ON TRACK

FOR THE 21st CENTURY

A Development Plan for the Railways of Wales

and the Borders

AR Y TRYWYDD

TUA'R UNFED GANRIF AR HUGAIN

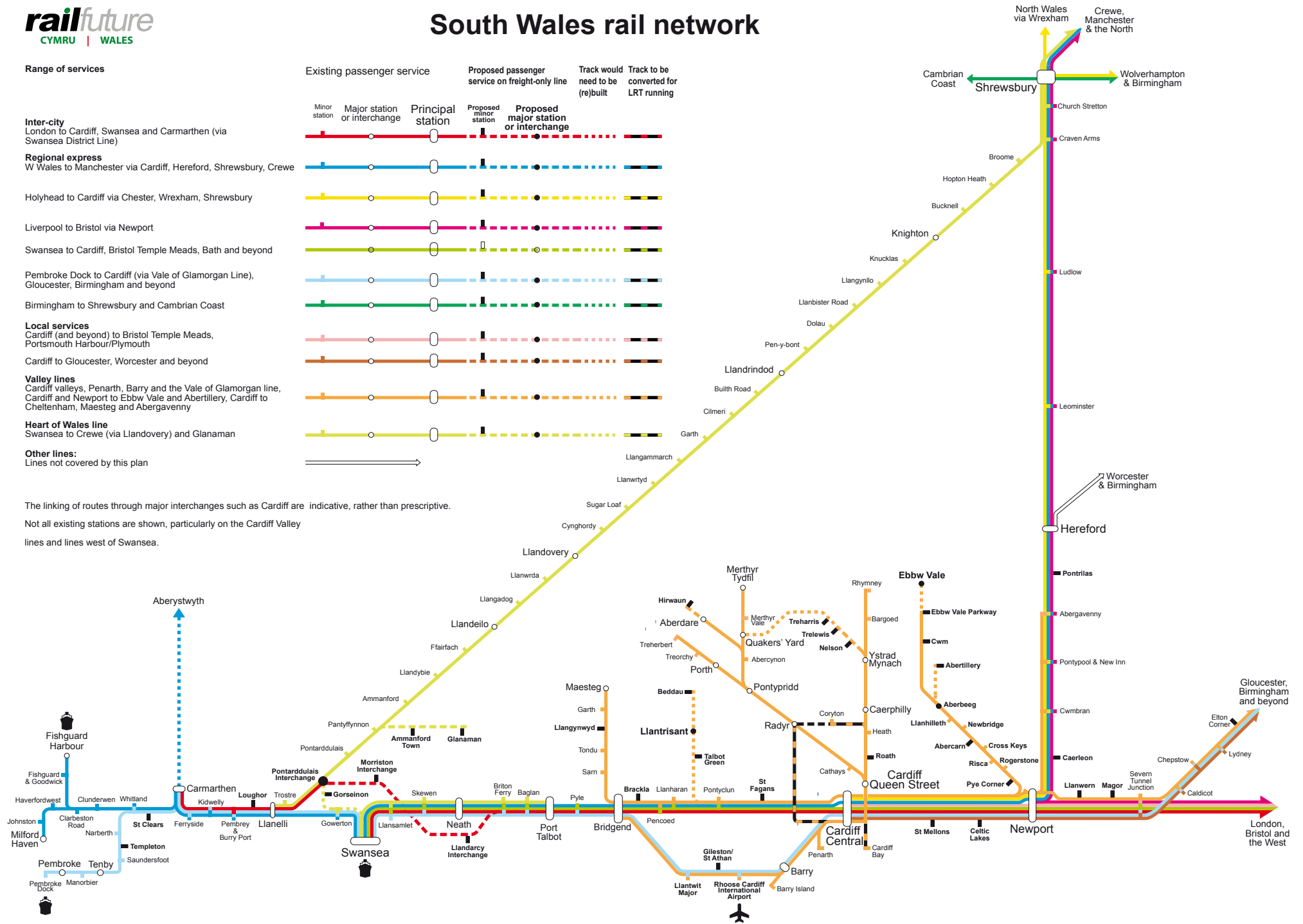Cynllun Datblygu Rheilffyrdd Cymru a`r Gororau

South Wales rail network

rail_future_
CYMRU | WALES

Range of services

	Existing passenger service			Proposed passenger service on freight-only line		Track would need to be (re)built	Track to be converted for LRT running
	Minor station	Major station or interchange	Principal station	Proposed minor station	Proposed major station or interchange		

Inter-city
London to Cardiff, Swansea and Carmarthen (via Swansea District Line)

Regional express
W Wales to Manchester via Cardiff, Hereford, Shrewsbury, Crewe

Holyhead to Cardiff via Chester, Wrexham, Shrewsbury

Liverpool to Bristol via Newport

Swansea to Cardiff, Bristol Temple Meads, Bath and beyond

Pembroke Dock to Cardiff (via Vale of Glamorgan Line), Gloucester, Birmingham and beyond

Birmingham to Shrewsbury and Cambrian Coast

Local services
Cardiff (and beyond) to Bristol Temple Meads, Portsmouth Harbour/Plymouth

Cardiff to Gloucester, Worcester and beyond

Valley lines
Cardiff valleys, Penarth, Barry and the Vale of Glamorgan line, Cardiff and Newport to Ebbw Vale and Abertillery, Cardiff to Cheltenham, Maesteg and Abergavenny

Heart of Wales line
Swansea to Crewe (via Llandovery) and Glanaman

Other lines:
Lines not covered by this plan
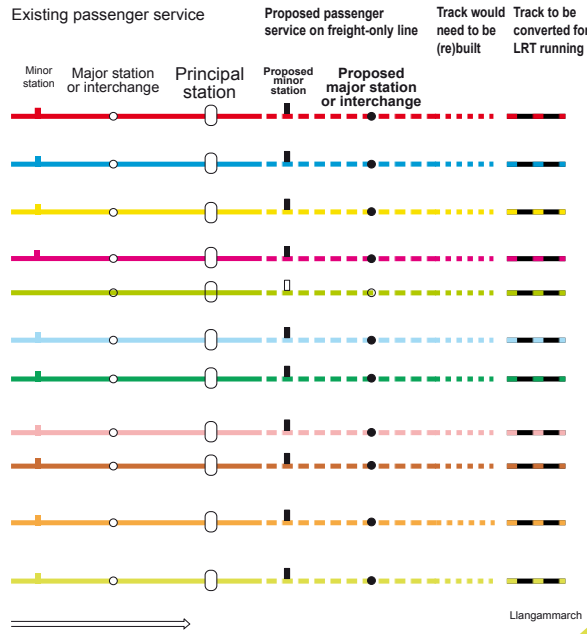
The linking of routes through major interchanges such as Cardiff are indicative, rather than prescriptive.

Not all existing stations are shown, particularly on the Cardiff Valley lines and lines west of Swansea.

railfuture

CYMRU | WALES

Contents

Maps

Rhagymadrodd

Gyda phleser mawr y cyflwyna Railfuture Cymru yr argraffiad diweddaraf o'u Cynllun Datblygu ar gyfer rheilffyrdd yng Nghymru. Gwneir hyn mewn sefyllfa trafnidiaeth sydd wedi cael ei thrawsnewid yn gyfangwbl yn y blynyddoedd diweddar. Yn sgil datganoli a chael senedd i'w hunan, fe all Cymru o'r diwedd gynllunio, i raddau, ei pholisiau trafnidiaeth ei hun. Hefyd, gyda phrisiau tanwydd yn codi yn gyson, mae gwelliannau i'r rhwydwaith rheilffyrdd ac i ddulliau eraill o drafnidiaeth cyhoeddus yn fwy fwy pwysig.

Yn y Cynllun hwn, y mae ymgais nid yn unig i edrych ar ddulliau gweddol hawdd o wella sefyllfa rheilffyrdd yng Nghymru ond hefyd i roi ger eich bron weledigaeth radical ar gyfer yr oes nesaf. Dechreua pob newid chwildroadol mewn trafnidiaeth – neu mewn unrhyw agwedd arall o bolisi – gyda rhywun yn dweud, "Wel, pe baem ni'n gwneud hyn…" neu, "Beth petai…?" Mewn geiriau eraill, mae angen i rywun feddwl tu allan i'r bocs fel pe bai: mewn rhannau o'r Cynllun, dyma beth rydym wedi ei wneud.

Gobeithiwn y byddwch chi'n meddwl fod y Cynllun yn un diddorol. Gobeithiwn yn enwedig y bydd y darllenwyr hynny yn eich plith sydd â'r pwerau i benderfynu ar bolisiau – ar lefel leol, cenedlaethol neu Brydeinig – yn ymgorffori ein syniadau yn eich gweledigaethau ar gyfer y dyfodol.

Introduction

Railfuture Cymru is very pleased to publish *ON TRACK for the 21st Century*, the latest edition of its *Development Plan for Rail Transport of Wales and the Borders*. We do so in a transport context which has changed out of all recognition over the past few years. In particular, as a result of devolution, at last Wales is able to a large extent to plan its own transport policies. Moreover, we live at a time when, as fuel prices escalate, improvements to the rail network and other forms of public transport are increasingly important.

In this plan, we attempt not only to look at relatively easy ways of improving the rail transport scene in Wales, but also to present to you a more radical vision for the longer term. Every step change in transport – or any other aspect of policy – begins with someone saying "Well, suppose we did this…?" or "What if….? In other words, someone needs to think outside the box: we have attempted, in parts of what follows, to do exactly that.

We hope that you will find this plan to be of interest. In particular, we hope that those readers who are in a position to make policy decisions – at local, Welsh or UK level – will be able to incorporate our ideas into their own visions for the future.

BARMOUTH BRIDGE
This picture was runner up in the Network Rail Lines in the Landscape award,
2012 Take-a-View Landscape Photographer of the Year   *©Claire Carter*

1.Crynodeb gweithredol

1.1 Sefydliad gwirfoddol annibynnol, yn gweithredu ledled y DU yw Railfuture. Mae'n ymgyrchu am fwy o fuddsoddiad ac am fwy o ddefnydd o'r rheilffyrdd ac mae hefyd yn gorff sy'n cynrychioli defnyddwyr rheilffyrdd. Mae canghennau Cymru yn gweithredu ledled y wlad yn ogystal ag ar lwybr rheilffordd y Mers sy'n rhedeg drwy siroedd y gororau.

1.2 Rydyn ni o'r farn y gall - a bod yn rhaid - i'r rheilffyrdd chwarae llawer mwy o ran nag yn ystod y degawdau diwethaf i gyfarfod ag anghenion cludiant yng Nghymru. Byddai defnyddio mwy ar y rheilffyrdd ar gyfer teithwyr a nwyddau yn cyfrannu at amcanion

1. Executive summary

1.1 Railfuture is a UK-wide independent voluntary organisation which campaigns for greater investment in, and use of, rail and acts as a consumer body for rail users. The Wales branches cover the whole of Wales, together with the route of the Marches line running through the border counties.

1.2 We believe that rail can – and must – play a much larger role in meeting the transport needs of Wales than it has done in recent decades. Greater use of rail, both for passengers and freight, will contribute to the aims of both the Welsh and UK governments to reduce carbon emissions, pollution and road traffic congestion. This will improve accessibility to work, education, health and leisure facilities for those unable to use cars at all times. Thus as well as improving the environment it will also reduce social exclusion. The improvement of transport facilities – including for the disabled – is an essential component of sustainable development, which the National Assembly for Wales is statutorily required to promote.

1.3 For these benefits to be realised, significant modal shift from road to rail is essential, but if this is to happen rail must offer an attractive service in terms of frequency, affordability, reliability, connectivity, security and comfort. Without these things, car owners and freight hauliers are unlikely to consider rail as a serious alternative to the car and the lorry.

1.4 At present in much of Wales, rail services do not meet these criteria adequately: this plan suggests radical changes that should be made to improve matters.

1.5 In this third edition of the plan, we welcome some positive developments which have occurred, or are imminent, since publication of the second edition in 2004 – but we also draw attention to some negative

llywodraethau Cymru a'r DU i leihau allyriadau carbon, llygredd a thagfeydd ar y ffyrdd. Byddai hynny'n ei gwneud yn haws i bobl heb geir gyrraedd eu mannau gwaith, addysg, iechyd a hamdden. Yn ogystal â gwella'r amgylchedd, byddai hynny hefyd yn lleihau eithrio cymdeithasol. Mae gwella'r ddarpariaeth cludiant – gan gynnwys ar gyfer pobl anabl – yn rhan hanfodol o ddatblygu cynaliadwy ac mae cyfrifoldeb statudol ar Gynulliad Cenedlaethol Cymru i hyrwyddo hynny.

1.3 Ond os yw hynny i'w wireddu, mae angen symud llawer o deithiau o'r ffyrdd i'r rheilffyrdd. Fodd bynnag, cyn y gall hynny ddigwydd, mae'n rhaid i'r rheilffyrdd gynnig gwasanaeth deniadol, aml, fforddiadwy, dibynadwy, cysylltiedig, diogel a chyfforddus. Heb hynny, mae perchnogion ceir a lorïau yn annhebyg o ystyried o ddifrif rhoi'r gorau iddyn nhw a defnyddio'r rheilffyrdd.

1.4 Ar hyn o bryd, yn y rhan fwyaf o Gymru, nid yw'r gwasanaethau rheilffyrdd yn llwyddo i fodloni'r meini prawf hyn: mae'r Cynllun hwn yn awgrymu gwneud newidiadau radical i wella pethau.

1.5 Yn y trydydd rhifyn hwn o'r Cynllun, rydyn ni'n croesawu datblygiadau positif sydd wedi, neu ar fin, digwydd ers cyhoeddi'r ail rifyn yn 2004 - ond rydyn ni hefyd yn tynnu sylw at rai nodweddion negyddol (adran 2). Gwneir argymhellion manwl i oresgyn yr agweddau negyddol ac i adeiladu ar y rhai positif er mwyn galluogi'r rhwydwaith rheilffyrdd i fodloni'r dyheadau sydd ym mharagraff 1.3 (uchod). Mae'r cynlluniau hyn yn cynnwys ailddechrau gwasanaethau teithwyr ar rai o'r rheilffyrdd presennol megis Aberdâr i Hirwaun, ac ailagor rhai hen reilffyrdd, megis o Fangor i Gaernarfon. Rydyn ni'n argymell y dylai'r gwasanaeth ar bron bob un o'r llwybrau rheilffordd fod o leiaf unwaith mewn dwy awr i bob cyfeiriad, ac y dylai'r rhan fwyaf gael trenau bob hanner awr neu awr ac yn amlach na hynny yn y mannau poblog iawn ar rwydwaith Caerdydd a'r Cymoedd ac ar brif reilffordd De Cymru rhwng Casnewydd ac Abertawe. Mae'n bwysig fod y gwasanaethau hyn yn rhedeg o leiaf rhwng 06.00 a 23.00 o ddydd Llun tan ddydd Sadwrn a bod gwasanaethau'r Sul yr un fath a'r rhai ar ddyddiau'r wythnos heblaw am deithiau cymudwyr neu

features (chapter 2). Detailed proposals are made to overcome the negative aspects and build on the positive ones in order to allow the rail network to satisfy the aspirations set out in paragraph 1.3 (above). These plans include the reintroduction of passenger services on some existing lines, such as Aberdare to Hirwaun, and the rebuilding of some abandoned routes, including Bangor to Caernarfon. For almost all routes we advocate service frequencies of at least every two hours in each direction, with a majority of lines to have half-hourly or hourly trains, and services running even more frequently in the highly populated areas on parts of the Cardiff Valleys network and the south Wales main line between Newport and Swansea. It is important that all these services run at least from 06.00 to 23.00 on Mondays to Saturdays, with Sunday services being the same as on weekdays except where commuter or schools journeys are involved: this reflects changed social habits on Sundays and would put Welsh railways on an equal footing with those in many other European countries. (chapter 4.1)

1.6 We believe that "clock face" timetabling should be universally adopted, to make it easier for passengers to understand and remember the timetable and to facilitate timetable design where services need to inter-connect with each other and with other transport modes. Other important changes are advocated to make journeys involving more than one train and/or more than one mode of transport easier than at present. These include altering the regulatory regime for train-to-train connections, improving the physical arrangements for inter-modal links and introducing multi-modal travelcards. (chapter 4.2)

1.7 Facilities at stations and on trains need to meet certain standards to make rail travel a pleasant, secure and convenient experience. While improvements are being made in the availability of real-time train running information at stations, a large gap remains to be bridged in making potential passengers aware of public transport timetables, facilities and fares. Proposals are therefore made to address this information deficit. (chapter 8.1 & 8.2)

1.8 The economic and environmental benefits of increasing rail freight's market share are widely recognised. Some gains have been made in

ysgolion: mae hyn yn adlewyrchu'r newidiadau cymdeithasol ar y Sul a byddai'n rhoi rheilffyrdd Cymru yn yr un safle â'r rheilffyrdd mewn llawer o wledydd Ewropeaidd eraill. (adran 4.1)

1.6 Rydyn ni o'r farn y dylid mabwysiadu amserlenni "wyneb cloc" i'w gwneud yn haws i deithwyr ddeall a chofio'r amserlen ac i'w gwneud yn haws i ddylunio amserlenni pan mae'n rhaid i wasanaethau gyd gysylltu â'i gilydd a chyda mathau eraill o gludiant. Newidiadau pwysig eraill rydyn ni'n eu hargymell yw ei gwneud yn haws nag ar hyn o bryd i deithio drwy ddefnyddio mwy nag un trên a / neu fwy nag un math o gludiant: mae'r rhain yn cynnwys newid y drefn reoleiddio ar gyfer cysylltiadau trên i drên, gwella'r trefniadau ffisegol ar gyfer cysylltiadau rhwng gwahanol ddulliau o deithio a chyflwyno cardiau teithio ar gyfer mwy nag un dull o deithio (adran 4.2).

1.7 Mae gofyn i adnoddau ar orsafoedd ac ar drenau gyfarfod â safonau penodol i wneud teithio ar y rheilffordd yn brofiad braf, diogel a hwylus. Er ei bod yn haws, erbyn hyn, cael gwybodaeth mewn gorsafoedd a yw trenau yn rhedeg ar amser ai peidio, mae yna'n dal fwlch mawr i'w bontio o ran rhoi gwybod i ddarpar deithwyr am amserlenni, adnoddau a phrisiau cludiant cyhoeddus. Cyflwynir cynigion, felly, i dalu sylw i'r prinder gwybodaeth hwn. (adrannau 8.1 ac 8.2)

1.8 Mae cydnbyddiaeth eang i'r manteision economaidd ac amgylcheddol o gynyddu cyfran y rheilffyrdd o'r farchnad cludo nwyddau. Mae wedi cynyddu rhywfaint yn ystod y blynyddoedd diweddar ond byddai'n bosibl gwneud llawer iawn mwy. Mae darparu cyfres o orsafoedd nwyddau bychain mewn mannau addas, adolygu'r drefn cymhellion ac ystyriaethau cynllunio o ran lleoli datblygiadau diwydiannol a mân-werthu a blociau newydd o swyddfeydd ymysg y cynigion yn y Cynllun i symud rhagor o nwyddau i deithio ar y rheilffyrdd (adran 10).

1.9 Mae'n rhaid ystyried rhwydwaith reilffordd Cymru a'r Gororau yn nhermau strategaeth Cymru gyfan yn hytrach nag fel cyfres o wasanaethau lleol digyswllt, neu ond fel estyniad o rwydwaith Lloegr.

recent years, but the potential exists for much more to be done. Provision of a series of mini freight terminals at appropriate locations, review of the incentive regime and of planning considerations in siting new industrial and retail developments and commercial office blocks are among proposals in the plan to achieve greater modal shift towards rail. (chapter 10)

1.9 It is vital to think of the Wales and Borders rail network in strategic terms, rather than as a series of unconnected local services, or merely as an extension of the English network. The National Assembly and the Welsh Government are well placed to take on such a strategic role – and to an extent have done so. However, the fragmented nature of the transport industry (and especially of the rail industry since privatisation), together with the complicated and in some ways illogical nature of Welsh administration at all levels, makes such an overview difficult. In addition, while we welcome the increased powers over the rail network gained by the Assembly in 2006, we believe it still lacks sufficient control over rail and other modes of transport and that this further undermines the Assembly's ability to act strategically in transport terms. In order to remedy this situation at least in part, Railfuture Wales therefore believes that the time has come for a radical rethink of the overall control and management of Welsh railways. Thus we advocate a Welsh not-for-dividend, vertically integrated rail company, set up by and responsible to the Welsh Government, which would take over the current operations of Network Rail and Arriva Trains Wales in Wales and the borders. (chapter 12)

1.10 It is widely recognised that the present rail industry structure has resulted in unacceptable cost escalation. At the UK level, the McNulty Review is a recent attempt to come up with ways of addressing this situation. Given the current fragile state of the British economy, it would be unrealistic to expect huge amounts of extra funds to be ploughed into the development of the Welsh rail network in the short term. However, this plan provides a long term vision of the future of the Welsh rail network and can be implemented in prioritised stages as funds allow. It must also be remembered that the improvements we advocate will themselves provide a strong stimulus to the economic development of Wales. Moreover, as far as the provision of subsidies for the operation of passenger services is

Mewn sawl ffordd, mae gan y Cynulliad Cenedlaethol a Llywodraeth Cymru gyfle da i ysgwyddo rôl mor strategol, ac i raddau, mae'r ddau wedi gwneud hynny. Fodd bynnag, mae'r ffaith fod y diwydiant cludiant wedi'i ddarnio cymaint (yn enwedig y diwydiant rheilffordd ers preifateiddio), a hefyd natur gymhleth ac i raddau afresymegol gweinyddiaeth Cymru ar bob lefel, yn ei gwneud yn anodd cael trosolwg o'r fath. Hefyd, er ein bod yn croesawu'r pwerau cryfach a gafodd y Cynulliad dros y rhwydwaith rheilffyrdd yn 2006, rydyn ni o'r farn nad oes yn dal ganddo ddigon o reolaeth dros y rheilffyrdd a dulliau eraill o gludiant a bod hynny'n tanseilio ymhellach allu'r Cynulliad i weithredu'n strategol ym maes cludiant. Er mwyn gwella'r sefyllfa, o leiaf yn rhannol, mae Railfuture Cymru o'r farn ei bod yn bryd ailfeddwl yn radical ynghylch rheolaeth gyffredinol rheilffyrdd Cymru. Dyna pam ein bod yn argymell sefydlu cwmni rheilffordd nid er elw, fertigol gyfannol a fyddai'n atebol i Lywodraeth Cymru ac a fyddai'n cymryd drosodd gan Network Rail ac Arriva Trains Cymru yng Nghymru a'r Gororau (adran 12).

1.10 Mae yna gydnabyddiaeth eang fod strwythur presennol y diwydiant rheilffyrdd wedi arwain at gynnydd annerbyniol mewn costau. Ar lefel y DU, mae Adolygiad McNulty yn ymdrech yn ddiweddar i ganfod ffyrdd o ddatrys hyn. O gofio am natur fregus economi Prydain, ni fyddai'n realistig disgwyl y bydd pentwr o arian ar gael i ddatblygu rhwydwaith rheilffyrdd Cymru yn y tymor byr. Fodd bynnag, mae'r Cynllun yn cynnig gweledigaeth hir dymor ar gyfer dyfodol rhwydwaith rheilffyrdd Cymru y gellid ei gweithredu a'i blaenoriaethu mewn rhannau yn ôl faint o arian fyddai ar gael. Rhaid cofio hefyd y byddai'r gwelliannau rydyn ni'n eu hargymell eu hunain yn anogaeth gref i ddatblygu economi Cymru. Ymhellach, o ran darparu cymhorthdal i wasanaethau teithwyr, pe byddai – fel yr ydyn ni o'r farn – ein cynigion yn arwain at gynnydd mawr yn y defnydd o reilffyrdd Cymru, byddai'r incwm a gai ei gynhyrchu'n fodd o leihau cryn dipyn ar y cymorthdaliadau ychwanegol y gallai manylion y Cynllun awgrymu y byddai eu hangen.

concerned, if – as we believe – our proposals stimulate greatly increased use of Wales' railways, the income generated will significantly reduce the additional subsidies which the detail of the plan might appear to require.

HEART OF WALES LINE

14

15

LOUGHOR VIADUCT
A crucial bottleneck on the main line from Swansea to west Wales was removed in 2013 at a cost of around £60 million, £48 million of which came from the Welsh Government. Five miles of track was upgraded as well as the timber trestle Loughor viaduct which was rebuilt with steel.

2. Preface to third edition

2.1. Some positive developments

2.1.1 Since the previous edition of this plan there have been several useful developments in respect of passenger services. For example:

■ The extension of the Cardiff to Gloucester local service through to Cheltenham has provided much-improved connections to and from stations to Birmingham and beyond

■ Local pressure has resulted in additional stops at Chepstow and Lydney by CrossCountry services

■ The service between Pontypridd and Merthyr has been doubled to half-hourly

■ Sunday morning services have been significantly improved on the south Wales to Manchester route, to an extent west of Swansea and in summer between Shrewsbury and Aberystwyth

■ From September 2011 a number of additional trains have been provided to and from Fishguard Harbour to supplement the existing two trains in each direction "boat train" services

■ The Welsh Highland Railway/ Rheilffordd Eryri has been reopened throughout from Caernarfon to Porthmadog Harbour

2.1.2 There have also been some freight service improvements since the last edition of the plan. For example, coal trains have resumed from sites at Gwaun-cae-Gurwen, Cwmbargoed and Cwmgwrach and a new freight service from Daventry to Cardiff for Tesco has started

2.1.3 It is also pleasing to be able to note a number of improvements to the infrastructure of the Wales and Borders network in the last few years, including:

■ The planned – and largely completed – extension to all stations and halts of a customer information system, showing real time visual and audible announcements

■ Some stations with low platforms are receiving raised central sections (known as Harrington humps) so that level access to trains is possible via at least one entrance door

■ West of Welshpool and at Dyfi Junction passing loops have been extended or restored with a view to future service improvements

■ A number of stations in the Cardiff valleys have had their platforms extended to allow longer trains to operate as a way of dealing with capacity issues. Another strategy to this end has seen additional platforms provided at several important interchanges, including Cardiff Central, Newport, Severn Tunnel Junction and Shrewsbury

■ Signalling renewal has commenced on the south Wales main line and the Vale of Glamorgan line, and a new signalling centre has been opened at Cardiff

■ "Access for all" provision has been improved at a number of locations, including Bridgend, Leominster and Prestatyn

2.1.4 Political and organisational developments have included the establishment of the Passenger Transport Users' Committee for Wales, Network Rail's Wales and Borders Directorate and the Welsh Government's Wales Freight Group

2.2. Some developments 'in the pipeline'

We warmly welcome the decision to electrify the route from London Paddington to Swansea and the entire Cardiff valley lines network, including the Vale of Glamorgan line via Llantwit Major and the lines to Maesteg and Ebbw Vale.

We are pleased to note that plans exist for a number of further improvements to passenger services, including doubling the current two-hourly service between Shrewsbury and Aberystwyth and the existing hourly services between Cardiff and Maesteg and Bargoed and Rhymney.

As far as freight services are concerned, there are proposals for biomass traffic at Maesteg and Cwmbargoed.

Planned infrastructure improvements include redoubling of the line between Wrexham and Chester, which will allow enhancement of passenger services. In addition, the Welsh Government is investigating the possible reopening of the Aberdare to Hirwaun and Gaerwen to Llangefni sections to passenger trains. Advocates of the Cardiff Metro scheme have included the reopening of the Caerphilly to Pontypridd line in their proposals.

2.3. Some negative developments

Unfortunately the positive developments and plans noted above have to be balanced by several less welcome changes.

In passenger service terms, although there have been improvements to the west Wales to Manchester service via Hereford, unwelcome results have included the abandonment of the regular interval weekday service at Leominster, Craven Arms and Church Stretton, together with a worsening of connections on Saturdays from Paddington to and from west Wales. Further problems relate to connections at Shrewsbury between the Cambrian and Chester services and to the withdrawal of calls at Severn Tunnel Junction by most Cardiff to Portsmouth services. As well as this, the number of Cardiff to Gloucester/Cheltenham local services has been reduced. In addition the Virgin Trains link with the Dublin to Holyhead overnight ferry service has gone and this route has also seen the winter cancellation of the fast ferry service.

Several useful bus links with rail services have been withdrawn, as a result of financial constraints rather than lack of use. Examples include the routes from Maesteg to Caerau and Cymmer and from Ystrad Rhondda to Maerdy and Ferndale. It is also very regrettable that some bus services have been removed from Cardiff bus station, which is adjacent to Cardiff Central, to locations in city centre streets, which are some considerable distance from the main railway station.

With regard to freight services, traffic has ceased at Carmarthen, Parc Slip, Mostyn Docks and Anglesey Aluminium. Moreover, it is deeply regrettable that there is no longer any rail freight traffic to and from Swansea Docks.

In infrastructure terms, numerous issues have arisen from the redevelopment of Newport station, which many see as having worked strongly against the interests of passengers. In addition, despite recent investment, access to "platform 0" at Cardiff Central and platform 3 at Shrewsbury remains unsatisfactory. On the Cambrian lines, the introduction of a new signalling system (ERTMS – the European Rail Traffic Management System) brought with it very serious effects on the reliability of the passenger service, which took a long while to sort out.

Politically, we believe that the biggest problems have arisen from the decision of the UK Government to let the Wales and Borders franchise to Arriva Trains Wales for the period 2003 to 2018 on a "no growth" basis. It will be vital to ensure that the same mistake is not repeated when the franchise is retendered. However, we also believe that the whole basis of the franchise system is flawed and elsewhere in this plan (chapter 12) we make proposals for a new approach that would be far more likely to serve the interests of Wales and the Borders.

A more detailed point related to the control of the network is that the mechanism for "network change" appears not to be working properly. A clear example of this is to be found at Newport, where a connection to the Ebbw Vale line was removed despite plans existing to reintroduce a Newport to Ebbw Vale service, with the result that the Welsh Government will have to pay for the connection to be reinstated for the new service to be possible.

3. Introduction

3.1 Railfuture (the campaigning name of the Railway Development Society Ltd) is a UK-wide independent voluntary organisation, which promotes the cause of greater investment in and use of the rail network and acts as a consumer body for rail users. This third edition of the *Development Plan for the Railways of Wales and the Borders* is published by the Welsh branches of Railfuture. Copies are being distributed widely to local, Welsh and UK politicians and officials, as well as to the train operating companies, Network Rail and the media. We hope thereby to stimulate as wide a debate as possible as to the public transport needs of Wales.

3.2 We believe that rail can, and must, play a much larger role in meeting the transport needs of Wales and the Borders than it has done in recent decades. Greater use of rail, both by passengers and freight, will contribute to the Welsh and UK governments' targets for reducing carbon emissions and traffic congestion. It will also improve access to work, health and leisure activities for those who do not have access to a car at all times. Already, the long distance rail and bus network has seen some improvements, which have made north to south travel within Wales easier, and we advocate further improvements in this respect. Rail traffic is far less damaging in environmental terms than are cars and lorries. Therefore, making greater use of the rail network is an essential component of sustainable development, which the National Assembly for Wales is statutorily required to promote.

3.3 Rail should be of increasing importance in the development of transport links between Ireland, Wales, England and continental Europe. Links from Wales through England to Scotland for both passenger and freight traffic should also be developed. Such international connectivity is vital to the Welsh economy, especially as Wales exists on the periphery of the European Union.

3.4 For these benefits to be realised, significant modal shift from road to rail is essential, but a prerequisite for this is that rail must offer an attractive service in terms of frequency, connectivity, comfort, security and price. In addition there needs to be adequate physical access to railway stations for pedestrians, cyclists and those arriving by bus and car. In the latter case, car parking must be sufficient to meet local demand. If these criteria are not met, potential users are unlikely to consider rail as an attractive alternative to using road transport for every journey. As well as this, it is important that planning policies take into account the proximity of railway stations to proposed sites for residential, industrial and service developments.

3.5 In much of Wales, neither rail passenger nor rail freight services currently meets these criteria adequately. At a time of rising demand for transport and increasing road traffic congestion, most Welsh rail services fall short of these basic standards and so are failing to achieve modal shift.

3.6 In this plan, proposals are made which we believe will greatly increase the attraction of rail passenger and freight services. We emphasise the need to look at the Wales and Borders rail network in strategic, regional terms rather than as a series of unconnected local services or as an extension of the English network. The emphasis is on what should be done rather than how it might be implemented – the latter is for the professionals to decide, given adequate resources for the task. We believe that the difficulties inherent in the fragmented nature of the privatised rail industry and of Welsh local government can be overcome if the will is there to make a step change in the quality and extent of service provision. The work being done by the local authority consortia has shown significant progress in the development of the rail network, though improvements have not been consistent across Wales and many problems remain.

3.7 Although significant investment will be needed, none of what is proposed in this plan is unrealistic if politicians and others are serious about tackling the issues outlined above in order to achieve an integrated transport network of which Wales and the Borders can be proud.

3.8 The UK Government has made clear its commitment to developing an integrated public transport system. Hitherto, the National Assembly's lack of control over rail services has been a serious obstacle to achieving this in Wales, so we welcome the greater powers devolved in 2006 relating to the management of the Wales and Borders passenger franchise. We also approve of the commitment by the UK Department for Transport to consult with the Welsh Government on issues relating to cross-border franchise renewal. The decision by Network Rail to establish a discrete Wales and Borders directorate based in Cardiff is also welcomed, although much will depend on exactly how much real autonomy the new managing director is given.

3.9 However, we do not believe that these moves towards greater Welsh influence over the franchises and the work of Network Rail go far enough. Regional control of rail services has been adopted widely, and with considerable success, in mainland Europe. It is also gaining ground elsewhere in the UK, with an obvious example just across the border being the control by Merseyside (which does not have devolved government) of the Merseyrail franchise. The Greater London, Scotland and Northern Ireland networks are also more directly under regional control than is the case in Wales, with the two latter having infrastructure as well as franchise specification powers.

3.10 We therefore propose that when the current Arriva Trains Wales franchise expires in 2018, all its operations in Wales and the borders, together with Network Rail's Welsh directorate, should be taken over by a Welsh Government-controlled, "arm's length", not-for-dividend company, to be known perhaps as *Rail Wales/Rheilffyrdd Cymru*. This company, which would share passenger services operated by cross-border franchisees (currently First Great Western, CrossCountry and Virgin), would be given clear direction and financial and political support by the Welsh Government. It would be run for the benefit of the people of Wales and the Borders, rather than primarily in the interests of private shareholders.

3.11 It is clear that where regions or conurbations have direct power to specify their transport networks, trains and service frequencies are usually specified at a higher standard than in Wales. This is particularly the case when highly populated south Wales is compared with similar areas such as Tyneside or South Yorkshire. Standards are often higher still in such countries as Germany or the Netherlands. We do not see why the people of Wales should continue to have to put up with facilities which – despite the best efforts to date of the Welsh Government and the local authority transport consortia – are far removed from the best available even in other parts of the UK. It is clear that strong political will and the provision of adequate financial resources, within the context of a long term vision as set out in this plan, are essential if this imbalance is to be redressed.

Picture: NETWORK RAIL

NEWPORT
The station was rebuilt at a cost of £13 million in 2010 to a design by Atkins and Grimshaw.
Network Rail and Arriva Trains Wales were keen that it should be a modern "gateway to
Wales". But the station was criticised by rail passengers as inconvenient and was beset
by problems, such as bad positioning of essential services and the loss of cross-platform
connections. Even the lifts were found to be too small for the many passengers who needed
them. Railfuture Wales believes a major step towards integrated transport in Wales was lost,
especially when plans for a bus interchange adjacent to the rail station were shelved

4. Passenger services

4.0 Passenger rail service levels

General principles

4.0.1 All routes, including cross-border routes, must be served at least every two hours if rail is to have any hope of being the first choice of mode of transport. Even in the most rural areas, people do not usually want to spend more than a couple of hours at their destination, for shopping, medical appointments, etc. Neither do they want to be constrained in the timing of their activities by a hopelessly infrequent train service.

4.0.2 In well-populated areas, services should be hourly or half-hourly.

4.0.3 In the areas of highest population, services at least every quarter hour are needed.

4.0.4 All routes must be served 365 days a year. Even on Christmas Day and Boxing Day, when at present in Wales there are no rail services, there should be an appropriate level of service.

4.0.5 All routes must be served at least between 0600 and 2300, thereby catering, on the whole, for work, education and leisure travel requirements. Some routes, however, will need services earlier than 0600 and later than 2300.

4.0.6 In view of the changes in Sunday travel patterns in recent years, all routes must follow the European norm of Sunday services being similar to those on weekdays, except where there is less or no demand for some commuter or school journeys.

4.0.7 A "clock-face" regular interval service pattern is needed on all routes to help passengers remember timetables and for ease of links with other rail services and buses. Peak-hour extras should be easily remembered in terms of the normal service pattern. For example, if the normal interval is at xx05 minutes past each hour, the peak extra should be at xx35.

4.0.8 Connecting times between services should be no more than 10 to 15 minutes, and same platform or cross-platform whenever possible.

4.0.9 The Welsh Government should evaluate the current limited role of the so-called "heritage" lines of whatever gauge so that their potential to provide an element of public transport for local people, or via connections for long-distance travellers, should be recognised. There could be, for example, government financial support for diesel unit services where these could play a role in providing shopper, leisure or commuter services. For this reason, there could also be consideration of financial support for the private companies to extend these lines, for example, for the Llangollen Railway to extend to Ruabon or the Gwili Railway to extend into Carmarthen railway station. The Welsh Highland Railway could be used to provide a park-and-ride service from Dinas into Caernarfon.

4.1.2 Service levels for individual routes

This section sets out what Railfuture Wales believes is the service pattern which is needed to achieve a significant switch to use of rail on routes in Wales and the Borders, within the framework of the basic principles set out above. Services are described below in one direction only, in the interests of clarity. In all cases, it should be assumed that there are corresponding services in the reverse direction.

Diagrammatic maps summarising our ideas for services are included in this plan.

4.1.2.1 **Marches line** Cardiff-Hereford-Shrewsbury–N Wales and NW England

.1 A half-hourly long-distance service should operate on the section between Newport and Shrewsbury and all stations should have at least an hourly service. A reopened station at Pontrilas, between Abergavenny and Hereford, should be served by the Bangor/Holyhead/Liverpool service described in [.2] below.

.2 A suggested pattern for longer distance services on this route is:

■ Hourly from west Wales and Swansea to Manchester via Crewe

■ Two-hourly from Cardiff to Bangor/Holyhead via Wrexham

■ Two-hourly from Bristol Temple Meads (or beyond) via Newport to Shrewsbury and Liverpool via Crewe

All stations between Shrewsbury and Hereford should be served each hour by the Manchester service, while Wem, Whitchurch and Nantwich should be served every two hours by the Liverpool service. In conjunction with the Swansea to Crewe service described below, this would give these three latter stations a service approximately each hour.

.3 The through services to and from Bristol should call at Newport and reverse there to maximise connectional opportunities.

.4 It is essential that there are very good connections both southbound and northbound at Hereford with services to and from Malvern, Worcester and Birmingham.

.5 In addition to the longer distance services described above, there should be a new hourly all stations service from Cardiff (or beyond) to Abergavenny, calling at the existing stations at Newport, Cwmbran, and Pontypool & New Inn, and at new stations at St Mellons, Caerleon and Llantarnam.

4.1.2.2 **Chepstow line** Cardiff-Newport-Chepstow-Gloucester

.1 There should be an enhanced, limited-stop West Wales-Cardiff-Birmingham-Derby (and beyond) service at hourly intervals, with all trains calling at Severn Tunnel Junction and Chepstow.

.2 An additional hourly local service should operate between Cardiff, Gloucester, Cheltenham and Worcester, giving onward connections.

.3 As well as this, the existing Cardiff to Cheltenham service should operate each hour, without the current gaps.

.4 This would result in Severn Tunnel Junction and Chepstow on the Gloucester line having three trains an hour, with Caldicot and Lydney being served half-hourly.

.5 The stopping services in [.2] and [.3] should also call at new stations at St Mellons, Celtic Lakes/Coedkernow, Llanwern and Undy/Magor. This would help to reduce road congestion in and around Newport and on the eastern side of Cardiff.

Cardiff LRT proposals

railfuture
CYMRU | WALES

To Caerphilly
Lisvane
Llanishen
Forest Farm Park & Ride
Whitchurch
Birchgrove
Three Arches
North Cyncoed
Croescadarn
Cardiff Gate
To Pontypridd
Coryton
Rhiwbina
Ty Glas
Crystals
Rhyd-y-Penau
Pentwyn
Pontprennau
un-named
Radyr Park & Ride
Radyr Court
Heath Park
Heath Hospital
New World
Allensbank
Flora
Llandaff
Beddau
Danescourt
Woodville
Cathays
Tre-Wern Park & Ride
New housing (un-named)
University
Llantrisant
Creigiau
Rydlafr
Waterhall
Civic Centre
Fairwater
Entertainment Quarter
Kingsway
Castle
Cardiff Queen Street
Waungron Park
The Hayes
Pontyclun
Cardiff Central
Cafe Quarter
To Newport
To Bridgend
Victoria Park
Ninian Park
Culverhouse Cross North
Cwrt y Ala
Ely
Tyndall Street
Adamsdown
Moorland
Rumney
Trowbridge
Michaelston
Caerau
Ely Bridge
Lansdowne
South Riverside
Callaghan Square
Atlantic Wharf
Splott
Pengam
Wentloog
St Mellons Park & Ride
Culverhouse Cross South
Midtown
Grangetown
The Flourish
Avondale
Clarence Bridge
Butetown
Pierhead
Adventurers' Quay
Windsor Quay
Ferry Road
Channel View
Oval Basin
To Penarth & Barry
Red House
Sport Village
Peninsula

Station / Stop — Interchange
Line 1
Line 2
Line 3
Line 4
Conventional rail

Swansea LRT proposals

To Crewe and Heart of Wales
To Llanelli and West Wales
Pontarddulais Interchange
Morriston Interchange
Gorseinon
Morriston Hospital
DVLA
Enterprise Park
To Llanelli & West Wales
Gowerton Station
Landore Park & Ride
Skewen
Gowerton
Hafod
Dunvant
Sketty Park
Uplands
Llansamlet
Killay
Sketty Cross
Walter Road
Neath College
Neath Station
High Street Station
Neath Abbey
Oxford Street
Quadrant Centre / Bus Station
Llandarcy Interchange
Briton Ferry
Mumbles
West Cross
Singleton Hospital
Brynmill
County Hall
SA 1
Fabian Way Park & Ride
To Port Talbot
Oystermouth
Blackpill
University
Marina
Port Tennant
Jersey Marine

Station / Stop — Interchange
Line 1
Line 2
Conventional rail

Map: JULIAN LANGSTON

28

.6 We further suggest that, in addition to the currently proposed park-and-ride facilities at Severn Tunnel Junction and Chepstow, similar provision should be made at a new a park-and-ride station at Newnham (Elton Corner), between Lydney and Gloucester, to give better access to the rail network for the Cinderford, Ross on Wye and Forest of Dean areas.

4.1.2.3 Ebbw Valley

.1 Railfuture Wales, which played a major part in the campaign for reopening the line to Ebbw Vale Parkway, is delighted with the success of the service in attracting such high numbers of passengers.

.2 To develop this route further, there should be a half-hourly service from a new station at Ebbw Vale Town (north of the existing Parkway terminus) alternately to Newport (or beyond) and Cardiff, with at least a connecting service to and from Abertillery. Additional stations should be provided at Cwm and Pye Corner (Bassaleg). The splitting and joining of trains at Rogerstone, to provide portions for both Cardiff and Newport, could be explored as a way of giving half-hourly services to both cities. We further suggest that a public lift or escalator will be necessary at Ebbw Vale Town station to provide a link to the town centre itself.

4.1.2.4 Cardiff/Newport light rail

.1 Light rail (LRT) has shown, in Britain and abroad, that it is well capable of bringing rail-based benefits to places not served by rail, more flexibly and at a fraction of the cost. At the same time, it is capable of transporting more people than buses and is superior in attracting people out of their cars. As the National Assembly for Wales Enterprise and Learning Committee report stated in January 2010, "recent examples of cities that have invested in light rail systems are Sheffield, Manchester and Bordeaux, the latter of which has reduced its peak period road traffic by some 80%."

.2 For its size, in some respects Cardiff has a very good rail infrastructure, but it does not cover the whole city. In particular, the east of the city is poorly served and the fast-developing Cardiff Bay, while it has a rail link, is not directly served by rail from Cardiff Central station. Other major traffic generators, such as the University Hospital at the Heath, are not on the rail network, and so the majority of travellers to the city centre travel by car.

29

.3 There has been much discussion as to whether LRT should take over or add to the existing Valleys lines routes in the city, or whether it should concentrate on new routes currently not served by heavy rail. Probably a combination of the two is the best solution.

.4 The Cardiff Bay line should be converted to LRT, with the important proviso that it must directly serve Cardiff Central station. South of Cardiff Central, it should run on the reservation set aside for this on the west side of Lloyd George Avenue.

.5 The City line between Cardiff and Radyr, and the Coryton line between Heath and Coryton should be converted to LRT and a link provided between Radyr and Coryton. This would provide a circular route which, among other things, would effectively give a doubling of frequency at the stations furthest from the city centre. A new station on the link at Forest Farm would be a park-and-ride, serving Forest Farm Industrial estate and the Asda superstore. An additional station at Victoria Park could serve the urban village proposed for the redundant Arjowiggins paper mill site, as well as existing development. Between Cardiff Central and the Heath, there would be on-street running, with a route serving several main traffic generators of the city, such as the civic centre, the university and the Heath Hospital.

.6 There should be a spur off this City Circle line from Victoria Park to Culverhouse Cross.

.7 There should be a route serving north-east Cardiff, which has ever more housing and is poorly served by public transport. This could leave the City Circle at Heath Hospital.

.8 Extensions of the route to Cardiff Bay would service developments there and either terminate at the Sports Village or be extended to reach Cogan and Penarth.

.9 We further suggest a route branching from the City Circle line westwards from Fairwater to Creigiau, Beddau, Talbot Green and Pontyclun, generally following the route of the former rail line on that corridor. Consideration should be given to constructing a branch from this route at Beddau to Pontypridd.

.10 We further suggest a route east from Central station. As proponents of the Cardiff Metro scheme advocate, this route through St Mellons should be extended to Newport and beyond. It would serve several important retail, industrial, educational and leisure facilities, which at present are accessible only by road. A spur from the line to Cardiff Bay looping back along the existing freight line would join this route at Adamstown.

.11 There are two proposed options for this eastern route. The rail option would use the existing relief lines, apart from a three-mile section of on-street running around the southern edge of Newport between Maesglas and Llanwern. Using the existing railway infrastructure and the planned overhead electrification as much as possible would minimise the need for new works, making this a very cost-effective option. It would allow interchange with the proposed heavy rail stations at St Mellons and Coedkernew/Celtic Lakes to the west of Newport and Llanwern and Undy/Magor to the east. However, we have severe reservations regarding the capacity of the relief lines, especially to the west of Llanwern and Newport, to accommodate the levels of rail services proposed in this plan if LRT is included. We have particular concern that this lack of capacity should not in any way restrict or prevent the development of freight services, as these are vital to the economic needs of south Wales.

.12 Therefore the second option is an on-road option. This would continue the on-street running east from Callaghan Square to Tremorfa, from where it would cross over the main line railway. The route would then head north-east through Rumney towards Eastern Avenue and would serve the northern end of St Mellons. It would turn south-east to parallel the main line through Marshfield, then on to a new formation to Duffryn before running on-street around the southern end of Newport at Maesglas.

.13 Both options have in common on-street running around the southern edge of Newport along the line of the A48, serving various industrial, retail, educational and leisure facilities. At Pillgwenlly, the route could link with the Cardiff Metro scheme's proposed Newport northern link. This is intended as a north-south bus/tram route from Pillgwenlly through the city centre, serving the leisure, university and shopping areas and linking with the city's bus and heavy rail stations.

.14 After Liswerry the road option – instead of rejoining the railway to the west of Llanwern – would continue on-street to serve Ringland before heading east through Llanwern village and then over a short new formation to enter the southern end of Underwood. From there the route would head south through Bishton over the main line railway to serve the major distribution centres at Willcrick before rejoining the main line again between Bishton and Magor. The advantage of the road option is that it avoids any conflict with rail services between Llanwern and Cardiff, particularly on the busy section west of Newport. It can also get closer to, and serve more of, the main population and business sites and hence potentially could avoid the need for the new heavy rail stations at St Mellons and Coedkernew/Celtic Lakes. The disadvantages of this proposal are the far higher capital cost, the impact of construction and the problems of negotiating some of the narrower roads and sharp corners. It also has a relatively much slower speed than the first option, with resulting extended journey times.

South-east Wales light rail/metro – tram/train eastern (Newport) extension Rail option
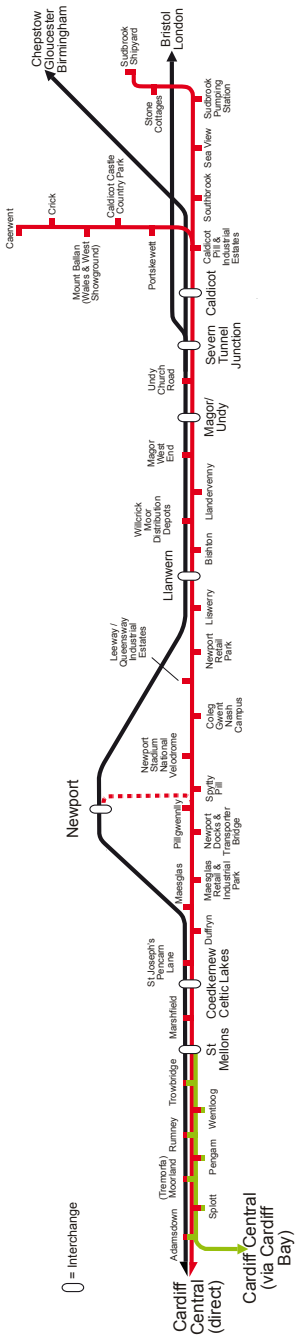
South-east Wales light rail/metro – tram/train eastern (Newport) extension Road option

() = Interchange

Map: JULIAN LANGSTON

*rail*future
CYMRU | WALES
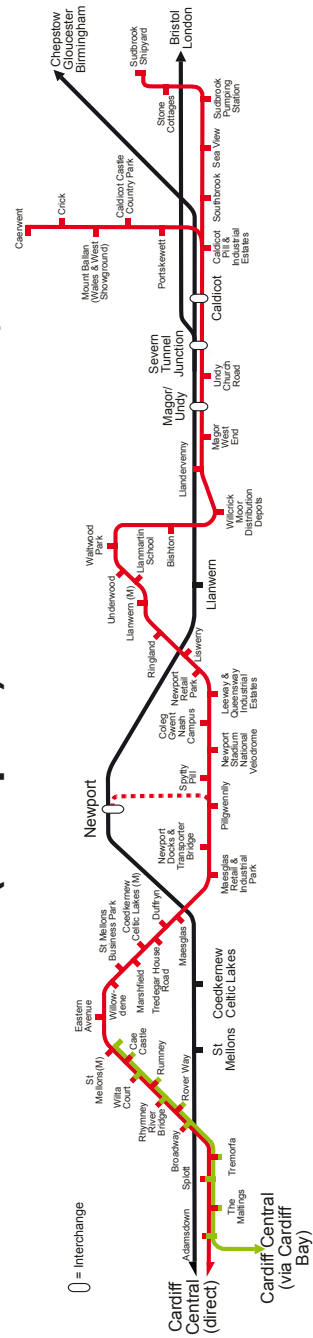
.15 Both options would make use of the relief lines through Undy/Magor and Severn Tunnel Junction and then along the Gloucester line through Caldicot to Caldicot Pill. The route would follow the disused freight line to Caerwent, serving three industrial parks, three leisure facilities and the residential areas of Portskewett, Crick and Caerwent.

.16 A short branch from Caldicot Pill could be provided to serve Sudbrook.

4.1.2.5 **Cardiff Valley lines**

.1 We believe that the following service levels on the Cardiff Valley lines are essential. Our proposals should be further developed to dovetail with the current discussions about the need for a Cardiff Metro network, which we endorse. We warmly welcome the decision to electrify all of the routes in this section, together with those from Cardiff and Newport to Ebbw Vale and from Cardiff to Penarth, Barry Island and Bridgend via the Vale of Glamorgan line.

Rhymney Valley

■ There should be six trains per hour between Cardiff (or beyond) and Caerphilly, extending twice each hour to Bargoed and Rhymney. The existing bus links from Ystrad Mynach to Blackwood and Rhymney to Tredgar should continue, enhanced as necessary to connect with the half-hourly Rhymney trains

■ The line from Ystrad Mynach to Nelson or Treharris (and possibly to Quaker's Yard on the Merthyr line) should be reopened to passenger trains (it is open for freight services as far as Nelson). The service should be half-hourly, formed from two of the four services from Cardiff which do not operate to Bargoed and beyond. This route could be further developed to provide a service from Cardiff to Caerphilly, Nelson and Quaker's Yard, then to Pontypridd and back to Caerphilly and Cardiff

■ There should be an appropriate mixture of all-stations and limited stop services, the latter allowing faster overall journey times to and from the northern parts of the routes

■ The existing Coryton service and that between Cardiff Queen Street and Cardiff Bay should form part of the Cardiff LRT network proposed above

Taff/Rhondda/Cynon Valleys

■ There should be eight trains per hour between Cardiff (or beyond) and Pontypridd, all running via Cathays (the City line via Ninian Park should be incorporated in our proposal for a Cardiff LRT system: see above)

■ Of these eight services per hour, as at present two should operate to Treherbert, two to Aberdare and two to Merthyr. However, we believe that the Aberdare service should be extended to Hirwaun, as is currently under investigation by the Welsh Government. The two remaining services south of Pontypridd would serve all stations, giving scope for trains operating north of Pontypridd to operate limited stop thence towards Cardiff, allowing improved journey times over the longer distances

■ The former bus link between Ystrad Rhondda station, Ferndale and Maerdy should be reinstated

■ As a long-term aspiration, we think that consideration could be given to reopening the line from Hirwaun to Neath, allowing (for example) a through service from Swansea to Cardiff via Aberdare

Maesteg

■ The existing hourly Cardiff to Maesteg service should be doubled in frequency and a Sunday service introduced

■ The recently withdrawn bus link between Maesteg railway station and Caerau should be reinstated

■ An additional station should be provided at Llangynwyd

.2 We believe that the present situation, where no rail services are provided on the Cardiff Valleys routes on New Year's Day, is unacceptable. Normal Bank Holiday service levels should apply, as generally happens elsewhere on the network.

4.1.2.6 **Vale of Glamorgan line** Barry to Bridgend

.1 Railfuture Wales led the campaign over many years to have this freight-only line reopened to regular passenger services, so we are very pleased with its popularity. However, we feel the route needs a more frequent combination of local and longer-distance services, and that it is particularly important to open up access to Cardiff Wales Airport by public transport from Swansea and south-west Wales without change of train at Bridgend. Therefore the service should consist of:

■ An hourly service originating east of Cardiff, running from Cardiff Central non-stop to Barry then all stations via the Airport to Swansea

■ An hourly local service: Cardiff Valleys-Cardiff-Barry-Airport-Bridgend

.2 The existing bus link from Rhoose station to the airport should continue, but should be enhanced as necessary to connect with all trains.

4.1.2.7 **Barry Island and Penarth**

.1 There should be three through trains an hour to and from Barry Island, serving all stations between Barry Island and Cardiff Queen Street and then one or more Cardiff Valleys destinations.

.2 The hourly local service on the Vale of Glamorgan line should dovetail with the Barry Island service to provide a train every 15 minutes between Barry Town and Cardiff. This local Vale of Glamorgan service should also be linked with Barry Island by a shuttle to and from Barry Town, giving a 15-minute interval service on the Barry Island branch.

.3 In addition to the above local services, as stated above there should be an hourly non-stop service between Cardiff Central and Barry Town, originating east of Cardiff Central and running through to Bridgend, Swansea and beyond.

.4 We believe that the existing service of four trains each hour between Penarth and Cardiff Queen Street is adequate.

4.1.2.8 **South Wales main line** Severn Tunnel Junction to Cardiff and Swansea

.1 We believe that this route, which serves Wales' most populated areas, is capable of making a much greater contribution to the public transport system of the region than is at present the case. However, the current levels of service and journey times fall far short of those needed to persuade most people to see rail as a sensible alternative to the car. Therefore we warmly welcome the UK Government's decision to electrify the

Bridgend LRT proposals

railfuture
CYMRU | WALES

Map: JULIAN LANGSTON

Legend:

Station / Stop	Interchange	
		Line 1
		Line 2
		Line 3
		Line 4
		Conventional rail
		Bus links

Caerau Park
Blaencaerau
Caerau Square
Dyffryn
Nantyffyllon
Tesco
Maesteg
Ewenny Road
Garth
Llangynwyd (proposed)

Blaengarw
Ty Meinor
Pontycymer
Pant-y-gog
Pont-y-rhyl
Llangeinor
Brynmenyn
Bryncoch
McArthur Glen
Litchard
Hospital
Newtown

Nant-y-moel
Price Town
Ogmore Vale
Ogmore Vale South
Lewistown
Evanstown
Blackmill
Hendreforgan

Ynysawdre
Tondu Interchange
Sarn LRT
Wildmill

Cefn Cribwr
Fountain
Aberkenfig
Sarn Interchange

Kenfig Hill
Pylecross

To Swansea
Pyle
North Cornelly
South Cornelly
The Grove
Nottage
Wigfach
Newton
Porthcawl

Tythegston
Laleston
Broadlands
Bryntirion
Cefn Glas
Newcastle
Bridgend Interchange
Brackla Centre
Channel View
Coychurch
Bocam Park
Pencoed Interchange
To Cardiff
Brackla (proposed)

To Barry

---

route between London and Swansea, but we also believe that the service levels on this route should be enhanced as follows:

.2 The inter-city service between **south Wales, Swindon and London** should consist of:

■ An hourly service between Swansea High Street and London Paddington

■ An hourly service between Carmarthen and London Paddington via the Swansea District line, thus providing a half-hourly express service from Port Talbot, Bridgend, Cardiff and Newport to principal stations between Bristol Parkway and Paddington

.3 Services between **Cardiff Central and Newport/Severn Tunnel Junction** should consist of:

■ The half-hourly inter-city service to London Paddington (see [.2] above)

■ A half-hourly fast service from Cardiff (or beyond) to Bristol Temple Meads, extended alternately to Portsmouth Harbour and Plymouth, with the Portsmouth trains calling at Severn Tunnel Junction

■ A half-hourly local service from Cardiff (or beyond) to St Mellons, Celtic Lakes/ Coedkernow, Newport, Llanwern, Undy/Magor, Severn Tunnel Junction and stations to Bristol Temple Meads, extended alternately to Bath (and preferably beyond) and Taunton. Once each hour, the Bath direction service should start from Swansea and call at principal stations to Cardiff Central en route to Bristol. (see [.4] below)

■ A half-hourly semi-fast service from Cardiff (or beyond) to Newport, Abergavenny, Hereford and beyond

■ An hourly all-stations service from Cardiff (or beyond) to St Mellons, Celtic Lakes/ Coedkernow and all stations to Ebbw Vale, avoiding Newport (but complemented by a second hourly service from Newport (or beyond) to Ebbw Vale Town)

■ An hourly semi-fast service from Cardiff (or beyond) to Newport, Severn Tunnel Junction, Chepstow, Gloucester, Cheltenham, Birmingham, and beyond

■ A half-hourly all-stations service from Cardiff (or beyond) to St Mellons, Celtic Lakes/ Coedkernow, Newport, Llanwern, Undy/ Magor, Severn Tunnel Junction, Caldicot, Lydney, Newnham (Elton Corner), Gloucester and Cheltenham, extending hourly to Ashchurch for Tewkesbury and Worcester (or beyond)

■ An hourly all-stations service from Cardiff (or beyond) to St Mellons, Celtic Lakes/ Coedkernow, Newport, Llantarnam, Caerleon, Cwmbran, Pontypool & New Inn and Abergavenny

In addition, the potential for passenger business from Severn Tunnel Junction towards Paddington could be tested by including calls at that station by one or more inter-city services in each direction.

.4 Services between **Cardiff Central and Swansea** should consist of:

■ An hourly inter-city service from London Paddington to Cardiff Central, Bridgend, Port Talbot, Neath and Swansea High Street

■ An hourly inter-city service from London Paddington to Cardiff Central, Bridgend, Port Talbot, and stations via the Swansea District line to Carmarthen

■ An hourly semi-fast service from Hereford or beyond to Cardiff Central, Bridgend, Port Talbot, Neath and Swansea High Street, going forward to Milford Haven. This service should connect into and out of the London Paddington to Swansea High Street inter-city service, preferably at Swansea High Street

■ An hourly local service from Bath (and preferably beyond) to Cardiff Central, Bridgend, Port Talbot, Neath and Swansea High Street

■ A half-hourly all-stations service between Cardiff Central (or beyond) and Maesteg. This service should call at a reopened station at Brackla. Consideration should also be given to reopening the station at St Fagans to be served by these trains

■ An hourly all-stations service from the Valleys and Cardiff Central via Barry Town and the Vale of Glamorgan line to Bridgend. Consideration should be given to the provision of a station in the St Athan area

■ An hourly service from Cardiff Central or beyond, non-stop to Barry Town, then calling at all stations via Bridgend, Pyle, Port Talbot, Neath and Swansea High Street, going on to serve all stations to Pembroke Dock. This service should connect at Bridgend into the London Paddington to Carmarthen inter-city service and connect out of the inter-city service at Bridgend or Port Talbot. In the eastbound direction, this all-stations service should connect at Port Talbot out of the inter-city service from Carmarthen to Paddington. It should connect westbound out of and eastbound into one of the London Paddington services at Swansea High Street or Carmarthen. In conjunction with the local Bath to Swansea service referred to above, this would result in a half-hourly local service between Bridgend and Swansea High Street

4.1.2.9 **Bridgend area light rail**

.1 Bridgend is one of the most rapidly developing towns in Wales, but it has not had corresponding infrastructure development to meet present-day traffic levels. The popular seaside resort and dormitory town of Porthcawl lost its railways in the 1960s.

Of the three main valleys in Bridgend County only one – the Llynfi – has a rail passenger service (to Maesteg), while the Garw and Ogmore valleys have no such facility.

.2 Railfuture has long campaigned for a light rail route from Pyle to Porthcawl, linking with the south Wales main line. We now believe that this route should be incorporated with others to form a network focused on an interchange with the main line immediately west of Bridgend railway station but with additional interchanges at Pyle, Sarn and Pencoed.

.3 We therefore propose the following routes:

Route 1 would form an orbital route from Porthcawl via South Cornelly to Pyle railway station. From there it would follow the former heavy rail route via Kenfig Hill to Cefn Junction, then use the present freight-only rail route to Aberkenfig, leading to a new route via Sarn railway station to The Pines/McArthur Glen, going forward to the Princess of Wales Hospital and Bridgend railway station (low level), with an end-on connection to route 2.

Route 2 would provide a direct route on a new formation from Bridgend railway station (low level) to Porthcawl, via the Bryntirion and Broadlands housing estates.

Route 3 would be on a new formation from Bridgend railway station (low level) to serve Brackla, continuing to an interchange at Pencoed railway station.

Routes 4 and 5 would operate from The Pines/McArthur Glen via Tondu railway station to Blaengarw and Nantymoel (diverging at an interchange at Brynmenyn), using the currently disused heavy-rail trackbeds.

4.1.2.10 **Swansea area light rail**

.1 This topic has been debated at length over the years. We believe that Swansea could sustain a modern tram network and that this would provide faster and more comfortable services than guided busways which have been advocated in some quarters. It would certainly be far superior in quality to the bus metro on ordinary roads that has been introduced in recent years.

.2 Although the most obvious route is that from the city centre to Oystermouth and Mumbles, it would be wrong to wallow in nostalgia and think in terms simply of restoring the Mumbles Railway. A more modern system is needed, based on the best practice in Europe and in such places as Manchester, Croydon and Nottingham.

.3 Therefore we propose two routes:

Route 1 would run from Mumbles via the city centre and High Street railway station to Morriston, via the existing park-and-ride site at Landore, Morfa Retail Park/Liberty Stadium, Swansea Enterprise Park and our proposed Morriston Interchange railway station.

Route 2 would run from Gowerton railway station via Dunvant, Killay and Sketty to High Street railway station, the city centre, the Quadrant bus station, the Marina, the SA1 development and the existing bus park-and-ride at Fabian Way. It would then operate via our proposed Llandarcy Interchange railway station to Neath town centre and railway station.

4.1.2.11 **West Wales lines** Swansea to Pembroke Dock, Milford Haven and Fishguard Harbour.

.1 As already argued in respect of the routes east of Swansea, we believe that the railways of west Wales are capable, with improved service levels and journey times, of delivering much greater social and economic benefits to this area than is the case at present.

.2 Therefore services **west of Swansea** should consist of:

■ An hourly inter-city service between London Paddington and Carmarthen (in effect an extension of the existing Paddington to Cardiff Central service). West of Cardiff, it should call at Bridgend, Port Talbot, Llandarcy Interchange (for Neath), Morriston Interchange (for north Swansea), Pontarddulais Interchange (for the Amman Valley and north Gower), Llanelli, Pembrey & Burry Port and Carmarthen

■ An hourly semi-fast service to and from Hereford and beyond via Swansea High Street to Llanelli, Pembrey & Burry Port, Carmarthen, Whitland and all stations to Milford Haven, connecting at Swansea High Street into and out of the inter-city service to and from London Paddington. Consideration should be given to reopening the station at St Clears to be served by these trains

■ An hourly all-stations service from Cardiff Central or beyond via Rhoose (for Cardiff Airport), Bridgend, Swansea High Street, Carmarthen and Pembroke Dock, connecting

at Swansea or Carmarthen into and out of the London Paddington inter-city services. In addition, because of the coastal park development to the east of Llanelli and the opening of Parc y Scarlets rugby stadium, a new station should be provided in the Pemberton/ Trostre area to serve these amenities and to replace the existing station at Bynea.

■ An hourly all-stations service between Swansea High Street and Gowerton, going on to the Heart of Wales line (see 4.1.2.13 below). This would combine with the Cardiff-Pembroke Dock service to give a half-hourly local service between Swansea High Street and Gowerton

In addition, while we welcome the recent enhancement of the passenger service between Clarbeston Road and Fishguard Harbour and the reopening of Fishguard & Goodwick station, we would like to see the additional services spread more evenly throughout the day and timed to allow easier access to North Pembrokeshire for passengers – especially tourists – from stations east of Swansea. However, in this instance, we would accept a departure from our overall policy of trains at least every two hours on all lines, as we believe that the most appropriate service would be a shuttle every three hours between Fishguard Harbour and Carmarthen, connecting there with our proposed Carmarthen to London Paddington service. In the case of the link with the overnight sailings to and from Rosslare, the Fishguard shuttle might need to operate to and from Swansea for a London connection if no London connection was to be available at Carmarthen.

4.1.2.12 **West Wales coast line**

The Welsh rail network has a yawning gap between the line to Fishguard and that from Aberystwyth to Pwllheli. As a longer-term project, consideration should be given to reopening the line from Carmarthen via Lampeter to Aberystwyth using, where possible, the former trackbed. This could also form part of a through route to Bangor (see 4.1.2.17 below). In the short term, new and existing bus services have a role on this corridor, but they need to link more effectively with trains at each end and thus form part of a properly integrated system.

4.1.2.13 **Heart of Wales line** Swansea-Llanelli-Llandovery-Llandrindod-Shrewsbury

.1 This line is vital to the rural communities of mid-Wales which it serves. It also has great potential as a through route from Swansea and west Wales to north-west England, north Wales and Scotland. However, the existing very poor train service operates at no more than approximately four-hourly intervals on weekdays. On

HOLYHEAD STATION
Where the train connects with ferries for Ireland

Sundays, despite the almost total lack of other public transport and the importance of tourism to the areas served, only two trains in each direction are provided.

.2 Therefore the Heart of Wales line service should be radically improved as follows:

■ Trains running north of Pantyffynnon should operate every two hours between Swansea High Street, Pantyffynnon and Crewe. They should run at regular intervals, not least so that connections with other "clock face" services are more readily achieved

■ In order to reduce the need to change trains when making long-distance journeys, the Heart of Wales service should be extended from Shrewsbury to Crewe, combining it with the existing local service on that route, thus restoring a facility that was withdrawn several years ago. This would give an hourly local service between Shrewsbury and Crewe

■ The present route taken by Heart of Wales trains from Pontarddulais via Llanelli to Swansea is very indirect for passengers who want to connect with trains to Cardiff and beyond. Between Pontarddulais and Swansea, therefore, all Heart of Wales trains should be diverted on to the Swansea District line to serve the proposed new station at Pontarddulais Interchange. There would be connections there into/out of the London Paddington to Carmarthen service in both directions. From Pontarddulais Interchange, Heart of Wales trains would run on to the rebuilt Grovesend Colliery Loop Junction to Gowerton line, serving reopened stations at Grovesend and Gorseinon. At Gowerton, they would join the Llanelli/Swansea route. Llanelli passengers would change at Pontarddulais Interchange, which might also replace Llangennech station. Bynea station would be replaced by a new station at Trostre.

■ A new local service should be provided, operating every two hours, between Swansea High Street, Gowerton and Pantyffynnon. From Pantyffynnon it would use the existing freight line, which would be reopened to passengers, with stations at Ammanford Town and possibly Glanaman or beyond. By alternating with the Swansea-Crewe service, this would give Pantyffynnon, Pontarddulais, Grovesend and Gorseinon a train every hour to and from Swansea, which we believe to be fully justified by the population levels en route.

4.1.2.14 **Cambrian lines** Aberystwyth and Pwllheli to Shrewsbury and beyond

.1 There should be an hourly service between Aberystwyth and Shrewsbury, with trains continuing to Birmingham International and, in some instances, London.

.2 The Cambrian Coast line (Machynlleth/Dyfi Junction-Pwllheli) should have at least a two-hourly service, possibly augmented at holiday times. In this instance, strict "clock-face" timetabling may have to be modified at some times of the day and year to

allow for significant local needs such as those of schoolchildren. At least some of the trains should run through to Shrewsbury/Birmingham, joining with and splitting from Aberystwyth trains at Machynlleth.

.3 Attention needs to be given to achieving good connections at Machynlleth or Dyfi Junction between the Aberystwyth line and Cambrian Coast line trains, to permit journeys such as Aberystwyth to Barmouth and vice versa to be made conveniently.

.4 We believe that a case can be made for new/reopened stations at Bow Street and Carno.

4.1.2.15 **Shrewsbury-Wrexham-Chester**

.1 This line currently has hourly long-distance services, giving both frequent trains and a wide range of through journey opportunities. The services concerned are Holyhead-Chester-Wrexham-Cardiff and Holyhead-Chester-Wrexham-Birmingham International. We regard this as a sensible level of provision for inter-urban services on the Shrewsbury-Chester line.

.2 Changes in population density and distribution, and in location of business developments, have created the potential for a number of new or reopened stations on this route. These should include Baschurch, Whittington, Weston Rhyn, Cefn, Johnstown, Rossett and Chester Business Park. These stations should be served by an additional hourly stopping service between Shrewsbury and Chester. Alternatively, this service could operate between Chester and Oswestry, calling at a station serving the orthopaedic hospital, which would imply not serving Baschurch and Whittington unless the service was to terminate alternately at Oswestry and Shrewsbury. A third possibility would be to serve Oswestry by some sort of light rail connection with Gobowen, allowing both termini to have hourly services.

.3 We believe there is a case for rebuilding the Ruabon-Llangollen line to link Llangollen, an important and busy tourist centre, to the national network once again. This would also stimulate economic development in the upper Dee Valley. At Llangollen there would be an end-on junction with the heritage Llangollen Railway. Service provision could be a joint operation between the main line train operating company and the Llangollen Railway, the former having a necessary role in order to provide a service at times of the day and year when the heritage railway is not operating. The main line service could consist of a shuttle to/from Chester, giving the Chester-Wrexham-Ruabon section a half-hourly local service, when combined with the

local trains envisaged above, in addition to the hourly fast through trains which we have specified. Wrexham would then have four trains per hour to and from Chester.

4.1.2.16 **Wrexham-Shotton-Bidston/Liverpool**

.1 The service frequency should be increased to half-hourly throughout the week, with a consequent increase of the frequency of the existing Buckley bus link.

.2 Electrification of the Merseyrail system should be extended to Wrexham Central, so that through trains can operate from Wrexham Central to Liverpool.

.3 The bi-level station at Shotton should be developed as a major interchange for the Deeside area. The current facilities should be replaced by a heated waiting room and ticket office in the corner formed by the two stations so that passengers at both the low level and high level stations would benefit. Lifts or disabled access facilities are needed between the high level and low-level platforms. Passengers from north Wales changing at Shotton to catch a train towards Wrexham should have a direct route to the relevant high level platform, rather than, as at present, having to climb over the bridge from the eastbound low level platform, walk the length of the high level northbound platform, descend again to street level, pass under the rail bridge and climb back up to the high level southbound platform! The new infrastructure should also include a bus interchange and taxi rank. Some co-ordination of bus and rail timetables is also necessary on those bus routes that complement the rail service in this area.

4.1.2.17 **North Wales Coast lines** Holyhead/Llangefni/Caernarfon-Bangor-Llandudno/Llandudno Junction-Chester

.1 A half-hourly service should operate between Bangor and Chester, with alternate trains originating at Holyhead to give an hourly frequency on Anglesey. The half-hourly interval east of Bangor should be provided by four long-distance services, all operating every two hours:

■ Holyhead/Bangor-Chester-Wrexham-Shrewsbury-Birmingham International and/or London

■ Holyhead/Bangor-Chester-Wrexham-Shrewsbury-Cardiff

■ Holyhead/Bangor-Chester-Crewe-London

■ Holyhead/Bangor-Chester-Crewe

CAMBRIAN COAST
Steam specials have operated along this route, starting at either Machynlleth or Aberystwyth, and running along the Cambrian Coast Line as far as either Porthmadog or Barmouth, taking in some of Wales' best mountain and coastal scenery. The picture shows a steam train alongside Friog Cliff, near Fairbourne. In the past, people campaigning for rail development have been unhappy to be seen as rail enthusiasts but now steam is recognised as a useful marketing tool for mainstream companies and the value of heritage railways to the British economy in 2013 is assessed at £250 million

.2 In order to improve links between the north Wales coast and north-east Wales and Liverpool Airport, we suggest an extension of the Merseyrail electrified network from Chester via the Halton Curve (Frodsham to Runcorn), to Liverpool South Parkway (especially for bus connections to the airport) and forward to Liverpool Lime Street.

.3 There should be an hourly service between Llandudno and Manchester Airport calling at all existing stations between Llandudno and Chester and then only at Warrington Bank Quay, Manchester Oxford Road and Manchester Piccadilly.

.4 There should be an hourly all-stations service between Rhyl and Manchester Oxford Road via Altrincham, stopping at new or reopened stations at Queensferry, Connah's Quay, Bagillt and Greenfield, the latter with the potential to be developed as a railhead for Holywell with a bus link provided.

.5 Llandudno should have connecting services to/from Llandudno Junction for all trains calling at the latter, throughout each week day and on Sundays throughout the year, the only exceptions being trains operating at night for the benefit of Holyhead ferry traffic. This would entail some additional local Llandudno-Llandudno Junction shuttle services to augment those provided by the Conwy Valley and Manchester trains. This shuttle could also be designed to serve a park-and-ride scheme aimed at reducing road congestion in Llandudno.

.6 Rebuilding the Caernarfon-Bangor line is highly desirable, and, when completed, at least one per hour of the trains mentioned above should be extended to Caernarfon, calling at Y Felinheli. This would cater for both local and long-distance traffic. Caernarfon is a major regional town, the county town of Gwynedd and an important tourist centre. The service would also provide an interchange with the now-reopened Welsh Highland Railway. We also think that the WHR service could be expanded to include a park-and-ride service from Dinas into Caernarfon, as an attempt to deal with Caernarfon's serious road traffic congestion. Furthermore, there could be merit in examining the feasibility of reopening in the long term the line from Caernarfon to Afon Wen, linking with the Cambrian Coast line and making possible a through service from, for example, Bangor to Aberystwyth, or even to Carmarthen or beyond if the latter route was also to be reopened (see 4.1.2.12 above). However, reopening Caernarfon to Afon Wen would require making the Caernarfon to Dinas section mixed gauge with the WHR's narrow gauge line.

.7 Reopening of the line from Gaerwen to Llangefni (the county town of Anglesey) should be investigated. This branch could be served by an hourly local service, Bangor-Llanfairpwll-Llangefni, timed to give good connections to and from Holyhead and

Proposal for a bus/coach network integration at key interchanges

*rail*future
CYMRU | WALES

Map: JULIAN LANGSTON

Swansea-Aberdare-Merthyr Tydfil-Rhymney-Ebbw Vale-Abergaveny-Monmouth-Gloucester
Cardiff-Merthyr Tydfil-Brecon-Llandrindod Wells-Newtown
Swansea-Ystradgynlais-Brecon-Hay on Wye-Hereford
Llandrindod Wells-Presteigne-Kington-Hereford
Aberystwyth-Lampeter-Llandovery-Brecon-Abergavenny
Aberystwyth-Aberaeron-Cardigan-Fishguard/Goodwick-Haverfordwest-Milford Haven
Aberystwyth-Tregaron-Lampeter-Carmarthen
Aberystwyth-Machynlleth-Dolgellau-Blaenau Ffestiniog-Porthmadog-Caernarfon
Barmouth-Dolgellau-Bala-Corwen-Llangollen-Ruabon-Wrexham
Llangollen-Ruthin-Denbigh-Rhyl
Denbigh-Mold-Chester
Rail routes Not all shown for clarity

Some of the above routes are already in operation. In some cases, present routes could be joined up to provide through travel opportunities

---

Bangor and stations to the east thereof. We are very pleased that this proposal is currently under investigation by the Welsh Government.

.8 There are several possible permutations of through services from Chester and beyond to north Wales, and the foregoing is but one possible pattern. With four potential termini to be served (Llandudno, Caernarfon, Llangefni and Holyhead), together with the need to make ferry connections at Holyhead, some variation to the general pattern would be needed at some times of the day/week/year, to optimise through journey opportunities and cater adequately for the different markets involved.

4.1.2.18 **Conwy Valley line** Llandudno-Llandudno Junction-Blaenau Ffestiniog

.1 There should be a two-hourly service on this route throughout the year, with hourly trains from Betws-y-Coed northwards, at least during the main tourist season. This service would provide a gateway to northern Snowdonia at Betws-y-Coed by bus connections, including the Snowdon Sherpa service.

.2 The Conwy Valley line should form a key component of a "Snowdonia Circle" route that would become available following reopening of the Bangor-Caernarfon line together with the recent completion of the narrow-gauge Welsh Highland Railway. A combination of conventional rail and narrow gauge rail (the latter mostly steam-operated) would afford circular journeys such as Caernarfon-Porthmadog-Blaenau Ffestiniog-Betws-y-Coed-Conwy-Bangor-Caernarfon. This would mirror similar provision elsewhere in Europe, such as in Switzerland. Connecting buses would need to criss-cross the circle, and there could be some through running of trains between Blaenau Ffestiniog and Caernarfon via the Conwy Valley and the main line through Bangor. Not only would such an initiative have a beneficial impact on road traffic congestion and pollution in the Snowdonia National Park, but it would be likely to generate significant additional tourism business for the local economy.

4.2 Connections from Shrewsbury and beyond into the High Speed 2 London to Birmingham route

4.2.1 Present proposals are for a high-speed line from London to Birmingham Curzon Street, with an interchange station at Birmingham International. The fastest journey time from Birmingham to London is quoted as 45 minutes, compared with the present fastest time of 84 minutes. There are direct trains from north Wales and the Cambrian lines to Birmingham New Street and International, where interchange will be possible with the new HS2. Elsewhere in this plan we advocate retention of those services.

4.2.2 At present the fastest journeys from Holyhead to London take three hours 40 minutes and those from Holyhead to Birmingham four hours, so it is unlikely that anybody travelling from north Wales to London would wish to use the route via Birmingham and a transfer to HS2. The same will apply to passengers from Ruabon and Wrexham who at present tend to transfer into direct London services at Chester.

4.2.3 Passengers travelling from stations on the Marches route and the northern end of the Heart of Wales line to London have the choice of three routes: via Crewe, Birmingham and Newport. Currently for Ludlow, as an example, the fastest times are via Crewe (three hours 6 minutes) and Newport (three hours 20 minutes), both faster than any services via Birmingham because the latter involve two connections via Shrewsbury or the use of slower services between Hereford and Birmingham.

4.2.4 There is a potential for time saving for journeys to London from Shrewsbury and beyond by using HS2. However, there will be a loss of time transferring from one train to another at Birmingham even if a fast form of transfer, such as light rail, is provided between New Street and Curzon Street. This loss of time could be up to 30 minutes, thus almost negating the time saving of the higher speeds of HS2.

4.2.5 Another consideration against building the HS2 route would be the possible slowing of existing services between north Wales and London and Wolverhampton/ Birmingham New Street and London following the opening of the high speed line, as has happened in the south-east of England with the introduction of domestic services on HS1, the Channel Tunnel route.

4.2.6 The potential for faster services to London from mid-Wales and the Marches if and when HS2 opens are therefore limited and so we do not propose any enhanced services to Birmingham to connect with the High Speed service.

4.3 Rail/road connections

4.3.1 We wish to emphasise the need for connections between trains and buses to be timetabled, through fares to be available and services at least every two hours to be provided on both road and rail. Of crucial importance is that adequate physical arrangements are made for passengers transferring between modes, such that buses stop as close to rail platforms as possible. These principles must be applied throughout Wales and the Borders, so that a network of high quality rail and road passenger services is created.

4.3.2 Throughout the country, examples can be found of both good and bad practice with regard to the physical aspects of inter-modal transfers. Good examples include Caerphilly, Rhyl, Haverfordwest, Aberystwyth and Blaenau Ffestiniog. Some places where interchange is very poor (or even non-existent) are Abergavenny, Pontypridd, Newport, Newtown, Wrexham and Port Talbot. Many other towns come somewhere between these two extremes. For example, Bangor has good interchange between trains and buses to Anglesey and Caernarfon, which pass the railway station, but poor

links between the trains and buses to Bethesda and the Ogwen Valley, which depart from the bus station a mile away. Improving rail/ bus interchanges may be more a matter of the will to do it, rather than particularly large expenditure.

4.3.3 A network of bus or coach services should be developed to fill the main gaps in rail provision in Wales and the Borders. Some of these already exist, but where they do not, the way forward, at least in the first instance, could be by linking existing local bus routes, as long as vehicles of uniformly high quality are used. Routes which we believe should form this network, serving railway stations en route, are:

■ Swansea-Aberdare-Merthyr-Rhymney-Ebbw Vale-Abergavenny-Monmouth-Gloucester

■ Cardiff / Merthyr-Brecon-Llandrindod-Newtown

■ Swansea-Brecon-Hay-on-Wye-Hereford

■ Llandrindod Wells-Hereford

■ Aberystwyth-Lampeter-Llandovery-Brecon-Abergavenny

■ Aberystwyth-Aberaeron-Cardigan-Fishguard-Haverfordwest-Pembroke Dock

■ Aberystwyth-Lampeter-Carmarthen

■ Aberystwyth-Machynlleth-Dolgellau-Blaenau Ffestiniog-Porthmadog-Caernarfon

■ Barmouth-Dolgellau-Bala-Corwen-Llangollen-Wrexham

■ Llangollen-Denbigh-Ruthin-Rhyl

■ Chester-Mold-Denbigh

4.3.4 Public transport access to some important employment sites and to some significant tourist attractions remains poor or even non-existent. Some of these deficiencies would be remedied by the various proposals in this plan, but elsewhere there will remain a need for effective bus links with the nearest railway station. Some examples where this approach is needed include:

■ Employment sites: Ely Valley complex (west of Cardiff), Cross Hands Industrial Park (west of Ammanford), Rassau (Ebbw Vale), Wrexham Industrial Estate, St.Asaph Business Park

■ Tourist sites: National Botanic Garden, Oakwood Park, the Elan Valley, South Stack (Anglesey)

4.4 Rail/ferry links

4.4.1 It is essential to ensure not only that connections between rail services are as good as they can be, but also that rail links seamlessly with other modes of public transport. Without this, there will not be a true network and the individual modes will be less useful to potential users.

4.4.2 At present there are very limited attempts to cater for rail passengers who wish to use ferry services. Significant improvements are needed.

4.4.3 *Fishguard Harbour*

We welcome the enhancements made in September 2011 to the rail service to Fishguard Harbour. However, at Rosslare, significant improvements are needed to rail connections to and from Dublin and rail/express coach services direct to Waterford, Limerick and Cork. In addition ferry/rail interchange facilities have worsened considerably at Rosslare in recent years and need urgent attention.

4.4.4 *Pembroke Dock*

There should be road connections between the rail service and ferry arrivals/ departures. These might operate to and from Pembroke Dock or Haverfordwest stations, depending on which of these provides the faster journey eastward. The connections could be by taxi or minibus, but they must be timetabled and included in the fare for the complete rail and ferry journey.

4.4.5 *Holyhead*

The present excellent terminal facilities are under-used because all transfers to and from the ferries, with the exception of the HSS service, are by bus. This causes

inconvenience and extends transfer time. It is essential that better arrangements are devised for rail passengers.

4.4.6 Any other passenger ferry services which may be introduced should have adequate public transport to serve them, either directly by rail if appropriate, or by a bus link from the nearest railhead.

4.5 Rail/ air links

4.5.1 All major airports, including Cardiff, should be served by excellent public transport.

4.5.2 *Cardiff Wales Airport*

The existing hourly rail service to and from Rhoose Cardiff International Airport station should be significantly enhanced as described above. All rail services on this route must have excellent bus connections to and from the airport. In the longer term, a direct rail link into the airport should be considered.

4.5.3 *Bristol*

The existing express coach serving Bristol Temple Meads station is adequate, especially as we advocate (above) enhanced rail services between south Wales and Bristol Temple Meads.

4.5.4 *Heathrow*

We are delighted that the decision has been taken to create a new west-facing rail link between the airport and the Great Western main line. This will allow at least one of the two south Wales to London Paddington inter-city services each hour to operate via the airport. No longer will south Wales passengers have to endure the coach connection to and from the airport via Reading, or have their journey extended by having to travel via Paddington and the Heathrow Express. However, in addition, we would like to see the London Crossrail service, which is currently planned to terminate at Maidenhead, changed to operate via the airport and to be extended to Reading, where interchange would be possible with any south Wales inter-city trains which are not themselves diverted via the airport.

4.5.5 *Gatwick*

The existing hourly semi-fast connecting service between Reading and Gatwick Airport should be increased to half-hourly, to improve connections at Reading with the various inter-city services which call there.

4.5.6 *Birmingham*

We regard the current provision of an hourly service from north and mid Wales via Shrewsbury to Birmingham International Airport as adequate.

4.5.7 *Manchester*

As suggested above, extension of the existing hourly service between Llandudno and Manchester to operate to and from Manchester Airport is essential, with connections from stations west of Llandudno Junction and the Conwy Valley line. However, we regard as unsatisfactory the existing provision for Marches line passengers accessing Manchester Airport via Wilmslow or Manchester Piccadilly. Instead, there should be a through service to the airport from Shrewsbury or beyond.

4.5.8 *Liverpool*

We suggest above an extension of the Merseyrail electrified network from Chester via the Halton Curve to Liverpool South Parkway for a bus connection to the airport. This would greatly improve links between north and north-east Wales and the airport.

4.5.9 Valley

All scheduled passenger flights to and from Valley Airport should be linked by bus with Holyhead Station.

5. Integration of services: The seamless journey

5.1. Introduction

5.1.1 In this section, we start from the premise that significant numbers of car users are to be persuaded to use any form of public transport, where there is more than one component part of a journey, the parts must dovetail as much as possible. Otherwise they will not be seen as a reasonable alternative to a door-to-door car journey.

5.1.2 People in Wales, both locals and visitors, receive a very poor deal in this respect at present. For example, inter-availability of rail and bus tickets is much more developed in London and the passenger transport executive areas of England and Scotland. Moreover, other countries, such as the Netherlands, have far better systems of connections, not only between rail services, but between rail and bus.

5.1.3 We believe that a great deal could be done here at little cost if the political will existed. For example, the introduction of suitable ticketing should be enforced, coupled with any necessary legislation (which might be within the Assembly's powers) to require the compliance of bus companies. In addition, the rewriting of existing timetables to improve connections is vital. There are difficulties, given that almost all public transport companies are privately owned. However, incentives might be offered to secure co-operation, and where local authority or Welsh Government subsidies are involved, contractual obligations can be laid down. Again, as a last resort, legislation might be needed to ensure that the interests of the travelling public are given absolute priority.

5.2. Connectional policies

5.2.1 This section focuses on rail/rail connections, but we would expect the same principles to be applied when connections between different modes of transport, particularly rail/road or road/rail, are involved.

5.2.2 The following principles should be fundamental in timetable construction:

■ Clock-face timetables must be implemented on all routes to make connections as easy as possible to arrange

■ If the service into which the connection is being provided is half-hourly or better, passengers should not have a timetabled wait of more than 10 minutes for their connection

■ If the service into which the connection is being provided is less frequent than half-hourly, the maximum timetabled wait for a connection should be no more than 15 minutes

■ Every effort must be made to arrange rail, bus and ferry timetables with the best possible connections between modes

5.2.3 The existing national railway policy on connections between services needs to be stated more precisely and be much more widely known than the current note hidden in the preface to the national timetable.

5.2.4 The current policy states: "Unless a connection is shown by times printed in light type, you should generally allow a minimum of five minutes between arrival and departure."

5.2.5 Instead of this we propose: "A recognised connection is one where the time between arrival at and departure from the interchange station is at least five minutes. At some interchanges, connections in less than five minutes are possible, while at others the station layout is such that more than five minutes is needed. In both cases, minimum interchange times in minutes (e.g. "3" in a block) are shown against the station name."

5.2.6 We also think that a revised policy on holding connections is needed to increase passengers' confidence in the system.

5.2.7 The existing policy says: "Connections between trains cannot be guaranteed. To delay one train to await…a late-running train… may cause significant disruption to many other customers when they make connections at other stations along the route. Every endeavour is made to minimise the total disruption and special attention is given to services operating infrequently and the last services each day."

5.2.8 The current regulatory regime under which the train operating companies operate imposes financial penalties on them when their trains run late. Although at first sight this may seem to work in passengers' interests, in fact it provides an incentive not to hold connecting services, especially where the onward connection is provided by a different company from the one whose service has been delayed. A solution to this must be found. For example, any penalty should be paid wholly by the late-running company rather than by the company which holds a connecting service. We recognise that the needs of people already on trains or waiting along the route are important, but the present system needs to give greater attention to the needs of passengers trying to connect into a service.

5.2.9 Therefore we propose a revised policy:

■ Dispatchers must ensure that all passengers wishing to make a connection have been physically able to do so before they allow the connecting train or bus to leave

■ All trains will wait up to five minutes for late-running connecting services. They will not normally be held for longer than this because of inconvenience to passengers already on board or waiting at stations further along the route. Exceptions may be made where the connecting train is the last service of the day on a particular route. However, every effort will be made to avoid delaying the last train of the day by more than 20 minutes by providing alternative transport for passengers who need to connect into that service

■ At all times of the day, every effort will be made to enable passengers to complete their intended journeys to their final destinations. This does not mean to the final rail station, but to the final ticketed destination. Where necessary, an alternative mode of transport will be provided at the train operator's expense to enable the complete ticketed journey to be completed as punctually as possible

■ If as a result of a connection not being made a passenger misses his/her last train/bus of the day, the train operator which operates this last train guarantees to provide either alternative transport to enable the passenger to complete his/her full ticketed journey that day or, in the event of severe disruption to services, to arrange overnight accommodation

■ If the passenger's arrival at his/her final ticketed destination is delayed by 30 to 59 minutes, a refund of 50% of the cost of the complete single journey will be payable. For delays of 60 minutes or more, the refund will be 100%. The principle of force majeur

is applicable here, meaning that compensation will not be payable for delays wholly outside the rail industry's control, such as vandalism (including bridge strikes by road vehicles), terrorism or extreme weather conditions

5.2.10 Nevertheless the aim must be to operate trains on time so that connections are made. This, with the improved service frequencies proposed in this document, requires a more robust and reliable rail infrastructure than currently exists on the UK rail network. That this is achievable, given the will, is shown by reference to countries such as Japan and Switzerland, where high-density services operate to very high punctuality standards.

5.3. Through ticketing

5.3.1 As we have already made clear, rail should be seen as one element in a complete journey. Where a journey involves use of more than one mode of public transport, the concept of the "seamless journey" demands a system of through ticketing between the various modes.

5.3.2 The Wales and Borders area currently has a large number of rail-to-bus through ticketing schemes, so in this respect Wales compares favourably with most other areas of the UK. Twenty five of these schemes are PlusBus and these cover all the major conurbations along the south Wales main line corridor and the north Wales coast. This means that, in theory at least, more than half the households in Wales have seamless ticketing available from their local bus stop to any rail destination (or other PlusBus destination) in Britain.

5.3.3 Unfortunately there are major disincentives to the widespread use of PlusBus:

■ Lack of public awareness

■ The need to purchase tickets in advance at a station (or by other means), with no possibility of purchase on the bus

■ Pricing and conditions applied by PlusBus. In some cases separate purchase of the bus fare to the station is cheaper than the PlusBus through ticket (which is priced on the basis of a day's unlimited bus travel in the specified zone)

■ The large number of schemes in Wales has given rise to overlapping and confusion. Cardiff, Ruabon, Caerphilly and Aberdare each have two (or even three) through ticketing options, which is bewildering to users as each scheme has different prices and terms of validity

■ Major shortcomings in the benefits of through ticketing arise from the complexity of the bus industry, and especially changes of operator when local authority supported services are re-tendered

■ Confusion caused by ambiguity or lack of clarity on areas of validity and acceptance on tendered services

5.3.4 We believe that this situation is unacceptable, yet when viewed along with the successful Wales FlexiPass range of tickets, Wales should be seen as a leader in the realm of though tickets. Clear information, a sensible approach and protection of schemes by local authorities are essential. In addition, the Welsh Government and the Department for Transport should work towards improving the system when awarding and reviewing franchises.

5.3.5 There are various ways in which the present situation can be improved, including:

■ The development of "smart card" technology throughout the UK so that payment for travel is made in the most efficient way possible. This is particularly important on buses, where the vast majority of vehicles are driver-only operated and delays caused by fare collection can cause the bus to become later and later after every stop. We note that in London (Oyster Card) and the Netherlands (Chip Card), the smart card systems give significant fare reductions, which is an incentive for greater use of public transport. We also draw attention to the fact that Scotland already has a smartcard scheme (the Saltire Card) and that experiments are taking place elsewhere in the UK, for example in Liverpool

■ Machines allowing the collection of tickets ordered on line should be available at every station where there are machines allowing the instant purchase of tickets

■ In the case of air/rail fares, the air fare could have an optional add-on covering rail (or bus) travel within a reasonable catchment area of the airport concerned

5.4. Interchanges

5.4.1 If people are to be persuaded to use public transport to make journeys involving one or more changes between services, it is vital that those changes are made as straightforward and reliable as possible. No longer can it be thought good enough to leave a passenger on a cold, deserted, unstaffed station with no access to information as to whether his/her onward connection is on time, late or cancelled, and if the latter, what alternative arrangements are being made. These considerations apply equally whether the forward connection is by another train or by bus, and include cases where a temporary change to/from a bus is needed because of engineering works on the railway.

5.4.2 So far as physical resources are concerned, at every interchange station there must be, as far as possible, all the basic, minimum facilities which we see as necessary for all stations. However, in addition, interchanges must have on duty (throughout the period of the day when connections are possible there) a dispatcher who will be responsible for:

■ Seeing that connections (rail or bus) are held in accordance with national policy

■ Making arrangements for onward travel when connections are missed, thus relieving pressure on central control offices and providing local knowledge of, for example, road routes to stations to be served by replacement buses or taxis

■ Providing reassurance to passengers about alternative arrangements in the event of disruption

■ Providing reassurance to passengers about their personal security

■ Supervising or providing basic refreshment facilities

■ Supervising toilet facilities

5.4.3 It is also essential that all train conductors and bus drivers are provided with radios or mobile phones and are required as part of their duties to inform interchange points on their routes of any delays which might require connections to be held or alternative arrangements to be made.

6. Station facilities

6.1 Our aim here is to press for the enhancement of existing facilities and set national/regional standards in order to encourage the use of rail transport. An important aspect of this is to improve the actual and perceived safety and security of passengers.

6.2 Therefore, every railway station must have (not necessarily in order of importance):

■ In Wales, bilingual signs and information posters

■ Two notice boards, one for short-term and one for longer-term warnings and details of planned disruption of services (e.g. for engineering work) and alternative arrangements which may be relevant to passengers at that station. "Relevant" means on that station's line of route and also affecting connecting services from interchanges on that line. The engineering work notice boards must be reserved for that specific use, and when there is no engineering work to be announced, they should carry messages to that effect

■ An appropriate size of covered waiting accommodation

■ Real-time train running information, including audio messages for those with poor eyesight

■ A means by which a waiting passenger can speak directly to a member of staff when problems arise

■ An accessible public telephone adjacent to the station platform, because some passengers will not have mobile phones (or may have problems with them). This is important if passengers wish to contact someone about their arrival time or changed travel plans

■ Secure cycle accommodation

■ Adequate lighting (including on the station approach road/path and positioned such that all notice boards can be read)

■ At unstaffed stations, CCTV supervision of platforms (as is the case at many stations in urban areas already) to protect passengers and facilities

■ Current timetable posters

■ Effective cleaning of the station and the provision of waste bins

■ Appropriate access facilities for disabled people

6.3 Interchange stations (rail/rail or rail/other modes) must have all of the above and:

■ A "dispatcher" on duty for the whole period of the day when connections are possible at that station

■ Clear announcements of the necessity to change and for which main destinations, together with clear signs directing passengers to connecting bus services

■ Toilet facilities, including provision for the disabled

■ At least basic refreshment facilities, even if only a snacks/drink machine (commonly provided even at local stations in such countries as Switzerland)

All of these facilities must be available throughout the period in which the train service is operating.

A list of interchange stations where we believe these facilities should be provided is given in Appendix 1

6.4 In addition, stations of appropriate importance must have:

■ A ticket and enquiry office

■ Ticket machines (to relieve pressure on ticket windows)

■ A secure car park

■ A higher standard of refreshment facilities than specified above for interchange stations

■ Enhanced waiting accommodation, for example, a heated room and a higher standard of seating than at unstaffed stations

6.5 Finally, we would like to see footbridges rebuilt or replaced at a number of stations (beyond those, such as Bridgend, which have already been dealt with), in order to improve access for all. Examples include Llanelli and Hereford.

7. On-train standards

In this section of the plan, we state what we believe should be the general principles to be applied to all rolling stock used on passenger services in Wales and the Borders

7.1 The aim should be to provide rolling stock which is of as high a standard as possible, as this will be a very important factor in attracting people from their cars to the use of rail transport.

7.2 Trains should be clean, including seats, windows, floors and toilets. Trains should be cleaned before each journey, and on longer journeys (two hours or more) basic cleaning should be undertaken by the train crew, which should include travelling cleaners where necessary.

7.3 Trains should be designed with passengers' legitimate needs in mind, including:

■ Provision of toilet and washing facilities, baby changing shelves and razor sockets

■ Adequate provision for luggage, including rucksacks, cycles, push chairs, and wheelchairs

■ Adequate visibility. Seats should not be positioned so that the view is obstructed by the bodywork of the coach

■ Seats which are not so high as to restrict the average passenger's vision to the front and rear

■ Adequate distances between seats, so that passengers of greater than average height and/or girth can sit facing forwards in comfort

■ External and internal doors of adequate dimensions

SEVERN TUNNEL JUNCTION STATION
A First Great Western train from London, right, and a Portsmouth-bound train, left

7.4 There should be a high standard of on-train information, including:

■ Dot matrix screens giving "next stop" and other relevant information

■ A public address system capable of being operated by the driver when operational problems arise, since he/she is more likely than the conductor to know what is happening

■ Clear, detailed announcements before an interchange station is reached: in Germany it is normal practice for the conductor to give a list of connections, including departure times and platform numbers. This does sometimes happen here, but it is far from standard practice, and seemingly depends on the diligence of individual conductors

■ The conductor must be able to give full information about all connecting services, including those by other modes of transport

■ Line of route timetables should be displayed on the train and/ or available from the conductor

7.5 Air conditioning should be standard. Windows which can be opened, thus spreading cold air to the whole of a carriage, must become a thing of the past.

7.6 External doors which, as on some London Transport trains, close automatically after a set time, are useful in cold or wet weather.

7.7 Refreshment facilities, including snacks/drinks machines in place of (or in addition to) staffed facilities, should be available on any service where the end-to-end journey time is more than two hours.

7.8 In some cases, particularly on busy commuter routes, facilities for purchasing tickets from on-train machines should be provided, with the full range of railcard discounted fares available.

7.9 The notion of "fitness for purpose" (from the passenger viewpoint) must be a prime consideration in allocating rolling stock to specific services, be it new build or cascades from elsewhere. It should be remembered that even basic family cars (the railway's main competitor) have features and degrees of comfort undreamed of a decade ago. This must be heeded when new trains are designed. Unfortunately this has not always been the case hitherto.

7.10 Using the "fitness for purpose" principle, it is readily apparent that the design requirements for trains used for local, relatively short-distance services (such as the Valley lines network) differ fundamentally from those for long-distance inter-urban routes. The former need high capacity, limited luggage space and means of rapid disembarking and embarking. The latter need to be more spacious with more comfortable seating and other facilities. Noise levels and general ambience are also important factors in persuading people to use the trains.

7.11 "Tram-train" technology has been in use in other countries, such as Germany, for a number of years, but a British trial (in the Sheffield area) has only recently been approved by the Department for Transport. Tram-trains are light rail vehicles which can be dual-powered if necessary, allowing operation in electric or diesel modes. However, their greatest advantage is that they can operate from conventional main line railways on to tramways and vice versa, allowing the extension of conventional services into city centres, for example allowing some services from the Cardiff valleys to link into the light rail network which we propose for the Cardiff/Newport area.

7.12 It must be remembered that railway rolling stock has a much longer working life than any road vehicle. Its life is also longer than any operating franchise which has yet been awarded. This means that it is essential that stock is refurbished at appropriate intervals to maintain "as new" standards.

7.13 Rolling stock should have standardised couplings so that different types of trains can work together in multiple.

8. Information for passengers

8.1 Introduction

8.1 Although there have been some improvements in rail service information in Wales and the Borders since privatisation, a large gap remains to be bridged in terms of making potential customers aware of public transport timetables, facilities and fares. Our foregoing proposals for service enhancements will not succeed in attracting greater usage unless this information deficit is addressed.

8.2 We have already touched upon some aspects of passenger information in earlier sections of this plan, such as:

■ Higher standards of on-train information

■ Improvement of the facilities to be provided at stations

8.2 Ways in which information could be further improved

8.2.1 Public transport timetables and details of fares should be much more widely available away from stations and bus stops, not only from Traveline Cymru but also in all post offices, public libraries, council offices and tourist information centres.

8.2.2 Operators should be obliged to include adequate information about connecting services (including by other modes of transport) in their timetables and to include details of other operators' services which run on the same route.

8.2.3 Bus operators should be required to include expiry dates on their timetables, instead of the all too frequent "until further notice". This would bring them into line with long-established practice on the railways.

8.2.4 Local authorities should have a duty to publish public transport maps and timetables for their areas. Present practice in Wales ranges from the excellent to the abysmal. All authorities should be required to work to standards based on current best practices. Consistency between operators and the local authorities in the ways in which timetable information is presented is particularly desirable, to avoid confusing

passengers as they travel between areas and/or use different transport modes. For example, all timetables should use the 24 hour clock format, and standardised public transport websites should be adopted by county councils and bus and train operating companies. Responsibility for achieving this should rest with the consortia of local authorities (SEWTA, SWWITCH, etc), but the Welsh Government should co-ordinate the work to ensure that uniformly high standards apply throughout Wales.

8.2.5 Scope exists for displaying additional information in trains, particularly that referring to special services, special offers etc.

Picture: © Rob Williams / Vale of Glamorgan Council

PORTHKERRY VIADUCT
A two-car unit in the old Valley Lines livery on the Vale of Glamorgan line after regular passenger services were reintroduced between Bridgend and Barry in 2005 after a gap of 41 years. The Pacer unit shown has now been replaced on that line by more comfortable class 150 Sprinter trains

9. Marketing

9.1 Introduction

We believe that train operators in Wales and in the UK as a whole are not exploiting significant marketing opportunities. It is true that use of the rail network has been increasing, but factors such as the state of the economy, road congestion, rising house prices (which can lengthen journeys to work) probably lie behind this. The improved services which we postulate here will certainly need effective marketing if they are to be successful. Here we offer some general principles rather than going into great detail about opportunities to promote particular routes.

9.2 General principles

9.2.1 There should be promotion of the "seamless journey" concept between operators and different transport modes.

9.2.2 A railcard for the 26-59 age group should be introduced. This is not currently provided for unless Family or Forces rail cards can be used. Germany's national Bahn Card'is a good example of what might be introduced in the UK.

9.2.3 Senior citizens resident in Wales are entitled to a bus pass which allows unlimited free travel on buses. We believe that in addition to this, the bus pass should give a 50% discount on all Wales and Borders rail routes (including inter-city services within the Wales and Borders area). We note in support of this proposal that in Northern Ireland, senior citizens receive free rail and bus travel, so our proposal is merely a step towards equality of provision.

9.2.4 The present highly complicated rail fare "structure" should be simplified so that prospective passengers (and staff!) can understand it. Some issues here include:

■ Fares in Britain are among the highest in Europe and also vary very widely for comparable journeys in different areas

■ If modal shift from cars is to be achieved, some relationship to perceived motoring costs is necessary

■ Affordable walk-on fares should apply throughout the day, possibly discounted for very early morning and evening travel

■ Where time restrictions must be retained, they should be based on the time of arrival at a major destination (e.g. London), and not, as now, on the time of departure from originating station. The latter penalises those living furthest away

■ Day return fares should be available for all journeys which can reasonably be accomplished within a day, and not confined, as now, by mileage

■ Advance purchase tickets (which require both outward and return trains to be specified at time of booking) may have a place for those passengers both able and willing to plan their journeys in detail far in advance, but their existence does not remove the need for affordable walk-on fares. Car drivers of course have unlimited flexibility about times to travel, routes to take, etc. It should be remembered that improved service frequencies such as we advocate could lose some of their appeal if journeys have to be booked in advance without the flexibility for change, particularly for the return leg

■ There should also be a presumption against operator-specific tickets (i.e. tickets which can be used only on trains operated by one particular train operator). These erode the network effect of the rail system and can cause inconvenience to passengers, especially when things go wrong and connections are missed. They also cause unnecessary problems for on-train staff, who should be able to spend as much of their time as possible helping passengers with their journeys

■ There must be greater standardisation between train operators with respect to fares. In particular rules concerning times of the day when cheaper fares are available must be absolutely clear in publicity and especially at the point of sale, whether that is at a ticket office, at a ticket machine, on line or over the phone

9.2.5 Discounted season tickets should be offered to businesses with premises within easy reach of railway stations. They could sell them on to their employees at a smaller discount (to cover costs and allow a small return to the company), but still at a lower rate than the "at station" price. This has potential to be a significant part of green transport plans, which employers are being urged to adopt and promote.

9.2.6 There is plenty of scope to revive the rail excursion train market, whether the train operators operate such trains themselves or contract them to specialised companies.

We believe that people who travel on such trains very often do not use the regular train service on their local line. If they can be persuaded to go on an excursion, they can be given all sorts of literature about ordinary services and their addresses added to the local train operator's database for future distribution of timetables, etc. This would help to make the railway part of people's lives, which unfortunately it has ceased to be in some areas. It could trigger a virtuous cycle of greater awareness of what the railway has to offer, hence more use of regular services all the year round.

9.2.7 A particular issue is how the railway caters for special events, and the need to do so without disrupting the journeys of ordinary travellers. Some events are fixed by date and location (e.g. the Royal Welsh Show), some fixed by date but variable in location (e.g. the National Eisteddfod), and some fixed by location but on variable dates (e.g. events at the Millennium Stadium in Cardiff). To cater adequately for such events, and to encourage people to use public transport to reach them, the following guidelines should be considered:

■ It is essential that the relevant train operators are involved in advance planning, along with the event organisers and other stakeholders (including bus operators where appropriate)

■ Great care is needed to ensure that advance publicity gives prominence to the rail services to be offered

■ A pool of rolling stock must be available for special events. To some extent this is catered for by private companies which own trains that can be hired. The opportunities could be expanded if the rolling stock leasing companies adopted a policy of short-term leasing of spare stock (which certainly exists, unused at present). The latter is a UK-wide issue, not specific to Wales, and is one for the industry and its regulators to sort out

■ Spare rolling stock for special events could also be used at other times to provide additional accommodation on, for example, scenic routes in high summer. It would also be available for excursion trains (see 9.2.6 above). This would spread the costs of additional rolling stock across several worthwhile activities, when individually they might not be able to justify it

LEVEL CROSSING SAFETY
Car and lorry drivers taking risks on level crossings are a continuing danger for rail users and staff. To highlight the dangers, an Awareness Day was staged at Deganwy level crossing with, left to right, Richard Lester of Network Rail, Betty Williams MP, Ben Davies of Arriva Trains Wales and David Rimmer of Network Rail.
To improve safety at level crossings throughout Britain, the Office of Rail Regulation asked Network Rail to spend more than £100 million in the five-year period beginning in 2014. In fact, Network Rail has already closed 700 level crossings throughout Britain in the past five years and the extra funding will be used to close another 500 level crossings by 2019.

10. Freight services

10.1 Introduction

The environmental benefits of increasing rail freight's market share are increasingly recognised by all except vested interests. Therefore any moves designed to encourage modal shift here are likely to command widespread popular support, not least from other road users. Indeed, opinion polls have consistently shown this to be the case, with many people believing that a prime purpose of the railways is to move heavy goods around. Some gains have been made, but the potential for winning further traffic to rail is enormous.

10.2 Strategies for development

10.2.1 We strongly support Welsh Government funding for freight train terminal development, for example at Bird Port (Newport) and Kronospan (Chirk), and urge that this funding stream is maintained and enhanced.

10.2.2 Rail freight terminals should be re-established at those ports which do not currently have them, including particularly the Irish Sea ports.

10.2.3 For some time there has been only one major rail container terminal in Wales, which is located to the east of Cardiff at Wentloog, so we welcome the recent opening of a new terminal at Barry Docks. However, we also want to see a new container terminal in north-east Wales, adjacent to the main line to Holyhead. This would serve the Deeside and Broughton industrial areas, which are vital to the economic prosperity of this part of Wales. We are very pleased that a container service from Daventry to Wentloog has recently started to operate for Tesco and that there are proposals for a Felixstowe to Wentloog route, but we would like to see further routes being developed serving other parts of Wales.

10.2.4 A network of mini-terminals should be created at 20-30 mile intervals along most rail routes, to give complete regional coverage, although of course this would have to be part of a UK-wide initiative to be of great use. Experience suggests that very little infrastructure work may be needed. For example at Pontrilas (between Abergavenny and Hereford), timber has been unloaded from rail wagons in a single siding/loop line,

simply by bringing a crane alongside the wagons. Another possibility is for the crane to be part of the wagon. Mini-terminals will need an area of hard standing alongside the rail track(s). On lines which are little used at night, it would be possible to load/unload some types of traffic directly on/off a train which is standing on the main running line. This already happens at Bird Port on the freight-only Uskmouth branch (Newport) and has also been done in Scotland on lines used by passenger trains. In addition to the ports and existing freight terminals, mini-terminals might be placed, for example, at Carmarthen, Llandovery, Llandrindod, Bridgend, Shrewsbury, Newtown, Aberystwyth, Wrexham, Llandudno Junction, Bangor, Blaenau Ffestiniog, Aberdare or Hirwaun and Rhymney or the Cwm Colliery site.

10.2.5 Current electrification plans need to include freight terminals and marshalling yards. In south Wales, the sidings at Llanwern, Newport Alexandra Dock Junction, Wentloog, Bridgend Fords Branch and Margam Yard should be fully or partly electrified, otherwise diesel haulage of freight trains "under the wires" will result.

10.2.6 A very important initiative is the development of a self-contained diesel train for freight traffic, the freight equivalent of the passenger "diesel multiple unit". This freight DMU has a cab at each end to give directional flexibility and consists of the cab wagons with under-floor engines plus several intermediate wagons, the number depending on the power available and the traffic on offer. Several such units can be coupled together, as happens with passenger trains. Containers of various shapes and sizes can be carried. These could be lifted on and off very easily, as described in the previous paragraph. Non-container traffic could also be carried. We envisage freight DMUs being coupled to passenger units when necessary, for example to improve line occupation or reduce train crew costs. In Britain, the Royal Mail uses freight multiple units in fixed formations dedicated to mail traffic.

10.2.7 The proximity of rail facilities should be taken into account by planning authorities when determining applications to construct new industrial facilities.

10.2.8 Equally, there should be a clear presumption that sensitively planned and designed rail freight developments will be given planning permission in support of regional/national transport policy.

10.2.9 Everything possible should be done to increase awareness of the availability of freight facilities grants, and consideration should be given to extending financial assistance to new freight flows by rail. This might include encouraging major consumers to receive supplies by rail, such as persuading supermarkets to use more localised distribution centres than is the case at present. A train already operates

between Glasgow and Inverness for such traffic. The freight DMU and mini-terminal concepts could also be relevant here.

10.2.10 The London-Severn Tunnel-Fishguard and Chester-Holyhead lines should be made capable of taking freight wagons of European (Bern gauge) dimensions, so that freight traffic to/from Wales and Ireland via the Channel Tunnel can be developed more economically. Another route which should be developed in this way is that from the Welsh coast ports to the north west of England and Scotland via Newport and Shrewsbury.

10.2.11 In particular, there might then be scope for introducing a British/Irish equivalent of the "rolling motorway" trains which operate in some parts of Europe. Lorries complete with their cab units are conveyed on rail wagons, with passenger coaches (which could include couchettes) attached for use by their drivers. This allows the same driver to stay with the load throughout and deliver it via local roads at the end of the train journey. The environmental benefit of taking large numbers of lorries by rail instead of by road for most of each journey is clear.

10.2.12 Encouraging recent developments have included the use of rail by some supermarket companies as part of their distribution network (as mentioned above). Scope exists for expansion of this type of traffic. In addition we feel that rail freight should be able to win other types of traffic, given appropriate support. These include:

■ Military traffic. The UK Government should insist that rail is used where possible

■ Aggregates, for example the Conwy Valley line should be used to remove slate waste

■ Short-haul freight, for example between steelworks (this is already happening to some extent)

■ Timber traffic from various locations in mid Wales

■ Container traffic via Holyhead and Fishguard to and from Ireland

The Rail Network in Wales

2012

- 936 route miles

- 1,516 track miles

- Trains per day (geographical) 1,340

- Passengers per day (Arriva Trains Wales) 71,000

- Stations leased to Arriva Trains Wales 244

- Level crossings 1,217

- 26 million passenger journeys starting or ending in Wales in 2010 – up 65% since 2000

- Predicted growth in Wales of 31% by 2019

- Valley lines growth 8% per annum

- 25% of Scotland's route mileage electrified, compared with Wales: nil

Source: Mark Langman, Route Managing Director, Network Rail Wales at Welsh Government rail conference, Cardiff, 1 October 2012.

11. Infrastructure

11.1 Introduction

This section looks at the physical improvements which we believe will be needed to allow the implementation of some of the proposals in this plan. Some of the work listed is at locations in England, because inadequate infrastructure at such places impacts directly on rail operations in Wales.

11.2 Track quality

The installation of continuously welded rail on all lines should be completed to give improved ride quality and lower maintenance costs.

11.3 Resignalling

11.3.1 Resignalling and other upgrades should take account of present and future needs, and avoid past mistakes of over-zealous rationalisation. Thus Network Rail should not be permitted to remove facilities without regard to potential future developments. For example, pointwork was removed at Newport which has had to be reinstated to allow reintroduction of passenger services between Newport and the Ebbw Vale line. Similarly, Network Rail should not be allowed to install buildings or equipment which could prevent future developments, such as at Caersws, where equipment relating to revised operation of the level crossing is blocking the reinstallation of a passing loop which would assist operations in the event of late running. In addition, signalling must reflect the improved speed/ braking characteristics of modern rolling stock.

11.3.2 As a general principle, and not exceptionally, signalling at main stations must allow a train to be admitted to a platform already occupied by another train, or allow a train to be split into portions while in the platform. Without this flexibility, it may not be possible to cater for increased services in some cases, particularly when out-of-course running occurs.

11.3.3 As existing signalling is upgraded, any changes must:

■ Improve reliability

■ Enhance existing line capacity, especially where congestion is greatest – for example between Cardiff and Port Talbot and on the suburban routes near to Cardiff

■ Include sufficient spare capacity and technical flexibility to allow for future expansion

■ Take account of future electrification

11.3.4 Despite rationalisation over the years, there remain a significant number of elderly, manually operated signal boxes in Wales, particularly north of Newport, west of Swansea and in north Wales. Where manually operated signalling is to remain for some time, use of "intermediate block" signals will be needed in appropriate locations, to cope with the higher service frequencies which we envisage.

11.4 New lines and additional tracks/connections

Protection of land for rail use

It is essential that local planning authorities identify and protect from other developments land in their areas which may be needed for future rail schemes, including associated facilities such as bus interchanges and car parks. If this is not done, some of the proposals which we and others have made for new or reopened lines and stations may become much more difficult or even impossible to implement.

11.4.1 Route by route requirements

11.4.1.1 The work needed is outlined on a "route by route" basis. The list is not necessarily exhaustive. It reflects what seems to us to be necessary, from the standpoint of interested observers and users of railways who have reasonably extensive knowledge of how the system works. However, rail professionals would need to give more detailed advice on the infrastructure works required to implement this plan.

11.4.1.2 As a general principle, all loop lines used to allow freight trains to be overtaken by passenger trains should be brought up to passenger standards to allow greater flexibility in the event of disruptions to services.

11.4.1.3 Platform lines should be bi-directional where this would make operations more flexible, for example in Cardiff Central at the western ends of platforms 0 and 6.

11.4.2.1 **Marches line**

.1 Extra or recommissioned loops to allow freight trains to be recessed for passenger trains to overtake them might well prove necessary on this route. Some existing loops might also need to be extended to allow them to hold longer freight trains or to allow faster passenger trains to overtake slower local services.

.2 At Hereford station, signalling is needed to allow a train from the south to enter the northbound platform when a train is already standing there. The flexibility of the layout could be improved by instituting bi-directional running from Shelwick Junction into the station, allowing trains from the Worcester line to run directly into the bay platform.

.3 Shorter signalling sections are needed, especially north of Abergavenny, to allow reduced time intervals between trains.

.4 For Craven Arms see also the Heart of Wales line.

11.4.2.2 **Ebbw Valley lines**

.1 We welcome the intention, as part of the Ebbw Vale railway reopening, to install a lengthy section (Lime Kiln Crossing to Aberbeeg) of double track on this route, as this will result in greater operational flexibility than a series of passing loops.

.2 The line between Aberbeeg and Abertillery would need to be reinstated. A single track would be sufficient here.

11.4.2.3 **Cardiff Valley lines**

.1 Extension of the service on the Aberdare line to Hirwaun could require a further passing loop in this valley.

.2 We welcome the start of work to restore the platforms on the west side of Cardiff

Queen Street station. This scheme, together with the improvement of the junction between the Pontypridd and Rhymney lines at the north end of the station, is essential if the layout is to be able to cope with the increased frequencies which we are suggesting.

11.4.2.4 **Maesteg line**

.1 A new passing loop will be needed between Bridgend and Maesteg, probably north of Tondu, to enable a half-hourly service to operate.

.2 The provision of a second additional loop, between Bridgend and Wildmill, would provide extra service resilience in the event of late running.

11.4.2.5 **South Wales main line and west Wales lines**

.1 Heathrow Airport

We greatly welcome the decision to instal a west-facing junction, together with electrification westwards.

.2 Swindon to Kemble

We are pleased that the UK Government has funded the redoubling of this section, as it is used by inter-city trains to and from south Wales when the Severn Tunnel is closed for maintenance work. The additional timetabling flexibility which will result from the redoubling will therefore be very useful.

.3 Filton Junction (near Bristol Parkway).

We are pleased that the reinstatement of an additional track and platform here has been completed, as this has greatly improved line capacity and therefore timetabling flexibility.

.4 Cardiff Central

Constraints on the layout here would need to be tackled, particularly to reduce conflicting movements between passenger and freight trains at the eastern end of the station. Crossovers half way along platforms 1, 2 and 3 would increase flexibility.

.5 Bridgend

Substantial work would be needed here to make possible the passenger service levels which we advocate:

■ To the east of the station, provision of a facing crossover from the down to the up main line immediately at the western end of Tremains loop would allow the up main line to become bidirectional from the west as far as the crossover

■ The junction between the main line and the Vale of Glamorgan line at the eastern end of the station would need to be restored to double track

■ A new through up platform, accessible from both the main line and the Maesteg branch, is desirable to cope with the additional services which we propose, and to allow local trains to connect into and out of long-distance services. Ideally, however, the station should be rebuilt as two island platforms, giving four through platforms.

■ At the west end of the station, the junction between the main line and the Maesteg line should have double track restored.

.6 Tondu to Margam

This route should be retained for diversionary purposes.

.7 Port Talbot

The two existing platforms could be expanded to four, using existing tracks outside the main lines. This would allow connections to be made and fast trains to overtake slower trains (as advocated for Bridgend). In an ideal world, the platforms would be islands to allow easy interchange, but this would be much more expensive to achieve as it would require complete rebuilding of the station.

.8 Swansea

Restoration of double track at Swansea Loop East Junction, just north of High Street Station, would greatly improve the flexibility of the layout and would reduce significantly delays to trains on the west Wales and Heart of Wales lines. At present, they often have to wait at the junction for main line trains to enter or leave Swansea before they can gain access to the station. In addition, restoration of the fifth platform on the west side of High Street station would further improve the flexibility of the layout, especially in view of the enhanced services which we advocate in this plan.

.9 Carmarthen

At present the approaches to the station from both the Swansea and Whitland directions are single track only. If these short stretches were restored to double line,

potentially significant timetabling constraints would be removed. For the same reason, it might also be necessary to reinstate the third platform at this station.

.10 Templeton (between Narberth and Kilgetty)

The former passing loop here should be restored, so that the long single-line section between Whitland and Tenby would be broken up, once again making timetabling and recovery from late-running easier.

.11 Tenby

Reinstatement of the third platform here would make the operation of special trains to this popular resort much easier.

.12 Level crossings

Investment is needed to improve line speeds at the crossings at Manorbier station and three other locations thence to Pembroke Dock, so that a faster and therefore more attractive passenger service can be provided. It is also possible that improved rolling stock utilisation could be achieved as a result of the service being speeded up.

.13 Clarbeston Road to Haverfordwest

This section of single track should be restored to double-line working, particularly as we advocate an hourly interval service to Milford Haven.

11.4.2.6 Heart of Wales line

.1 Capacity should be increased at Swansea Loop East Junction (see above).

.2 A single line of track would need to be reinstated between Gowerton and Grovesend Colliery Loop Junction, possibly with a passing loop at Gorseinon.

.3 In order to allow the line to be used more easily for freight diversions when the south Wales or Marches lines are closed for engineering work, the existing passing loops at Llandeilo, Llandovery, Llanwrtyd, Llandrindod and Knighton need to be extended to accommodate longer freight trains.

.4 To allow a two-hourly interval passenger service with good connections with other services to be timetabled, additional passing loops may need to be installed.

.5 At Craven Arms, track should be laid on the west side of the existing up line platform to create a third platform line and freight loop with access to/from both the Heart of

Wales and Marches lines. So far as the Heart of Wales line is concerned, this would make it easier for trains from the north to wait for late-running services from the Hereford direction without obstructing the Marches line. It would also make it easier to deal with freight trains or excursions arriving from Hereford and needing to travel towards Knighton. Moreover, in the event of engineering work south of Craven Arms on the Marches line, Heart of Wales line trains would have access to Craven Arms station instead of having to start from and terminate at Broome.

.6 As on the Pembroke Dock line, investment is needed to raise line speeds at a number of level crossings on the Heart of Wales line which currently have speed restrictions of 20 mph or less, or in some cases where trains have to stop before proceeding over the crossings. This is essential to allow a faster service to operate and it might mean that fewer additional passing loops are needed to accommodate our proposals for service enhancements on this route.

11.4.2.7 Aberystwyth and Pwllheli-Shrewsbury

.1 One or more additional passing loops should be installed on the line between Shrewsbury and Aberystwyth, including at Caersws, to enable an hourly service to be operated reliably.

11.4.2.8 Shrewsbury

.1 To enable this station to fulfil its function as an interchange between many routes, crossovers are needed halfway along the two main platforms (4 and 7) to increase the flexibility of the layout. This would obviate the need to use platform 3, which is remote from the station's information, buffet and toilet facilities, and the use of which makes interchange with services on the main platforms very difficult.

11.4.2.9 Shrewsbury to Chester

.1 Redoubling of all or most of the single-track section between Saltney and Wrexham has already been agreed. This is essential.

.2 Intermediate block signals would be needed between Gobowen and Croes Newydd to cope with the increased service frequency which we advocate.

.3 A new junction with the reopened Llangollen Railway would be required at Ruabon, including restoration of the northbound island platform there.

11.4.2.10 **Holyhead/Caernarfon/Llangefni to Chester**

.1 An additional platform, possibly an eastward facing bay, will be needed at Rhyl.

.2 The line to Caernarfon should be rebuilt as a single track, diverging from the existing route at Menai Bridge.

.3 The single line between Gaerwen and Llangefni should be brought up to passenger train standards.

.4 The north Wales main line is still manually signalled and some intermediate block signals may be needed to enable the proposed increased services to operate reliably. However, this would be a temporary measure, pending full resignalling.

11.4.2.11 **Wrexham to Bidston/Liverpool**

.1 As mentioned, we consider that this route should be electrified and thus linked to the Merseyrail network, to allow through trains from Wrexham Central to Liverpool.

11.4.3 New and reopened stations and freight mini-terminals

This section summarises, again on a line-by-line basis, our proposals for additional stations and freight mini-terminals. The latter are in addition to existing, more conventional freight terminals, such as those at Fishguard and Holyhead.

11.4.3.1 **Marches line**

New stations: Caerleon, Llantarnam, Pontrilas.

11.4.3.2 **Chepstow line**

New station: Newnham (Elton Corner).

11.4.3.3 **Ebbw Valley lines**

New stations: Ebbw Vale Town, Cwm, Abertillery and Pye Corner (Bassaleg).

11.4.3.4 **Cardiff Valley lines**

New stations: Nelson, Treharris, Hirwaun.

New freight mini-terminals: Aberdare/ Hirwaun, Rhymney/ Cwm Colliery.

11.4.3.5 **Vale of Glamorgan line**

New station: Gileston / St Athan.

New freight mini-terminals: Barry Docks, Bridgend (Ford Branch).

11.4.3.6 **Maesteg line**

New station: Llangynwyd.

11.4.3.7 **South and west Wales lines**

New stations east of Cardiff: Celtic Lakes / Coedkernew, St Mellons, Llanwern, Undy/ Magor.

New stations between Cardiff and Bridgend: St Fagans, Brackla.

New stations on the Swansea District line: Llandarcy Interchange, Morriston Interchange, Pontarddulais Interchange (possibly replacing Llangennech).

New stations west of Swansea: Trostre (replacing Bynea), St Clears.

New freight mini-terminals: Bridgend, Carmarthen, Fishguard.

11.4.3.8 **Heart of Wales line**

New stations: Gorseinon, Grovesend, Ammanford Town, Glanaman. In addition, Bynea station would be replaced by Trostre, and Llangennech would possibly be replaced by Pontarddulais Interchange.

New freight mini-terminals: Llandovery, Llandrindod.

11.4.3.9 **Aberystwyth and Pwllheli to Shrewsbury**

New stations: Bow Street, Carno.

New freight mini-terminals: Shrewsbury, Newtown, Aberystwyth.

11.4.3.10 **Shrewsbury-Chester**

New stations: Baschurch, Whittington, Weston Rhyn, Cefn, Johnstown, Rossett, Chester Business Park.

New freight mini-terminal: Wrexham.

11.4.3.11 Holyhead / Caernarfon / Llangefni-Chester

New stations: Caernarfon, Y Felinheli, Llangefni, Greenfield, Bagillt, Connah's Quay, Queensferry.

New freight mini-terminals: Llandudno Junction, Bangor, Holyhead.

11.4.3.12 Conwy Valley line

New freight mini-terminal: Blaenau Ffestiniog.

11.4.3.13 Wrexham to Bidston / Liverpool

New station: Woodchurch.

11.4.3.14 Cardiff and Newport area light rail

Route 1

This would run from north-east Cardiff, via the University Hospital at Heath then via the city centre and Cardiff Central Station to Cardiff Bay and on to the Sports Village. It would be built in phases, the section from Heath Hospital to Cardiff Bay being built first. There is already a reservation for a future light rail system between Cardiff Central and Cardiff Bay. Most of the rest, at least as far north as Heath Hospital, would probably involve street running. This route could be extended to Cogan and Penarth.

Route 2

This would be a circular route, sharing line 1 between Cardiff Central and Heath Hospital. Thereafter, it would continue on-street, regaining the Coryton line (which would be converted to light rail operation). Similarly, the existing line between Cardiff Central and Radyr via Danescourt would be converted for dual use by light and conventional rail. Modifications to the line past Canton diesel depot are already planned by Network Rail to increase the speed limit and to double the track through this section. A segregated link between Radyr and Coryton would complete the circle.

Route 3

.1 This would be a substantially east/west line running from St Mellons to Culverhouse Cross. Westwards from St Mellons, it would run alongside the main line as far as Adamsdown, where it would split. The direct route would run along East Tyndall Street, joining line 2 at Callaghan Square, and continue to the south of Central station. The other branch would follow the existing freight line past Atlantic Wharf, before joining the road system to access Cardiff Bay and return to Central station along the same

tracks as line 1. From Central station, line 2 would be followed as far as Victoria Park, from where line 3 would run on-street through Ely to Culverhouse Cross.

.2 If, as we advocate, this route was to be extended to serve the Newport area, beyond St Mellons it could be a tram-train operation and make use of the under-utilised relief lines as far as Maesglas. At that point it would leave the existing rail route and pass along the southern edge of Newport along the route of the A48. A north-south bus or tram running on-street would link this route from Pillgwenlly to the city centre. Route 3 would continue from Pillgwenlly along the A48, rejoining the route of the existing railway at Liswerry and heading eastwards through Llanwern. Following the Gloucester line eastwards from Severn Tunnel Junction, the route would divert off the existing passenger railway at Caldicot Pill and would use the recently abandoned freight line to Caerwent. From Caldicot Pill, the other recently disused freight line would provide the trackbed for the short branch serving Sudbrook as far as the Severn Tunnel Pumping Station. Through Sudbrook village itself the trackbed should be converted to a roadway along which the tram-train track would be laid, incidentally providing a much-needed widening of the existing inadequate roadway.

Route 4

This would be a spur from Line 2 from a point between Fairwater and Danescourt that would run mostly on a disused railway alignment to Creigiau and Beddau to Pontyclun, with a possible branch to Pontypridd.

11.4.3.15 Bridgend area light rail

Route 1 would form an orbital route from Porthcawl via South Cornelly to Pyle railway station. From there it would continue to Pyle Cross and then follow the former heavy rail route via Kenfig Hill to Cefn Junction, then use the present freight-only rail route to Aberkenfig and then a new route via Sarn railway station to The Pines/McArthur Glen, going forward to the Princess of Wales Hospital and Bridgend railway station (low level), with an end-on connection to route 2.

Route 2 would provide a direct route on a new formation from Bridgend railway station (low level) to Porthcawl, via the Bryntirion and Broadlands housing estates and Newtown.

Route 3 would be on a new formation from Bridgend railway station (low level) to serve Brackla, continuing to an interchange at Pencoed railway station.

Routes 4 & 5 would operate from The Pines/McArthur Glen on a new formation via

Brynmenyn to Blaengarw and Nantymoel (diverging at a four-way interchange at Brynmenyn) with a spur to Tondu station using the disused heavy rail trackbed.

11.4.3.16 Swansea area light rail

Two lines are proposed, which would share a common section in the city centre, thus allowing interchange between them. The system could be metre gauge rather than standard gauge to save road space and so make on-street running more feasible.

Route 1 would run on-street from Morriston Hospital and the Driver & Vehicle Licensing Agency building via Morriston Interchange rail station, the Enterprise Park, Landore park-and-ride, High Street rail station, the Civic Centre, the Quadrant bus station and shopping centre, Swansea University, Singleton Hospital and Oystermouth to Mumbles.

Route 2 would start at Gowerton rail station and run on-street via Dunvant, Killay, Sketty, Uplands, High Street rail station, the Quadrant bus station and shopping centre, the Civic Centre, SA1, Fabian Way park-and-ride, Jersey Marine (Amazon), Llandarcy Enterprise Park and Llandarcy Interchange rail station to Neath rail station.

11.5 Electrification

11.5.1 Railfuture warmly welcomes the decision to electrify the south Wales main line through to Swansea and the suburban routes in south Wales. However, we strongly advocate the progressive electrification of the remaining railways of Wales in order to:

11.5.1.1 Reduce carbon emissions.

11.5.1.2 Reduce costs. Electric trains have lower maintenance and fuel costs. They have less wear and tear and are more energy efficient. With fewer units under maintenance they have a higher availability.

11.5.1.3 Provide opportunities for an integrated transport system for Wales. Joint heavy and light rail running is possible using tram-trains.

11.5.1.4 Enhance international connectivity with England, Scotland and Europe (via the Channel Tunnel), by linking with lines already electrified in England.

11.5.1.5 Provide security of energy supply and move away from dependence on oil. The price of oil is volatile but increasingly upwards as world supplies diminish. Electrification can use a variety of energy sources including renewable energy from tidal, hydro and wind, from coal (including the use of indigenous coal), gas that is being imported at Milford Haven and nuclear power from Wylfa. Wales is rich in opportunities for electric energy production.

11.5.1.6 Improve air quality and the health and well-being of those travelling by rail and living near to railway lines by the reduction of carbon emissions. There will also be a reduction in noise levels.

11.5.1.7 Support Welsh industry. Many of the materials required for the construction of the electrification infrastructure are produced in Wales, including steel, cement and transformers.

11.5.1.8 Provide urgently needed replacement rolling stock.

11.5.1.9 Be more efficient. Electric traction has more rapid acceleration than diesel trains and thus journey times can be reduced and track capacity increased.

Suggested programme

11.5.2 We therefore propose that the remaining Welsh rail routes should be electrified as a staged programme, as follows:

Stage 1: **Chepstow line**

1. Severn Tunnel Junction to Swindon via Gloucester. This would provide a fully electrified diversionary route to London from south Wales in the event of engineering work closing the route via the Severn Tunnel. We believe that if this does not happen, the number of bi-modal trains proposed will result in limitations in the service level to Cardiff and Swansea during diversions. This will also add one more electrified commuting line into Cardiff.

1. While it is entirely outside the Wales and Borders area, with this diversionary line via Chepstow electrified, we would support the extension of electrification from Gloucester to Bromsgrove, linking with the Birmingham area electrified network, which is about to be extended to Bromsgrove. This would allow the semi-fast Cardiff (or beyond) to Birmingham (or beyond) service in this plan to be electrically operated throughout.

1. It would then make a great deal of sense to electrify from Standish Junction (south of Gloucester) to Westerleigh Junction (near Bristol Parkway). This would provide a fully electrified route from the north of England to Bristol and is relevant to this plan because it would give an electrified diversionary route via Bristol Parkway in the event of engineering work on the Chepstow line.

Stage 2: **North Wales coast**

We believe it is essential to electrify the route from Crewe to Holyhead, including the Llandudno branch, together with the lines from Chester to Warrington and the Halton curve (Frodsham to Runcorn), because:

1 At present, through trains from London Euston via Crewe to north Wales have to be diesel operated or have to change from electric to diesel traction at Crewe.

2 As the line from Warrington via Earlestown to Manchester is being electrified, our proposal would allow operation of the Llandudno to Manchester service on this route by electric traction.

3 Electrification of the Halton curve would enable operation of our proposed extension of the Merseyrail Liverpool to Chester service back to Liverpool Lime Street via Liverpool South Parkway.

4 We want to see freight traffic between the UK and Ireland running again on this route. It makes sense for such trains to be electrically hauled for as much of their journeys as possible.

Stage 3: **Wrexham to Bidston**

This would be a logical extension of the Merseyrail electrified suburban network. It would allow a through service from Wrexham to Liverpool, a very useful facility for people in the Borderlands area.

Stage 4: **Newport to Shrewsbury, Chester and Crewe**

1 This is essential in furtherance of the Welsh Government's "One Wales" objectives. Following on from electrification of the Holyhead line (stage 2) and the south Wales main line (already approved by the UK Government), it would allow the Holyhead to Cardiff service to be electrically hauled throughout.

2 In addition to Shrewsbury to Chester, we would like to see the Shrewsbury to Wolverhampton line electrified, so that the Holyhead to Birmingham International service could be electrically operated throughout its journey. It would also make sense in terms of a restored Shrewsbury to London Euston service, which is being discussed in relation to the re-franchising of the West Coast main line.

3 Stage 4 would also allow electric operation of the existing Milford Haven to Manchester service by electric traction between Swansea and Manchester. Bi-mode diesel/electric units could then operate the service, running in diesel mode west of Swansea and in electric mode east thereof, as an interim solution until electrification west of Swansea.

4 The Marches route is used extensively by freight trains and has considerable potential for further development in this respect. It makes sense for these trains to be operated by electric traction for as much of their routes as possible.

5 It might be sensible to electrify between Abergavenny and Newport as a first stage of the work on the Marches route, as this would mean that all suburban services into Cardiff and Newport would be operated by electric traction.

Stage 5: **Linking the south Wales main line to Carmarthen**

This would involve electrifying from Swansea High Street to Carmarthen via Gowerton and from Port Talbot to Llanelli via the Swansea District line. The latter would allow full electric operation of our proposed Carmarthen to London Paddington inter-city service.

Stage 6: **West Wales**

At this point we envisage all the remaining lines west of Carmarthen, to Pembroke Dock, Milford Haven and Fishguard Harbour, being added to the electrified network.

Stage 7: **Cambrian lines**

This would mean the electrification of the Shrewsbury to Aberystwyth and Pwllheli lines. It would allow through electric trains to and from Birmingham and beyond. As an interim measure, if the Shrewsbury to Wolverhampton line was to be electrified first, bi-mode units could operate this service to maintain through trains from the Cambrian lines to points east of Shrewsbury, rather than a change of trains being needed at the latter.

Stage 8: **Heart of Wales and Conwy Valley lines**

Electrification of Morlais Junction (on the Swansea District line south of Pontarddulais) to Craven Arms and Llandudno Junction to Blaenau Ffestiniog would complete the electrification of the Wales and Borders rail network.

We believe that the stages we have identified are the most logical to take further the recent decision to electrify the south Wales network. Clearly, however, the order in which routes are electrified could be varied if circumstances made this necessary.

11.6.0 High speed line from London to south Wales

11.6.0.1 While Railfuture Wales in principle welcomes any sensible development of the rail network, in the case of high speed rail we do have some concerns. In particular, it could be argued that the UK is too small a country to need such routes, given the limited time savings that would result from their introduction. Above all, we fear the possibility that the huge sums needed to build new high speed routes may divert investment or revenue support from existing services.

Nevertheless it would be foolish to ignore the fact that proposals are being made to build a high speed route from London to south Wales. Therefore in this section we discuss some of the issues in depth, with particular reference to the factors influencing the choice of routes and how whichever route is chosen might dovetail with the existing network.

General considerations

11.6.0.1 High speed trains can cut journey times in half and building new lines can cost little more than upgrading conventional lines. High speed rail can deliver economic growth, social inclusion and national prestige, just as it has for France, Spain, Germany, Italy and other countries, but for full effectiveness, high speed rail must have good

connectivity and therefore good interchanges with other rail routes, and with other forms of passenger transport. Therefore high speed rail needs to be part of a much broader package involving the rest of rail transport and also land use planning and economic development.

11.6.0.2 Building new high speed lines frees up the existing lines for freight and trains which then can better serve the towns and communities along the route, allowing passengers to gain access to major centres and the high speed rail network without having to resort to driving into the centres of cities.

11.6.0.3. Upgrading existing lines costs large amounts of money and adds little if any extra capacity. Unless dedicated additional lines are built alongside the existing lines, then in order to provide the paths for the high speed services existing services may have to be withdrawn. This would mean that the benefit to cities/regions at the extremities of the high speed service would be at the expense of the economic and social development of the intermediate settlements.

11.6.1 High speed on the existing south Wales main line

11.6.1.1 For full effectiveness, high speed trains should not be intermixed with ordinary or slower trains on the same line, as capacity and reliability problems are likely to arise.

11.6.1.2 The line speed of the existing main line from Cardiff eastwards through south Wales is only 75 mph, with a differential higher speed for IC125 trains. It also includes a 40 mph speed restriction through Newport.

11.6.1.3 Even with the enhanced acceleration of the proposed electric trains under the south Wales electrification scheme, the relatively low speeds of the main line in Wales will limit the potential for significantly reduced journey times.

11.6.1.4 The declared saving of 17 minutes to Cardiff from London in the electrification scheme appears to be a saving of 15 minutes due to the removal of intermediate stops and only about two minutes due to the increased acceleration performance of the new trains.

11.6.2 New high speed line to south Wales

11.6.2.1 The achievement of significant savings in journey time would require the building of a new dedicated high speed line.

11.6.2. 2 To maximise the reduced journey times of high speed trains the number of any intermediate stops would need to be strictly limited. Stations such as Newport are too close to Cardiff to enable the full potential for high speed running.

11.6.2. 3 The logical route of a new line coming in from the east would appear to follow the route also proposed for the new M4 across the Gwent levels.

Ideally a new dedicated high speed line would join the south side of the existing route of the south Wales main line from around Rumney River Bridge into new dedicated platforms on the south side of the existing Cardiff Central station. This would give maximum interchange with onward rail and bus connections and deliver into the heart of the new financial centre of Cardiff.

However, we note with regret that Cardiff Council has pursued the building of new offices and other developments right up to the existing railway boundary line on the close approach to Central station. Unless the new developments are demolished this would appear to preclude a high speed line gaining access to that station.

11.6.3 Severn barrage: Lavernock to Weston-super-Mare plan

11.6.3.1 Route of the line

1. If a Severn Barrage is constructed this gives the opportunity for a new rail route into Wales.

2. In the same way as airports are not located in the centre of cities, this could provide an option of a new rail terminus situated outside the city between junctions 33 and 34 of the M4 motorway. This "Cardiff International" station would be associated with the proposed International Business Park promoted by Cardiff Council.

3. The route of the new line would pass south parallel to the B4232 and across Cog Moors to Lavernock Point and then over the barrage to England.

4. Once across the barrage the line could head east via just one station, Bristol International Airport, before heading for Heathrow and London.

11.6.3.2 Connections with the existing rail network

1. From Cardiff International Station there should be an additional set of tracks for conventional rail services.

2. An eastward-facing connection a mile or two south of "Cardiff International" station into the south Wales main line would give access to Cardiff and the east.

In addition to the local and valley line services, we propose extending any main line services which terminate at Cardiff Central through to the new International station.

3. Between Dinas Powis and Barry a westward-facing junction would give access to Cardiff International from west Wales and Rhoose Cardiff Airport via the Vale of Glamorgan line.

POLITICAL INTEREST
Mark Williams, Liberal Democrat MP for Ceredigion, and Samantha Hearne, Mayor of Aberystwyth, joined Mike Bagshaw of Arriva Trains Wales when the 158 train fleet was upgraded in 2011

Diverting at least some of the main line Carmarthen/Swansea to London and west Wales to Manchester services via the Vale line (with reversal at Cardiff International) would provide connections to and from the west.

4. At Yatton on the Bristol to Exeter route, a line following the track beds of the old Cheddar Valley and Blagdon lines for the eight to 10 miles to Bristol International Airport station would provide the necessary connection from the high speed line to the existing network.

Extending the planned Bristol electrification and extending the London and CrossCountry main line services, which at present terminate at Bristol Temple Meads through to Bristol International would provide further main line connections.

Extending the services identified above would provide a 15-minute interval service into Cardiff Central and Newport by main line trains. This would be in addition to any local services that could be provided to serve the Cardiff Valleys.

5. The result would be to provide main line through rail services from Cardiff International to Swansea, Llanelli, Carmarthen, Shrewsbury, Crewe, Manchester, Cheltenham, Birmingham, Derby, Nottingham, Bristol, Bath, Southampton, Portsmouth, Swindon, Reading and London.

It would connect Cardiff International via the high speed service to both Bristol and Heathrow Airports, and would have the strategic advantage of joining these two major airports by a high speed rail link, making it easier to organise flight diversions at times of disruption.

It would minimise the building disruption and land use of constructing a new high speed rail line into Wales.

Should a high speed line be considered for Exeter and the West Country in the future, this proposal provides an ideal site for a junction to the south west from Bristol International.

A further very useful result would be to reduce the existing congestion of turning round main line services at Cardiff Central station. Moreover the above proposal would allow the continued expansion of services on the existing network, not constrained by having to try to fit around new high speed services.

Cardiff International could also serve as a strategic park-and-ride for Cardiff and Newport off the motorway from the west with a "turn up and go" service, in the same way as Severn Tunnel Junction has been proposed as a strategic park-and-ride off the motorway from the east.

11.6.4 Severn barrage: The Shoots barrage proposal

11.6.4.1 Route of the line

1. If this smaller Severn barrage is constructed, it will also give the opportunity for a new rail route into Wales. The line of this barrage is being proposed from the Severn Beach area to a point between Caldicot and Magor.

On the English shore, continuing the line of the barrage, the high speed line could join the existing south Wales main line between Pilning and Patchway. On the Welsh side the new route would meet the existing main line between Undy and Magor.

This new formation would avoid the Severn Tunnel but it is calculated that it would make a time saving of only one to two minutes compared with the existing route through the tunnel. However, it would allow the tunnel, with its high maintenance costs, to be abandoned, and would reduce the number of maintenance closures of the existing main line which require diversions and extended journey times.

2. Should this route be built, where the line strikes the Gwent bank by Collister Pill, a junction and a sweeping curve round to the east, rejoining the main line between Great House and the motorway bridge, would provide a direct route for services off the Chepstow line to Bristol.

3. On the straight route where the line joins the south Wales main line at Magor, a station and interchange would need to be built to replace Severn Tunnel Junction.

12. Political control, planning and funding of rail services

12.1.1 The importance of rail transport in Wales should be accepted and safeguarded by all political parties and transport interests. There should be acknowledgement of the key role that rail can play within the context of the Welsh Government`s statutory requirement to promote sustainable development and its carbon reduction obligations. The Welsh Government also has the political ability to put more weight on the social, economic and environmental aspects of transport than does the Westminster Government.

12.1.2 There should also be recognition of the role that a gradually developed and rebuilt, fully integrated Welsh passenger rail and long-distance bus network can achieve in helping to unite all parts of Wales, north, midlands and south, so helping to redress the social, political and commercial north-south divide which developed in the past.

Therefore:

12.2 We reject the current privatised organisation of the railway business, whereby one company is responsible for the infrastructure and pathing rights, others control the carriage of freight, and a plethora of private companies control stock leasing, stations and passenger services. This has become increasingly unacceptable for several reasons:

■ It is excessively complicated

■ Acquiring a passenger franchise involves a wastefully expensive bidding process, often leading to overly ambitious income forecasts and service commitments merely to ensure success in the bidding

■ The payment by some train operators of a share of so-called profits back to the Exchequer can lead eventually to undue pressure to cut back on aspects of passenger service

■ Not only are vast sums of money consumed by bidding for franchises, but also private companies have a duty to satisfy shareholders, which entails more money being lost to potential reinvestment in rail transport

■ There is a feeling that as far as there is any vision for rail in the UK Department for Transport/Cabinet, it remains Anglo-centric, if not London/south-east England centred

■ The principle of competition underlying much of the privatisation political dogma has been proved to be a mirage. British Rail's synergy has been lost. Planning is fragmented, the building of locomotives and rolling stock has been lost to other countries, it is more difficult to achieve integrated transport, and the existence of separate passenger companies has led to a more complicated system of fares

■ The principle of competition exists, but it should be recognised as competition between modes of transport, not between passenger train operating companies as the then Conservative government stated when implementing privatisation. When planning a journey, many people have a choice of transport modes, between their car, a bus, a plane or a train, just as someone dispatching freight usually has a choice of modes of transport

■ A Welsh Government-owned railway, with the day-to-day running handed to an arm's length operating organisation, would be better able to implement plans for transferring more goods to rail and persuading more car drivers to use rail, by putting in place an attractive level of service that will in itself persuade travellers to resort to rail, rather than belatedly making improvements in the light of over-crowding or responding to long, citizen-led campaigns to reopen lines, etc.

■ A state-owned railway service would also be better able than private companies to weather the effects of any temporary economic downturn, for example, a temporary reduction in ticket revenue

12.3 Therefore, decisions regarding the nature and level of passenger and freight rail services in Wales should be made by the people of Wales via their elected representatives on appropriate Welsh-based bodies.

12.4 The Welsh Government should have responsibility for financing Welsh rail services, but the operation of the passenger services should be carried out by a vertically integrated body (within the context of European Union rules) solely responsible to, and wholly owned by, that Government.

12.4 Where sections of routes, for example, the Marches line through Hereford and the Wrexham to Bidston line, run through England, decisions as to service levels and track maintenance etc. would (as now) be subject to liaison and agreement with the appropriate England-based authorities or companies.

12.5 The above would not exclude the running of joint cross-border services (that is joint between the Welsh operating company and English-based train operating companies) on, for example, the lines to and from London. However, matters of service levels and fares would need joint agreement and be subject, as far as possible, to the principles of service specified by the Welsh Government.

12.6 The single passenger operating body should be free to run the services in accordance with the principles and guidelines determined by the Welsh Government. The general manager/chief executive of the operating body would be appointed by that Government.

12.7 While the Welsh Government should continue to do all in its power to promote the transfer of goods from road to rail, rail freight services could continue to be operated either as they are currently, with the freight operating companies paying an appropriate charge for paths, track maintenance, etc., to the vertically integrated operating body. Aletrnatively Wales Rail/ Rheilffyrdd Cymru (or whatever it would be called) could operate freight services itself, as did British Rail.

12.8 It would be essential for passengers and freight customers to feel that they have a clearly laid down, easily accessible channel whereby they can make known their requests for improvements or their complaints. This would be achieved by an enhanced role for the Passenger Transport Users Committee for Wales and possibly by ensuring that the rail unions, voluntary rail user groups and individual passengers have direct representation on the existing regional transport consortia (TAITH, etc.).

13. In appendix 2 (below) will be found detailed references in support of the arguments put forward in this section of the plan.

SEVERN TUNNEL JUNCTION STATION
CrossCountry train at platform 1, left, and a First Great Western train at platform 3, right.
The passenger information screens, CCTV cameras and passenger waiting shelter are easily
accommodated on the wide platforms

Appendix 1. Interchange stations

These are the interchange stations at which we believe all the facilities listed in sections 6.2 and 6.3 should be provided:

Key: (1) = rail/rail, (2) = rail/bus, (3) = rail/LRT, (4) = rail/ferry

Caldicot (3)

Severn Tunnel Junction (1), (2)

Magor/ Undy (3)

Llanwern (3)

Newport (1), (2), (3)

Celtic Lakes/ Coedkernow (3)

St Mellons (3)

Cardiff Central (1), (2), (3)

Radyr (3)

Pontyclun (3)

Pencoed (3)

Bridgend (1), (2), (3)

Sarn (3)

Pyle (3)

Port Talbot (1), (2)

Llandarcy Interchange (2), (3)

Morriston Interchange (2), (3)

Swansea High Street (3)

Pontarddulais Interchange (1), (2)

Gowerton (1), (2), (3)

Llanelli (1), (2)

Llandovery (2)

Llandrindod (2)

Carmarthen (2)

Haverfordwest (2)

Pembroke Dock (2), (4)

Fishguard Harbour (4)

Hereford (1), (2)

Craven Arms (1)

Shrewsbury (1), (2)

Machynlleth (1), (2)

Gobowen (1), (2)

Ruabon (1), (2)

Wrexham General (1), (2)

Chester (1), (2)

Shotton (1), (2)

Llandudno Junction (1), (2)

Holyhead (4)

Caernarfon (1 – between standard and narrow gauge), (2)

Blaenau Ffestiniog (1 – between standard and narrow gauge), (2)

Barry Town (1)

Rhoose Airport (2)

Cardiff Queen Street (1), (2), (3)

Pontypridd (1)

Porth (2)

Caerphilly (2)

Rhymney (2)

This appendix does not list some stations (such as Grangetown or Dyfi Junction) where connections are possible between different train services, because we believe that in practice, the number of passengers who would make such changes is too small to make the full range of facilities described in section 6.3 justifiable.

Appendix 2

Why privatisation is flawed

Background

1. Peter Rayner, former BR operations and safety manager. *Railwatch* April 2009

The real difficulty is that not everywhere is that same sense of public duty the predominant feeling. Had you asked any of us who we worked for we would all have said, The Railway. Now ask anyone on the trains or track and they will say: First Group, Virgin, Jarvis, Network Rail, Stagecoach....

2. Commission for Integrated Transport: *Competition Issues in Rail Franchising* September 2006

In some cases, improved integration and connectivity can improve the competitive position of public transport in the round against the private car. Arguably the greatest distortion in the transport market is the under-pricing of many car trips, which do not pay the full economic and social costs of the congestion and pollution that they create.

The rail franchise process is expensive, inconsistent and laborious.

Analysis required in providing a bid is hugely complex because of the density of the overlapping bus and rail networks, where each overlap flow (i.e. services already operated by the bidder within the proposed franchise area) is treated as a separate market. In a single franchise area, this may run into the thousands. This requires enormous investment in legal and economic resources for train operators and the public sector, with resultant costs.

3. Wikipedia

In 1991, the European Commission issued Directive 91/440 requiring all member states to "separate the management of railway and infrastructure from the provision of railway transport services, separation of accounts being compulsory and organisational or institutional separation being optional," the idea being that the track operator

would charge the train operator a transparent fee to run its trains over the network, and anyone else could also run trains under the same conditions (open access). The Directive did not require that the railways be privatised – it was principally an accounting method to ensure a level playing field for incumbent train operators and new companies entering the market. Ireland and Greece have yet to comply with Directive 91/440 and its successor, and Northern Ireland Railways are still run exactly as was British Rail.

After the 1992 UK general election was won by the Conservatives, British Rail strongly advocated privatisation as one entity, a "British Rail plc" so to speak. The Treasury, influenced by the Adam Smith Institute think tank, advocated the creation of 7, later 25, passenger rail franchises as a way of maximising revenue. The Treasury view prevailed. The 1993 Railways Act actually broke up BR into more than 100 separate companies and British Rail was not allowed to bid for any privatised services.

In July 2006, the Conservatives' shadow transport spokesman, Chris Grayling, admitted that the 1996 split of the rail industry into separate track and train components had been a mistake which had increased costs. He stated: "We think that the separation has helped push up the cost of running the railways, and hence fares, and is now slowing decisions about capacity improvements.... the industry lacks clarity about who is in charge and accountable about decisions."

Some observers, including the head of the Swiss Federal Railways, still argue that the whole idea of separating track from train operations in this way is fundamentally misconceived, being based on the model of air transport, where the infrastructure, engineering and operational considerations are entirely different. On this view, the rail/wheel interface is an integral entity at the heart of what makes railways function, and hence the worst possible point at which to make a split, especially on an intensively worked but multifunctional network such as that in Great Britain.

4. European Union Directive 2001/12/EC (amending 91.440)

Article 6 states:
1. Member states shall take the measures necessary to ensure that separate profit and loss accounts and balance sheets are kept and published, on the one hand, for business relating to the provision of transport services by railway undertakings and, on the other, for business relating to the management of railway infrastructure . Public funds paid to one of these two areas of activity may not be transferred to the other. The accounts for the two areas of activity shall be kept in a way that reflects this prohibition.

2. Member states may also provide that this separation shall require the organisation of distinct divisions within a single undertaking or that the infrastructure shall be managed by a separate entity.

On 29 July 2009, an Irish Rail spokesman told Railfuture South Wales that its undertaking is still legally vertically integrated, that is, it is one company for train operations and infrastructure, though with separate accounting for these two activities. As far as he was aware this was not likely to change and there was no legal provision for any rival passenger company to demand running rights within the Republic, though in theory, another company could demand to run an "international" service to and from Belfast.

Merseytravel and NedRailways strongly argued the case in favour of vertical integration at a regional level. Merseytravel estimated it would save £33 million net over the 25-year franchise by integrating track and wheel. It also anticipated other benefits.... [House of Commons Transport Committee Report on Rail Franchising 5 November 2006, sections 103-4]

More than a decade after rail privatisation and the introduction of franchising of passenger services, we remain to be convinced that the system has achieved its objectives or that it is indeed capable of doing so. [Ibid section 123]

5. Gerald Corbett, former chief executive of Railtrack

The railway was ripped apart at privatisation and the resulting structure was designed to maximise the proceeds to the Treasury, not safety or investment.

[BBC News website, 20/10/2000]

6. *Off the Rails* by Andrew Murray, Verso Books 2001

The proposal to establish a separate track authority contradicted all principles of railway operation and was "likely to result in an outcome which will be unsuitable, expensive and unsafe."
[Bill Bradshaw, a transport academic who for many years was a senior British Rail manager]

"You can't get work carried out – the train operating company says it's Network Rail, they say it's Balfour Beatty, who say it's the sub-contractor. You don't know how to get things sorted out..."
[Loco driver quoted by Andrew Murray]

The simplest way to take any company into state ownership is to issue Government bonds to shareholders. This was the method used in 1947. These would be exchanged for shares, and the interest on them could be met out of the profits of the reinvigorated rail industry, spread over a number of years. Under this self-financing form of public ownership there would be next to no cost up front for the Government, and no diversion of resources from the NHS or anywhere else.
I would like to see us go back to nationalisation like it was originally envisaged, but without the bureaucracy and massive shortfalls of cash.
[Train driver quoted by Andrew Murray]

7. *Passenger Rail Franchising* **published 5 November 2006, by the House of Commons Transport Committee**

It (the UK government) wants co-ordination and yet continues to operate a system of fragmentation. It wants the private sector to invest, take risks and innovate and yet it prioritises price above all of these. There is scant evidence that the current model balances and optimises the benefits from conflicting priorities. It looks more like a muddle that provides little more than a complex, costly and mediocre means of maintaining the status quo.

The objectives of the passenger rail franchising system are a self-contradicting muddle, providing no coherent framework or vision for the development of passenger services for future generations. The result is a system that is worth less, and costs more, than the sum of its parts.

Another example is the cost of industrial action where the Government compensates track access operators for losses incurred. The SRA (Strategic Rail Authority) paid out £15.65 million in 2003 and £7.63 million in 2004. One operator alone, National Express Group, was paid £12.65 million in respect of disputes on its ScotRail franchise.

The transfer of risk to the private sector was a core objective of privatisation. But in the present system only a very limited proportion of risks are borne by franchise operators. There are also significant inconsistencies about what risks are borne by operators, and which by the Government. The relative lack of risk transfer calls into question the fundamental assumptions and objectives of the franchising system. If risk is not transferred, there is little point in involving the private sector in running the railways.

But with some operators entering into very high premium contracts on the basis of very optimistic growth forecasts, it is likely to be a question of time only before the Government has to show its mettle… Operators would be able to produce over-optimistic revenue forecasts and bid wild sums to run franchises, safe in the knowledge that the Government would bear the full risk of any failure to meet the forecast revenue figures.

As we said three years ago, the current system of rail franchising is a muddle. Within just three years, two franchise operators have had to abandon a major franchise – both of them on the East Coast main line…. We remain convinced that these two high-profile failures are indicative of the underlying problems of the current franchising model.
[House of Commons Transport Committee, Rail Fares and Franchises, 8th Report of Session 2008-9, 27 July 2009]

Many more franchises may be struggling to meet their required financial agreements, without our knowledge. Any additional failures in the franchise system, coupled with

risk sharing, will inevitably cost the Government considerable sums. We are deeply concerned about the impact this could have on the funding for other transport projects.
[ibid section 8]

There is no point in involving the private sector if it simply takes the profit in the good times, leaving the tax-payer to pick up the tab in the bad times.
[ibid section 13]

Between April 2001 and April 2004, the SRA had incurred total costs of £40.7 million on franchise replacements and extension.
[Ibid]

Govia said that it was now common for bidders to pay £2 million in consultancy fees to prepare a franchise bid. Its bid had consisted of 22 lever arch files, all of which had to be submitted to the Department in six copies.
[ibid]

8. Strategic Rail Authority

There is also a view within the industry that the creation of so many privatised entities has exhausted the supply of high-quality managers that the industry needs to be successful.
[Franchising Policy Statement November 2002]

Although it was accepted that most franchises would require some level of subsidy, the broad principle was that the bidder requiring the least subsidy was regarded as offering best value for money, and therefore won the franchise. While this approach could be said to have the merit of awarding franchises to those with the greatest appetite for business risk, with the benefit of hindsight this has not delivered the outcomes contemplated at the time of privatisation.
[ibid]

9. RMT trade union

We are firmly of the view that the current franchising regime is fragmented, financially opaque, poor value for money and provides the train operators with no incentive to commit long-term investment in station upgrades, improvements and enhancements. In short, the current arrangements have failed the travelling public…. passenger franchises should be returned to the public sector.
[RMT Submission to House of Commons Transport Select Committee Inquiry into Passenger Rail Franchising]

RMT believes that the current franchising arrangements have failed to provide value for money for the taxpayer and the fare payer. Franchise awards are shrouded in

commercial confidentiality and the franchising process has cost the public purse over £60 million since 1998.
[RMT submission to House of Commons Transport Select Committee, June 2006]

The present system is three times more expensive to run than public ownership because of [a] higher private sector borrowing costs; [b] the payment of dividends and the necessary profit margins; [c] fragmentation. Since 2003, ATW has paid £67.9 million in dividends. Fares are 30% higher than in Europe.
[Mick Cash of the RMT: Welsh Government rail conference, Cardiff, October 2012]

The growth in the number of passengers is due to macro-economic reasons, admits the Department for Transport (and not privatisation per se).
[ibid]

The May 2006 Transport Select Committee report *How fair are the fares?* supported the RMT's long-standing view that, 10 years after the break-up of passenger services, the franchises operate a fare and ticketing regime that has been "an abject failure" which "is not fit for purpose".
[RMT submission to House of Commons Transport Select Committee]

ARRIVA: Six months to 30/06/08. Operating profit £14.8 million. Interim dividend up by 10%.
FIRST GROUP: Six months to 30/09/08 Operating profit £48.3 million. Dividends totalling £55.5 million paid in 2007.
Again, money that under a BR-type organisation would have stayed within the industry.
[Memorandum from RMT to House of Commons Transport Committee 2009]

10. *RAIL* magazine

In his editorial in *RAIL* 707, October 2012, Nigel Harris reported that the bids for the West Coast main line had to be delivered to the Secretary of State in a lorry because they were so heavy and massive.

Writing about the WCML re-franchising fiasco in 2012, the rail expert Christian Wolmar said: "The very fact that the errors were the result of new aspects of the franchising process, adding to its complexity, highlights why the whole structure is unworkable… Nor has the right length for a franchise ever been determined, to enable a satisfactory answer to the Wolmar question: "What is franchising for?"

According to the Association of Train Operating Companies, the Department for Transport spends £24 million a year on consultants to oversee the franchising system.
[Christian Wolmar *RAIL* 631, September 2009]

Atkins plc's rail-related profit for the year to 31 March 2009 was £17 million – money that could have remained within the industry, reducing costs, financing improvement...
[*RAIL* 621, June 2009]

In InterCity's final year, it recorded 93% of trains on time, which contrasts with 87% for

the year just gone for Network Rail's long-distance classification.
[*RAIL* 620, May 2009]

British Rail made many mistakes but at least it provided a world-class research centre at the Derby Railway Technical Centre.
[*RAIL* 620, May 2009]

National Express (East Coast main line) is running out of cash because the post-credit crunch economy has hammered the business plan… NXEC tried to close the gap by hiking car park charges, imposing seat reservation charges and cutting catering. But the gap is too wide... All we can say is that if things don't change, then NXEC dies in December and the DfT will take over...
[*RAIL* 622, July 2009]

Lord Adonis, speaking in the House of Lords, July 1, 2009, said: "The decision by National Express to break their contract is regrettable and disappointing...It is simply unacceptable to reap the benefits of contracts when times are good, only to walk away from them when times become more challenging."
[*RAIL* 622, July 2009]

The rail industry is based on long-term investment, huge fixed assets and a largely constant customer base that requires stability and continuity. It is not a business for fly-by-night operators trying to make a few bucks in the short term, irrespective of the long-term consequences. The last thing passengers want or need is to have different operators frequently chopping and changing their customer offers, rebranding their trains and messing about with their fare structures. Yet, when it is re-let next year, the East Coast will have seen four different sets of managers within five years, hardly a recipe for an efficient service.
[Christian Wolmar, *RAIL* 622, July 2009]

Rail fares – in a mess and set too high. Train operating companies – enfeebled, discouraged from investing....
[Jim Steer, director of rail consultancy company: *RAIL* 622, July 2009]

How to save money : An off-peak return Penzance-Birmingham is priced by CrossCountry at £117.20. Ditto Penzance-Cheltenham, priced by FGW, is £66 and Cheltenham-Birmingham £19.40. So buy the last two (totalling £85.40) and legally save £31.80, provided the train calls at Cheltenham (which they all do). It's seen as legalised theft, brings the railways into disrepute and happens because some operators are more expensive than others, yet each is told which fares it has to set. Until this is changed, anomalies will get worse with each fares revision."
[Jim Steer, ibid]

11. *The Observer* business section 22 November 2009

The London-Edinburgh route (East Coast National Express franchise) made an operating loss of £23.6 million last year, but that was due to £50.9 million of exceptional

costs related to the looming demise of the contract. Strip out the one-off costs and cancel the franchise payments of £60.1 million that were made to the DfT last year, and the franchise made an operating profit of about £90 million.

12. *Railways Illustrated* October 2012

Virgin claims to have spent £14 million preparing its bid to retain the WCML. Even if FGW spent half of this trying to win it, that's £21 million which – to passengers – is down the drain. The editor commented: "Will the DfT – and Mr Cameron – finally, once and for all, realise that this broken railway does not work very well and would run better as a nationalised system? It would eliminate the need to waste money every year or so on failed franchise bids, on rebranding, on consultancy and on the extra layers of cost needed as everyone involved wants their cut.

13. South East Wales Transport Alliance (consortium of 10 local authorities)

In the past decade rail passenger demand on the (Cardiff) Valleys lines has been growing at around 10% per annum, significantly higher than the average for the UK. Recent data analysis suggests that this high rate of demand growth is continuing and will result in significant train capacity problems, requiring additional network capacity beyond the platform and train lengthening programme which is currently underway.
[SEWTA document, Jacobs Consultancy, March 2007]

14. Ernst & Young

The economic downturn has exposed certain challenges in the franchising system: a significant drop in passenger revenues and reliance on revenue support, instances of franchise failure. This has highlighted: a tendency for bidders to adopt aggressive revenue forecasts to win competitions; an imbalance between the level of control afforded to the franchisee and the level of risk transferred to it. A tipping point can be reached whereby a train operator can "walk away" at a relatively early stage.
[Gary Forde, Ernst & Young; Welsh Government rail conference, Cardiff, October 2012]

15. *Rail Wales* and *Railwatch* (published by Railfuture)

Where Wales is able to take the initiative (and find the finance), impressive results can follow. On the anniversary, earlier this year (2009), of the reopening of the Ebbw Vale line, it was reported that 573,000 people had used the trains. This compares with the scheme's projected usage of 150,000 in the first year, and 453,000 after four years. So the four-year target was exceeded by 26% after only one year.
[*Rail Wales* Spring 2009]

Existing legal lorries are 40 times heavier, four times longer, three times more likely to

be involved in road fatalities, twice as noisy, and thousands of times more damaging to the road surface than cars and produce at least three times more carbon dioxide per tonne carried than rail.
[*Railwatch* April 2009]

The Gwaun-cae-Gurwen line, recently reopened to freight traffic, will see 1,300 tonne trains, each one the equivalent of 40 big lorries. [ibid]

The Westminster Government's 2007 Strategic Freight Network plan almost entirely ignores Wales: Swansea/Port Talbot to the east is all that appears on the map. No acknowledgement, for example, of the potential for our two cross-Irish Sea routes leading to and from Europe.
[J D Rogers, Railfuture South Wales branch chairman]

More people and goods are carried per route-kilometre of railways than on roads.
[*A Rail Manifesto for the 21st Century*, Railfuture, 29 November 2009]

Rail transport aids social inclusion and regeneration as it provides access to jobs without the need for a car. Reopened routes to towns such as Bathgate have enabled significant falls in unemployment.
[ibid]

A recent study for Invensys Group concluded that, pound for pound, investment in modern railway signalling and rolling stock produced more capacity than any other transport investment, including motorway widening.
[ibid]

When Eddie Stobart switched transport of Tesco goods between Daventry and Scotland from road to rail, it was found that where a round trip by road consumed 11,147 litres of fuel, the same round trip by rail reduced this to 3,185 litres, a saving of over 71%.
[ibid]

16. Article by Rhodri Evans in *Western Mail* 17 October 2012

Industry analysts have estimated that heavy goods vehicles typically produce 63 grammes of carbon dioxide for every tonne of freight transported every kilometre, in comparison with 26.4 grammes of carbon dioxide per tonne per kilometre for rail freight. This represents a reduction of nearly 60% in carbon dioxide emissions per train journey.

17. Andrew Adonis, UK Government Secretary of State for Transport, writing in *RAIL* 631, September 2009

The demise of the tram was a serious mistake in post-war transport policy. None of the European countries which kept their trams regret doing so, and trams and light rail vehicles are undergoing a renaissance worldwide.

18. Passenger Focus

Passenger Focus was concerned that the trend towards franchises paying premiums would be to the detriment of passengers because operators would cut services in order to meet their premium obligations: "We are concerned that the drive to extract premiums from some parts of the network will result in further above-inflation fare increases and a deterioration in customer service, investment and innovation." [Passenger Focus evidence to House of Commons Transport Select Committee, November 2006]

■ ■ See also the long document entitled *The Conceit of Enterprise: train operators and trade narrative* published September 2013, by the Centre for Research on Socio-Cultural Change. This interesting research document by a group of independent experts exposes the flawed financial regime within which Network Rail and the train operating companies exist. Available online at www.cresc.ac.uk

Bibliography

1. Adam Smith Institute *No way to Run a Railway: Lessons from British Rail privatisation* Iain Murray July 2005

2. Arriva CrossCountry *Franchise Agreement*, DfT Update 16 January 2012

3. Arriva Cross Country *Service Level Commitment* 2 05, DfT August 2008

4. Arriva Trains Wales 2003 *Franchise Agreement* document, SRA / DfT / WG update 16 January 2012

5. Association of Train Operating Companies (ATOC) *Planning ahead Control Period 5 and beyond – Britain's railway from 2014 May 2019*

6. Association of Train Operating Companies (ATOC) *Connecting Communities Expanding Access to the Rail Network* June 2009. The report which includes providing better access to the rail network from towns that currently have no direct rail links does not specifically include Wales as the Welsh Assembly Government has its own Transport Strategy for Wales

7. Association of Train Operating Companies (ATOC) *Franchise Reform and Better Value for Money* April 2010

8. Association of Train Operating Companies (ATOC) *Better Alignment of Train and Track* Proposals by ATOC September 2010

9. Association of Train Operating Companies (ATOC) *Rolling Stock Requirements 2014-19: An ATOC Overview* May 2012. Includes requirements for south Wales Electric Multiple Units could be based on cascaded EMUs from Thameslink and Crossrail.

10. Aurum Press *On the Wrong Line: How Ideology and Incompetence Wrecked Britain's Railways* Christian Wolmar 2005 ISBN 1-85410-998-7. Christian Wolmar expands on the collapse of the railway system following the Hatfield accident in which he describes Britain's rail privatisation as one of the greatest political failures of recent history. He exposes the failure of New Labour to get to grips with the legacy it inherited and makes a persuasive case for a return to a rational railway in which the disparate pieces created by the Tories' privatisation are reassembled into a functioning network

11. Bevan Foundation *Accessibility for All: Public Transport and Social Inclusion in Wales,* Bevan Foundation Report Summer 2007

12. Birmingham Polytechnic *Park and ride facilities on light rail transit systems* Ian S J Dickens 1991

13. Cardiff Business Partnership / Institute of Welsh Affairs *A Metro for Wales' Capital City Region* February 2011

14. Campaign for Better Transport *Masterplanning Checklist for Sustainable Transport in New Developments* Ian Taylor and Lynn Sloman September 2008. The Master plan Checklists are a practical guide for local councillors, planners and developers to create new housing developments which facilitate sustainable travel patterns

15. CATS *The Chicago Area Transportation Study Creating the First Plan (1955-1962)* A Narrative by Andrew V. Plummer 2006

16. Centre for the Study of Regulated Industries / University of Bath *British Rail Privatisation: Competition Destroyed By Politics* Stephen Glaister September 2004

17. Centre for the Study of Regulated Industries *Britain's Railway Crisis: A review of the Arguments in Comparative Perspective* Ian Bartle October 2005

18. Chelsea Green Publishing Vermont *Car Sick: Solutions for Our Car-Addicted Culture* Lynn Sloman 2006 ISBN 1-903998-76-X. Lynn shows how de-motorisation works. From small towns like Winterthur in Switzerland to the centre of London. It is a passionate, well argued case for moving away from a car-centred to a people-centred society

19. Commission for Integrated Transport *Sustainable Transport Choices and the Retail Sector* June 2006

20. Commission for Integrated Transport *Task Note 8: National Rail Model Cost Projections* November 2007

21. Commission for Integrated Transport *Study of Cost Issues in Transport Operation: Phase One: Understanding the Trends and Drivers in Cost Inflation: Task Note 3: The Rail Industry* November 2007

22. Commission for Integrated Transport *Task Note 8: National Rail Model Cost Projections Study of Cost Issues in Transport Operation: Phase One: Understanding the Trends and Drivers in Cost Inflation: Task Note 5: Railway Infrastructure Costs* November 2007

23. Commission For Integrated Transport *Cost Issues in Public Transport Operation* December 2007

24. Competition Commission *Rolling Stock Leasing Market Investigation: Provisional findings Report* 7 August 2008

25. DfT *The Future of Rail White Paper* July 2004. This White Paper extends to Wales and Scotland. It covers rail services within Wales and cross-border services

26. DfT / SRA *New Stations: A Guide for Promoters* September 2004 (Also see updated Network Rail version)

27. DfT *Appraisal Guidance for Network Rail Discretionary Fund Schemes* February 2005

28. DfT / SRA *Franchise Letting Process* 2005

29. DfT / SRA *Franchise Replacement Process* February 2005

30. DfT 2006 *Visioning and Backcasting for UK Transport* (VIBAT) Executive Summary Looking over the horizon January 2006. The VIBAT project (Visioning and Backcasting for UK Transport Policy) has examined the possibility of reducing transport CO2 emissions by 60 per cent by 2030. Along with this headline summary there are the backup details:

DfT 2005 *Visioning and Backcasting for UK Transport* (VIBAT) Stage 1 Draft Stage 1 Baseline Report March 2005

DfT 2005 *Visioning and Backcasting for UK Transport* (VIBAT) Stage 2 Working Paper Images for the future July 2005

DfT 2006 *Visioning and Backcasting for UK Transport* (VIBAT) Stage 3 Policy Packaging & Pathways January 2006

31. DfT National Assembly of Wales and Secretary of State for Transport Joint Parties Agreement Describing Division of Responsibilities in relation to the Arriva Trains Wales franchise 2006

32. DfT *Railways for All. The Accessibility Strategy for Great Britain's Railways* March 2006

33. DfT/Cabinet Office *Making a Difference. Reducing Bureaucratic Burdens on Network Rail* 2006

34. DfT *Passenger Management during Major Engineering Possessions.* Experience gained from the West Coast Route Modernisation Project September 2006

35. DfT/Treasury *The Eddington Transport Study Report: Transport's role in sustaining the UK's productivity and competitiveness* Sir Rod Eddington December 2006

36. DfT *Understanding the travel aspirations of people later in life* Tim Knight, Josie Dixon, Martha Warrener and Stephen Webster January 2007

37. DfT *Understanding the travel aspirations, needs and behaviour of young adults* Jean Taylor, Matt Barnard, Clarissa White and Jane Lewis July 207

38. DfT Government White Paper *Delivering a Sustainable Railway* Full Report July 2007

39. DfT *Rail Technical Strategy* July 2007

40. DfT *ERTMS National Implementation Plan* September 2007

41. DfT *Towards a Sustainable Transport System Supporting Economic Growth in a Low Carbon World* October 2007

42. DfT/Institute for Transport Studies/University of Leeds *Transport Appraisal in other countries lessons for the NATA Refresh* Peter Mackie Charlotte Kelly October 2007

43. DfT *Intercity Express Programme Train Technical Specification* IEP-TECH-REQ-35 - Issue 01 15 November 2007

44. DfT *Network Modelling Framework Train Operating Companies' Operating Costs* November 2007

45. DfT *Network Modelling Framework (NMF) and Appraisal for HLOS The Evidence Pack* 18 January 2008 includes the Alternative (Non-PDFH) Growth Forecasts for Cardiff agreed between the Department for Transport and the Welsh Government

46. DfT *Consultation on Revision of Train and Station Design for Disabled Passengers Code of Practice* 26 February 2008

47. DfT *TEMPRO Planning Data Version 5-4 Guidance Note* February 2008 includes for example for Wales the total population projections by region, 2006-2041

48. DfT *Modelling Value for Money (VfM) in Franchise Specification* Final Report May 2008

49. DfT *National Rail Travel Survey* Final 2008 Report Results from a survey of rail travel across Great Britain 29 May 2008. For Wales includes journey origin and destination and journey purpose, both by country and region

50. DfT *Updating our Analytical Tools* 1 July 2008. Includes in item 20 onwards the arguments for the changes to indirect taxes (private car fuel) put to the Deputy Minister in Wales by Railfuture Cymru that changed the arrangement in WelTAG for assessments in Wales

51. DfT *Rolling Stock Leasing Market Investigation Response of the Department for Transport to the Competition Commission's Provisional Findings Report and Notice of Possible Remedies* September 2008. It is noted that the DfT agrees with the CC that it would be undesirable to seek to create a permanent pool of surplus rolling stock as poor value for money for the taxpayer while elsewhere it also accepts the absence of a pool results in the prices being set accordingly high.

52. DfT *Delivering a Sustainable Transport System* main report November 2008

53. DfT *Access for All Stations.* List of stations including those in Wales in the three tranches 2006 to 2015 February 2009 updated timescales published August 2011

54. DfT *Secure Stations Scheme* 2006 updated March 2009

55. DfT / ARUP / Oxera *Revisiting the Elasticity Based Framework: Rail Trends Report* March 2009. The objective of this study was to re-estimate the background growth (economic, socio-demographic and land-use, and intermodal competition) and fare elasticities for use in the passenger demand forecasting handbook

56. DfT *NATA Refresh (New Approach to Appraisal): Appraisal for a Sustainable Transport System* April 2009

57. DfT *Consideration of Diesel Multiple Unit rental for Diesel Trains Limited* 8 May 2009. The DfT temporary involvement as a Rolling Stock Leasing Company for the new 202 DMUs

58. DfT / Arriva / First / Go-Ahead / National Express / Stagecoach / ATOC/ CPT/ Journey Solutions *Door-to-Door by Public Transport. Improving integration between National Rail and other public transport services in Britain* June 2009. While covering the usual ticketing and information issues it does not tackle the organisational and regulatory issues employed in other countries. See Paul Mees *Transport for Suburbia*

59. DfT *Productive Use of Rail Travel Time and the Valuation of Travel Time Savings for Rail Business Travellers* June 2009. The study has provided empirical estimates of the amount of time spent working on trains by UK rail business travellers together with estimates of the impact that journey time savings would have on their level of activity during the day, and the value of these to both the employer and to the employee. The results call for major changes in DfT's WebTAG, estimated benefits of speeding up the current rail system to this segment of the market is reduced by around 50%

60. DfT *Britain's Transport Infrastructure – Rail Electrification* July 2009 includes the full electrification to Swansea (but not the Cardiff Valleys) and introduces the unexplained time savings to Cardiff and Swansea (subsequently identified as achieved by removal of intermediate stops, e.g. Bristol Parkway)

61. DfT *Low Carbon Transport: A Greener Future. A Carbon Reduction Strategy for Transport* July 2009

62. DfT *Low Carbon Transport: A Greener Future – Impact Assessment of the Carbon Reduction Strategy* July 2009

63. DfT *Developing a strategy for smart and integrated ticketing: Consultation* August 2009

64. DfT *Consultation document on the Rail Passengers' Rights and Obligations Regulations 2009* To implement Regulation (EC) No 1371/2007 on rail passengers' rights and obligations

65. DfT *Strategic Rail Freight Network – The Longer Term Vision* September 2009

66. DfT/University of the West of England *Understanding Business Attitudes to Transport – Knowledge review of existing evidence.* Glenn Lyons, Charles Musselwhite, Geoff Dudley, Phil Goodwin, Peter Wiltshire November 2009

67. DfT *Better Rail Stations An Independent Review* Chris Green and Professor Sir Peter Hall November 2009. Lists basic facilities for each category of station

68. DfT/Cabinet Office Strategy Unit *The Future of Urban Transport*. November 2009

69. DfT *Smart and Integrated Ticketing Strategy* December 2009

70. DfT / Mott MacDonald *Value of Working Time and Travel Time Savings – Long Run Implications Report* December 2009. The results of this research call clearly for a downward revision of WebTAG values for Rail travel time savings, to somewhere between 65% and 50% of current values

71. DfT / KPMG *Rail Franchising Policy: Analysis of Historic Data* January 2010. Includes analysis of the ATW franchise and the in house capability that is required in the Docklands Light Railway organisation as it retains Market Demand Responsibility which apparently the DfT does not on UK Rail franchises!

72. DfT *The Future of Rail Franchising* January 2010

73. DfT *Rail Franchising Process Manual* January 2010

74. DfT Department for Transport *A guide to the railway franchise procurement process* January 2010

75. DfT *Consultation on the transposition of Directive 2008/57/EC on the interoperability of the rail system within the Community* March 2010

76. DfT *Transport Carbon Reduction Delivery Plan* March 2010. Includes the Welsh Government commitment for annual reductions and the various proposed measures Sustainable Travel Towns, park-and-ride, etc and at the time included the electrification to Swansea

77. DfT/ARUP/Oxera *Data capability Report Is the data capable of meeting the study objectives?* March 2010. The study was to update and estimate the fares and background growth elasticities contained within the passenger demand forecasting handbook

78. DfT/ARUP/Oxera *Service Quality Report – How can a quality of service index be created.* March 2010. The study has focused on formulating a new elasticity-based rail passenger demand forecasting framework for Great Britain, the study team has created indices of service quality to be included as potential drivers of rail demand in its econometric analysis

79. DfT/ARUP/Oxera *Econometric approach report – How has the preferred econometric model been derived?* March 2010. The primary aim of the study was to update and estimate the fares and background growth elasticities contained within the passenger demand forecasting handbook

80. DfT/ARUP/Oxera *Findings Report – What are the findings from the econometric analysis?* March 2010. The primary aim of the study was to update and estimate the fares and background growth elasticities contained within the passenger demand forecasting handbook

81. DfT/ARUP/Oxera *Guidance Report – How should the revised elasticity-based framework be implemented?* March 2010. The primary aim of the study was to update and estimate the fares and background growth elasticities contained within the passenger demand forecasting handbook

82. DfT/ARUP/Oxera *Market segmentation report – How has the market for rail passenger demand been segmented?* March 2010. The study was to update and estimate the fares and background growth elasticities contained within the Passenger Demand Forecasting Handbook (PDFH)

83. DfT / ARUP / Oxera *Model Specification Report – What are the key issues for a model specification?* March 2010 The study was to update and estimate the fares and background growth elasticities contained within the Passenger Demand Forecasting Handbook (PDFH)

84. DfT *Reforming Rail Franchising* consultation document July 2010

85. DfT *A Review of the Intercity Express Programme* Sir Andrew Foster June 2010. Note while still based on electrification to Swansea it includes reference to Agility Trains

committing to contract to meet the reduced journey times specified by the DfT

86. DfT *Station Usage and Demand Forecasts for Newly Opened Railway Lines and Stations – Final Report* August 2010. Includes comparisons of anticipated and actual for which Ebbw Vale is the most extreme and also the anecdotally believed view of new stations abstracting demand from existing stations for which surprisingly the analysis of the annual time series data identified almost no evidence

87. DfT/ORR *Rail Value for Money Study – Interim Submission* September 2010. The McNulty study

88. DfT *National Rail Travel Survey – Results from a survey of rail travel across Great Britain Overview Report* Updated December 2010

89. DfT *Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen* January 2011

90. DfT *InterCity West Coast (franchise) Consultation* January 2011. Includes services in Wales

91. DfT *Reforming Rail Franchising: Government response to consultation and policy statement* January 2011

92. DfT *Conditions Relating to the Funding of New or Enhanced Services Promoted by Local Bodies for Control Period 5* updated 5 February 2011

93. DfT *Transport Business Case* April 2011. Provides a description of the approach followed by the Department and its Ministers when making major investment decisions

94. DfT *InterCity West Coast Re-Franchising Stakeholder Briefing Document* May 2011. Includes synopsis of responses from Railfuture, Welsh Government, etc.

95. DfT Government Operational Research Service *Comparing Rail Forecasting Approaches* 5 May 2011

96. DfT *InterCity West Coast Franchise Draft Invitation to Tender* 18 May 2011

97. DfT *Realising the Potential of GB Rail – Final Independent Report of the Rail Value for Money Study Detailed Report* May 2011 McNulty

98. DfT *Choosing and Developing a Multi-modal Transport Solution – Freight Best Practice Guide* Spring 2011

99. DfT *Green light for light rail* September 2011. While openly acknowledging the legislative reason for the decline in patronage of the Tyne & Wear Metro (Section 3.3 Competition rather than Integration) the measures to reverse it are left unaddressed

100. DfT *Guidance note on passenger demand forecasting for third party funded local rail schemes* October 2011

101. DfT *Accessible Train Station Design for Disabled People: A Code of Practice* November 2011

102. DfT *Behavioural Insights Toolkit. Using behavioural insights to achieve policy outcomes* November 2011. A practical tool for users wishing to apply the latest behavioural insights in the development of policies or initiatives in the transport context for which previously there was little but theoretical information.

103. DfT *Great Western Franchise Replacement consultation* December 2011

104. DfT *InterCity West Coast Invitation to Tender* 20 January 2012

105. DfT *Devolving Local Major Transport Schemes Consultation* 31 January 2012

106. DfT *Transport Solutions for Older People* February 2012

107. DfT/ARUP/Oxera *Revisiting the Elasticity Based Framework Update Final Report* PPRO 04/73/03 Rev A 15 February 2012 This document reports on the work carried out by Arup and Oxera to update the data and outputs from the *Revisiting the Elasticity Based Framework* project

108. DfT *Rail Decentralisation Devolving decision making on passenger rail services in England* March 2012. While headed services in England there are several impacts for Wales and cross-border services.

109. DfT *Rail Fares and Ticketing Review initial consultation* March 2012. The review has implications for Wales, because rules around ticket retailing, the mechanics of setting fares and settlement of revenues between train operators is regulated by the Secretary of State across England, Scotland and Wales; and because generally fares on cross-border services into Wales as well as some other fares set by Arriva Trains Wales are regulated by the Secretary of State rather than the Welsh Government

110. DfT *Command Paper – Reforming our Railways Putting the Customer First* March 2012. In Wales unlike Scotland the rail infrastructure is not devolved, rail services are managed by the Welsh Government with support in specialist areas such as procurement being provided by central Government. Central Government also remains the operator of last resort

111. DfT Extract from ticketing and settlement agreement June 2012

112. DfT *Government Statement on the Railways Act 2005* 16 July 2012. What the Secretary of State wants to be achieved by railway activities during the review period covering 1 April 2014 to 31 March 2019 (the High Level Output Specification or HLOS); and the public funds that are or are likely to be available to secure delivery (the Statement of Funds Available or SoFA)

113. DfT *Secretary of State Guidance to the Office of Rail Regulation* 16 July 2012. By 2019, the Secretary of State wants the railway to achieve performance and efficiency that compare favourably with the best European railways while developing its capacity and capability to support economic growth by meeting the key elements of forecast demand growth while becoming more financially sustainable.

114. DfT *Great Western Franchise – Invitation to Tender* July 2012. The 15-year franchise to operate from 2013 including the specification of the services required

115. Earthscan *Transport for Suburbia: Beyond the Automobile Age* Paul Mees 2010 ISBN 978-1-84407-704-3. Includes the Zurich Model that has made Zurich the place with the highest use of public transport of anywhere in Europe

116. ETC 2009 (European Transport Conference) *Assessing the potential performance of new local railway stations* Simon P Blainey & John M Preston University of Southampton 2009. It describes an integrated methodology for investigating the potential for constructing new local railway stations within a given area and assessing their likely performance. The stages of the methodology are outlined with reference to their application to a case study area centred on Cardiff. This allows the relative merits of different station schemes to be compared and breakeven demand levels to be estimated

117. European Parliament *Regulation (EC) No 1371/2007 of the European Parliament and of the Council – Rail Passengers Rights And Obligations* 23 October 2007

118. European Parliament *Directive 2008/57/EC of the European Parliament and of the Council on the Interoperability of the Rail System within the Community* 17 June 2008

119. European Union *The National European Regional Development Fund Handbook for the English Convergence and Competitiveness Programmes 2007-2013* (ERDF-GN-1-001) April 2012

120. DfT *First Great Western Franchise Agreement* Update 16 January 2012

121. Friends of the Earth *Unlocking the Gridlock: The Key to a New Transport Policy* Christian Wolmar 1997 ISBN1-857750-307-4. Planning to reduce the need to travel, improving public transport, switching freight to rail, promoting cycling and walking and improving fuel efficiency are main parts of the solution. It shows that these and other measures taken together can deliver a transport system that protects environment, safeguards health, improves quality of life and creates jobs, pointing the way to a truly sustainable society

122. HM Government *Transport (Wales) Act 2006* Chapter 5 An Act to make provision about transport to, from and within Wales 16 February 2006

123. HM Government *Railways Act 2005* Chapter 14 Transfer of Functions And Railway Strategy 15 April 2005

124. House of Commons Transport Committee *Passenger Rail Franchising* Fourteenth Report of Session 2005-06 5 November 2006

125. House of Commons Library *Research paper 07/91 The Barnett Formula* Dominic Webb 14 December 2007. The Barnett Formula is part of the mechanism used to determine the budget of the National Assembly for Wales

126. House of Commons Welsh Affairs Committee *Cross-border provision of public services for Wales*: *Transport* Tenth Report of Session 2008-09 Report, together with formal minutes, oral and written evidence 27 July 2009

127. House of Commons Library Briefing Note SN/BT/1157 *Railways: privatisation, 1987-1996.* The structure of the rail industry following privatisation by the Railways Act 1993. A factual account and only briefly touches on the issues involved in reaching decisions about the form of privatisation chosen or its shortcomings. Louise Butcher 18 March 2010

128. HM Government Statutory Instrument 2010 No. 432 *Disabled Persons Transport – The Rail Vehicle Accessibility (Non-Interoperable Rail System) Regulations 2010*

129. House of Commons Library Briefing Note SN/BT/4128 *Railways: Who does what* Louise Butcher 11 August 2010

130. House of Commons Welsh Affairs Committee *Cross-border provision of public services for Wales: follow up – Government Response to the Committee's Tenth Report of Session 2009-10* Third Special Report of Session 2010-11 September 2010

131. House of Commons Transport Committee *The performance of the Department for Transport: Government response to the Committee's Fourth Report of Session 2009-10* Third Special Report of Session 2010-11 28 October 2010

132. House of Commons Statement by Transport Minister Philip Hammond *Intercity Express and Rail Electrification* 1 March 2011. Includes preliminary evaluation that the Cardiff Valleys electrification represents the best value for money rail electrification investment that can be made in Wales

133. House of Commons Library Research Paper 11/22 *Transport Policy in 2011: a new direction?* Louise Butcher and Matthew Keep 2 March 2011

134. House of Commons Transport Committee *Transport and the economy – Third Report of Session 2010-11* Volume 1. 2 March 2011

135. House of Commons Library Briefing Note SN/BT/2129 *Railways: Network Rail responsibilities and plans for its reform* Louise Butcher 23 March 2011

136. House of Commons Transport Committee *Transport and the economy – Government response to the Committee's Third Report of Session 2010-12.* 6 May 2011

137. House of Commons Library Briefing Note SN/BT/1904 *Railways: fares – Explanation of the fares regulation policy of successive governments, including the fares cap, travel cards and penalty fares* Louise Butcher 26 May 2011

138. House of Commons Library Briefing Note SN/BT/1343 *Railways: passenger franchises – How rail passenger franchising works and the franchising policies of successive governments* Louise Butcher 1 June 2011

139. House of Commons Library Briefing Note SN/BT/3163 *Transport: passenger rights, representation and complaints – information on passenger rights on transport modes across the EU and the bodies which represent passenger interests in the UK and information on how to make a complaint* Louise Butcher 8 June 2011

140. House of Commons Library Briefing Note SN/BT/3146 *Railways: rolling stock – Procurement policies and programmes of the previous and current governments* Louise Butcher 24 June 2011

141. House of Commons Library Briefing Note SN/BT/3156 *Transport Wales* Overview of the legislation by which some areas of transport policy have been devolved to the Welsh Assembly; the Wales Transport Strategy; rail services; bus regulation; air transport and the shipping and ports sector. Louise Butcher 27 June 2011

142. House of Commons Library Briefing Note SN/BT/5907 *Railways: electrification – the plans of the previous and current governments to electrify the UK rail network* Louise Butcher 7 July 2011

143. House of Commons Library SN/SG/2661 *National rail usage and performance* Matthew Keep and Thomas Rutherford October 2011

144. House of Commons Library SN/SG/2660 *Share of Passenger Transport by Mode and Average distance travelled & Number of trips per person* Matthew Keep and Thomas Rutherford November 2011

145. House of Commons Deposited Papers *Electrification to Swansea – Railway investment on the Great Western Main Line in Wales* DEP2011-0587 2011. Includes Minister's statement on electrification and details of the economic case and the poor 0.1Benefit Cost Ratio (BCR) for Electrification Cardiff to Swansea c.f the positive BCR of 2.2 for electrification to Swansea in the RSSB Report T633: Study on further electrification of July 2007

146. House of Commons Library Standard Note: SN3307 *Railways – Light Rail Schemes* Louise Butcher 25 January 2012. Covers the policies of successive governments towards light rail and provides information about reports that have been published about light rail over the past eight years

147. House of Commons Library Standard Note: SN3146 *Railways – Rolling stock* Louise Butcher 25 January 2012. Information about the various rolling stock companies that supply train carriages to the UK railways and explains the procurement policies and programmes of successive governments

148. House of Commons Library Standard Note SN3285 *Railways – Rural and Community lines* Louise Butcher 2 February 2012. Covers the development of community rail under successive governments. It explains the purposes of rural rail, how it is structured, and proposals for its development

149. House of Commons Library Standard Note: SN184 *Railways – EU Policy* Louise Butcher 17 February 2012. An overview of the development of a common European railways policy through the three railway "packages"; including recent proposals to recast the First Directive to achieve the long-aspired-to goal of a single European Railway Area. Includes EU Directives with brief explanation of each

150. House of Commons Library Standard Note: SN2071 *Railways Regulation* Louise Butcher 8 March 2012. Summarises how the railways have been regulated since privatisation, including the present role and responsibilities of the Office of Rail Regulation

151. House of Commons Library *Railways – Freight* Standard Note: SN151 Louise Butcher 8 March 2012. Describes the rail freight policies of successive UK governments and of the European Union. It also gives an overview of the grants available to rail freight operators and the track access charges they have to pay.

152. House of Commons Library *Railways – Stations* Standard Note: SN3170 Louise Butcher 8 March 2012. In addition to the existing National Station Improvements Programme (NSIP) it also includes details of the station commercial project facility, a new £100 million facility to support commercially focused station improvements across England, Scotland and Wales. It is available for Network Rail, train operators and third parties

153. House of Commons Library Standard Note: SN1904 *Railways – Fares* Louise Butcher 9 March 2012. Explains the fares regulation policy of successive governments, including the fares cap, travel cards and penalty fares

154. House of Commons Library 2012 Standard Note: SN1343 *Railways – Passenger Franchises* Louise Butcher 9 March 2012 Gives basic information about the various franchises in England, Scotland and Wales. It briefly explains how rail passenger franchising works and the franchising policies of successive governments. Provides a useful short summary of what each franchise is to deliver.

155. House of Commons Library Standard Note: SN2129 *Railways – Network Rail* Louise Butcher 14 March 2012. Describes how Network Rail is run, its responsibilities and plans for its reform

156. House of Commons Library Standard Note: SN3436 *Railways – Cycling: bike and rail* Louise Butcher 2 May 2012. Rules regarding the carriage of bicycles on the railway network, and the policies of successive governments to encourage and integrate bike and rail journeys.

157. House of Commons *Oral evidence taken before the Welsh Affairs Committee cross-border road and rail connectivity* 12 June 2012. Includes evidence from Iwan Prys-Jones, Interim Taith Executive Officer, and Mark Youngman, Chair of South East Wales Transport Alliance Rail Working Group and Transport Policy and Compliance Manager at Monmouthshire County Council

158. House of Commons Library Standard Note: SN4128 *Railways – Quick Guide to the Railways* Louise Butcher 31 July 2012. It gives a brief outline of the UK rail industry, including the bodies responsible for delivering services, how new schemes are chosen and financed

159. House of Commons Library Standard Note: SN5907 *Railways – Electrification* Louise Butcher 2 August 2012. This sets out the extent of rail electrification carried out and planned by the previous and present governments

160. Ian Allan *Beyond Hidden Dangers – Railway Safety into the 21st Century* Stanley Hall 2003 ISBN 0-7110-29156. Stanley examines the causes and effects of railway accidents in the era of privatisation. He looks at how far the industry has responded to the realisation that safety could have been compromised after the 1995 privatisation and how far the industry has tried to ensure similar accidents will not occur in the future

161. Imperial College London University 2004 *Rail Safety and Rail Privatisation in Britain* Andrew W Evans 16 June 2004. This report concludes that railway accident data does not support the contention that rail privatisation has made the railways less safe. The data are remarkably consistent. This is in line with the conclusions of the OECD Transport Research Centre 2010 Safety and Regulatory Reform of Railways that despite some spectacular accidents the safety trend is not downward

162. Institution of Railway Signal Engineers *Swiss Railways in the 21st Century* Oskar Stalder 29 March 2006 Includes details of Rail 2000 project offering travel from start to destination with minimum lost time for connections

163. Institute of Transport studies/Leeds/Sheffield/York Universities *Modelling Passenger demand for parkway rail stations* Institute of Transport Studies Research Paper. W F Lythgoe, M R Warden 2004

164. Institute of Transport studies/Leeds University *Are Britain's railways costing too much – perspectives based on TFP comparisons with British Rail 1963-2002* A S J Smith January 2006

165. Institute of Transport studies/Leeds/Sheffield/York Universities *Demand for rail travel and the effects of external factors* Institute of Transport Studies Research Paper M R Warden 2006

166. Institute of Transport studies/Leeds/Sheffield/York Universities *The demand for public transport the effectiveness of fares – quality of service – income & car ownership* Institute of Transport Studies Research Paper 2006

167. Kent Business School Working Paper *The Modernisation and Fragmentation of the UK's Transport Infrastructure* Robert Jupe February 2009. ISSN 1748-7595 (online) It covers the creation of Network Rail as a replacement for the failed company Railtrack; the part privatisation of National Air Traffic Services; and the part privatisation of the London Underground. The analysis demonstrates that for each new structure the key objectives of risk transfer and value for money have not been achieved, and concludes with implications of the modernisation agenda for public policy

168. Kent Business School Working Paper *A Poll Tax on Wheels – Might the move to privatise Rail in Britain have failed* Robert Jupe July 2010 ISSN 1748-7595 (online). It places the privatisation proposals in context by examining opposition within the Tory party and British Rail. It then focuses on three key counterfactual questions, including the significance of New Labour's reversal of its commitment to renationalise rail under its "third way" policy and the possible consequences had the move to privatise rail failed. Based on the historical evidence available, it concludes that performance would have been better had rail remained an integrated, nationalised industry

169. Kogan Page The Chartered Institute of Logistics and Transport *Applied Transport Economics – Policy, Management & Decision Making* Professor Stuart Cole 2008 ISBN 0-7494-3964-5. Professor Cole introduces the theory of transport economics through a range of practical examples. He investigates the application of economic theory to commercial transport operations, public policy issues and the role of transport in its wider economic context

170. Libertarian Alliance *Why British Rail Privatisation Has Failed* Patrick Crozier October 2001

171. Loughborough University *Using Network capacity effectively where train operators compete for paths – The UK experience* Robert Watson, David Gillingwater, Anzir Boodoo July 2003

172. McGraw-Hill *All Change British Railway Privatisation* Edited by Roger Freeman PricewaterhouseCoopers & Jon Shaw University of Aberdeen 2000 ISBN 007-709679-7. Drawing on detailed interviews with key government and industry figures it provides an insider's view. It reveals the factors influencing the formulation of railway privatisation policy and examines the issues which arose during the implementation. The consequences of the privatisation process are openly discussed and suggestions are offered for future policy strategies

173. National Audit Office Report by the Comptroller and Auditor General *Reducing Passenger Delays By Better Management Of Incidents* 14 March 2008

174. National Audit Office / DfT Report by the Comptroller and Auditor General *Increasing Passenger Rail Capacity* 27 May 2010 ISBN 978-0-10-296523-0

175. National Audit Office / DfT Report by the Comptroller and Auditor General *The Department for Transport Letting Rail Franchises 2005-2007* 1 October 2008. ISBN 978-0-10-295431-9

176. Network Rail *Rail Freight Multiple Unit Trial Aberystwyth to Chirk* March 2005 Report on the trialling of the new concept of the freight multiple unit, an integral train with two drive units and freight-carrying modules in between.

177. Network Rail *Delay Attribution Guide* 2007

178. Network Rail *Freight Route Utilisation Strategy* March 2007

179. Network Rail *Preliminary Evaluation of Double Deck & Extra Long Train Operations* Bob Murton July 2007

180. Network Rail *Cambrian Lines Infrastructure Enhancements Project GRIP 4 Single Option Development Report* 30 October 2007

181. Network Rail *Option Selection Report GRIP Stage 3 – Gowerton redoubling* 7 January 2008

182. Network Rail *Options Report – Borderlands (Bidston to Wrexham 3rd Rail Electrification)* 9 July 2008

183. Network Rail *Wales/Cymru Route Utilisation Strategy* November 2008

184. Network Rail *Network Route Utilisation Strategy: Scenarios and Long Distance Forecasts* June 2009

185. Network Rail *Great Western Route Utilisation Strategy Final version* March 2010. Includes First Great Western services into south Wales

186. Network Rail *Route Plans – Route L – Wales 2011* Update 31 March 2011. Includes useful map of Wales with all stations and details of all present investment proposals

187. Network Rail *Investments in Stations – A guide for promoters and developers* May 2011. Supersedes the previous SRA version but the original has additional information

188. Network Rail *Output Definition Report – Llangefni – Gaerwen Junction Branch line reopening* November 2010

189. Network Rail *West Midlands and Chilterns Route Utilisation Strategy* May 2011. Includes CrossCountry services into Wales

190. Network Rail *North South Wales journey time reductions and capacity Improvements – final option selection report* 26 May 2011

191. Network Rail *Option Selection Report GRIP Stage 3 – Ebbw Vale Frequency Enhancement* 2 June 2011

192. Network Rail *West Coast Main Line Route Utilisation Strategy* July 2011

193. Network Rail *Network Route Utilisation Strategy: Stations* 31 August 2011

194. Network Rail *Network Specifications 2011 – Wales* September 2011

195. Network Rail *Route Specifications 2011 – Wales* September 2011

196. Network Rail *Network Route Utilisation Strategy: Passenger Rolling Stock* 27 September 2011

197. Network Rail *Initial Industry Plan England and Wales – Proposals for Control Period 5 and beyond* September 2011

198. Network Rail *Initial Industry Plan – England and Wales* PowerPoint presentation September 2011

199. Network Rail *Feasibility Study GRIP Stage 2 – Aberdare-Hirwaun Services* February 2011

200. Network Rail *Network Route Utilisation Strategy: Alternative Solutions* February 2012

201. Network Rail *Governance for Railway Investment Projects (GRIP) the management and control process for delivering projects on the operational railway* (A copy of GRIP Standard issue 2 on CD is available from Network Rail , email GripCD@networkrail.co.uk stating your name and address)

202. OECD Transport Research Centre 2010 *Safety and Regulatory Reform of Railways* September 2010 ISBN 978-92-821-0283-1. The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. It is recognised that changing the organisational structure of railways might affect safety, particularly by increasing the number of operators, some of whom are new to the industry. Therefore the resources devoted to safety regulation have generally been substantially increased. The results are that safety has not been adversely affected

203. Office of Rail Regulation *Policy Framework for Investments – conclusions* October 2005

204. Office of Rail Regulation *Railway Safety Principles & Guidance Part 1* 2006. Intended to give guidance and advice to those involved in the design and construction of new and altered works, plant and equipment (which includes trains and other rail mounted vehicles)

205. Office of Rail Regulation *Railway Safety Principles & Guidance Part 2 Section A – Guidance on the Infrastructure* 2006. Supports and amplifies the Part 1 infrastructure safety principles by giving examples of established good practice. It even includes factors to consider about adjacent highways, etc.

206. Office of Rail Regulation *Railway Safety Principles & Guidance Part 2 Section B Guidance on Stations* 2006 It supports and amplifies the Part 1 infrastructure safety principles by giving examples of established good practice

207. Office of Rail Regulation *Railway Safety Principles & Guidance Part 2 Section C Guidance on Electrical Traction* 2006. Supports and amplifies the Part 1 infrastructure safety principles by giving examples of established good practice

208. Office of Rail Regulation *Railway Safety Principles & Guidance Part 2 Section D Guidance on Signalling* 2006. Supports and amplifies the Part 1 infrastructure safety principles by giving examples of established good practice

209. Office of Rail Regulation *Railway Safety Principles & Guidance Part 2 Section E Guidance on level Crossings* 2006. Supports and amplifies the Part 1 infrastructure safety principles by giving examples of established good practice

210. Office of Rail Regulation *Railway Safety Principles & Guidance Part 2 Section F Guidance on Trains* 2005. Supports and amplifies the Part 1 infrastructure safety principles by giving examples of established good practice

211. Office of Rail Regulation *Railway Safety Principles & Guidance – Guidance on Tramways* 2006

212. Office of Rail Regulation *HMRI Rail Guidance Document 2003-02 Non-standard Station Length selective door operation* 2006

213. Office of Rail Regulation *Fixed Track Charges Schedule for Control Period 4* December 2008. Includes the year by year Track Access charges for Arriva Trains Wales Franchise.

214. Office of Rail Regulation *Complaints about rail fares and car-park charges* June 2009

215. Office of Rail Regulation *Options for increasing competition in the Great Britain rail market – onrail competition on the passenger rail market and contestability in rail infrastructure investment* May 2010

216. Office of Rail Regulation *International cost efficiency benchmarking of Network Rail* September 2010

217. Office of Rail Regulation / Institute for Transport Studies, University of Leeds 2011 *Assisting Decisions Modelling the Impacts of Increased On-rail Competition Through Open Access Operation Final Report* 22 July 2011

218. Office of Rail Regulation 2012 *Consultation on Discounting for Cost Benefit Analysis involving private investment, but public benefit* 4 October 2011

219. Office of Rail Regulation 2011 *Consultation on the potential for increased on-rail competition – a consultation document* October 2011

220. Office of Rail Regulation 2012 *Consultation on a revised contractual regime at stations Proposed changes to the Station Access Conditions and Independent Station Access Conditions: emerging conclusions* March 2012

221. Office of Rail Regulation 2012 *Aligning incentives to improve efficiency – Update and further consultation* May 2012. Includes route-level efficiency benefit sharing (REBS) mechanism and exposing train operators to changes in Network Rail's costs at future periodic reviews

222. Office of Rail Regulation *ORR's Approach to Transparency – a consultation* July 2012. The consultation is based on the drive to make public services more accountable and more responsive to their users and to stimulate businesses to improve their performance and to innovate. It identifies that the current perceived lack of transparency breeds suspicion – that passengers are being "ripped off" and that taxpayers are not getting value for money – making it more difficult for the sector to demonstrate convincingly its commitment to delivering on efficiency and performance

223. Oxford University Press *Britain's Railways 1997-2005 – Labour's Strategic Experiment* Terry Gourvish 2008 ISBN 978-0-19-923660-2. Commissioned by the Strategic Rail Authority it focuses particularly on the role of the SRA and the roles of individuals John Prescott, Stephen Byers, Alistair Darling, Sir Alastair Morton and Richard Bowker. It covers the tensions with the existing railway institutions Railtrack/Network Rail, the operating companies and the economic regulator. While covering the rescue of the West Coast main line project, it speculates that it remains to be seen whether the winding up of the SRA and taking responsibility for strategy and funding back into the hands of the DfT has resolved the problems of the fragmented industry

224. Oxford University Press *Travel By Design – The Influence of Urban Form on Travel* Marlon G. Boarnet and Randall Crane 2001 ISBN 0-19-512395-6. It demonstrates the influence of the built environment on travel is more complex and misleading than often portrayed. It gives a better understanding of how urban design influences travel behaviour, while analysing the potential for land use planning to address transportation problems

225. Palgrave MacMillan *Work Identity at the End of the Line – Privatisation and Culture Change in the UK Rail Industry* Tim Strangleman 2004 ISBN 1-4039-3980-2. Analyses the experiences of privatisation. It is a cautionary tale about the perils of privatisation and a sociological paean to the stubborn resilience of both blue and white collar agency. It is described as a salutary lesson to those who go into the process of privatisation and restructuring without sufficient recognition of the value of the past and a warning before breaking up a culture simply because they do not understand it

226. Passenger Transport Executive Group/Steer Davies Gleave *What Light Rail can do for Cities – A Review of the Evidence Final Report* February 2005

227. Passenger Transport Executive Group *Advice Note for Promoters Considering a Light Rail Scheme* July 2009

228. Passenger Transport Executive Group *Transport Works – The case for investing in the city regions* Report 2011

229. Passenger Transport Executive Group *Thriving Cities – Integrated Land Use and Transport Planning* Dr Ian Taylor and Dr Lynn Sloman July 2011. The report covers the changing UK policy context and by the use of several case studies from different parts of the world concludes with three golden rules for developments

230. Platform 5 *Rail Freight Traffic in Wales* Today's Railways Issue 130 Platform 5 Publishing 2012

231. Pluto Press *In Government We Trust – Market Failure and delusions of Privatisation* Warwick Funnell, Robert Jupe, Jane Andrew 2009 ISBN 978-0-7453-2907-9 . Examines the promised benefits of transforming to the values and practices of the market within the context of market failures in services relinquished to the private sector by governments. It uses examples such as the collapse of Railtrack, the energy crisis in the USA and the Sydney water treatment scandal in Australia. It exposes the level of risk which remains with government after privatisation requiring them to resume responsibility when the private sector fails. It argues that the problems confirm there are some things only governments can and should do

232. Public Services International (PSI) 2002 *British Rail Privatisation What Went Wrong* Brendan Martin May 2002

233. Public World *Railway privatisation through concessions – The origins and effects of the experience in Latin America* A report for the International Transport Workers' Federation Brendan Martin 2002

234. Rail Safety & Standards Board T633: *Study on further electrification of Britain's railway network* July 2007. Includes original positive business case for electrification to Swansea.

235. Random House Business Books *Britain for Sale – British Companies in Foreign Hands – The Hidden Threat to our Economy* Alex Brummer 2012 ISBN 978-1-847-94075-9. Up to date with the German State Railway taking over the majority of rail services in Wales and covers the aspect that "the British Taxpayer is in effect subsidizing the profits of foreign owned franchises" and also includes the controversy around the recent Train Building contracts

236. RDS *Progressive Electrification of the Railways of Wales* Railfuture Wales 2009

237. RDS *Growing Britain's Railways* Part 1 Railfuture 2010

238. RDS *Irish Ferry services and Rail Connections* Railfuture 2011

239. RDS *Growing Britain's Railways* Part 2 Railfuture 2012

240. Routledge *Integrated Transport – From Policy to Practice* Moshe Givoni & David Banister 2010 ISBN 978-0-415-54893-9. Provides an in-depth analysis of what is integration, why is it important, why is it so hard to achieve. It provides a better understanding of the subject, what should be strived for, what is realistic to expect and how to move forward towards a more integrated provision of transport infrastructure services and management

241. SEWTA *Car parking assessment – Gwent and Vale of Glamorgan Report* March 2010. This study evaluates the potential to expand and create car parking capacity at stations in the SEWTA region

242. SEWTA *Regional Transport Plan* March 2010

243. SEWTA *Abergavenny-Newport Rail Corridor Option Development and Appraisal* March 2011 and SEWTA Abergavenny Newport Rail Corridor Option Development and Appraisal Technical Appendices March 2011

244. SEWTA *Chepstow Rail Corridor Final Report* April 2011 and SEWTA *Chepstow Rail Corridor Final Report Technical Appendices* April 2011 A number of possible future improvements along the Chepstow corridor were considered in this report. These include general improvements to the existing stations (e.g. CIS, CCTV, parking and interchange), a new station at Llanwern, and frequency enhancements of stopping CrossCountry trains at Chepstow, an additional train every two hours (Cardiff-Cheltenham), and an additional train every hour (Cardiff-Chepstow)

245. SEWTA *Severn Tunnel Junction Final Report* April 2011. The purpose of this study is to develop feasibility proposals for improvements to passenger interchange at Severn Tunnel Junction station which have the support of the relevant stakeholders

246. SEWTA *Chepstow Interchange Final Report* July 2011. The purpose of this study is to develop feasibility proposals for improvements to passenger interchange at Chepstow station which have the support of the relevant stakeholders

247. SEWTA *Rail Strategy Review and Roll Forward Study Revised Final Report* October 2011. The report was issued in June 2011 54 pages long with a 220 page Appendix which was not made public owing to confidentiality agreement with Arriva Trains Wales. In September 2011 an 8 page version was submitted and approved by the SEWTA Board. This final 136 page version was issued a month later and appears to include some of the suppressed detail from the original Appendix

248. SEWTA *Regional Transport Plan Delivery Plan 2012-13* February 2012. The SEWTA 2012/13 Final Delivery Plan has been developed on the basis of the Regional Transport Plan, relevant national/regional strategies, the Welsh Government's Delivery Plan Guidelines 2012/13 and written and verbal feedback to the SEWTA 2012/13 Draft Delivery Plan submitted to the Welsh Government in November 2011

249. SPUTNIC *Public Transport Integration* 2009. SPUTNIC (Strategies for Public Transport in Cities) is a project funded by the European Commission under the 6th Framework Programme. It is dedicated to challenges faced by local and regional public transport systems in transition. These challenges include the emergence of a competitive environment, changing institutional frameworks and increasingly scarce financial resources. It seeks to help make public transport systems more attractive and efficient by providing: support to stakeholders to anticipate and prepare for emerging challenges; an overview of state-of-the-art knowledge and research; and specific guidelines and practical tools

250. SPUTNIC *Strategies for Public Transport in Cities* 2009 with the following detailed reports:

SPUTNIC 2007 *Strategies for Public Transport in Cities – Challenges of the Public Transport Sector* June 2007

SPUTNIC 2008 *Strategies for Public Transport in Cities – State of the Art Report 1 Introduction* May 2008

SPUTNIC 2008 *Strategies for Public Transport in Cities – State of the Art Report 2 Market Organisation* May 2008

SPUTNIC 2008 *Strategies for Public Transport in Cities – State of the Art Report 3 Customer Relations and Marketing* May 2008

SPUTNIC 2008 *Strategies for Public Transport in Cities – State of the Art Report 4 Corporate Management* May 2008

SPUTNIC 2008 *Strategies for Public Transport in Cities – State of the Art Report 5 Equipment and Operational Aspects* May 2008

SPUTNIC 2008 *Strategies for Public Transport in Cities – State of the Art Report 6 Conclusions* May 2008

SPUTNIC 2008 *Strategies for Public Transport in Cities – State of the Art Report 7 List of Acronyms and Abbreviations* May 2008

251. Sustainable Development Commission *Fairness in a Car-Dependent Society* March 2011

252. SWWITCH *Regional Transport Plan – Delivery Plan Summary 2011-12*

253. SWWITCH *Interchange Walking, Cycling and Signage Audit- Final Report* April 2011

254. SWWITCH *Travel pattern Research Report – Household Travel Survey* March 2011. In total, 1550 completed surveys were received across 124 sample points. A 50% response rate was achieved. The number of questionnaires received from each of the study areas exceeded the targets set and the area and demographic proportions generally mirrored that of the population

255. Taylor & Francis Transport Review 2004 *Privatisation of Rail and Tram Services in Melbourne – What went wrong* Paul Mees 2004

256. Taith *North Wales Rail Strategy Study* April 2009

257. Taith *North Wales Regional Transport Plan* 30 September 2009

258. Tiefbauamt *Eine Dienstabteilung des Tiefbau- und Entsorgungsdepartements - Strategies for successful urban transport delivery: Zurich's Transport Policy* Ruedi Ott, Head of Transport Planning, City of Zurich 10 January 2011

259. TraCC *Final Regional Transport Plan* September 2009

260. TraCC *Interchanges – Study of Urban and Rural Interchanges* February 2010

261. TraCC *TraCC Rail Utilisation Study – Final Report* April 2010

262. TraCC *Regional Transport Delivery Plan for 2012-13* November 2011

263. Transportation Research Record 1361 *Planning and Design of Park & Ride Facilities for the Calgary Light Rail Transit System* Dan Bolger, David Colquhoun, John Morrall 2006

264. Transportation Technology and Policy Department, University of California *The re-regulation of public transport: alternative approaches to planning in Chile and Britain* Charles Rivasplata 2003

265. University College London *The Myth of Travel Time Saving* David Metz 20 August 2007. The idea that the main benefit of improvements to transport infrastructure is the saving of travel time has been central to transport economic analysis. There is, however, little empirical evidence to support this proposition

266. University of Cambridge *The Restructuring and Privatisation of British Rail –Was it really that bad* Michael G. Pollitt, Andrew S. J. Smith November 2001

267. University of Essex *Privatisation and Franchising of British Train Operation and the derailment of the GNER* Carmen A Li & John Stittle 2007. It identifies the main problems inherent in the franchising process and which specifically contributed to the collapse of GNER. In particular it argues that the fragmented structure of asset ownership, the lack of coordination and investment incentives and flaws in the franchise method itself explain the demise of GNER and have undermined the objectives of privatisation

268. University of Westminster 2006 *Competition in Public Transport in Great Britain* Peter White July 2006. Experiences from competitive tendering and franchising. Contradictions between competition policy and wider transport policies remain to be resolved

269. Verso *Off the Rails – Britain's Great Rail Crisis – Cause, Consequences & Cure* Andrew Murray 2001 ISBN 1-85984-640-8. It traces back the problems on the railway to the decision to privatise the system and examines the way the necessary legislation was forced through Parliament. The break up into more than 100 pieces and the legacy of this approach today, the squabbling of the companies about their own interests whilst regularly failing to serve those of the public

270. Welsh Government *Wales: A Vibrant Economy The Welsh Government's Strategic Framework for Economic Development* November 2005

271. Welsh Government *Wales Transport Strategy Connecting Wales* July 2006

272. Welsh Government *Smarter Choices Wales* February 2007

273. Welsh Government *Planning Policy Wales - Technical Advice Note 18: Transport* March 2007

274. Welsh Government/Department for Transport *Wales Rail Planning Assessment* 2007

275. Welsh Government *North-South Links the Key to 21st Century One Wales* Ieuan Wyn Jones National Assembly for Wales at 3pm, Tuesday 2 October 2007.

276. Welsh Government Enterprise and Learning Committee *Planning for future railway provision* EL(3) 10-07 (p4) Annex 1 : 14 November 2007

277. Welsh Government One Wales *Connecting the Nation – The Wales Transport Strategy* April 2008

278. Welsh Government *One Wales – Connecting the Nation – The Wales Freight Strategy* May 2008

279. Welsh Government/Policy Options *Development & Appraisal For Reducing Greenhouse Gas Emissions in Wales* May 2008

280. Welsh Government *People, Places, Future – Wales Spatial Plan Update* 2008

281. Welsh Government *Welsh Transport Planning and Appraisal Guidance* WelTAG June 2008

282. Welsh Government Enterprise and Learning Committee *Future Railway Infrastructure in Wales* January 2010

283. Welsh Government *Rail Forward Programme* December 2008

284. Welsh Government *Climate change strategy – Programme of action* June 2009

285. Welsh Government *Ministerial Advisory Group Phase 2 Report on Transport* July 2009. While generally not for rail based on costs it does raise issues such as that there are few people in the Assembly Government, the regional transport consortia and local authorities with the appropriate skill-sets to take forward the transport agenda in Wales. With regard to the existing rail franchise that priority should be given to tackling unsustainable revenue commitments which might involve a renegotiation of the franchise agreement with Arriva Trains Wales or the outright purchase of railway rolling stock

286. Welsh Government *Welsh Government response to the Ministerial Advisory Group Phase 2 Report on Transport* July 2009. Includes rejection of closing rural lines in preference to substituting bus services

287. Welsh Government *Sustainable Transport and Tourism Task and Finish Group – Rail Services and Tourism* 27 April 2009

288. Welsh Government *Enterprise and Learning Committee – Future Railway Infrastructure in Wales – Written Government Response to Committee's Recommendations* by Ieuan Wyn Jones, Deputy First Minister and Minister for the Economy & Transport March 2010

289. Welsh Government *National Transport Plan* March 2010

290. Welsh Government *Sustainability Committee – Inquiry into Carbon Reduction in Wales* October 2010

291. Welsh Government 2011 *Research Service Quick guide – The Operation of the Railways in Wales* May 2011. A concise guide covering all aspects of rail in Wales. Includes the fact that consideration is being given to the Not for Dividend option for the future of the Wales and Borders Franchise when this expires in 2018

292. Welsh Government 2011 *Research Service Quick guide – Concessionary Travel* May 2011. While fundamentally about the bus concessions, it includes the Welsh Government concessionary fares rail pilot schemes.

293. Welsh Government *Prioritised National Transport Plan* December 2011

railfuture

Railfuture membership and activities

The membership rate for Railfuture for 2013 is £18 per year, family membership being £18 plus £2 for each additional person. There is a reduced rate option for pensioners, students and unemployed of £14 per year. Membership includes the Railfuture quarterly publication *Railwatch* and membership of your local branch

If you would like to join, please contact Railfuture Membership, 6 Carral Close, Lincoln LN5 9BD or email: membership@railfuture.org.uk

Or you can join online at www.railfuture.org.uk/join

Further information about the campaigning activities of Railfuture can be found at
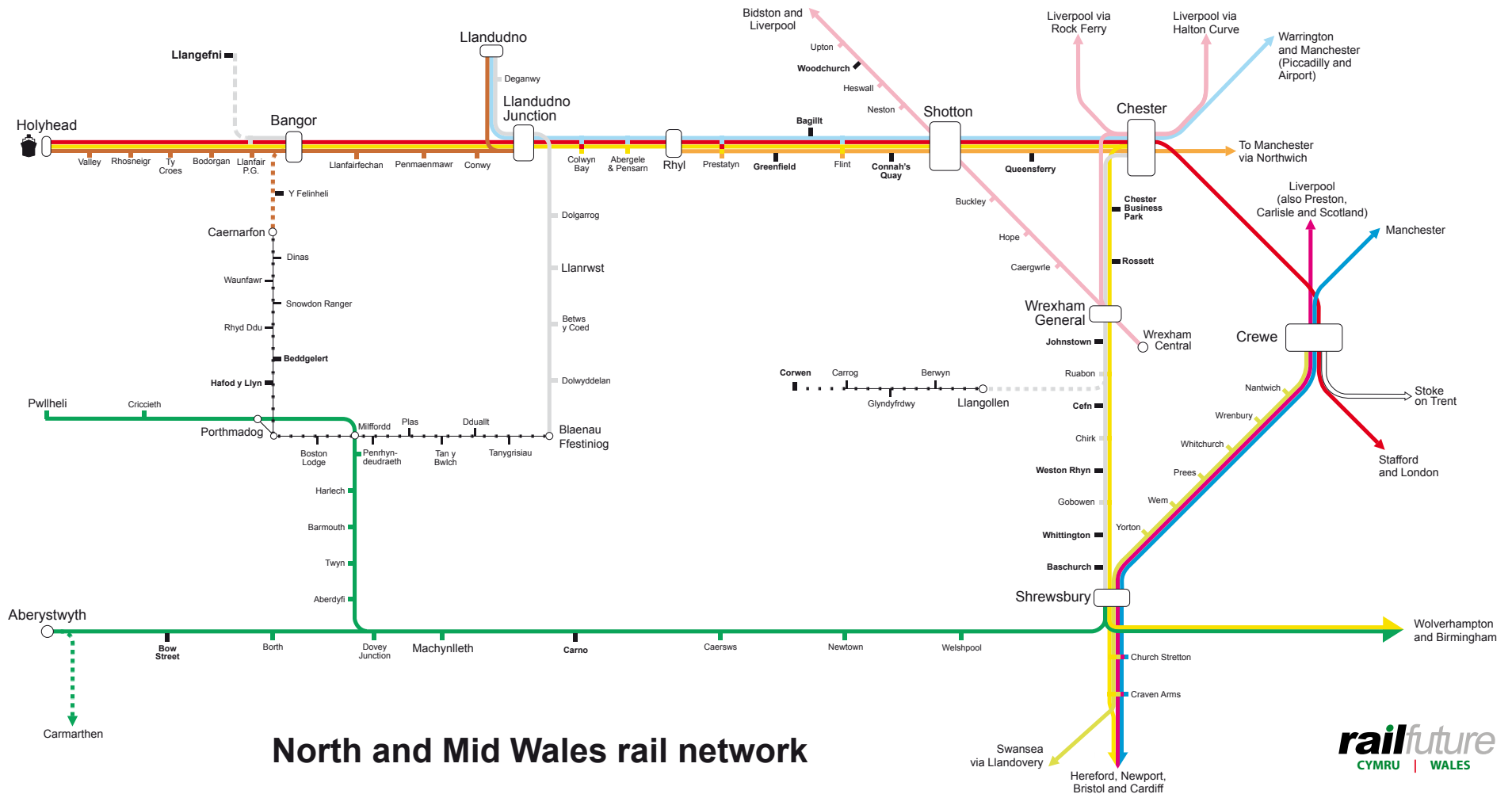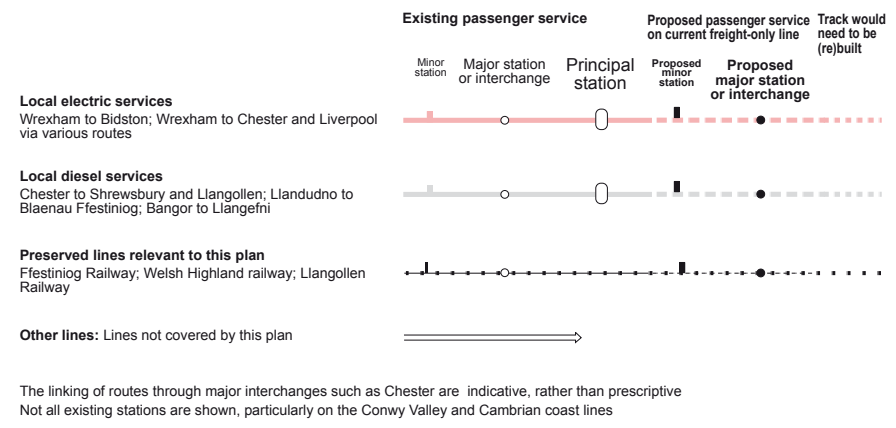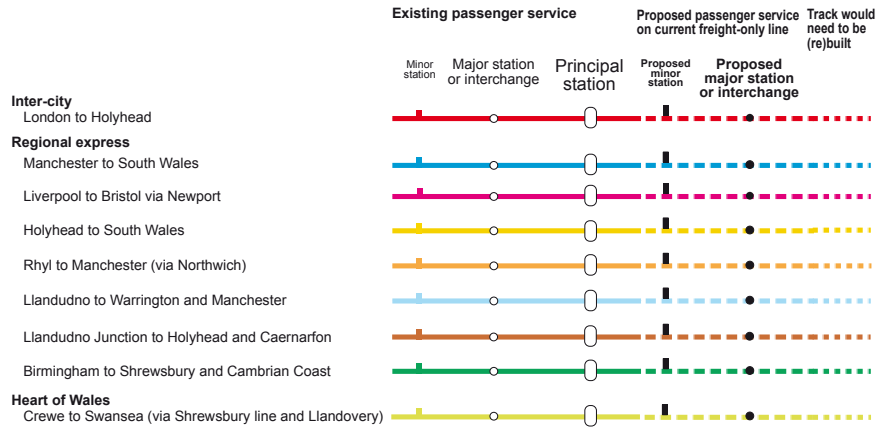**www. railfuture.org.uk**

twitter: @Railfuture

twitter: @Railwatch

twitter: @RailfutureWales

North and Mid Wales rail network

Legend (left)

Existing passenger service — Minor station / Major station or interchange / Principal station

Proposed passenger service on current freight-only line — Proposed minor station / Proposed major station or interchange

Track would need to be (re)built

Inter-city
London to Holyhead

Regional express
Manchester to South Wales
Liverpool to Bristol via Newport
Holyhead to South Wales
Rhyl to Manchester (via Northwich)
Llandudno to Warrington and Manchester
Llandudno Junction to Holyhead and Caernarfon
Birmingham to Shrewsbury and Cambrian Coast

Heart of Wales
Crewe to Swansea (via Shrewsbury line and Llandovery)

Legend (right)

Existing passenger service — Minor station / Major station or interchange / Principal station

Proposed passenger service on current freight-only line — Proposed minor station / Proposed major station or interchange

Track would need to be (re)built

Local electric services
Wrexham to Bidston; Wrexham to Chester and Liverpool via various routes

Local diesel services
Chester to Shrewsbury and Llangollen; Llandudno to Blaenau Ffestiniog; Bangor to Llangefni

Preserved lines relevant to this plan
Ffestiniog Railway; Welsh Highland railway; Llangollen Railway

Other lines: Lines not covered by this plan

The linking of routes through major interchanges such as Chester are indicative, rather than prescriptive
Not all existing stations are shown, particularly on the Conwy Valley and Cambrian coast lines

Map labels

Bidston and Liverpool
Liverpool via Rock Ferry
Liverpool via Halton Curve
Warrington and Manchester (Piccadilly and Airport)

Llandudno
Deganwy
Llandudno Junction

Upton
Woodchurch
Heswall
Neston
Shotton
Chester

Llangefni
Bangor
Bagillt

Holyhead
Valley Rhosneigr Ty Croes Bodorgan Llanfair P.G.
Llanfairfechan Penmaenmawr Conwy
Colwyn Bay Abergele & Pensarn Rhyl Prestatyn Greenfield Flint Connah's Quay Queensferry
To Manchester via Northwich

Y Felinheli
Caernarfon
Dinas
Waunfawr
Snowdon Ranger
Rhyd Ddu
Beddgelert
Hafod y Llyn

Dolgarrog
Llanrwst
Betws y Coed
Dolwyddelan
Blaenau Ffestiniog

Buckley
Hope
Caergwrle

Chester Business Park
Rossett

Liverpool (also Preston, Carlisle and Scotland)
Manchester

Pwllheli Criccieth Porthmadog
Milffordd Plas Dduallt
Boston Lodge Penrhyndeudraeth Tan y Bwlch Tanygrisiau

Wrexham General
Wrexham Central
Johnstown

Crewe
Nantwich
Wrenbury
Whitchurch
Prees
Wem
Yorton

Stoke on Trent
Stafford and London

Corwen Carrog Berwyn Ruabon
Glyndyfrdwy Llangollen
Cefn
Chirk
Weston Rhyn
Gobowen
Whittington
Baschurch

Harlech
Barmouth
Twyn
Aberdyfi

Aberystwyth
Bow Street Borth Dovey Junction Machynlleth Carno Caersws Newtown Welshpool

Shrewsbury
Wolverhampton and Birmingham
Church Stretton
Craven Arms

Carmarthen

Swansea via Llandovery
Hereford, Newport, Bristol and Cardiff

railfuture
CYMRU | WALES

railfuture

By joining Railfuture you will help the campaign for a railway that is better for everyone and can take the pressure off our overloaded roads.

The more members we have the stronger the voice of Railfuture can be. We are also keen to have on board people who want to play an active role.

We are happy to send you details of local rail passenger groups in your area. There are over 160 nationwide, most of them affiliated to Railfuture.

We have a range of membership plans with prices as low as £14 per annum.

Simply fill in the form below and return with your payment to us.

Businesses and corporate members, for details of rates, please email membership@railfuture.org.uk

www.railfuture.org.uk

Yes I want to join Railfuture!

Please return the application form and payment to
Railfuture Membership, 6 Carral Close, Lincoln LN5 9BD
Cheques payable to Railfuture. Email: membership@railfuture.org.uk

NAME

ADDRESS

POSTCODE
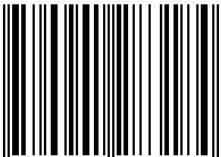
EMAIL ADDRESS

TELEPHONE   DATE OF BIRTH

Where did you hear about Railfuture?   Advert   Friend   Newspaper   Radio   TV   Website
20140106   Delete as appropriate

ISBN 978-0-901283-18-4

MEMBERSHIP PLAN

❏ **INDIVIDUAL** £18

❏ **FAMILY** £18 (+£2 per person)

❏ **OAP/STUDENT/UNWAGED** £14

Delete as applicable

DONATION £

TOTAL £

Cheques payable to Railfuture

railfuture