapes and landscapes. Reduced investment in road development may also imply that more landscapes will be protected.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Walking and cycling links can be designed in such a way that makes a positive contribution towards local character, for example greening or public realm. This could be added to the aims (by 2040 we will have: improved landscape and townscapes through a national active travel network that is combined with a green infrastructure network)
10. To promote the conservation and enhancement of heritage assets	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 10. Heritage assets including former railway lines can be used as active travel routes. The ability to access heritage assets by foot or cycle can help improve their setting. However, the priorities and measures do not mention this aspect further, so it is unclear how this will be delivered specifically.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> The mini plan includes mention that access to national parks and national cycle networks will have been improved but does not include a delivery plan to specifically address this. This could usefully be included specifically, e.g. the WTS will invest in the national cycle network and green infrastructure network as part of a holistic approach.
11. To promote the conservation and enhancement of biodiversity, geodiversity and ecosystems	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 11; the mini plan states that by 2040, biodiversity will be in better condition and ecosystems will be more resilient because our active travel networks are managed better. There is, however, no mention of ecosystems services, or net benefit for biodiversity in the development or maintenance of active travel routes.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Could include improvements in opportunities for people to access wildlife and open green spaces using active travel. Reference also to the health benefits associated with accessing open space and nature (particularly in relation to mental health and well-being). Active travel routes have the potential to be of biodiversity value and linking with the wider green infrastructure network, thus providing natural benefits to all spheres of sustainability. This could usefully be included specifically, e.g. the WTS will invest in the national cycle network and green infrastructure network as part of a holistic approach.

ISA Objective	Score	Duration Certainty	Appraisal – Active Travel
12. To ensure the sustainable use of natural resources	+	Long-term Low	This mini plan is generally compatible with ISA Objective 12, as the encouragement of the development of active travel and investments decisions, which priorities this, may, in turn reduce the need for the development of new roads. However, this effect is uncertain.
13. To enable the protection of tranquil areas and prevention of noise and light pollution	+	Long-term Medium	<p>This mini plan is generally compatible with ISA Objective 13, as a reduction in the use of private cars and vehicle travel and an associated increase in active travel will reduce noise and light levels associated with vehicular traffic.</p> <p>Recommendation</p> <ul style="list-style-type: none"> Under environmental impact, could mention the reduction in noise and light pollution due to an uptake in active travel. There are associated health benefits in reductions in noise pollution, particularly for more vulnerable populations such as children, the elderly and people with pre-existing health conditions.

Mini Plan for Bus

ISA Objective	Score	Duration Certainty	Appraisal – Bus
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>This mini plan is compatible with ISA objective 1, particularly the priority to keep drivers and passengers safe, by ensuring access to contactless payment technology, provision of screens and other measures required to ensure public health is maintained. By making buses cleaner and safer, their use may be more appealing to more vulnerable population groups such as children, the elderly, and those who may need to use public transport to access health services. A reliable network of bus routes will reduce access inequalities to health or social care facilities.</p> <p>By integrating bus routes and services with active travel routes, more people may be encouraged to walk or cycle, with associated physical and mental health and well-being benefits.</p> <p>By improving transport connectivity and integrating different modes of transport into journeys, there will likely be increased connectivity between communities.</p> <p>Fear of crime on public transport can act as a barrier to certain groups of users, notably women, the elderly and also people in the LGBTQ+ community. A study by DfT in 2004 found that 59% of women felt unsafe walking from a bus stop or station after dark in London compared to 25% of men. Similarly, 40% of women surveyed felt unsafe travelling on a bus, compared to 18% of men (Loukaitou – Sideris, 2014). These gendered differences in perceptions of safety should be addressed by the WTS, in order to reduce inequality.</p> <p>Recommendations</p> <ul style="list-style-type: none"> • Specific reference should be made to the different health and safety challenges faced by vulnerable populations on buses. Examples include groups which experience greater levels of anxiety around crime on public transport and improving the safety and perceived safety of travelling on the bus, particularly after dark. • The future impacts of COVID-19 will affect the future of the transport system e.g. more spread out seating, hand sanitiser stations, mask wearing. Whilst private vehicle travel is perceived as safer from a personal health perspective, steps can be taken to ensure the safety of travellers on public transport. • Ensuring that buses are perceived as safe will play a major part in this mini plan. Patronage on public transport is lower compared to before the COVID-19 pandemic – DfT statistics for transport use since 1st March 2020 show that during lockdown, for bus use excluding London, patronage was between 10-15% of an equivalent day/week pre-pandemic.
2. To create the conditions within which an improvement in social cohesion and	+	Long-term High	<p>The bus mini plan is compatible with ISA Objective 2, as local communities will be better connected. Bus drivers may become more aware of a wider spectrum of disabilities, which are not always physical. By 2040, bus services and facilities will be fully accessible, attractive, and safe for everyone.</p> <p>Recommendations:</p>

ISA Objective	Score	Duration Certainty	Appraisal – Bus
equality can be achieved			<ul style="list-style-type: none"> Use of British Sign Language should be considered as a way to improve access for people who are deaf or have impaired hearing. This could be achieved through training of bus staff to make services accessible for all. Public transport use has remained largely static in Wales for about a decade – do the measures described in this mini plan do much beyond what is already taking place to help achieve a discernible improvement in use of buses? Various studies (for example Ahern et al, 2016; Mouratidis, 2020; Lucas et al, 2008) have shown there is a direct link between areas of deprivation and lack of access to public transport. Reference should be made to improved access to bus and the regeneration of deprived areas.
3. To support sustainable economic development and diversity	+	Long-term Medium	<p>This mini plan is highly compatible with ISA Objective 3, as the mini plan supports the adoption of innovative technology and develops local skills. By addressing congestion hotspots and supporting reliable and punctual bus services, the economy will be supported, through enhanced connectivity and improved productivity.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Be explicit and state that battery technology and use of hydrogen fuels will not only develop local skills but will also create jobs, benefitting the economy. Include “workplaces” under priority to “ensure new housing estates... are easily accessible by bus”. Mention the development of park and ride sites to encourage bus use and remove congestion from city/town centres. This mini plan seeks to enhance the attractiveness of bus services. An important barrier for many people, particularly vulnerable populations such as people in low-income households and the elderly, relates to cost. How feasible will it be to ensure truly affordable prices that encourage high uptake of bus services?
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 4. It states that by 2040, buses will be a good option for getting to and from major arts and sporting events, and for visiting Wales’ fantastic natural and cultural heritage including landscapes, coasts, and open spaces.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Buses could help to manage travel in tourist areas during peak periods or additional services to serve events. Again, Park and Ride could help with this. Buses could improve access to cultural sites of interest – there could be concessionary fares or discounted entry at heritage sites for example to encourage people to travel sustainably.
5. To encourage the protection and promotion of the Welsh Language	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 5, stating that by 2040, Welsh speakers will be able to confidently use Welsh on the buses.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Include encouraging bus service providers to meet Welsh language standards.

ISA Objective	Score	Duration Certainty	Appraisal – Bus
			<ul style="list-style-type: none"> The lack of Welsh medium provision and services could be seen as a barrier to access. The WTS could note that the ambition is to ensure that the Welsh and English language should be treated on an equal basis. <p>The WTS could include supporting improved access by bus to Welsh-medium education facilities.</p>
6. To reduce greenhouse gas emissions from transport	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 6, as Welsh Government have already set a commitment that all buses in Wales will be zero tailpipe emissions by 2028. By 2040, Wales will have adopted innovative technology that helps to reduce emissions from buses and has developed local skills, for example in battery technology and the use of hydrogen fuels.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Could the WTS encourage a more rapid improvement in emissions from public transport, given the climate emergency?
7. To enable climate change resilience	?	Long-term Medium	<p>This mini plan will help to provide climate resilience through the improvement of bus services with regards to flood risk adaption and emergency procedures to protect from flooding in unexpected circumstances and major planned events. However, the mini plan does not explicitly state this. Following Covid-19, bus services could be made more adaptable to other kinds of emergencies, for example flooding. Again, this is not explicitly mentioned in the mini plan.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Include resilience to future climate related and pandemic related emergencies Add adaption of bus services to climatic events, including flooding as well as major planned events.
8. To protect and improve air quality	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 8, as Welsh Government has already set a commitment that all buses in Wales will be zero tailpipe emissions by 2028. By 2040, Wales will have adopted innovative technology that helps to reduce emissions from buses and has developed local skills, for example in battery technology and the use of hydrogen fuels.</p>
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	+	Long-term Low	<p>This mini plan is indirectly compatible with ISA Objective 9. New residential developments should be accessible by bus; this may result in an indirect improvement to landscape and townscape through fewer private vehicles on the road and a resultant reduction in pollution.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> The mini plan could set out that existing and new public transport infrastructure should be as sustainable as possible and contribute to a wide green infrastructure network. This might include the planting of verges, and the greening of bus stops, for example, with green roofs. This will help with multiple aspects, such as landscape, townscape, flood risk management, air quality, and biodiversity.
10. To promote the conservation and	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 10 as it states that by 2040, buses will be a great option for visiting Wales' fantastic natural and cultural heritage including landscapes, coasts and open spaces.</p>

ISA Objective	Score	Duration Certainty	Appraisal – Bus
enhancement of heritage assets			
11. To promote the conservation and enhancement of biodiversity, geodiversity and ecosystems	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 11, as improving the safety, access and connectivity of bus services and integrating them with other public transport services and active travel, more people may choose buses as a transport option, leading to less people choosing private vehicles and ultimately fewer vehicles on the roads. Reductions in air and other forms of pollution may have beneficial impacts on biodiversity and the natural environment.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> The mini plan could set out that existing and new public transport infrastructure should be as sustainable as possible and contribute to a wide green infrastructure network. This might include the planting of verges, and the greening of bus stops, for example, with green roofs. This will help with multiple aspects, such as landscape, townscape, flood risk management, air quality, and biodiversity.
12. To ensure the sustainable use of natural resources	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 12, as Wales will have adopted innovative technology that helps to reduce emissions from buses and has developed local skills, for example in battery technology and the use of hydrogen fuels. Hydrogen power can be accommodated into bus services, reducing the use of natural resources.</p>
13. To enable the protection of tranquil areas and prevention of noise and light pollution	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 13, as improving the safety, access and connectivity of bus services and integrating them with other public transport services and active travel, more people may choose buses as a transport option, leading to less people choosing private vehicles and ultimately fewer vehicles on the roads. This will reduce light pollution and noise pollution, however there is uncertainty surrounding this.</p>

Mini Plan for Rail

ISA Objective	Score	Duration Certainty	Appraisal – Rail
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>The rail mini plan is compatible with ISA Objective 1, as it states that rail travel will be safe and secure for all users. The mini plan states that more rail services will be provided together with more stations, getting people to where they want to go. This will improve access to employment, community, and social infrastructure, all of which will have beneficial impacts on health and well-being. Changing people's current perceptions of rail travel (for example barriers relating to cost or accessibility) however, is not mentioned and consideration should be given to what rail travel may look like post-Covid. Fear of crime on public transport has been identified as an issue for vulnerable population groups such as the elderly and women. A study by DfT in 2004 found that 60% of women felt unsafe waiting on train platforms after dark in London, compared to 25% of men. Similarly, 51% of women surveyed felt unsafe travelling on a train compared to 20% of men (Loukaitou – Sideris, 2014). These gendered differences in perceptions of safety should be addressed by the WTS, to reduce inequality.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • The section could refer to the heightened need for cleanliness and space in light of the global pandemic. Future potential impacts of COVID-19 will affect the transport system e.g. more spread out seating, hand sanitiser stations, mask wearing by users. Whilst private vehicle travel can be perceived as being safer, steps can be taken to ensure the safety of travellers on public transport. • Patronage of public transport is low compared to before the COVID-19 pandemic – National Rail statistics for transport use since 1st March 2020 show that during lockdown, train patronage was between 4-7% of an equivalent day/week pre-pandemic. COVID-19 has made public transport services less attractive and the rail mini plan needs to clearly acknowledge this. • The mini plan appears to focus mainly on economic benefits and getting people where they need to for employment purposes. Other journey purposes could also be mentioned, for example improved access to health and social care facilities, education, and leisure trips. • Specific reference should be made to the different safety challenges perceived by various population groups using trains – particularly reducing the gendered fear of public transport and improving the perceived safety of travelling by train and accessing train services, particularly after dark.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	+	Long-term High	<p>The rail mini plan is compatible with ISA Objective 2, as by 2040, there is anticipated to be a reduction in the barriers that currently prevent people from making best use of rail services. For example, physical accessibility to train services may be improved, affordability addressed, and training provided for staff to ensure that everyone feels welcome.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Use of British Sign Language should be considered as a way to improve access for people who are deaf or have impaired hearing. This could be achieved through training of rail staff to make services accessible for all. • The mini plan mentions challenges associated with rail due to the rural nature of much of Wales but does not identify opportunities for how people living in rural areas may have improved access to rail services. • The focus appears to be on the Metro System and congestion on the M4, both of which will benefit South Wales and urban areas disproportionately. The North Wales Metro will benefit north east Wales, however there is little suggestion of improvements in Mid Wales or rural areas.

ISA Objective	Score	Duration Certainty	Appraisal – Rail
3. To support sustainable economic development and diversity	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 3, as by 2040, passenger revenue will have increased, thereby encouraging inward investment. This is however somewhat contradicted by 'more people will work locally', suggesting there may not be as much need to use the train to commute (therefore impacting revenue). Railway hubs will be hubs for economic investment and growth and Wales' digital ambitions will be supported for integrated ticketing and improved information for passengers.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • The issue around people working locally should be considered further, including the impact this may have on economic benefits if fewer people need to use the train for commuting purposes. • Increased train use will correlate with a stronger economy as more people are travelling and spending. This is an area that could be referred to within the mini plan. • The mini plan seeks to enhance the attractiveness of rail services. An important barrier for many people relates to affordability. How feasible will it be to ensure truly affordable prices that encourage high uptake of rail services?
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 4, as by 2040 people should be able to confidently use rail to get to and from major sporting and cultural events.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • The mini plan should refer to the fact that rail services will need to adapt in order to cater for major events, for example the provision of extra carriages to transport people or amended timetables. • Rail could improve access to cultural sites of interest – there could be concessionary fares or discounted entry at heritage sites, for example, to encourage people to travel sustainably.
5. To encourage the protection and promotion of the Welsh Language	?	Long-term Low	<p>The mini plan could go further to ensure that it is compatible with ISA Objective 5. Approximately 30% of the population can speak Welsh. Recommendations below consider how the Welsh language can be better incorporated into the WTS.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • TfW and rail service providers could be further encouraged to meet Welsh language standards, including training staff and ensuring provision of Welsh language in stations. • The WTS could note that the ambition is to ensure that the Welsh and English language are treated on an equal basis.
6. To reduce greenhouse gas emissions from transport	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 6, as rail traction will have been decarbonized. It is hoped that more people will take the train instead of using their cars, reducing greenhouse gas emissions. Trains will make more use of renewable diesel locomotion by using renewable power sources for trains and the energy performance of stations and Core Valleys Lines (CVL) infrastructure will have been improved. More goods have been moved onto rail thereby avoiding environmentally sensitive lorry miles. However with capacity and timetabling constraints, there is uncertainty as to how feasible this is over the long-term.</p>

ISA Objective	Score	Duration Certainty	Appraisal – Rail
7. To enable climate change resilience	?	Long-term Medium	<p>This mini plan will help to provide climate resilience through the improvement of rail services with regards to flood risk adaption and emergency procedures to protect from flooding in unexpected circumstances and major planned events. However, the mini plan does not explicitly state this and therefore there is uncertainty here. The mini plan also does not mention how coastal erosion or flood risk will be mitigated on the railway in Wales.</p> <p>Following Covid-19, rail services should be improved through being more adaptable to other kinds of emergencies, for example flood risk. Again, this is not explicitly mentioned in the mini plan and should be included.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Include resilience to future climate related and other types of emergency. • Add adaption of rail services to climatic events, including flooding as well as major planned events. • Green infrastructure elements could be used to promote rail facilities by making travel routes more appealing and providing reduced climate vulnerability e.g. green walls on station buildings.
8. To protect and improve air quality	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 6, as rail traction will have been decarbonized. It is hoped that more people will take the train instead of using their cars, reducing greenhouse gas emissions. Trains will make more use of renewable diesel locomotion by using renewable power sources for trains and the energy performance of stations and CVL infrastructure will have been improved. More goods have been moved onto rail and so avoiding environmentally sensitive lorry miles. However with capacity and timetabling constraints, there is uncertainty as to how feasible this is over the long-term.</p>
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 9. By improving the safety, access and connectivity of rail services and integrating them with other public transport services and active travel, more people may choose rail as a transport option, thereby encouraging less reliance on the private car. With fewer vehicles on the road there may be reduced air and noise pollution, improving the setting of both townscapes and landscapes.</p>
10. To promote the conservation and enhancement of heritage assets	+	Long-term Low	<p>The rail mini plan is compatible with ISA Objective 10, as historic environment assets will be protected and sustained in rail improvements and developments.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Rail could improve access to heritage sites and assets – for example there could be concessionary fares or discounted entry at heritage sites to encourage people to travel sustainably.
11. To promote the conservation and enhancement of biodiversity, geodiversity and ecosystems	+	Long-term Low	<p>The mini plan is compatible with ISA Objective 11, as by 2040, biodiversity and ecosystem resilience will have been protected and enhanced in the rail soft estate and in future rail improvements. Improving the safety, access and connectivity of rail services and integrating them with other public transport services and active travel, may encourage more people to use the train as a transport option ultimately leading to fewer vehicles on the roads. This will reduce air pollution and noise pollution, which could improve ecosystems and habitat settings. There is uncertainty surrounding this.</p> <p>Recommendation:</p>

ISA Objective	Score	Duration Certainty	Appraisal – Rail
			<ul style="list-style-type: none"> The mini plan could set out that existing and new public transport infrastructure should be as sustainable as possible and contribute to a wide green infrastructure network. This might include the planting of verges, and the greening of bus stops, for example, with green roofs. This will help with multiple aspects, such as landscape, townscape, flood risk management, air quality, and biodiversity.
12. To ensure the sustainable use of natural resources	+	Long-term Low	The mini plan is compatible as the energy performance of stations and CVL infrastructure will have been improved. Further, more goods will have been moved onto rail thereby avoiding environmentally sensitive lorry miles, which will ensure further sustainable use of natural resources.
13. To enable the protection of tranquil areas and prevention of noise and light pollution	+	Long-term Low	This mini plan is compatible with ISA Objective 13, as improving the safety, access and connectivity of rail services and integrating them with other public transport services and active travel, may encourage more people to use the train as a transport option ultimately leading to fewer vehicles on the roads. This will reduce noise and light pollution, which could improve ecosystems and habitat settings. There is uncertainty surrounding this.

Mini Plan for Roads, Streets and Parking

This mini plan does not mention new roads or road infrastructure – current projects include:

- M4 – Junction 35 to Junction 49 Improvements
- A55/A494/A548 Flintshire Corridor
- A470 and M4 Corridor Studies

There will inevitably be more in the future. The mini plan should discuss the sustainable construction of new roads and how negative environmental impacts may be mitigated.

ISA Objective	Score	Duration Certainty	Appraisal – Roads Streets and Parking
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>This mini plan is highly compatible with ISA Objective 1, as lowering the default speed limit to 20mph will improve health outcomes, particularly for vulnerable groups such as children and young adults (with those living in poorer communities being more at risk) (Dorling, 2014). A default 20mph speed limit will lead to a reduction in road traffic casualties, with case study evidence showing a 22% reduction per year in casualties due to the 20mph limit (Greig et al, 2014). Although there may be health benefits for vulnerable groups as described, 20mph speed limits may increase driver stress due to increased journey times and congestion.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • The WTS could usefully acknowledge health inequalities, for example, in deprived areas. • Shutting streets by schools at certain times of the day may help further reduce age related accidents. This could be considered for inclusion.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	+/-	Long-term High	<p>This mini plan is compatible with ISA Objective 2, as it will improve the safety of walking and cycling by incorporating active travel into the road network through the provision of cycle lanes and footways. Default speed limits and action on pavement parking will also makes streets safer. However, if cars park unsafely elsewhere or reduced speed limits increase driver stress, a negative effect may result. Road charging is not equitable as it impacts those on lower incomes more, or those who are more reliant on the car due for example to living in rural areas or because of mobility issues.</p> <p>Recommendations:</p> <p>The WTS should seek to explore the issues potential issues above, to ensure that measures are equitable.</p>
3. To support sustainable economic development and diversity	+/-	Long-term Medium	<p>The mini plan is compatible with ISA Objective 3, as by 2040, efficient, uncongested roads will make it attractive for businesses to locate to Wales thus supporting the Welsh supply chain and thereby benefiting the economy. By preventing pavement parking, money spent on maintenance of cracked and broken footways may be reduced.</p> <p>However, lower speed limits could also lead to increased journey times, lower productivity and worsened congestion, which all have negative impacts on the economy. This is offset slightly by the reduction in accidents that may occur and subsequent cost savings. Jones and Brunt (2017) estimate that as a result of 20mph speed limits, 6–10 lives would be saved and 1200–2000 casualties avoided each year, at a value of prevention of £58M–£94M.</p>

ISA Objective	Score	Duration Certainty	Appraisal – Roads Streets and Parking
			Recommendations: <ul style="list-style-type: none"> The WTS could consider the inclusions of fiscal measures, such as Workplace Parking Levies or increasing the cost of parking to reduce congestion and car use. The WTS could mention Clean Air Zones or Congestion Charging as potential measures to reduce car use, although it is recognised that these measures have a disproportionate impact on the poor or those who rely on the car, for example, people living in more rural areas. The WTS mentions new technology but could mention the jobs that this would create also, further benefiting the economy.
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 4, particularly as road use and congestion will be managed around major cultural and sporting events in Wales.</p> Recommendations: <ul style="list-style-type: none"> To effectively manage road use and congestion, public transport should be promoted and encouraged as a viable alternative to the motor vehicle. This could be through parking prices or providing compulsory park and ride facilities for those who need to travel by car.
5. To encourage the protection and promotion of the Welsh Language	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 5, as road signage will be bilingual, however this is already a legal requirement. The mini plan does not go far enough to promote or protect the Welsh language and only meets statutory requirements.</p>
6. To reduce greenhouse gas emissions from transport	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 6, road charging will be implemented where there is poor air quality and/or congestion to reduce emissions from vehicles. This will be supported by the road network supporting charging for all classes of electric vehicles. There are however some contradictions and inconsistencies in evidence regarding the 20mph speed limit and air quality. For example, there is an impact on emissions from braking and tyre wear due to a 20mph speed limit. A study by North (2013) found there was a moderate increase in CO₂ and NO_x in petrol cars following a study concerning 20mph restrictions in Central London. The study did however find that particulate matter emissions reduced for both petrol and diesel cars and NO_x and CO₂ emissions reduced for diesel cars.</p> Recommendations: <ul style="list-style-type: none"> Promoting share cars, car clubs and car pools can reduce emissions and private car use without relying on the introduction of a new technology. This should be mentioned in the mini plan. AQMAs are not mentioned; the management of these areas should be addressed in this mini plan.
7. To enable climate change resilience	+	Long-term Medium	<p>This mini plan is broadly compatible with ISA Objective 7 as it states that the road network will be “future proofed” by managing the impact of climate change on road infrastructure by improving surface water drainage, managing flood risks and ensuring that new residential developments do not create harmful surface water discharges.</p> Recommendations:

ISA Objective	Score	Duration Certainty	Appraisal – Roads Streets and Parking
			<ul style="list-style-type: none"> The mini plan should mention coastal adaption for roads and how coastal erosion will be mitigated or managed for the highway network.
8. To protect and improve air quality	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 8 as it recognises that the first priority is to reduce the number of car and vehicle journeys in order to reduce associated environmental and air quality effects, yet there is still a need to maintain and manage the existing network of roads and streets.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> To effectively reduce air pollution, public transport should be promoted and encouraged as a viable alternative to the motor vehicle. This could be through parking prices or providing compulsory park and ride facilities for those who need to travel by car. AQMAs are not mentioned; the management of these areas should be addressed in this mini plan.
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 9 as it states that people can enjoy scenic landscapes of National Parks and AONBs because there will be a reduced impact of cars.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> To effectively improve access to National Parks and AONBs and reduce the impact of cars, public transport should be promoted and encouraged as a viable alternative to the motor vehicle. This could be through parking prices or providing compulsory park and ride facilities for those who need to travel by car.
10. To promote the conservation and enhancement of heritage assets	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 10, as the historic environment will be protected in road projects and upgrades and in the management of the soft estate.</p>
11. To promote the conservation and enhancement of biodiversity, geodiversity and ecosystems	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 11 as it states there will be better biodiversity and ecosystem resilience as part of the soft estate. This is a broad statement however and does little to explain how this will be managed. To simply say there will be “better biodiversity and ecosystem resilience” with little explanation or evidence as to how makes it difficult to assess how achievable this is.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Improve and maintain roadside verges and biodiversity pathways alongside and within transport routes, and incorporate habitat bridges into future designs.
12. To ensure the sustainable use of natural resources	+	Long-term Low	<p>This mini plan is broadly compatible with ISA Objective 12, as road operations and maintenance will consume less energy. The mini plan, however, does not mention the protection of ground and surface water quality or soil pollution.</p> <p>Recommendations:</p>

ISA Objective	Score	Duration Certainty	Appraisal – Roads Streets and Parking
			<ul style="list-style-type: none"> Should include reducing embodied carbon in the road network and using sustainable materials in the development of the road network, in maintenance or construction.
13. To enable the protection of tranquil areas and prevention of noise and light pollution	+	Long-term Low	<p>This mini plan is broadly compatible with ISA Objective 13, as by 2040, there will be less traffic noise on the road network. Again, the mini plan does not state how this will be achieved. If it is due to the uptake in electric vehicles, this should be mentioned. Also, maintenance of the SRN will increase noise levels at receptors nearby; this should be mentioned, together with how noise from construction and maintenance will be mitigated.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Include the mitigation of noise from construction/maintenance and the reason noise will be reduced on the network, for example, through the uptake in electric vehicles or because of less vehicles on the road. Should include the mitigation and management of Noise Action Planning Priority Areas (NAPPA), which are prominent along much of the Strategic Road Network (SRN) and M4 – the mini plan should set out how these will be managed effectively.

Mini Plan for Community and not-for-profit transport sectors

ISA Objective	Score	Duration Certainty	Appraisal – Community and Not-For-Profit Transport Sectors
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	++	Long-term Medium	<p>This mini plan is highly compatible with ISA Objective 1, for several reasons. Firstly, there will be better access to health services which will work towards reducing health inequalities. Other reasons include that more people will be able to access the countryside and areas for outdoor recreation, which has a resultant benefit on both physical and mental health.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan should go further to explain the reliance on community transport of isolated areas or for certain groups, for example the elderly or people with pre-existing health conditions / disabilities. Providing community transport does help to reduce health inequalities by improving access to services for these and other groups, which should be mentioned specifically. Community transport makes a significant contribution towards sustaining the health and well-being of service users, by maintaining independence, improving quality of life and increasing physical activity and promoting mental well-being. More detail should be given on the positive impacts that community transport can provide as part of the case for continued and increased investment in the sector.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	++	Long-term High	<p>The mini plan is highly compatible with ISA Objective 2, as by 2040, there will be a reduction in isolation and loneliness and there will be lifeline services for people who would not otherwise be able to access conventional public transport. The mini plan will reduce inequalities based on disability and access in addition to reducing inequalities between urban, rural and semi-rural communities.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan could usefully outline the groups for which inequalities will be reduced, for example, those with disabilities, the elderly, children and those who live in rural or semi-rural communities. The use of British Sign Language should be considered as a way to improve access for people who are deaf or have impaired hearing. This could be achieved through training of community transport staff to make services accessible for all.
3. To support sustainable economic development and diversity	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 3, as a wider range of people can access employment as well as retail, services, education, work and leisure services. There will also be less fuel poverty in rural areas where the cost of running a car can be high.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan could go further to explain the economic benefits of community transport, for example, research shows that loneliness and isolation costs the UK approximately £2.1 billion each year (Why Community Transport Matters, ECT Charity) therefore providing community transport can bring huge economic savings.

ISA Objective	Score	Duration Certainty	Appraisal – Community and Not-For-Profit Transport Sectors
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Medium	This mini plan is compatible with ISA Objective 4, as there will be more transport services for faith and cultural groups, and better access to sporting and cultural events.
5. To encourage the protection and promotion of the Welsh Language	+	Long-term Low	<p>This mini plan does not mention how the Welsh language will thrive or how Welsh-speaking communities will be supported through community transport initiatives. The mini plan focuses on access to Welsh culture as opposed to the protection of the Welsh language.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Mention more transport services for Welsh-speaking communities, as well as faith and cultural groups.
6. To reduce greenhouse gas emissions from transport	+	Long-term Medium	The mini plan is compatible with this ISA Objective, as there will be fewer carbon emissions as more people travel together. Further, community transport has made greater use of alternative vehicle technologies, therefore reducing greenhouse gas emissions.
7. To enable climate change resilience	○		Neutral
8. To protect and improve air quality	+	Long-term Medium	The mini plan is compatible with this ISA Objective, as there will be fewer polluting emissions as more people travel together. Further, community transport has made greater use of alternative vehicle technologies, reducing the potential emissions from the sector.
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	○	Long-term Low	<p>Neutral</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • The mini plan could mention that community transport can mitigate the adverse impact of road traffic and parking on Wales' landscape, particularly if provided to access AONBs or National Parks.
10. To promote the conservation and enhancement of heritage assets	+	Long-term Low	This mini plan is compatible with ISA Objective 10 as Welsh Government will work with Visit Wales and other partners to continue to promote historic rail experiences in Wales. Wales' rich transport heritage including historic rail infrastructure, canals and rolling stock, will be preserved for future generations.
11. To promote the conservation and enhancement of biodiversity, geodiversity and ecosystems	+	Long-term Medium	This mini plan is compatible with ISA Objective 11, as community transport will provide an improvement in opportunities for people to access wildlife and open green spaces. Promotion of conservation may be achieved by more people understanding and learning about these areas.

ISA Objective	Score	Duration Certainty	Appraisal – Community and Not-For-Profit Transport Sectors
12. To ensure the sustainable use of natural resources	+	Long-term Low	The mini plan is compatible with this ISA Objective, as there will be a lower reliance on fossil fuels, through the greater use of alternative vehicle technologies.
13. To enable the protection of tranquil areas and prevention of noise and light pollution	O	Long-term Low	<p>Neutral</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan could state that as more people are travelling together, there will be a reduction in noise pollution due to fewer vehicles on the road.

Mini Plan for Taxis and Private Hire Vehicles

General Comments

This mini plan does not discuss technological innovations that may occur in the next 20 years. Ride hailing apps, such as Uber or Lyft are already dominant in the market and will only become more popular and accessible to more people in time. Therefore, this mini plan should outline how technological advances and apps will be supported and promoted by Welsh Government.

This mini plan also needs to be more ambitious in targets concerning zero emission vehicles.

ISA Objective	Score	Duration Certainty	Appraisal – Taxis and Private Hire Vehicles
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>This mini plan is generally compatible with ISA Objective 1, as it states that regardless of where customers live in Wales, they experience a good level of taxi service with readily available, accessible, safe vehicles, and suitable drivers that provide good customer service. This could have a role to play in reducing health inequalities.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan should include improving access to health and social care services. Could include heightened hygiene standards post Covid-19 so that passengers feel safe using taxis and Private Hire Vehicles (PHVs).
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	+	Long-term High	<p>The mini plan is compatible with ISA Objective 2 in that everyone, and especially people that share protected characteristics, feel welcome and safe when using taxi services, and have access to a service that meets their needs. Taxis, however, are not accessible for all due to high costs in particular areas or associated with distance (for example people living in rural areas may pay disproportionately). This means that access is not equitable for those on lower incomes, which may also include children, the elderly and disabled people.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan should acknowledge that not all people can afford to use taxis or PHVs despite these vehicles being the only available transport available, depending on location (rural or semi-rural areas) or the time of day. The mini plan could suggest concessions in rural areas or ensure that all taxis must use a meter, to have fair pricing. Ceredigion County Council, for example, introduced fixed taxi fares which licensed taxi operators are bound by, so that customers do not get overcharged. This could be rolled out nationwide. Use of British Sign Language should be considered as a way to improve access for people who are deaf or have impaired hearing. This could be achieved through training of taxi drivers to make services accessible for all.
3. To support sustainable economic development and diversity	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 3, as taxis and PHVs enable will mean more people can access work, services, leisure and education by complementing public transport services.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Taxis play a key role in the night-time economy in particular, and the mini plan should refer to this. Technological advances, including smartphone apps, should be referred to, together with the jobs this may create.

ISA Objective	Score	Duration Certainty	Appraisal – Taxis and Private Hire Vehicles
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Medium	<p>The mini plan is compatible with ISA Objective 4, as it states that taxi and PHV drivers act as important ambassadors for Wales with a key role in introducing visitors to the country.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Outline the important role of taxis and PHVs for accessing cultural events or spaces and recreational spaces.
5. To encourage the protection and promotion of the Welsh Language	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 5, as taxi and PHV drivers act as important ambassadors for Wales and can promote the Welsh language.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan could encourage taxi companies to employ Welsh speakers, so that service users have the option to communicate in Welsh and promote the language further.
6. To reduce greenhouse gas emissions from transport	+	Long-term Low	<p>This mini plan is somewhat compatible with ISA Objective 6, however it does not go far enough. Firstly, zero emissions vehicles are only introduced into taxi fleets. Whilst working with TfW to make sure the infrastructure in place is welcomed, this needs to be equitable for both rural and urban areas. The mini plan states that 'there is less need for private cars and greater use of public transport' yet the mini plan concerns taxis and private hire vehicles, as opposed to public transport. In order for the mini plan to be fully compatible with ISA Objective 6, all taxis and private hire vehicles would need to be zero emissions by 2040, otherwise an increase in the number of vehicles on the road would increase air pollution. Uncertainty here is high.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan should go further than just introduce zero emissions vehicles and as is done in London, offer grants for 'plug-in vehicles' and changing the licensing requirements in order to reduce emissions from the taxi fleet. The mini plan does state that incentive schemes will be introduced but the plan could go further, to ensure uptake. There should be a target set, similar to the bus emissions target, for all taxis and private hire vehicles to be zero emissions. Until this happens, this mini plan will not be fully compatible with ISA Objective 6.
7. To enable climate change resilience	0		Neutral
8. To protect and improve air quality	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 8, as mentioned above in greenhouse gas emissions. However, in order for this mini plan to be fully compatible with ISA Objective 6, all taxis and private hire vehicles would need to be zero emissions by 2040, otherwise an increase in the number of vehicle on the road would increase air pollution. Certainty is therefore low.</p>

ISA Objective	Score	Duration Certainty	Appraisal – Taxis and Private Hire Vehicles
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	+	Long-term Low	<p>Neutral – there would be no impact on landscapes or townscapes. This mini plan could enhance the local distinctiveness of landscapes and townscapes by reducing the impacts of road traffic and parking on Wales’ valued landscapes.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Taxis and PHVs could reduce the adverse impacts of road traffic and parking on Wales’ valued landscapes and townscapes – this should be mentioned within the mini plan. • There should be a target set, similar to the bus emissions target, for all taxis and private hire vehicles to be zero emissions.
10. To promote the conservation and enhancement of heritage assets	+	Long-term Low	This mini plan is compatible with ISA Objective 10. However, in order for this mini plan to be fully compatible with this objective, all taxis and private hire vehicles would need to be zero emissions by 2040, otherwise an increase in the number of vehicles on the road due to increased patronage of taxis and private hire vehicles would have a negative impact on the conservation and enhancement of heritage asset. Certainty is therefore low.
11. To promote the conservation and enhancement of biodiversity, geodiversity and ecosystems	+	Long-term Low	This mini plan is compatible with ISA Objective 11. However, in order for this mini plan to be fully compatible, all taxis and private hire vehicles would need to be zero emissions by 2040, otherwise an increase in the number of vehicles on the road would negatively impact biodiversity and ecosystems. Certainty is therefore low.
12. To ensure the sustainable use of natural resources	+	Long-term Low	This mini plan is compatible with ISA Objective 12 as mentioned above in greenhouse gas emissions. However, in order for this mini plan to be fully compatible with ISA Objective 6, all taxis and private hire vehicles would need to be zero emissions by 2040, otherwise an increase in the number of vehicles on the road network would lead to an increase in the use of natural resources. Certainty is therefore low.
13. To enable the protection of tranquil areas and prevention of noise and light pollution	+	Long-term Low	This mini plan is compatible with ISA Objective 13, as mentioned above in greenhouse gas emissions. However, in order for this mini plan to be fully compatible with ISA Objective 6, all taxis and private hire vehicles would need to be zero emissions by 2040, in order to lead to less disturbance of noise and light from traffic. Certainty is therefore low.

Mini Plan for Freight and Logistics

ISA Objective	Score	Duration Certainty	Appraisal – Freight and Logistics
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>This mini plan is generally compatible with ISA Objective 1, as it states that an effective supply chain enables people to access services such as health care and food where and when they need to. The plan recognises that the sector shares infrastructure needs with the public for road, however, does not state how this will be managed in order to reduce driver stress or anxiety.</p> <p>Freight vehicles and the volume of Heavy Goods Vehicles (HGVs) on the road can negatively impact cyclist's and pedestrian's perceptions of safety and can increase the fear of collisions or casualties. Vulnerable groups may include those who are more reliant on walking and cycling such as children and young people, the elderly, and people in low-income households. These fears can be mitigated by providing safe, segregated footways and dedicated cycle lanes in appropriate locations.</p>
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	+	Long-term High	<p>The mini plan is compatible with ISA Objective 2 as it states that the networks which move both goods and people are safe and secure for both kinds of activity without disadvantaging connectivity or capability. This should be explored further to make sure that groups are not disadvantaged, relating to disabilities or gender, due to perceived anxieties around some routes due to high HGV traffic flows.</p>
3. To support sustainable economic development and diversity	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 3 as freight and logistics will be integrated into wider transport and land-use planning policy at local, regional and national levels. Wales will have the infrastructure, capability and capacity to support a more sustainable freight and logistics sector including innovative business models that encourage commercial growth alongside decarbonisation. This is important, because reducing the need/length of freight travel will benefit Wales greatly. By restructuring the supply chain, encouraging manufacturing and funding the Enterprise Zones in Wales, freight miles can be reduced whilst still providing people with the services and goods they need.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • The WTS could include mention of jobs created in the freight and logistics industry, benefiting the economy. • The WTS could include investing in Enterprise Zones and the manufacturing/technology industries in Wales, to reduce freight miles. • There is no mention of the potential impacts of Brexit on the freight industry and how this may be mitigated. Welsh Government acknowledge that HGVs travelling from Ireland may be subject to extra checks in the event of a 'no deal' Brexit situation, however these delays are not mentioned, and mitigation is not suggested. This should be included
4. To protect and promote Welsh culture and improve access to cultural	0		<p>Neutral – the mini plan does not contribute to the promotion or protection of Welsh culture.</p>

ISA Objective	Score	Duration Certainty	Appraisal – Freight and Logistics
and recreational spaces			
5. To encourage the protection and promotion of the Welsh Language	+	Long-term Low	This mini plan is compatible with ISA Objective 5, as there will be a thriving home-grown supply-chain with a skilled and diverse workforce that helps sustain local communities, including Welsh speaking communities, across Wales.
6. To reduce greenhouse gas emissions from transport	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 6 as there will be fewer greenhouse gas emissions from freight and logistics. More goods will be moved by more sustainable forms of transport, including options such as multi-modal hubs. Innovations will be adopted that help create low carbon logistics networks, including demand-management measures to influence consumer behaviour. Freight will be integrated into the Decarbonisation Pathway to reduce emissions from the sector.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> By encouraging inward investment and investing in manufacturing industries in Wales, freight miles may be reduced, thereby reducing greenhouse gas emissions from transport.
7. To enable climate change resilience	+	Long-term Medium	<p>Neutral – does not mention how freight and logistics will adapt to climate change</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan should explain how freight and logistics networks will adapt to changing climate, including flood risk and coastal erosion along key routes. Consideration also needs to be given to adaption post-Brexit.
8. To protect and improve air quality	+	Long-term Medium	This mini plan is compatible with ISA Objective 9 as it states that there will be better air quality from freight and logistics with interventions supported that shift freight from road to rail and water-based transport, whilst supporting future innovations that will help make the sector more sustainable.
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	-	Long-term High	<p>Incompatible.</p> <p>Freight transport can create adverse visual impact and can have adverse impacts on the distinctiveness of landscapes and townscapes. Key routes of the SRN go through areas of distinctive landscape, including Snowdonia and the Brecon Beacons National Parks, meaning these National Parks may be disrupted by transport of freight in these areas. The mini plan does not recognise this and, although states that road freight will be moved to rail and water-based, this does not go far enough to mitigate the negative impacts.</p>
10. To promote the conservation and enhancement of heritage assets	0		Neutral – does not contribute to the enhancement of heritage assets.

ISA Objective	Score	Duration Certainty	Appraisal – Freight and Logistics
11. To promote the conservation and enhancement of biodiversity, geodiversity and ecosystems	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 11, as improved air quality due to fewer greenhouse gas emissions from freight will lead to higher quality habitats for biodiversity to inhabit.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Improve and maintain roadside verges and biodiversity pathways alongside key freight routes, and incorporate habitat bridges into future designs.
12. To ensure the sustainable use of natural resources	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 12, as it will reduce and mitigate the impacts to the environment of moving goods across Wales. The mini plan aims to develop a more sustainable supply chain for freight in Wales. There is conflict, however, if freight is shifted to water-based transport, as this would not protect or enhance water quality or promote the conservation of soil.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Hydrogen power can be accommodated into freight and bus services, reducing the use of natural resources.
13. To enable the protection of tranquil areas and prevention of noise and light pollution	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 13, as it states there will be less environmental noise from freight and logistics. However the mini plan does not go far enough in stating <i>how</i>. Reference should be made to NAPPAs along the SRN and other key freight routes and how noise pollution will be lessened for receptors along these routes.</p>

Mini Plan for Ports and Maritime Transport

General Comments

This mini plan should give reference to and align more with the objectives in the Welsh National Marine Plan (12 November 2019).

ISA Objective	Score	Duration Certainty	Appraisal – Ports and Maritime Transport
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	+	Long-term Medium	<p>This mini plan is generally compatible with ISA Objective 1, as it states that ports and harbours increase levels of activity in Wales by supporting the leisure economy including sailing, rowing and sporting opportunities, which help to promote both physical health and mental well-being.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> According to the Wales Index of Multiple Deprivation (WIMD), Holyhead Town Lower Super Output Area (LSOA), which includes the Port of Holyhead, is amongst the 10-20% most deprived in Wales for health. The mini plan does not go far enough to improve health inequalities in areas close to ports. More emphasis needs to be placed on ways to improve the physical and mental health of residents in these areas.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	+	Long-term High	<p>The mini plan is compatible with ISA Objective 2 as it states that ports and harbours will play a vital role in supporting local communities, including rural communities.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Use of British Sign Language should be considered as a way to improve access for people who are deaf or have impaired hearing. This could be achieved through training of port staff to make services accessible for all. According to the WIMD, Holyhead Town LSOA is amongst the 10-% most deprived overall. There is similar evidence for Pembroke Dock Central and Pembroke Dock Llanion 1 LSOAs, both of which are amongst the 10% most deprived LSOAs in Wales. The mini plan does not go far enough to describe ways to improve these inequalities.
3. To support sustainable economic development and diversity	++	Long-term Medium	<p>This mini plan is highly compatible with ISA Objective 3, as ports act as hubs for economic activity and investment. It is recognised that Welsh ports will act as international gateways, increasing trade and inward investment opportunities in Wales. Ports and harbours are focal point for investment, delivering local jobs and services and benefits to the wider economy of Wales. Ports are vital sources of Welsh employment and wealth in the wider supply chain.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> There is no mention of the impact that Brexit will have on ports, in particular Holyhead Port which provides key links to Ireland. Welsh Government acknowledge that there may be disruption to travel to and from Holyhead in the early days of a potential 'no deal' Brexit situation and the impact no deal may have on HGVs travelling from Ireland. This could be considered in the mini plan.
4. To protect and promote Welsh culture and improve access to cultural	++	Long-term Medium	<p>The mini plan is compatible with ISA Objective 4, as historic environment assets, including Wales' rich maritime history, are protected and sustained in the operation and growth of ports and harbours in Wales.</p>

ISA Objective	Score	Duration Certainty	Appraisal – Ports and Maritime Transport
and recreational spaces			
5. To encourage the protection and promotion of the Welsh Language	+	Long-term Low	<p>This mini plan is somewhat compatible with ISA Objective 5, however it states that visitor services associated with ports and harbours will meet Welsh language standards. This is a statutory obligation.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The WTS could encourage the employment of Welsh speakers at ports and harbours in order to promote the language further.
6. To reduce greenhouse gas emissions from transport	+	Long-term Medium	<p>The mini plan is generally compatible with ISA Objective 6, as ports and harbours will be more energy efficient and support low carbon logistics networks in Wales. The mini plan states that it will prevent and mitigate impacts on the environment that result from ports and maritime transport.</p>
7. To enable climate change resilience	-	Long-term Medium	<p>This mini plan is incompatible as it does not mention climate change resilience or adaption. Climate change, including increased sea levels and coastal erosion could have significant impacts on ports and harbours as well as the communities that live there.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan should consider how ports and harbours will adapt to climate change, including the management of coastal flooding and the protection of floodplains and coastal adaption due to coastal erosion. Port and harbour developments must be sustainable to mitigate the effects of climate change.
8. To protect and improve air quality	+	Long-term Medium	<p>The mini plan is generally compatible with ISA Objective 8, as ports and harbours will be more energy efficient and support low carbon logistics networks in Wales. The mini plan states that it will prevent and mitigate impacts on the environment that result from port usage and maritime transport.</p>
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	○		<p>Neutral – This mini plan does not mention Wales' coastal landscape or the value it has for society, particularly those sections designated as AONBs, National Parks or other designations. 42% of Wales' coastline is defined as Heritage Coasts, meaning they are protected from unsustainable development. The management of these areas should be mentioned in the mini plan, especially if in close proximity to ports and harbours.</p>
10. To promote the conservation and enhancement of heritage assets	+	Long-term Low	<p>This mini plan is compatible with ISA Objective 10, as historic environment assets, including Wales' rich maritime history, will be protected and sustained in the operation and growth of ports and harbours in Wales.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Promote underwater heritage to encourage visitors and thereby economic growth.

ISA Objective	Score	Duration Certainty	Appraisal – Ports and Maritime Transport
11. To promote the conservation and enhancement of biodiversity, geodiversity and ecosystems	+	Long-term Medium	<p>The mini plan is generally compatible with ISA Objective 11, as the operation and development of ports and harbours will support marine conservation and the marine environment.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> The mini plan, should align more closely with Objectives 10 and 11 of the Welsh National Marine Plan document: <i>'Protect, conserve, restore and enhance marine biodiversity to halt and reverse its decline including supporting the development and functioning of a well-managed and ecologically coherent network of Marine Protected Areas (MPAs) and resilient populations of representative, rare and vulnerable species.'</i> <p><i>'Maintain and enhance the resilience of marine ecosystems and the benefits they provide in order to meet the needs of present and future generations.'</i></p>
12. To ensure the sustainable use of natural resources	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 12, as ports and harbours will lead a green maritime recovery across Wales, including renewable energy projects and offshore renewables.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan could go into further detail on renewable energy and include, for example the potential that exists to grow algae offshore in sufficient volumes to meet the economies of scale to supply biomass to generate renewable energy.
13. To enable the protection of tranquil areas and prevention of noise and light pollution			<p>Neutral - This mini plan does not enable the protection of tranquil areas or the prevention of noise and light pollution and does not mention how both underwater noise and noise pollution will be mitigated. The Welsh National Marine Plan gives clear guidelines on noise (Policy ENV_05) and these should be referred to in the mini plan.</p>

Mini Plan for Aviation

General Comments

This mini plan should give reference to and align with the Cardiff Airport Environmental Flight Path

ISA Objective	Score	Duration Certainty	Appraisal – Aviation
1. To contribute to an improvement in physical, mental and social health and well-being for all, including contributing towards a reduction in health inequalities across Wales	-		<p>This mini plan does not contribute towards an improvement in access to health and social care services and does not promote healthy lifestyles. Although the plan states that communities across Wales will benefit from safer local and international connectivity, it is not clear how, as the focus is primarily on Cardiff Airport. A disproportionate benefit may be seen on communities in South Wales, rather than Wales as a whole.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Consideration must be given to improved safety and heightened hygiene and cleaning regimes post Covid-19 to make air travel safer for all.
2. To create the conditions within which an improvement in social cohesion and equality can be achieved	-		<p>This mini plan does not contribute towards ISA Objective 2 as the accessibility and availability of air travel is not equitable for Wales as a whole and is disproportionately beneficial to South Wales.</p>
3. To support sustainable economic development and diversity	++	Long-term High	<p>This mini plan is highly compatible with ISA Objective 3, as it recognises that, by 2040, Cardiff Airport is an international gateway connecting Wales to the world and a key driver within the Welsh economy, supporting businesses and jobs across Wales. Good connectivity will mean that businesses are confident about relocating to Wales and staying in Wales, supporting all aspects of Wales' economy, with Welsh businesses reaching new markets.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan acknowledges that the aviation sector is suffering due to Covid-19. Whilst the plan aims to recover passengers to near 1.6 million, this may not be possible due to reduced airlines flying from Cardiff or due to the market in general. The mini plan should acknowledge this and attempt to mitigate the impacts this may have and plan for recovery post Covid-19.
4. To protect and promote Welsh culture and improve access to cultural and recreational spaces	+	Long-term Medium	<p>This mini plan is compatible with ISA Objective 4, as visitors will be able to discover and enjoy Wales' cultural heritage.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan could promote Welsh culture further at Cardiff Airport and invest in international promotion and advertisement. Work with airlines to provide additional aviation services when major cultural or sporting events occur to improve access for national and international visitors.

ISA Objective	Score	Duration Certainty	Appraisal – Aviation
5. To encourage the protection and promotion of the Welsh Language			<p>Neutral – does not mention preserving or promoting Welsh language.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Increase the use of the Welsh language within the services and customer contact within Cardiff Airport. • Promotion of the Welsh language within Cardiff Airport itself.
6. To reduce greenhouse gas emissions from transport	--	Long-term Low	<p>This mini plan is incompatible with ISA Objective 6. Aviation is a big source of greenhouse gas emissions, and this could potentially be reduced through technologies that support more sustainable aviation, although certainty around this is low. The mini plan states that Cardiff Airport could become a centre for low carbon aviation by 2027, and by 2030 be the lowest carbon per passenger airport in Europe. These ambitious targets are welcomed, however there is little that states how the airport will achieve this.</p> <p>If Cardiff Airport does not offer competitive pricing or desirable destinations at convenient times, then people will travel elsewhere to get flights, for example Bristol for South Wales travellers. However, if Cardiff offers more destinations and flights, however, this will increase greenhouse gas emissions. Access to Cardiff Airport is a further issue. For residents of North Wales, there are much more accessible airports (for example Manchester and Liverpool). If reducing surface transport emissions is Cardiff Airport's answer to reducing overall emissions, then it simply does not go far enough.</p> <p>It is noted that a proposed new surface access corridor with fully segregated active travel and bus rapid transit facilities along with a new rail spur providing zero emission train services from the passenger terminal building directly to Swansea, Cardiff, Newport and Bristol has been suggested, which again disproportionately benefits those in South Wales.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • The WTS could install "pods" similar to Heathrow in order to move passengers from car parks to the terminal building. In 2008, Heathrow introduced 21 driverless, battery-powered, zero-emission shuttles. The pods have ferried more than 1.5 million passengers from carpark to terminal since opening, avoiding 70,000 bus journeys and saving the equivalent of 100 tonnes of CO₂ a year.
7. To enable climate change resilience			<p>Neutral – although it is recognised that the mini plan states Welsh Government will prevent future problems by tackling decarbonisation now, by working with the industry and stakeholders.</p>
8. To protect and improve air quality	--	Long-term Medium	<p>This mini plan is incompatible with ISA Objective 6. Aviation is a big source of greenhouse gas emissions, and this could potentially be reduced through technologies that support more sustainable aviation, although certainty around this is low. The mini plan states that it wants Cardiff Airport to become a centre for low carbon aviation by 2027, and by 2030 be the lowest carbon per passenger airport in Europe. These ambitious targets are welcomed, however there is little that states how the airport will achieve this.</p> <p>If Cardiff Airport does not offer competitive pricing or desirable destinations at convenient times, then people will travel elsewhere to get flights, for example Bristol for South Wales travellers. However, if Cardiff offers more destinations and</p>

ISA Objective	Score	Duration Certainty	Appraisal – Aviation
			<p>flights, however, this will increase greenhouse gas emissions. Access to Cardiff Airport is a further issue. For residents of North Wales, there are much more accessible airports (for example Manchester and Liverpool). If reducing surface transport emissions is Cardiff Airport's answer to reducing overall emissions, then it simply does not go far enough.</p> <p>It is noted that a proposed new surface access corridor with fully segregated active travel and bus rapid transit facilities along with a new rail spur providing zero emission train services from the passenger terminal building directly to Swansea, Cardiff, Newport and Bristol has been suggested, which again disproportionately benefits those in South Wales.</p>
9. To protect and enhance the local distinctiveness of our landscapes and townscapes	O		Neutral – The mini plan will have no impact on enhancing the local distinctiveness of landscapes and townscapes.
10. To promote the conservation and enhancement of heritage assets	O		<p>Neutral – The mini plan has no impact on the conservation or enhancement of heritage assets.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> The mini plan could promote heritage assets further at Cardiff Airport and invest in international promotion and advertisement.
11. To promote the conservation and enhancement of biodiversity, geodiversity and ecosystems	O		<p>Neutral – The mini plan does not contribute to the conservation and enhancement of biodiversity, geodiversity and ecosystems.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> In order to reduce contamination, Heathrow Airport treat water that is contaminated with glycol by filtering it through reed beds, which removes seven tonnes of organic pollution every year. Cardiff could adopt similar mitigation. In order to safeguard populations of birds, Frankfurt Airport keep grass long, so predatory birds struggle to see prey in the grass and, therefore, circle less above the airport.
12. To ensure the sustainable use of natural resources	+	Long-term Low	<p>The mini plan is somewhat compatible with ISA Objective 12, as the priorities over the next five years include developing an energy strategy for Cardiff Airport, looking at options such as onsite generation, energy exporting, carbon-neutral buildings and prioritising low carbon businesses. By 2021, Cardiff Airport aims to commission and install a solar farm on the Airport site – however this is not mentioned in the mini plan.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Include within the mini plan the installation of a solar farm on the Airport site, as contained in the Environmental Flight Path.

ISA Objective	Score	Duration Certainty	Appraisal – Aviation
13. To enable the protection of tranquil areas and prevention of noise and light pollution	--	Long-term Low	<p>The mini plan is not compatible with ISA Objective 13 and outlines no measures to prevent noise and light pollution from aviation. The Environmental Flight Path states that the impact of noise is reduced through Air Traffic Control using continuous descent operations for aircraft on approach. This should be mentioned in the mini plan and further noise prevention measures should be included.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • The mini plan could include noise mitigation, such as assessing flight paths so that the majority of flights depart and arrive over sea from the south, so as to mitigate noise. • Some airports work with airlines to change the way they approach the runway. Instead of including sections of level flight in a descent, planes descend in a straight path, typically from 6,000 feet. Continuous descents can noticeably reduce noise and can save up to 400kg of fuel. • Cardiff Airport could implement restrictions on the number of flights or type of aircraft landing or taking off at night, charge penalty fees for older, noisier aircraft, levy fines for noise transgressions.

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