

Archwilydd Cyffredinol Cymru
Auditor General for Wales

Welsh Government investment in rail services and infrastructure



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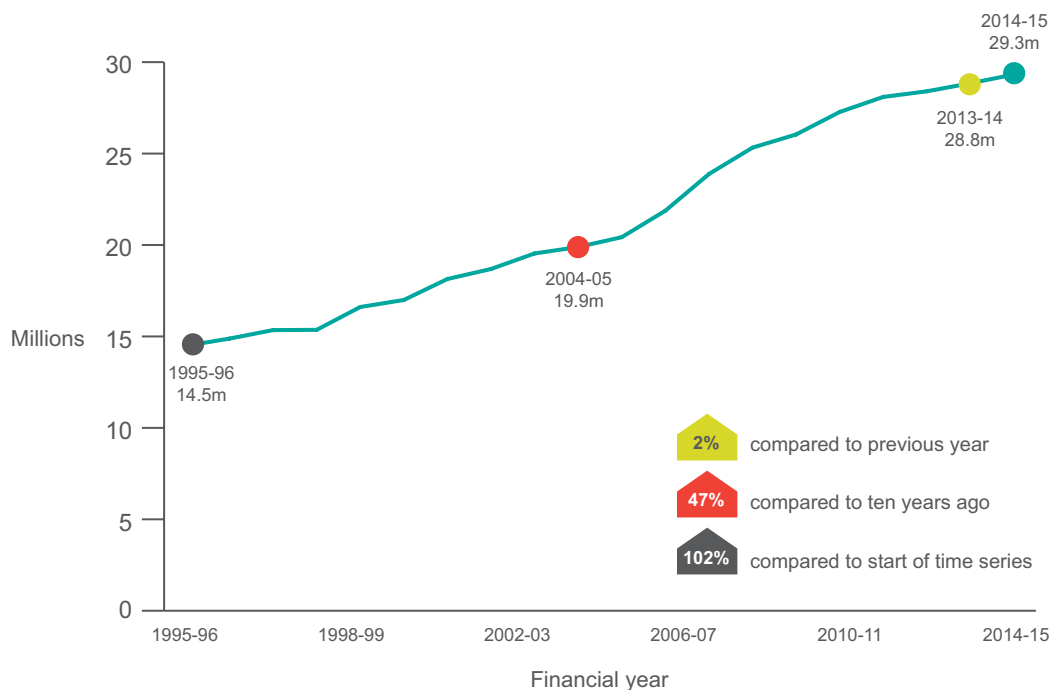
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Summary



- 1 The passenger rail network in Wales encompasses around 1,700 kilometres of railway and 221 stations. A number of different metrics demonstrate the increasing popularity of rail travel. For example, the total number of journeys for Wales has more than doubled since 1995-96 and reached 29.3 million in 2014-15 ([Figure 1](#))¹.

Figure 1 – Rail passenger journeys in Wales, 1995-96 to 2014-15



Note: Passenger journeys are defined as, 'A passenger journey ... is based on the origin and destination named on the ticket. For example, a journey from London to Halifax would be classed as one journey despite the need to change trains.'

Source: Office of Rail and Road, **Regional Rail Usage (Passenger Journeys) 2014-15 Annual Statistical Release**, January 2016

- 2 In what are in practice a complicated set of arrangements, a number of organisations share responsibilities for rail services in Wales, including the UK Government, Network Rail, the Office of Rail and Road as the independent regulator, and relevant train operating companies ([Figure 2](#))². The Railways Act 2005 gives the Welsh Government some, albeit limited, powers over the Wales and Borders rail franchise and rail infrastructure. The Wales and Borders franchise includes commuter routes into major cities and towns, more rural routes, and a north-south link via the Marches line on the border between Wales and England ([Appendix 2](#)). The current 15-year franchise agreement, with Arriva Trains Wales, runs to 2018.

¹ The Office of Rail and Road also collates estimates of the number of passengers travelling to and from each station (entries and exits). That data shows that passenger use in Wales has increased every year since 2005-06 with an estimated 49 million station entries and exits in 2014-15.

² Greater detail on the roles and responsibilities of Network Rail can be found in the National Audit Office's **A short guide to Network Rail**, July 2015. Information on the roles and responsibilities of Network Rail and others in planning, such as the Department for Transport, can be found in the National Audit Office's **Planning and delivery of the 2014-2019 rail investment programme**, September 2015.

Figure 2 – Summary of organisational responsibilities for planning, funding and delivering rail services and infrastructure projects

UK Government Department for Transport	Oversees the strategic direction of rail services, and funds most of the infrastructure projects, across the rail network in England and Wales. In the 'High Level Output Specification', the Secretary of State for Transport sets out the railway investment priorities for a five-year 'control period'. In July 2012, the Department for Transport published the current High Level Output Specification covering England and Wales for the control period from 1 April 2014 to 31 March 2019. In the 'Statement of Funds Available', the Secretary of State for Transport identifies the public funds likely to be available to secure delivery of these projects. While the Department for Transport is ultimately responsible for producing the High Level Output Specification, others, such as the Office of Rail and Road, are also involved in its development.
Network Rail	Network Rail owns, maintains and develops Britain's railway network, including track, signalling, bridges, tunnels and 18 key stations. Network Rail is funded through grants from the Department for Transport and Transport Scotland, from commercial property income and from track access charges from train and freight operating companies. Legally, Network Rail is the statutory undertaker for the rail network and only it has legal rights to carry out certain works and asset-protection services. In November 2011, Network Rail Wales was created to manage the rail infrastructure in Wales; enable Network Rail to be more responsive to the needs of Wales and ensure greater local accountability.
Office of Rail and Road	The Office of Rail and Road is the independent safety and economic regulator for Britain's railways. The organisation ensures that the network operates safely, reliably and provides value for taxpayers and customers, holds Network Rail to account and makes sure that train and freight operating companies have fair access to the rail network, and that the market is competitive and fair.

Welsh Government	Prior to the Welsh Government taking over management of the Wales and Borders franchise in 2006, the Welsh Government and the Department for Transport signed a Joint Parties Agreement which included definitions of Wales-only, Welsh and English services. A Welsh service is a service that begins, ends or makes at least one scheduled stop in Wales. The Joint Parties Agreement lists four routes as being English services: Hereford to Shrewsbury; Shrewsbury to Crewe; Birmingham New Street to Shrewsbury; and, Crewe to Chester. The Department for Transport pays a subsidy to Arriva Trains Wales for the English services. From its block grant provided by the UK Treasury, the Welsh Government pays a subsidy to Arriva Trains Wales for the Wales-only and Welsh services. The Department for Transport transferred additional funding to the Welsh Government in 2006-07 and 2007-08, after which point this funding was consolidated into the annual block grant. For all franchise services, including the English services, the Welsh Government is also responsible for making any eligible performance incentive payments. When it transferred additional funding to the Welsh Government in 2006-07, the Department for Transport did not make provision for any level of performance incentive payments. The Welsh Government is also able to modify the Wales and Borders franchise agreement to provide services over and above the franchise specification at its own cost. In November 2014, the Welsh and UK governments reached an agreement in principle for executive rail franchising functions to be devolved to the Welsh Government effective from January 2017. However, the original target date has been replaced by agreement to transfer franchising functions later in 2017. The two governments are working together to enable the Welsh Government to achieve the successful procurement of the next Wales and Borders franchise from October 2018. Under the Railways Act 2005, the Welsh Government can contribute funding to support the delivery of planned Network Rail projects and it can commission its own projects for delivery by Network Rail or potentially by other contractors.
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Train Operating Companies	As well as Arriva Trains Wales, which operates the Wales and Borders franchise, three other train operating companies operate franchises with routes in Wales (in addition to their services in England): • Great Western Railway (London Paddington to Swansea and Carmarthen, Cardiff to South West England); • Virgin (London Euston to Holyhead, Shrewsbury and Wrexham); and • CrossCountry (Nottingham to Cardiff via Birmingham). These franchises include Welsh services and, as such, the Secretary of State for Transport must consult the Welsh Government regarding these franchise agreements. The Welsh Government does not have any other formal role in the franchises covering these routes. All powers and responsibilities remain with the Department for Transport. However, the Welsh Government can commission infrastructure work to support improved services on the Welsh elements of these routes which also service the Wales and Borders franchise. For example, the Welsh Government is funding improvements to north Wales stations served by the Virgin London Euston to Holyhead route (Flint, Llandudno Junction and Rhyl), and Port Talbot Parkway station served by the First Great Western London Paddington to Swansea route.
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Source: Wales Audit Office

- 3 The Welsh Government has issued a number of documents setting out how it intends to improve rail services, infrastructure and delivery arrangements to implement the aims set out in its 2008 transport strategy³. Most recently, the July 2015 **National Transport Finance Plan** set out the Welsh Government's investment plans for all modes of transport for the five-year period from 2015, and it includes a range of interventions to improve rail services across Wales. In some cases, the delivery timescale extends beyond the plan period.
- 4 Within the overall framework set by the 2008 strategy, the Welsh Government's rail priorities have changed over time. The recent policy focus has been to promote connectivity between various key locations to stimulate the economy and to create jobs. Previously, there had been a focus on east-west links and, before that, north-south links. In March 2016, the National Assembly's Enterprise and Business Committee published a report on **Priorities for the future of Welsh Rail Infrastructure**. The report set out the Committee's views on priorities for future investment, with a view to influencing future decision-making.

³ Welsh Government, **One Wales: Connecting the Nation – the Wales Transport Strategy**, May 2008.

- 5 On behalf of the Auditor General, Wales Audit Office staff have examined whether the Welsh Government has put in place effective arrangements to support the development and delivery of rail infrastructure and services in Wales. This report considers issues relating to the Welsh Government's powers and wider influence in respect of rail infrastructure and services, and related Welsh Government investment. The report also considers the performance of services on the Wales and Borders franchise and plans for the procurement of Wales and Borders services from 2018. [Appendix 1](#) provides more detail about the scope of our work and our audit methods.
- 6 **We concluded that within the constraints of its limited powers, the Welsh Government has been proactive in seeking to influence funding decisions by others and has made a significant investment to improve rail infrastructure and services over recent years. The Welsh Government believes that the additional powers it expects to gain in 2017 to procure the next Wales and Borders franchise will help it to ensure that the next franchise meets its priorities and delivers further improvements in service performance. However, the procurement presents a number of risks, challenges and opportunities for the Welsh Government with some key decisions still to be made.** The following paragraphs provide a brief overview of our key findings.
- 7 **The Welsh Government has been seeking to extend its limited powers and strategic influence over rail services in Wales.** Ahead of the next franchise commencing in 2018, during 2017 the Welsh Government expects to gain powers to procure the next Wales and Borders franchise, which it expects will help it to ensure that the franchise meets the long-term needs of Wales. The Welsh Government is looking for the new franchise to deliver a range of positive outcomes for passengers, the economy and the environment.
- 8 The Welsh Government has sought, but does not currently have, the same powers to determine rail-infrastructure projects as the UK and Scottish governments. Nevertheless, the Welsh Government is actively involved in the planning process for the next round of infrastructure investment across England and Wales from 2019-2024.
- 9 The Welsh Government also has less power over Network Rail than the UK and Scottish governments as regards the action that it can take in the event of problems with project delivery. Nonetheless, the Welsh Government could have acted sooner to strengthen its oversight and contractual arrangements for the projects it funds, although the establishment of a joint Network Rail and Welsh Government Project and Programme Management Board has been a positive development. The Welsh Government has funded two infrastructure projects using contractors other than Network Rail but is looking to apply this approach more widely, particularly to deliver the South Wales Metro infrastructure work.

- 10 **Between April 2011 and March 2016, the Welsh Government contributed around £362 million to wider public-sector spending on Welsh railways, and did not do enough to evaluate the benefits of its investment.** In this period, the Welsh Government invested £109 million in enhanced services over and above the core Wales and Borders franchise cost of £617 million. The Welsh Government has been required to pay £27 million to Arriva Trains Wales in contractual performance-incentive payments, net of penalty payments.
- 11 The Welsh Government also invested £226 million in rail-infrastructure enhancement projects, including funding from the European Union's structural funds. Not including this Welsh Government and European funding, Network Rail invested £1.4 billion on rail infrastructure in Wales between April 2011 and March 2016. Network Rail mainly invested this funding in renewals to existing infrastructure (£882 million) and maintenance (£301 million), with £235 million invested on enhancements. The Welsh Government has built on planned work by Network Rail to help to deliver further infrastructure and service improvements.
- 12 The Welsh Government had not adopted a systematic approach to evaluate the value for money of its investment in rail services. A number of previous reviews have highlighted opportunities to strengthen monitoring and evaluation and the Welsh Government is in the process of strengthening these arrangements.
- 13 As set out in the **National Transport Finance Plan**, the Welsh Government currently intends to focus its own future medium-term rail-infrastructure investment on the South Wales Metro Phase 2 projects. Welsh Government officials stressed to us that the Plan is a 'live' document and will be updated periodically. The Metro Phase 2 scheme builds on the Valley Lines Electrification scheme and has a total estimated cost of around £734 million. The Welsh Government intends to bid for £125 million of European Union funding available through the European Regional Development Fund to support its own investment, which it has been estimated will cost around £609 million at 2018 prices on top of the UK government contribution of £125 million. Since the referendum result on membership of the European Union, the First Minister has sought confirmation that Wales should continue to be able to access this funding, or be able to access equivalent funding from the UK Government.
- 14 **Since 2006, the performance of the Wales and Borders franchise has improved, although comparisons with other UK rail services show a mixed performance.** Arriva Trains Wales received the third-highest subsidy of any UK train operating company to operate the current Wales and Borders franchise between 2011-12 and 2014-15, although a high subsidy is not uncommon for regional franchises that provide rural services. Arriva Trains Wales has largely met the annual performance targets set under the franchise agreement, even as the target has become more demanding. Passenger satisfaction with Arriva Trains Wales has improved in some respects. However, comparisons with other UK rail services show a mixed performance.

- 15 **The procurement of the Wales and Borders services from 2018 presents new risks, challenges and opportunities for the Welsh Government with some key decisions still to be made.** The Welsh Government aims to let an integrated Wales and Borders and Metro contract in 2017 with an estimated value of £3.5 billion. Once procured, this will be the first such integrated contract in the UK. The Welsh Government considers that procuring an integrated contract should offer it the opportunity to manage better interdependencies between rolling stock procurement, infrastructure works and service provision under the franchise. Its view is also that an integrated contract will deliver a step change in quality, including faster journey times, improved reliability and less overcrowding. However, the recent example of the InterCity West Coast franchise in England highlights some of the inherent risks in the procurement process for the new Wales and Borders services. The length of the franchise – likely to be 15 years – makes it particularly important that the Welsh Government gets the specification of the contract right.
- 16 The Welsh Government has established the Transport for Wales company and a strategic advisory board to manage and advise on the procurement. The competitive dialogue approach by the Welsh Government means that it has not specified the solution up-front, rather it is working with the industry to design a feasible, fit-for-purpose, solution. The Welsh Government has not yet determined the operating model for the new services.
- 17 The Welsh and UK governments have yet to agree some details of the financial settlement for the next Wales and Borders franchise and wider budget constraints will inevitably be a consideration in decisions about the affordability and overall prioritisation of enhanced services in the medium-term. The approach to managing and acquiring rolling stock will be decided as part of the competitive dialogue process for the franchise procurement. Rolling stock is a particular issue because of regulations, widely known as the Persons with Reduced Mobility Regulations, which mean that all trains must be accessible by 1 January 2020.

Recommendations

In response to previous reviews, the Welsh Government is already taking action to address weaknesses in its arrangements for evaluating the impact of its investment in rail services and infrastructure. In March 2015, the Welsh Government issued a protocol for the post-project evaluation of its rail and Metro investment programme. In framing our own recommendations, we have also taken account of the recommendations made by the National Assembly's Enterprise and Business Committee in its previous reports on rail-related matters.

- R1 The Welsh Government's contractual relations with Network Rail have some limitations, as they are based on template contracts designed principally to manage the relationship between Network Rail and private-sector funders. However, the Welsh Government can give greater assurance about the financing of its contracts than a private-sector investor can (paragraphs 1.33-1.39). **We recommend that where the Welsh Government wishes Network Rail to deliver a project it is funding, it should seek to develop bespoke contracts. Bespoke contracts should better protect the Welsh Government's interest by recognising the greater assurance that it can give about the financing of contracts as well as reflecting the circumstances and risks of individual projects.**
- R2 The Welsh Government is keen to deliver more projects through contractors other than Network Rail as it believes this approach will enable it to secure better value for money in particular taking forward its plans for the South Wales Metro. The Welsh Government has recently established a Memorandum of Understanding with Network Rail to help to deliver the procurement of the new Wales and Borders franchise and Metro (paragraphs 1.40-1.47). **We recommend that as the procurement progresses the Welsh Government review the effectiveness of the Memorandum of Understanding and ensure that any lessons are applied to its ongoing relationship with Network Rail.**
- R3 South Wales Metro Phase 2 builds on the Valley Lines Electrification scheme and currently has a total estimated cost of around £734 million at 2018 prices (paragraphs 2.32-2.37). **Consistent with the recommendations in the Auditor General's January 2011 Major Transport Projects report, we recommend that the Welsh Government:**
- a **record information to track the performance of the Metro phase 2 projects at key stages of their delivery;**
 - b **incorporate the information needed to facilitate benchmarking project performance against projects in other parts of the UK;**
 - c **record all changes in project costs that occur through the lifecycle of the project; and**
 - d **record and share the reasons for any cost increases and delays to inform other Welsh Government transport projects.**

R4 In 2017, the Welsh Government aims to let an integrated contract for the Wales and Borders franchise and Metro with an estimated value of £3.5 billion. The Welsh Government has established the Transport for Wales company to specify and procure the integrated contract. The recent example of the InterCity West Coast franchise in England highlights some of the inherent risks in the procurement process (paragraphs 4.4 to 4.5). **We recommend that:**

- a **The relevant Welsh Government Audit and Risk Committee scrutinises the governance of the Transport Company and its progress in procuring the integrated Wales and Borders and Metro infrastructure contract and the related development of the approach to managing and acquiring rolling stock to enable it to comply with the requirement to make all trains accessible to persons with reduced mobility by 2020. To include the Audit and Risk Committee assuring itself that the Welsh Government is addressing in a timely manner the recommendations of the March 2016 Gateway review.**
- b **The Welsh Government should ensure that its project and risk management arrangements for the procurement have taken full account of relevant lessons and recommendations from recent National Audit Office reports on rail franchising and rail-infrastructure programmes, and related reports by the UK Parliament's Public Accounts Committee.**
- c **The Welsh Government should also actively engage with Department for Transport officials to implement the lessons from both successful franchise procurements and those that have been more challenging.**
- d **Alongside the procurement process, the Welsh Government should develop a mechanism which enables it to demonstrate the value for money of the franchise component of the new contract, when compared with the current and other franchises.**

R5 In its December 2013 report on the **Future of the Wales and Borders Rail Franchise**, the National Assembly for Wales' Enterprise and Business Committee made a number of recommendations about the franchising process. In its response to a number of the recommendations, the Welsh Government noted that it was not the franchising authority (paragraph 4.28). With the Welsh Government expecting to gain powers to procure the next Wales and Borders franchise during 2017, **we recommend that the Welsh Government's planning for the franchise takes into account the recommendations made by the Enterprise and Business Committee's 2013 inquiry into the Future of the Wales and Borders Rail Franchise.**

Part 1

The Welsh Government has been seeking to extend its limited powers and strategic influence over rail services in Wales

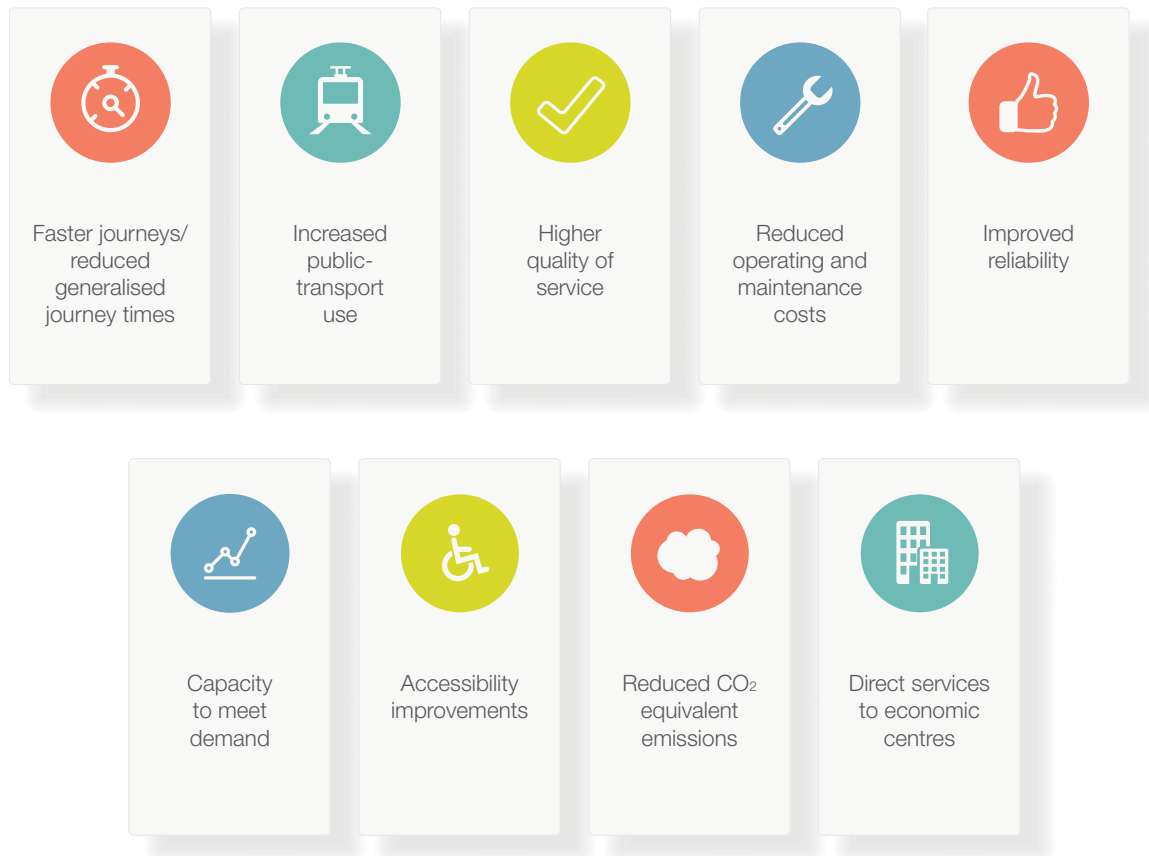


- 1.1 In this part of the report, we outline the new powers that the Welsh Government is expecting to gain over the Wales and Borders rail franchise, ahead of the next franchise commencing in 2018. We also consider the Welsh Government's role in the delivery of rail-infrastructure investment.

During 2017, the Welsh Government is expecting to gain powers to procure the next Wales and Borders franchise which it expects will help ensure that the franchise meets the long-term needs of Wales

- 1.2 In April 2006, under the terms of an agreement with the Department for Transport, the Welsh Government became responsible for the day-to-day management of the franchise. The Welsh Government has responsibility for the financial and performance management of passenger services covered by the franchise agreement.
- 1.3 In June 2011, the Welsh Government's **Programme for Government** contained a commitment to seeking further devolution of powers for railways. In November 2014, the UK and Welsh governments agreed in principle to devolve executive rail-franchising functions from January 2017, enabling the Welsh Government to have full responsibility for specifying and procuring future Wales and Borders rail franchises. To help meet the legislative timescale, the Welsh Government and the UK Government began to develop a Transfer of Functions order to transfer statutory powers and duties for relevant rail services to the Welsh Ministers.
- 1.4 More recently, the two governments have agreed that the transfer of functions will happen later in 2017. The transfer is dependent upon the two governments first agreeing an approach to dealing with cross border services, that is, whether these services remain within the Wales and Borders franchise or become part of other franchises (see also [paragraph 4.26](#)). The two governments are working together to reach agreement and enable the Welsh Government to achieve the successful procurement of the next Wales and Borders franchise from October 2018.
- 1.5 The Welsh Government intends to sign the contract for the new franchise during 2017, with the franchise becoming operational in October 2018, subject to a successful competition. We set out further details about the timescale for the procurement in [Part 4](#) of this report.

- 1.6 The Welsh Government considers that it is the most appropriate body to specify a franchise that will deliver its objectives and meet the long-term needs of Wales. The Welsh Government has identified the required outcomes that the new franchise must deliver:



The Welsh Government does not have the same powers to determine rail-infrastructure projects as the UK and Scottish governments

- 1.7 The Department for Transport determines the high-level objectives for rail and the large-scale infrastructure projects needed to deliver these objectives by producing a 'High Level Output Specification' covering England and Wales. The High Level Output Specification sets out railway-investment priorities for a five-year 'control period' and the public funds likely to be available to secure delivery of these projects. The UK Government's Secretary of State for Transport makes the final decision about what to include within the High Level Output Specification.
- 1.8 Unlike the Scottish Government, the Welsh Government does not have the powers to produce its own High Level Output Specification through which it could impose its priorities on Network Rail. The current arrangements mean that the Welsh Government can only seek to influence the Department for Transport to include projects in its High Level Output Specification. The Welsh Government considers that without its own High Level Output Specification, it is constrained in its efforts to deliver its high-level strategic rail and wider transport priorities⁴.
- 1.9 The current High Level Output Specification includes two projects in Wales, both of which are the result of joint working between the Welsh and UK governments:
 - a Great Western Mainline Electrification (London Paddington to Swansea)⁵; and
 - b Valley Lines Electrification, which has since been incorporated into the Welsh Government's South Wales Metro project (Box 1 on page 41)⁶.
- 1.10 The Welsh Government developed a Wales Improved Station Accessibility Programme as a candidate project for inclusion in the 2014-2019 High Level Output Specification, but the Department for Transport took the decision not to include the project. The Welsh Government has taken forwards these station improvements as part of its Wales Station Improvement Programme. Appendix 4 identifies the stations covered by the Wales Station Improvement Programme and the different funding sources – Welsh Government (including European Union funding) and Network Rail – for this programme⁷.
- 1.11 In March 2016, the then Minister for Economy, Science and Transport wrote to the UK Secretary of State for Transport expressing the Welsh Government's concerns about the level of Network Rail investment in enhancing the railway infrastructure in Wales. The Welsh Government has estimated that since 2011 the Wales Route has received one per cent of the funding spent by Network Rail on enhancing the rail infrastructure in England and Wales. In its view, this level of funding is inadequate for a number of reasons, for example, the Wales Route accounts for approximately 11 per cent of the total rail network in England and Wales.

⁴ Details about the Welsh Government's priorities are set out in its **National Transport Plan**, March 2010 and **National Transport Finance Plan 2015**, July 2015.

⁵ Electrification to Cardiff remains planned for completion within control period 5. However, electrification from Cardiff to Swansea has been rescheduled for completion in control period 6 (2019-2024) at the earliest.

⁶ The previous High Level Output Specification for England and Wales for the control period 1 April 2009 to 31 March 2014 led to one major project in Wales – the ongoing Cardiff Area Signalling Renewal scheme discussed in Case Study 3 on page 36.

⁷ The Department for Transport has funded some station improvements in Wales through its Access for All programme. Station improvements carried out under Access for All also include an element of Welsh Government funding (Appendix 4).

- 1.12 In the same letter, the Welsh Government also stated that were the Barnett formula to be applied to the total amount of enhancement funding available, the Wales Route would receive five per cent of the available funding, but in its view there were strong arguments for the Wales route to receive a considerably greater proportion of the funding than five per cent (for example, the reliability of the Wales route). The nature of the Barnett formula means that it does not apply in this respect. However, the Welsh Government has emphasised to us that it was making a point about the appropriate percentage of total Network Rail expenditure if calculated per head of population.
- 1.13 The Welsh Government called upon the Secretary of State to establish a ring fenced fund to take forward infrastructure enhancements on the Wales Route. The Secretary of State for Transport has yet to respond to the points raised by the Welsh Government. However, Department for Transport officials have emphasised to us that the most efficient way to allocate funds for the enhancement of the strategic rail network is to focus investment on stress points on the network where demand is forecast to exceed capacity, rather than to allocate funding on a pro-rata basis.
- 1.14 In March 2014, the Commission on Devolution in Wales⁸ recommended that the UK Government devolve funding of Network Rail in relation to the Wales network. As there was no UK-level cross-party consensus, the transfer of powers over rail infrastructure was not included within the 2015 'St David's Day Agreement' between the UK and Welsh governments. In evidence to the National Assembly's Enterprise and Business Committee in September 2015, the UK Government's Department for Transport stated that there was no intention on its behalf to re-open discussions about devolution of funding of Network Rail.

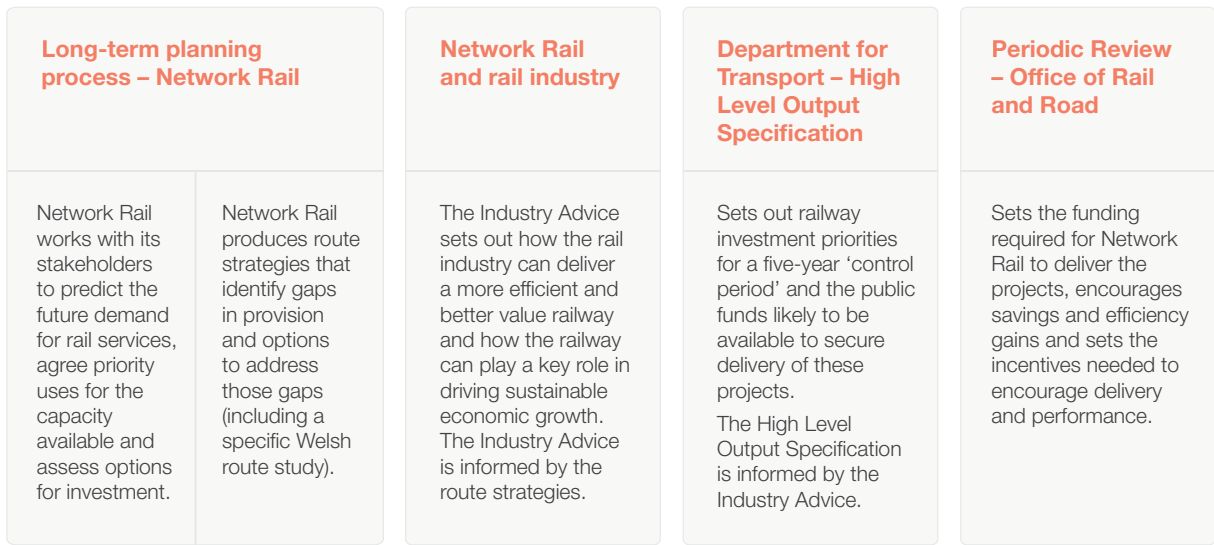
⁸ Commission on Devolution in Wales, **Empowerment and Responsibility: Legislative Powers to Strengthen Wales**, March 2014.

The Welsh Government is taking appropriate steps to influence decision-making on rail-infrastructure investment, although it could have acted sooner to strengthen its oversight and contractual arrangements for projects it funds

The Welsh Government is actively involved in the complex planning process for the next round of infrastructure investment across England and Wales from 2019-2024

1.15 Rail-infrastructure investment planning in England and Wales is a complex process⁹. Two main elements support publication of the High Level Output Specification: Network Rail's 'Long Term Planning Process'; and the Office of Rail and Road's five-yearly 'Periodic Review' (Figure 3). The Long Term Planning Process informs the Periodic Review.

Figure 3 – Key components of the rail-infrastructure investment planning process for England and Wales



Note
 To reflect the recommendations of the November 2015 **Report of the Bowe Review into the planning of Network Rail's enhancements programme 2014-2019** (Appendix 1), the Secretary of State for Transport has announced some changes to the details of the investment planning process.
 Source: Wales Audit Office

9 For more detailed information about some of the planning arrangements for rail-infrastructure investment, see National Audit Office, **Planning and delivery of the 2014-2019 rail investment programme**, September 2015.

- 1.16 A Rail Industry Planning Group has overall responsibility for governance of the Long Term Planning Process. The Welsh Government attends this group and was also a member of a working group that produced the consultation document for the Welsh Route Study. Network Rail published the final **Welsh Route Study** in March 2016 setting out 14 options to address gaps in current provision. The Study includes options to meet additional demand for travel within Wales, and between Wales and key English cities. For example, the Study includes an option to modernise the North Wales Coast Main Line to improve north Wales connectivity to London, Manchester, Liverpool and Chester.
- 1.17 Despite its involvement in the Rail Industry Planning Group, the Welsh Government's view is that the strategy planning process is limited and does not fully take into account its aspirations for rail services. The strategy planning process only considers how to respond to current and future demand on the network as it currently exists. The Welsh Government wants Network Rail to plan for 'more transformative change' and to consider developing new lines and stations where there is a strong rationale. Network Rail's current Welsh Route Strategy focuses primarily on how to meet expected increases in demand with 'the existing network'. However, Network Rail emphasised to us its commitment to working with funders to support the delivery of new lines, for example, a new branch line to Abertillery¹⁰.
- 1.18 Department for Transport officials have told us that the UK Government encourages the pursuit of economic growth through improved rail capacity, but expects beneficiaries to fund the changes, since the money it has available to fund the High Level Output Specification is limited and must necessarily be focussed on enhancing capacity at 'pinch points' on the network where demand outstrips capacity.
- 1.19 The Welsh Government is working with the Rail Delivery Group's¹¹ 'Planning Oversight Group', which is responsible for producing the Initial Industry Plan for England and Wales, drawing on the route strategies.
- 1.20 As part of its efforts to influence the 2019-2024 High Level Output Specification, the Welsh Government is also engaging directly with the Office of Rail and Road. This direct engagement began in November 2014, and included discussion on further devolution of rail powers, greater involvement in long-term planning of rail infrastructure, and the Welsh Government's contractual relationship with Network Rail. Since November 2014, the Welsh Government has negotiated a number of commitments to help to ensure Welsh rail-service priorities are fully represented in the Periodic Review. These commitments include the Welsh Government's involvement in arrangements to review the financing of Network Rail.

¹⁰ Network Rail is undertaking resignalling work on the Ebbw Vale line to make suitable provision for a future extension of that line to Abertillery, to reflect the Welsh Government's planning aspirations.

¹¹ The Rail Delivery Group was set up in 2011 and brings together the owners of Britain's passenger train operating companies, freight operators and Network Rail.

- 1.21 The Welsh Government also seeks to influence the Department for Transport to include specific projects within its High Level Output Specification. For example, in developing a business case for electrification of the North Wales mainline for inclusion within the High Level Output Specification (2019-2024). In evidence to the National Assembly's Enterprise and Business Committee in September 2015, the Department for Transport stated that by, for example, 'developing the business case for the priority schemes that they wish for', the Welsh Government is 'already engaged in the right way' with the Department for Transport.
- 1.22 The National Assembly for Wales' Enterprise and Business Committee has carried out an inquiry into the priorities for the future of rail infrastructure in Wales¹². Its report is intended to influence decisions about the Welsh rail-infrastructure projects to be included in the next High Level Output Specification, for the period 2019 to 2024.

Although the Welsh Government has less power over Network Rail than the UK and Scottish Governments, it could have taken earlier action to strengthen its oversight of project delivery

- 1.23 Since November 2014, the Welsh Government has operated a Joint Network Rail and Welsh Government Project and Programme Management Board. Arriva Trains Wales attends the meetings as an observer. The Board was set up to more actively scrutinise the delivery of rail capital projects.
- 1.24 The Welsh Government acknowledges that the effectiveness of the Project and Programme Management Board is limited by the contractual and legal position of the Welsh Government. Nevertheless, the Welsh Government views the Board as an opportunity to improve its working relationship and to engage more strategically with Network Rail.
- 1.25 During 2014, the Welsh Government's Internal Audit Services reviewed the Welsh Government's management of rail capital contracts. Internal Audit Services identified a number of positive features about the governance of the Joint Project and Programme Management Board. Before each meeting, Network Rail issues a detailed project summary against each existing Network Rail project. Each project summary includes: current stage of the project; project manager details; date of the legal agreement; dates of various stages of the project; financial data; a commentary on progress and issues and risks.
- 1.26 Since November 2014, the Welsh Government has also operated an internal Rail Board to bring together a range of rail project and policy officials to discuss current and future rail projects. Officials at these meetings undertake a high-level review of rail capital schemes and consider whether contracts are proceeding on time and to budget and are delivering the identified requirements.

¹² National Assembly for Wales Enterprise and Business Committee, **Priorities for the future of Welsh Rail Infrastructure**, March 2016.

- 1.27 Infrastructure improvements set out in the High Level Output Specifications are categorised as ‘regulated outputs’. If Network Rail is likely to fail, or fails to deliver a regulated output, the Office of Rail and Road can decide if the failure amounts to a licence breach and may take action against Network Rail.
- 1.28 The Railways Act 2005 gives the Welsh Government powers to fund improvements to rail services and infrastructure. However, any work undertaken by Network Rail on the Welsh Government’s behalf is not governed by the same regulatory relationship which exists between Network Rail, the Office of Rail and Road and the Scottish and UK governments. Instead, the Welsh Government’s relationship with Network Rail is established through individual contracts signed with Network Rail. The limitations of these contractual relationships are discussed below (paragraphs 1.33-1.39).
- 1.29 The Welsh Government can ask the Office of Road and Rail to investigate on its behalf a formal complaint against Network Rail. The Welsh Government has asked the Office of Rail and Road to consider cost increases on Network Rail’s delivery of the project to reduce journey time and enhance capacity on the north-south line. In response to this request, the Office of Rail and Road considered if Network Rail’s work on the contract was indicative of systemic issues which could constitute a potential breach of its network licence¹³. The Office of Rail and Road told us that its review found various shortcomings in planning and delivery of the project. However, given that Network Rail had put in place and was delivering an improvement plan to tackle these issues, the Office of Rail and Road felt no useful purpose would be served by considering a further licence breach.
- 1.30 The Welsh Government has told us that it does not consider the cost overruns to be a result of its actions, and that Network Rail is now considering a claim for these costs against the industry risk and fee fund (paragraph 1.35).
- 1.31 Due to widely reported concerns, the performance of Network Rail has been the subject of three recent reviews (Appendix 1). In addition, on 31 March 2015 the Office of Rail and Road gave Network Rail formal notice that it was to investigate whether Network Rail is doing everything that is ‘reasonably practicable’ to meet its obligations to deliver enhancement projects. In October 2015, the Office of Rail and Road notified Network Rail of its view that Network Rail has breached its network licence due to its ‘... failure to adequately plan and deliver its enhancements programme to the greatest extent reasonably practicable’.
- 1.32 The Welsh Government’s recent discussions with the Office of Rail and Road (paragraph 1.20) have included dialogue about how the Welsh Government can hold Network Rail to account given the Welsh Government’s status. As a result, the Office of Rail and Road and the Welsh Government met for the first time in September 2015 specifically to review the performance of Network Rail. The Office of Rail and Road and the Scottish Government hold similar meetings with Network Rail to review performance. The relatively short timescale for giving the Welsh Government some of the same opportunities to oversee Network Rail as the Scottish Government suggests that the Welsh Government could potentially have achieved this outcome earlier.

¹³ Network Rail operates under a network licence, which contains a set of conditions under which Network Rail must operate. The network licence is the mechanism through which the Office of Rail and Road holds Network Rail to account.

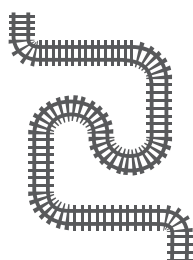
The Welsh Government has only recently taken steps to address the limitations of its contractual relationships with Network Rail

- 1.33 In working with funders other than the Scottish and UK governments – private-sector funders or other public-sector funders – Network Rail enters into contracts based on standardised Office of Rail and Road templates. There are four main types of agreement covering different works. The Office of Rail and Road developed these template contracts to reduce the transaction time and cost for investors compared to negotiating a contract from scratch. Template contracts also aim to manage the relationship between Network Rail and private-sector funders. However, the Welsh Government can give greater assurance about the financing of its contracts than a private-sector investor.
- 1.34 Some template contracts are ‘cost emerging contracts’, meaning that the Welsh Government, rather than Network Rail, pays all additional costs over and above the estimated cost. All template contracts require the addition of a contingency which varies according to the project, and is based on Network Rail’s risk assessment which the Welsh Government is not always party to. Occasionally, and as it is allowed to do, Network Rail spends the project contingency without notifying the Welsh Government ([Case Study 1](#)).
- 1.35 In common with all other funders, except the UK and Scottish governments, the Welsh Government is required to pay a two per cent premium per project into Network Rail’s ‘Rail Industry Risk Fund’. This fund operates in a similar way to insurance, with funders potentially able to benefit from the fund to meet certain unforeseen costs, such as any costs resulting from a change of law affecting the way the industry works. Network Rail determines where unforeseen costs should be met from the fund. The Office of Rail and Road will become involved if there is a dispute between Network Rail and the funder about whether the fund should meet the claim. The Welsh Government is awaiting a decision from Network Rail about a claim for unforeseen costs incurred by the north/south journey-time improvement project ([Case Study 1](#)). This would be the first such claim made by the Welsh Government. However, the fund has been used by Network Rail to meet additional unforeseen costs of £0.23 million on work at Pontypridd station ([Appendix 4](#)).
- 1.36 Not all template contracts include the right for the funder to terminate the agreement. However, where the funder has the right to terminate the contract, the contract is weighted in favour of Network Rail with regard to payment of costs. For example, the template contract states that in the event that a contract is terminated, the funder shall not be entitled to any payment or compensation or other rights or remedies in respect of loss of profits, revenue or goodwill. The Welsh Government has not terminated any of its contracts with Network Rail.
- 1.37 There is no obligation upon either Network Rail or the Welsh Government to use the Office of Rail and Road’s template contracts if they were not felt to be suitable. The Office of Rail and Road’s policy and guidelines on the use of template contracts¹⁴ states that investors ‘may choose’ to use the template contracts as the basis for contracts to deliver enhancements. The guidance also states that due to

14 Office of Rail and Road, [Investment framework consolidated policy and guidelines](#), October 2010.

particular concerns and risks for individual projects, the contractual parties may be 'open to negotiation of alternative provisions that suit individual circumstances'. In 2015, Network Rail ran two workshops with the Welsh Government to discuss alternative ways of contracting.

Case Study 1 – Use of contingency by Network Rail on the Rossett and Saltney Junction improvements



The Welsh Government is currently funding the whole cost of a project to improve journey times and frequency on the key north-south Wales route. The work includes doubling 5.5 miles of track between Rossett and Saltney Junction, altering and upgrading level crossings and improving signalling.

The project should reduce journey times between Cardiff and Holyhead by 16 minutes and provide the capacity to run an extra train between Cardiff and Holyhead every two hours in both directions.

Network Rail has used the entire contingency of £6.7 million within the £49 million project. The Welsh Government had already reduced the size of the project because of budget constraints, but Network Rail found cables under the current track that it needed to move to allow for the installation of a second, parallel track. Network Rail eventually encased the cables in concrete to prevent their theft, additional work that led to unexpected spending totalling £800,000 from contingency and without notifying the Welsh Government. The Welsh Government now has to fund this additional work late in the project delivery timetable when there are fewer opportunities to offset the cost with other savings. The project was due for completion in November 2015, but there have been further problems, with the Welsh Government attributing delays to Network Rail, publicly stating that the 'delays are unacceptable', and requesting urgent action on the matter. Network Rail has now set a new commissioning date of spring 2017.

Source: Wales Audit Office

- 1.38 The Welsh Government is in the early stages of proposing a contracting process whereby it would only allocate a small amount of contingency up front to Network Rail to allow it to deal with emerging risks. The Welsh Government proposes to gain more control over the use of contingency funding by holding the remaining funding at programme level, with Network Rail needing their approval to access any more contingency. Network Rail will consider these proposals when finalised. This approach would not alter that, under emerging cost contracts, the Welsh Government is responsible for all project costs. However, the proposed approach will give the Welsh Government greater visibility at an earlier stage over any increases to project costs and a better opportunity to balance any cost increases against potential savings in other areas of its rail-infrastructure programme. Network Rail has emphasised to us that there are fixed-price template contracts, but these will inevitably include a premium for it carrying the risk, as Network Rail does not have reserves and is not funded to take risks.

- 1.39 Given the potential benefits of using bespoke contracts in terms of value for money, in our view, the Welsh Government could have identified the opportunity to renegotiate its contractual relationship with Network Rail at an earlier stage. The Welsh Government has met with the Office of Rail and Road on two occasions (November 2014 and July 2015) to discuss its use of template contracts.

The Welsh Government has funded two infrastructure projects using contractors other than Network Rail but is looking to apply this approach more widely

- 1.40 The Welsh Government is keen to deliver more projects through contractors other than Network Rail. The Welsh Government believes that this approach will enable it to secure better value for money, although it is no guarantee of successful project delivery.
- 1.41 Our January 2011 report on **Major Transport Projects** commented on the project to reopen the Ebbw Valley railway line in 2008. Network Rail did not undertake the design and construction work although it was a key stakeholder in the project. Blaenau Gwent County Borough Council procured and managed the contractual arrangements and the Welsh Government funded the project. The project costs almost doubled to £48 million, although our report noted that the early estimate did not include any allowance for the eventual £5.12 million combined cost of land, compensation and fees. The report also noted that there had been a dispute between the Council, the Welsh Government and the contractor about responsibility for the cost of remedial works needed. The remedial works were required to satisfy Network Rail that the line met a design that they could sign off as the ultimate owner of the asset.
- 1.42 On a much smaller scale, the Welsh Government did not contract with Network Rail on the recently completed station at Pye Corner, Newport. Network Rail was unable to deliver the project within the timeframe needed to access Department for Transport funding for the work. The project took 40 weeks to deliver which, in the Welsh Government's view, represented a highly satisfactory timescale for delivery. The contractor completed the project in December 2014 at a total project cost of £3.4¹⁵ million, and the Welsh Government has estimated that the construction work cost some 15 to 20 per cent less than had Network Rail delivered the contract. The Welsh Government based this estimate on comparisons between its project-management costs and Network Rail's project-management charges. We have not reviewed the detail underpinning the Welsh Government's estimate.
- 1.43 The Welsh Government has provided information about the costs of the Pye Corner project to the Office of Rail and Road. The Welsh Government told us that the Office of Rail and Road is to include the Pye Corner project within a piece of work it is doing to benchmark Network Rail costs across a range of projects.

¹⁵ The construction of Pye Corner station was funded by the Welsh Government (£1.3 million) and the Department for Transport (£2.1 million).

- 1.44 Network Rail acknowledges that the Welsh Government delivered the Pye Corner project effectively, but it found a number of issues during the construction phase. Network Rail is accountable for safety issues on the rail network and had concerns that led it to reallocate a member of Network Rail staff to work full time on the project for eight months. This member of staff worked closely with the contractor to ensure compliance with legal and safety standards.
- 1.45 The Welsh Government is considering contracting with suppliers other than Network Rail on a number of other schemes, including its large-scale Metro public transport initiative for south Wales. Metro Phase 2 has a currently estimated total project cost of £734 million at 2018 prices (paragraph 2.33).
- 1.46 Network Rail is comfortable with the Welsh Government's proposed approach to using other contractors from the private sector to deliver capital projects, but with some provisos based on its previous experience. They include:
- a the need to involve Network Rail at an early stage of the development of projects; and
 - b the need for private-sector contractors to work closely with Network Rail as the owner and operator of the infrastructure.
- 1.47 In January 2016, the Welsh Government and Network Rail agreed a Memorandum of Understanding which set out the principles and the arrangements for the two parties to work together to deliver the South Wales Metro and the next Wales and Borders franchise. Agreed actions include developing a joint plan including timescales, establishing governance arrangements and setting up a joint delivery team.

Part 2

Between April 2011 and March 2016, the Welsh Government contributed around £362 million to wider public sector spending on Welsh railways, and did not do enough to evaluate the benefits of its investment



- 2.1 This part of the report sets out capital expenditure by Network Rail to maintain, renew and enhance the railway infrastructure in Wales between April 2011 and March 2016. It also quantifies capital and revenue expenditure by the Welsh Government to improve rail services in line with its strategic rail priorities and considers the Welsh Government's plans for future capital investment. Finally, it considers the effectiveness of the Welsh Government's approach to evaluating the impacts of its investment.

Network Rail invested £1.4 billion on rail infrastructure in Wales between April 2011 and March 2016

- 2.2 Between 1 April 2011, when data for Wales first became available, and 31 March 2016, Network Rail invested around £1.4 billion to maintain, renew and enhance rail infrastructure in Wales. Network Rail mainly invested this funding in renewals to existing infrastructure (£882 million) and maintenance (£301 million), with £235 million invested on enhancements (Figure 4). As noted in paragraphs 1.11-13, it is the Welsh Government's view that Network Rail should have spent more since 2011 enhancing the rail infrastructure in Wales.

Figure 4 – Network Rail capital expenditure in Wales 2011-2016

	2011-12 £m	2012-13 £m	2013-14 £m	2014-15 £m	2015-16 £m	Total £m
Maintenance ¹	50	50	62	67	72	301
Renewals to existing rail infrastructure ²	161	211	203	135	172	882
Enhancements to the rail network ^{3, 4}	15	46	47	44	83	235
Total⁵	226	307	312	246	327	1,418

Notes

1 Maintenance costs include inspection and repair of the infrastructure.

2 Renewals are where the existing infrastructure, such as the track, is replaced, without changing or enhancing its performance.

3 Enhancements are projects that improve the railway.

4 Figures exclude Welsh Government funded enhancements and Welsh Government contributions to larger Network Rail projects, such as Cardiff Area Signalling Renewal.

5 This capital expenditure excludes operating costs of £334 million, such as staff costs, including pensions and incentive payments, British Transport Police costs and accommodation expenses. Nor does it include £46 million of compensation payments to train operating companies for planned and unplanned disruptions.

Source: Network Rail Regulatory Financial Statements

Between April 2011 and March 2016, the Welsh Government invested £109 million in enhanced services over and above the core Wales and Borders franchise, and was required to pay out £27 million in contractual performance incentive payments, net of penalty payments

- 2.3 Between 1 April 2011 and 31 March 2015, the costs to the Welsh Government of subsidising the core Wales and Borders franchise services for Wales-only and Welsh services stood at £617 million. For Wales-only and Welsh services, the Welsh Government is able to modify the franchise agreement to respond to additional demand by providing 'service enhancements'. These enhancements could include additional services and frequency of trains and increased capacity by providing extra carriages.
- 2.4 Changes to the franchise agreement are based around the principle that they should not result in a net financial loss or net gain to the franchise operator. Consequently, if the Welsh Government requires a service enhancement that increases Arriva Train Wales' operating costs, it has to pay a subsidy as the enhancement will almost inevitably put the operator at a loss.
- 2.5 Between 1 April 2011 and 31 March 2016, the Welsh Government invested £109 million to provide 10 enhanced services ([Appendix 3](#)). Between April 2006, when it took over day-to-day management of the franchise, and the end of the franchise in 2018, the Welsh Government estimates that it will have invested more than £250 million on enhanced services¹⁶.
- 2.6 In 2014, the Welsh Government's Internal Audit Services reviewed a number of aspects of the Welsh Government's management of the rail franchise, including whether the Welsh Government had complied with the process for developing service enhancements¹⁷. The audit found that for the introduction of the Merthyr half-hourly service in 2009, the Welsh Government could not provide the required documentation to demonstrate that it had complied with the agreed process. However, the auditors noted that the more recent service enhancements sampled – the North South Premier Service (2012) and Fishguard services (2011) – had complied with the agreed process. And, overall, Internal Audit Services were able to give full assurance on the controls in place over the rail franchise.
- 2.7 In common with all other UK rail franchises, Arriva Trains Wales is eligible for incentive payments if it meets targets for its performance over each four-week period. Between 1 April 2011 and 31 March 2016, Arriva Trains Wales received just over £27.5 million in incentive payments from the Welsh Government. Failure to meet the performance target requires Arriva Trains Wales to make a penalty payment to the Welsh Government. For the same period, Arriva Trains Wales made penalty payments totalling £0.66 million ([paragraphs 3.5-3.7](#) give further details about the performance incentive regime and costs).

¹⁶ The exact figure remains uncertain, as the costs are linked to inflation. Welsh Government investment in two services (Cardiff to Holyhead and Heart of Wales (Sundays)) predated 2006. The additional cost of these two services between 2004 and 2006 is around £2.2 million.

¹⁷ Under the franchise agreement, Arriva Trains Wales must submit a 'development proposal' with an estimate of costs to the Welsh Government for review prior to Ministerial approval. The Internal Audit Services did not find relevant evidence, other than a development proposal dating from 2006.

Between 2011 and 2016, the Welsh Government invested £226 million in rail-infrastructure enhancement projects

- 2.8 Between April 2011 and March 2016, the Welsh Government invested around £226 million in rail capital projects, including funding it secured from the European Union's structural funds (Figure 5). The Welsh Government has emphasised to us that it made this investment to address its concerns about underinvestment in the Welsh network by Network Rail (paragraphs 1.11-1.13).

Figure 5 – Welsh Government investment in rail capital projects 2011-2016 (£ million including European funding)



Source: Welsh Government

- 2.9 During approximately the same period (that is, between January 2011 and May 2016), there were 11¹⁸ completed infrastructure projects in Wales that had some Welsh Government funding (Appendix 4). These projects had a total cost, including expenditure in advance of April 2011, of £137 million, comprising:
- a Welsh Government funding of £101 million, which includes European funding of £46 million;
 - b Network Rail funding of £27 million;
 - c Department for Transport funding of £6 million; and
 - d contributions from various other sources of just over £3 million.
- 2.10 As part of its 2014 review of rail capital contracts (paragraph 1.25), the Welsh Government's Internal Audit Services concluded that the way in which the Welsh Government identified and prioritised rail capital projects was satisfactory. Internal Audit found that its chosen sample of projects:
- a arose from key transport planning documents, for example, the National Transport Plan 2010 and the 2011 prioritised National Transport Plan;
 - b were supported by a robust business case which set out a rationale for undertaking the scheme; and
 - c were, as required, approved by the Welsh Ministers.

¹⁸ A number of schemes have been quantified as one project under the Wales Station Improvement Programme. In addition, a number of schemes have been quantified as one project under the Access for All programme and similarly for the Cardiff Area Signalling Renewal.

- 2.11 Our January 2011 report on **Major Transport Projects** recommended that for major transport projects – which we classified as projects costing over £5 million – the Welsh Government should record information to track the performance of the projects at key stages of their delivery and record changes in project costs. While the focus of that report was on trunk-road projects, the report included a commentary on two rail projects and its recommendations are equally applicable to rail projects.
- 2.12 Network Rail's Guide to Railway Investment Projects (GRIP) process has eight stages from initially establishing the scope of the investment, through detailed design to project completion. We asked the Welsh Government to provide data with which to compare any changes in estimated costs between these different stages of project delivery for projects completed since January 2011. We recognise that some of the projects were substantially progressed in advance of the publication of our 2011 report and that several cost less than £5 million. In addition, some of these projects, such as the Newport Station Modernisation completed in 2011, comprised a fixed Welsh Government contribution to a Network Rail funded project¹⁹.
- 2.13 The Welsh Government was able to provide us with some relevant data with which to compare costs at specific GRIP stages but not on a consistent basis across all projects. The highest value of these projects in terms of the Welsh Government's contribution was the modernisation of Gowerton station and redoubling of the line between Gowerton and Loughor (£27.4 million cost split between core Welsh Government funding and European Union structural funds). The Welsh Government has reported to us that the estimated project cost reduced by £0.2 million between GRIP stage 5 – detailed design – and completion. In another example, the new station at Energlyn on the Rhymney Valley line cost a total of £5.5 million (again split between core Welsh Government funding and European Union structural funds). The estimated cost at GRIP stage 5 was £5.2 million, although the project was completed in October 2013 compared with the December 2013 estimate at GRIP stage 5.
- 2.14 As at May 2016, rail projects underway that had some Welsh Government funding have a total estimated cost at completion of £156 million. Some of the projects are pieces of design work (**Appendix 4**). These projects are scheduled to finish before the end of 2017-18. They include reducing the journey time between north and south Wales, through various upgrades to the network, at an estimated cost of £49 million (**Case Study 1** on page 26). They also include elements of Metro Phases 1 and 2 (**Box 1** on page 41) and various station improvements under the Access for All programme (**Case Study 2**).

¹⁹ The Welsh Government contributed £7.7 million towards the project, with Network Rail meeting the remaining costs of £20.2 million.

Case Study 2 – Access for All



Access for All is a major UK Government programme improving accessibility at train stations nationwide by installing lifts and ramps.

Following improvements at other stations in Wales in earlier stages of the programme, in early 2014 Network Rail announced £12 million of investment, including a £7 million Welsh Government contribution, to improve Chirk, Llandaf, Machynlleth, Radyr and Ystrad Mynach stations.

In a separate announcement in April 2014, a further four stations (Barry Town, Cathays, Llanelli and Treforest) were added to the programme. The Welsh Government has offered up to £5 million for these four stations, to match fund a contribution from the Department for Transport. Treherbert and Taffs Well stations were then added to the programme in late 2014, with the Welsh Government again contributing to the cost of this work.

An industry group, which includes the Welsh Government, selects the stations for improvement through a range of criteria, including how busy the stations are and the incidence of disability as reported in a local area by the census. It also considers other factors such as proximity to hospitals and to schools for disabled children.

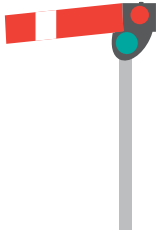
Source: Wales Audit Office

- 2.15 The Department for Transport welcomed the willingness of the Welsh Government to provide match funding for the Access for All stations programme. For the stations announced for improvement in April 2014, the Welsh Government's match funding has enabled improvements at four stations, rather than two, as originally planned by the Department for Transport.
- 2.16 Network Rail was also positive about the way in which the Welsh Government has 'levered in' European funding for rail projects, for example, £5.7 million of European funding for the Cardiff Area Signalling Renewal project ([Case Study 3](#)). Network Rail highlighted another project where additional funding from the Welsh Government had enhanced their original plans. Network Rail had only planned to renew the lifts at Pontypridd Station, but the Welsh Government committed £2.5 million of additional funding to deliver further improvements to the station forecourt, entrance and platforms.

The Welsh Government has built on planned work by Network Rail to help to deliver further infrastructure and service improvements

- 2.17 The Welsh Government took advantage of Network Rail renewing the unstable viaduct between Gowerton and Loughor to fund the redoubling of almost six miles of the line and re-instate the disused platform at Gowerton, at a cost of £27.4 million. Network Rail delivered the two projects at the same time, resulting in efficiencies and minimising disruption. The new viaduct and line doubling has removed a bottleneck and provides additional capacity to increase the number of trains running per hour from two to three, subject to available funding for additional rolling stock. The additional services are commercially viable and do not require Welsh Government funding.
- 2.18 The Welsh Government is contributing £16.6 million, including £5.7 million of European funding, to Network Rail's £245 million Cardiff Area Signalling Renewal (CASR) project ([Case Study 3](#)) which is due for completion in 2017.
- 2.19 The Welsh Government contributed £8 million, matched by £5 million from Network Rail, to improve infrastructure on the Cambrian mainline with additional passing loops, an improved level crossing and by raising a section of the track. These improvements were required to support additional services between the following stations: Aberystwyth and Shrewsbury; Aberystwyth and Pwllheli; Llandoverly and Gowerton/Swansea, and Llandrindod Wells and Shrewsbury/Crewe.
- 2.20 The infrastructure work was completed in 2010. The infrastructure work was progressed in tandem with a larger circa £60 million Network Rail resignalling project. Progressing the resignalling and infrastructure works together took advantage of economies of scale, and the Welsh Government has estimated a £2 million benefit. In 2014, the then Minister for Business, Enterprise, Technology and Science approved revenue funding for additional services. The additional services were introduced on a three-year trial basis from May 2015.

Case Study 3 – Cardiff Area Signalling Renewal project



The Cardiff Area Signalling Renewal (CASR) is a joint project with the Welsh Government, Network Rail and Department for Transport to improve and upgrade the standard of services available on the Valley Lines. The project includes work on the Barry – Cardiff Queen Street corridor to:

- improve the accessibility of Cardiff Queen Street station;
- upgrade and renew signalling at a number of locations;
- construct new platforms at Barry and Cardiff Central (platform 8); and
- renew and remodel sections of track.

CASR also includes three Welsh Government funded components at Tir Phil, Caerphilly and Barry ([Appendix 4](#)) which provide capacity to enable an increase in the frequency of future services. For example, constructing a passing loop at Tir Phil will enable a half-hourly service to operate to Rhymney. The Welsh Government expects the specification for the next Wales and Borders franchise to reflect the additional capacity it has funded across the whole network.

When complete, CASR is expected to remove the bottleneck between Cardiff Central and Queen Street, creating the potential to run 16 passenger trains through the area per hour, a 25 per cent increase on current levels.

CASR is subject to escalating costs and delays. As of October 2015, total project costs had escalated from £220 million to £245 million and scheduled completion has been extended from 2015 to January 2017. The Welsh Government's contribution will remain fixed.

The project forms part of the wider £450 million south Wales re-signalling scheme; between 2007 and 2018, Network Rail is installing new signalling technology across the south Wales network; Vale of Glamorgan; Rhymney Valley line; Barry; east of Cardiff; Cardiff central and west and east of Port Talbot from Baglan to Llanelli.

Source: Wales Audit Office

The Welsh Government had not adopted a systematic approach to evaluate the value for money of its investment in rail services and is in the process of strengthening these arrangements

- 2.21 In April 2013, consultants Arup carried out a **Rail Services Efficiencies Review** for the Welsh Government. The review was critical of the Welsh Government's approach to post-project monitoring and evaluation of service enhancements under the Wales and Borders franchise. It concluded that: 'there is no evidence of a systematic approach to reviewing the impact of new services once they are introduced'. Arup also concluded that for none of the three service contracts examined as part of the review²⁰, had the Welsh Government 'undertaken a review to establish the degree to which [it] has secured value for money'.
- 2.22 Arup's review suggested that the Welsh Government 'should employ a more formal review process following the introduction of a new service to understand the impact of the service and determine whether value for money has been achieved'. It also suggested that the Welsh Government consider introducing services on a pilot basis. In addition, that after six months, the Welsh Government carry out separate reviews of all aspects of the service to see if an adjustment to the assumptions under the service agreement is required. However, this suggestion of introducing services on a pilot basis was not included in the report's 13 recommendations.
- 2.23 The Welsh Government has introduced two new services since Arup reported in April 2013. In May 2015, the Welsh Government introduced additional Heart of Wales and Cambrian line services on a three-year trial basis, and will review them at the end of this period.
- 2.24 To date, many of the Welsh Government's investments to enhance rail services and to improve rail infrastructure stem from the 2010 **National Transport Plan**. In May 2014, the Welsh Government published an interim evaluation report that found that there was only limited data on the impact of investments made under the National Transport Plan²¹. The evaluation recommended that the Welsh Government set up a central database to hold the monitoring and evaluation data for each scheme, including the post-project review and the outturn costs of delivering each project. The Welsh Government has not yet implemented this recommendation.
- 2.25 In January 2014, the Welsh Government's Internal Audit Services reviewed the extent to which monitoring and evaluation of rail capital projects are effective, timely and address benefits realisation. The report identified a need for the Welsh Government to undertake routine post-project evaluation²². The report made a number of recommendations, which the Welsh Government accepted, and it has since:

²⁰ Fishguard services, additional North-South services and Ebbw Valley line services.

²¹ Welsh Government, **Interim Evaluation Report on National and Regional Transport Plan**, May 2014. The evaluation reviewed both the 2010 National Transport Plan and the four regional transport plans produced by the Regional Transport Consortia.

²² In our January 2011 report on **Major Transport Projects**, we recommended that the Welsh Government undertake benefits realisation reviews on all major transport projects and that these should commence within 12 to 18 months of the completion of the main construction works. That report focused on trunk-road projects but also referenced two significant rail projects. We defined major projects as those costing more than £5 million.

- a finalised its draft evaluation process and commenced implementation across the wider programme;
- b commissioned evaluation reviews where these remain outstanding; and
- c used lessons learned to inform future projects as a matter of course.

2.26 The National Audit Office has reported previously on similar weaknesses in respect of the UK Government. In October 2014²³, the National Audit Office reported that the Department for Transport did not systematically evaluate its major rail programmes to determine whether outcomes had achieved the benefits set out in the business case.

2.27 The Welsh Government has recently started to evaluate the benefits of its investment in additional services, even though it introduced some of these services as long ago as 2004. These evaluations were largely triggered by external factors, notably the need to comply with the conditions of European grant funding and Welsh Government preparations for devolution of responsibility for specifying and procuring the next set of Wales and Borders services. All projects in receipt of European grant funding have complied with the requirement for an independent evaluation covering both the effectiveness of the delivery of the projects (including value for money) and their expected impact in terms of improving journeys and the wider economic impact. Some examples of such evaluations are the evaluation of the European grant funded Valleys Line Strengthening service enhancement which is currently awaiting Ministerial sign-off before being published.

2.28 The Welsh Government has recently taken a number of other actions to strengthen its evaluation arrangements:

- a In March 2015, the Welsh Government issued a protocol for post project evaluation of its rail and Metro investment programme. The protocol sets out options for delivering the evaluation (in-house expertise or commissioned research) and establishes timescales for carrying out evaluations. It also identifies a series of questions that all evaluations should address. For example, whether the project delivered to time and budget; how well the Welsh Government managed change and risks within the project and whether the project delivered its expected outcomes, for example, targets for creating additional public-transport journeys.
- b The Welsh Government is developing a database, which will enable it to evaluate more effectively the impacts of investments in public transport. It is currently setting up a system to enable it to monitor journey times on public transport between key destinations on a three-monthly basis. This data will form a baseline against which to evaluate the impacts of future investments in public-transport interventions.

²³ National Audit Office, **Lessons from major rail infrastructure programmes**, October 2014.

2.29 The few evaluations carried out to date provide some indication of benefits realised. For example, the evaluation of the new station at Energlyn found that the increase in passenger kilometres travelled has fallen far short of that anticipated²⁴. This is due to a range of factors, including average journeys being shorter than forecast and fewer people than anticipated transferring from their cars and buses to rail. The evaluation of the impacts of additional platforms at Pontypridd and Caerphilly stations found that the expected benefits were yet to be delivered, due to delays on the related Cardiff Area Signalling Renewal scheme (Case Study 3). However, as trains are already held at the new platforms, the evaluation concluded that the improvements were adding resilience to the network.

2.30 Other evaluations lack some detail:

- a The evaluation of the Swansea High Street Station concluded that the scheme has delivered its intended benefit of reducing crime in and around the station. However, the evaluation does not give any detail on the extent to which crime has reduced with reference to baseline data, or show that the reduction in crime is directly attributable to the project.
- b The evaluation of the Merthyr half-hourly rail service does not quantify the impact of the service on car use, merely stating that 'since its introduction in 2009 the half-hourly rail service has attracted a number of car drivers onto rail services helping to reduce the congestion on this key road link into Cardiff'.

²⁴ The evaluation reported an outturn net increase in passenger kilometres of 0.76 million compared with the forecast 4.25 million.

As set out in the National Transport Finance Plan, the Welsh Government currently intends to focus its own medium-term rail-infrastructure investment on the South Wales Metro Phase 2 projects

- 2.31 The **National Transport Finance Plan 2015** sets out the Welsh Government's level of investment in transport infrastructure and services between 2015 and 2020, although the delivery timescale for some of the projects extends beyond the plan period. In addition to it providing upfront funding for rail-infrastructure projects, the Plan commits the Welsh Government to continue to seek to maximise the opportunities from other sources of rail funding, in particular from the UK Government. As part of meeting this commitment, the Welsh Government funded the development of the business case for electrification of the North Wales coast main line by 2024²⁵. The Welsh Government also told us that it is to start work on developing plans for a North Wales Metro system.
- 2.32 The National Transport Finance Plan identifies specific schemes, delivery timescales, anticipated costs and likely sources of funding. The Welsh Government told us that the Plan is a 'live' document which it will review periodically, and also further transport schemes may emerge through the competitive dialogue process it is to use to procure the next Wales and Borders franchise and the Metro. The Plan identifies three main rail schemes in which the Welsh Government will invest, which encompass some but not all of the projects referred to in **Appendix 4**. The three schemes are:
- a Wales Station Improvement Programme to improve stations and their integration with other transport modes, which had an indicative total project cost of £24 million and an estimated physical and operational completion date of November 2015;
 - b South Wales Metro Phase 1 (**Box 1**), which had an indicative total project cost of £77 million and an estimated physical and operational completion date of November 2017; and
 - c South Wales Metro Phase 2 (**Box 1**), which had an indicative total project cost of £580 million (excluding VAT and inflation) and estimated completion, in several stages, between 2019 and 2023.

²⁵ On 31 March 2016, the then Minister for Economy, Science and Transport submitted the outline business case for electrification of the line from Holyhead and Llandudno to Warrington and Crewe, to the UK Secretary of State for Transport.

Box 1 – South Wales Metro Phases 1 and 2

The Welsh Government's overall vision for the package of Metro projects is of 'a multi-modal rapid transit network integrating all transport modes, offering the passenger a single ticket, turn up and go experience'.

The Welsh Government is taking forward its Metro vision in two phases:

Metro Phase 1 comprises:

- extension of the rail line to Ebbw Vale town and a new station – also including line speed and capacity improvements;
- new station at Pye Corner;
- rail and bus-station improvements;
- bus-priority scheme focussed on the A470 corridor between Cardiff and Rhondda Cynon Taff;
- active travel; and
- park and ride schemes.

Some Metro Phase 1 projects are complete (for example, Pye Corner and Ebbw Vale Town stations, others are ongoing (for example, the A470 bus priority scheme). The Welsh Government is currently developing an application for European funding to meet some of the costs of Metro Phase 1, otherwise it will meet the total estimated costs of £77 million.

The Welsh Government has incorporated the Valley Lines Electrification programme into Metro Phase 2. As well as electrification, Metro Phase 2 includes dualling of track on a number of lines, constructing passing loops on a number of lines, additional platforms and station improvements.

Metro Phase 2 is included within the wider Cardiff Capital Region City Deal signed between the Welsh and UK governments and 10 Welsh local authorities on 15 March 2016. Key to the deal is £1.2 billion of investment in the Cardiff Capital Region's infrastructure through a 20-year Investment Fund (**Figure 6**). Metro Phase 2 will be the initial priority for the Investment Fund.

No decisions have yet been made about further schemes to be supported by the Investment Fund. However, they are 'likely to include further transport schemes, building on the next phase of the metro, investment to unlock housing and employment sites and development of research and innovation facilities.'

The Investment Fund aims to deliver up to 25,000 new jobs and lever in at least £4 billion of additional investment from local partners and the private sector by 2036.

Source: Welsh Government, **A Cardiff Capital Region Metro Update report**, August 2014; Welsh Government, **National Transport Finance Plan 2015**, June 2015; Welsh Government, **Oral Statement-City Deal**, 16 March 2016

Figure 6 – Investors to the Cardiff Capital Region Investment fund

Investor	Agreed investment £ millions
Welsh Government	500
UK Government	500
10 local authorities (collective minimum contribution)	120
European Union funding	100

Source: **Cardiff Capital City Region Deal**, March 2016

- 2.33 Since publishing the National Transport Finance Plan, the estimated costs of Metro Phase 2 have increased to £734 million at 2018 prices, as reported in the City Deal agreement of March 2016. The revised estimate reflects construction cost inflation and a different VAT position to that originally anticipated. The costs of Metro Phase 2 are predominantly the costs of the electrification programme. In November 2014, the most recent reported estimate for the cost of the Valley Lines Electrification Programme was approximately £555 million. The Welsh Government is keeping this estimate under review, but has not published a more up-to-date estimate so as not to prejudice its commercial negotiations.
- 2.34 After lengthy negotiations between the Welsh Government and UK Government over funding for the costs of the electrification and modernisation scheme, the two parties reached a final settlement in November 2014. The UK Government will contribute £125 million towards the costs of electrification and modernisation within Metro Phase 2.
- 2.35 The Welsh Government is liable for any remaining cost for the electrification and modernisation programme within Metro Phase 2. The Welsh Government intends to bid for £125 million of European Union funding available through the European Regional Development Fund to support its own investment. The Welsh Government plans to submit a 'major project notification' to the European Commission in the latter part of 2016²⁶. Since the referendum result on membership of the European Union, the First Minister has sought confirmation that Wales should continue to be able to access this funding, or be able to access equivalent funding from the UK Government. Under European funding rules the

²⁶ Where total public funding for a project is above €50 million, the European Commission must approve the project, whereas projects below this value are, in the case of Wales, approved by the Welsh European Funding Office.

Welsh Government must be able to demonstrate that electrification has delivered the intended benefits by 2023 or it may be liable to repay any European funding that it secures.

- 2.36 Should the Welsh Government secure European funding, it will still be left to meet from its own funds the remaining cost Metro Phase 2, currently estimated at £484 million. Previously, the Welsh Government envisaged recouping its initial investment in the electrification programme, and so incurring no net cost itself for the project.
- 2.37 That assessment was based on the assumption that modernisation of the Valley Lines took the form of heavy rail electrification and that the services required fewer subsidies because electric trains carry more passengers and are more efficient as set out in the June 2012 outline business case. Since then the Welsh Government has decided to explore other technical solutions for delivering electrification and modernisation of the Valley Lines as part of the South Wales Metro. The Welsh Government has emphasised to us that the assumption that electrification could be delivered at no-net-cost is no longer valid, since the South Wales Metro is a different project with different delivery assumptions and outputs to those used in the Valley Lines electrification business case.

Part 3

Since 2006, services on the Wales and Borders franchise have improved, although comparisons with other UK rail services show a mixed performance



- 3.1 This part of the report provides a high-level overview of the performance of the Wales and Borders franchise – run by Arriva Trains Wales. It relies on data on the punctuality and reliability of services, the value of incentive and penalty payments and passenger satisfaction.

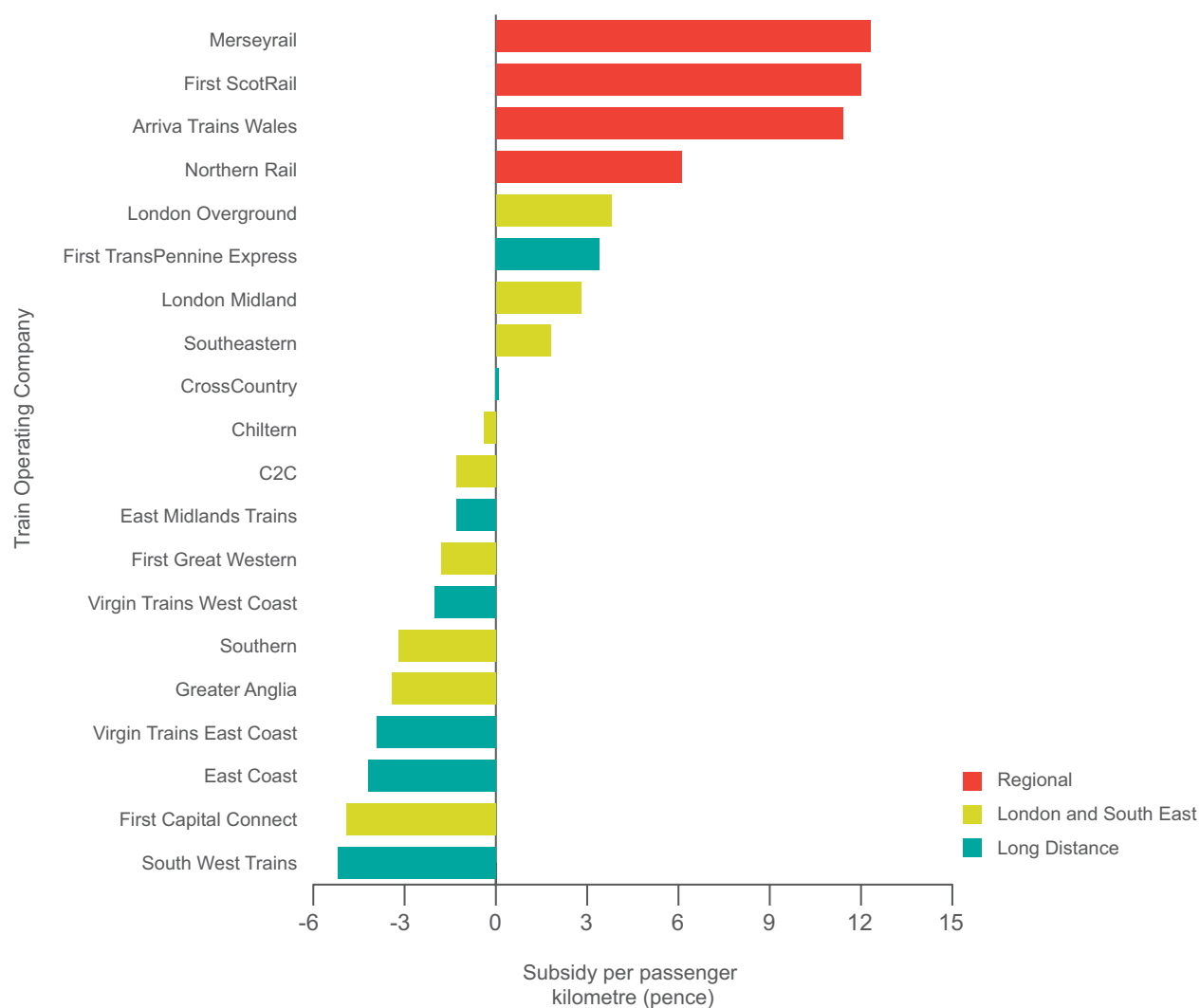
Arriva Trains Wales received the third-highest subsidy per passenger kilometre of any UK train operating company between 2011-12 and 2014-15, although a high subsidy is not uncommon for regional franchises that provide rural services

- 3.2 Between 1 April 2011 and 31 March 2015, the cost to the Welsh Government for the subsidy of the core franchise was £617 million, an average of around £154 million per year²⁷. Over the lifetime of the franchise (2003 to 2018), based on Welsh Government data, we estimate the total cost to be around £2.5 billion. Arriva Trains Wales has received the third-highest subsidy of all UK train operating companies per passenger kilometre since 2011-12 (**Figure 7**).
- 3.3 To make comparisons more meaningful, Transport Focus²⁸ categorises the various franchises and train operating companies in the UK into peer groups. The Wales and Borders franchise has been categorised as one of four ‘regional operating companies,’ along with Merseyrail, First ScotRail and Northern Rail. The other categories are ‘London and South East’ and ‘Long Distance operators’. Although Transport Focus does not measure the subsidy per passenger kilometre, we applied the same principle in comparing Arriva Trains Wales’ subsidy with the other regional train operating companies.
- 3.4 **Figure 7** shows that in the period from 2011-12 to 2014-15, each of the regional operating companies received substantially larger subsidies per passenger kilometre than the other train operating companies did. The relatively high subsidies required by regional train operators are because they cover predominantly rural areas.

²⁷ This does not include other Department for Transport expenditure in relation to the franchise which sits outside of the Welsh Government’s management responsibilities or control. For example, the Department for Transport pays compensation to Arriva Trains Wales for changes made to its operations to accommodate the new Virgin franchise (which has services in Wales) when it was let in 2008. Neither does it include payments made by the Department for Transport to Arriva Trains Wales for English services.

²⁸ In July 2015, Passenger Focus was renamed Transport Focus when its remit was extended beyond rail and bus passengers to include road users. Transport Focus is an independent Passenger Watchdog for rail, road and bus travellers. Transport Focus consults with more than 50,000 passengers a year to produce the National Rail Passenger Survey – a network-wide picture of passengers’ satisfaction with rail travel. Passenger opinions of train services are collected twice a year from a representative sample of journeys.

Figure 7 – Average government subsidy per passenger kilometre for UK Train Operating Companies 2011-12 to 2014-15



Note

Negative figures reflect where train operators were paying a premium to the Department for Transport for the right to deliver the services, rather than receiving a subsidy.

Source: Office of Rail and Road

Arriva Trains Wales has largely met the performance targets set under the Wales and Borders franchise agreement

- 3.5 Under the terms of the franchise agreement and in common with all other rail franchises in the UK, the Welsh Government uses a 'public-performance measure' which is set in the franchise agreement (Box 2). If Arriva Trains Wales meets or exceeds the public-performance measure in a four-week period, the Welsh Government pays Arriva Trains Wales a performance-incentive payment. If Arriva Trains Wales does not meet this target, it is liable to make a penalty payment to the Welsh Government. Analysis using the four-week period data shows that, since the Welsh Government took over the day-to-day running of the franchise in 2006, Arriva Trains Wales has exceeded, with only a few exceptions, the service performance target, even as the target has become more demanding (Figure 8).

Box 2 – Train operating company public-performance measure

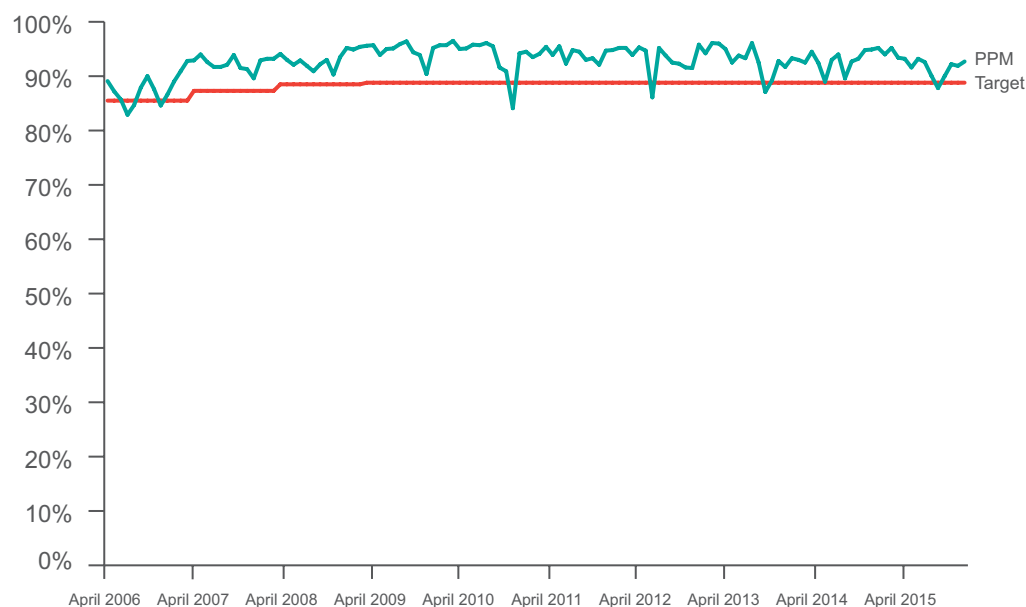
The public-performance measure shows the percentage of trains which arrive at their terminating station on time. This measure defines a train as 'on time' if it arrives at the destination within five minutes of its scheduled time for commuter services and within 10 minutes for long-distance services (which tend to be intercity services). In line with the franchise agreement, for the purposes of calculating whether Arriva Trains Wales has met the public performance measure a service is defined as on time if it arrives within five minutes.

The public-performance measure combines figures for punctuality and reliability into a single performance measure. The public performance measure is the industry standard measurement of performance that Network Rail routinely uses and reports on in each of 13 four-weekly periods per year.

Network Rail also collects 'right-time' performance data, which measures the percentage of trains arriving at their terminating station early or within 59 seconds of schedule. Although it collects this data, Network Rail itself states that right-time data is 'an unreliable measure of performance and particularly does not represent the results and experience of passengers serviced by long-distance operators who enjoy some of the very best passenger satisfaction levels in the industry'. The reason given by Network Rail for this unreliability is that the 'process for gathering data of this accuracy is currently not 100 per cent reliable and the industry is working on improving the quality of this information to make right-time data more reliable'. Nevertheless, this data is used by Network Rail to assess performance. The most recent available right-time moving annual average figures show that Arriva Trains Wales outperformed the three other regional train operating companies.

Source: Wales Audit Office

Figure 8 – Arriva Trains Wales performance against the public-performance measure, 2006-07 to 2015-16



Source: Welsh Government

- 3.6 Between April 2006 and March 2016, Arriva Trains Wales has only been required to make a penalty payment to the Welsh Government in eight of the 130 four-week reporting periods. As of April 2016, penalty payments paid by Arriva Trains Wales to the Welsh Government since 2006-07, totalled £2.2 million (Figure 9). There were no required penalty payments in 2014-15 or 2015-16. Between 2006-07 and 2015-16, the Welsh Government made performance related incentive payments to Arriva Trains Wales of just under £50 million²⁹.
- 3.7 With the approval of the Department for Transport, the Welsh Government can amend the public-performance measure within the lifetime of the current franchise if this reflects an improvement reasonably expected from a specified major project. However, as noted by Arup in its 2013 **Rail Services Efficiencies Review** for the Welsh Government (paragraph 2.21), any change would probably have to go through a potentially costly dispute resolution process with Arriva Trains Wales. The Welsh Government has also sought legal advice on the scope to change the current public performance measure, which supported the position set out in the Arup report. Given the Arup and legal advice, the Welsh Government considers it unlikely that it will be able to re-calculate retrospectively the public-performance measure, but it has not completely ruled this out.

²⁹ Incentive payments were set out in the franchise when it was procured in 2003, and are calculated in the following way. The fixed bonus rate is multiplied by the difference between the benchmark public performance measure (88.8 per cent) and the public performance figure achieved by Arriva Trains Wales for each four-week period. The bonus rate is uprated by the Retail Price Index (RPI) each year. The UK Office for Budget Responsibility defines RPI as an average 'measure of the prices of goods and services, based on the cost of a basket of goods and services.'

Figure 9 – Levels of incentive and penalty payments for the Wales and Borders franchise 2006-07 to 2015-16

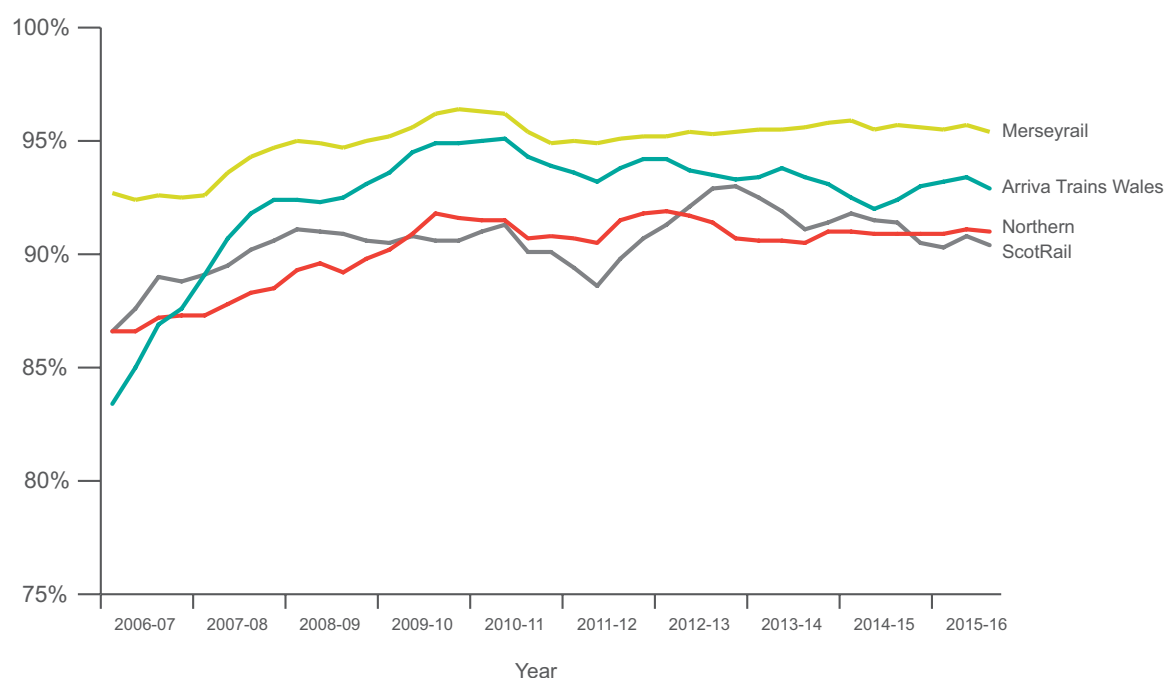
Year	Penalty payments by Arriva Trains Wales (£ million)	Incentive payments by the Welsh Government (£ million)	Net position of Welsh Government (£ million)
2006-07	0.489	0	0.489
2007-08	0	5.422	-5.422
2008-09	0	4.786	-4.786
2009-10	0	7.042	-7.042
2010-11	1.015	4.744	-3.792
2011-12	0	6.303	-6.303
2012-13	0.411	5.548	-5.137
2013-14	0.245	5.533	-5.288
2014-15	0	5.690	-5.690
2015-16	0	4.457	-4.457
Total	2.160	49.525	-47.365

Source: Welsh Government

- 3.8 The Arup report concluded that the improvement in achieving the public performance measure since 2006-07 resulted from:
- a a revised timetable that simplified operations, for example, by introducing trains that run every 15 or 30 minutes on certain peak routes; and
 - b fleet improvement initiatives initiated by Arriva Trains Wales such as improved maintenance standards.
- 3.9 As part of its preparations for the next Wales and Borders franchise, the Welsh Government is reviewing the performance regime it wishes to put in place. The Welsh Government's review will examine whether continued use of the public-performance measure is the most appropriate way to measure the performance of the franchisee.

- 3.10 To enable us to make long-term comparisons with the other regional train operating companies the analysis below uses a metric known as the ‘public performance measure moving annual average’. For each quarter, the moving average is the average of the value for the particular quarter and the previous three quarters. This approach smoothes out the quarter-to-quarter variations in the underlying data (due to seasonal or temporary factors), and means that longer-term trends in the data are easier to see.
- 3.11 In April 2006, Arriva Trains Wales’ moving annual average public-performance measure was 81.3 per cent. Since then, Arriva Trains Wales has seen the largest overall improvement when compared with the other regional train operating companies (Figure 10). Performance has declined slightly since 2009-10 but has remained above the UK national public-performance target of 90.7 per cent set by the Office of Rail and Road. At the end of quarter three of 2015-16, the moving annual average shows performance using this measure at 92.9 per cent, which was the seventh highest of all UK train-operating companies.

Figure 10 – Public-performance measure moving annual average, 2006-07 to quarter three of 2015-16



Source: Office of Rail and Road

Passenger satisfaction with Arriva Trains Wales has improved in some respects, but comparisons with other train operating companies show a mixed performance

- 3.12 In December 2013, the Campaign for Better Transport³⁰ published a report comparing rail services across the nine former Government Office Regions in England, as well as Scotland and Wales. The analysis considered services across a broad range of different criteria. The report ranked Wales as 10th of 11 regions and concluded that Welsh rail services performed less well than all other regions, with the exception of East of England, in terms of usage, accessibility and satisfaction. The Campaign for Better Transport's view was that in Wales 'the rail network underperforms compared to the level of funding it receives, demonstrating it needs greater support to ensure that maximum return on investment is achieved'.
- 3.13 However, data collected and analysed by Transport Focus from its biannual National Rail Passenger Survey (Box 3) shows that, in some of the main areas of passenger experience, there has been an improvement since data was first collected or from when the Welsh Government took over the day-to-day management of the franchise in 2006 (Figure 11)³¹. For example, increasing satisfaction with the overall station environment since 2006. The main exceptions are that passengers are now less satisfied than they were in spring 2010 with the value for money for the price of the ticket. There has also been a slight decrease since spring 2010 in satisfaction with trains and their punctuality and reliability, which may be a reflection of Arriva Trains Wales' ageing rolling stock. Data collected through the National Rail Passenger Survey is the accepted industry standard and is used formally in managing franchise agreements, including the Wales and Borders franchise³².
- 3.14 We compared the passenger satisfaction data for Arriva Trains Wales in spring and autumn 2015 with the other train operating companies in the UK. The most up-to-date available data (autumn 2015) shows that passengers travelling with Arriva Trains Wales were less satisfied across all the six main categories of passenger satisfaction (Figure 12). However, passenger satisfaction fluctuates. For example, the spring 2015 data shows that passengers travelling with Arriva Trains Wales were more satisfied with the overall journey experience, the train and the punctuality and reliability of the service, but Arriva Trains Wales ranked the lowest for satisfaction with the overall station environment.
- 3.15 In February 2016, 'Which' magazine undertook a survey where passengers ranked Arriva Trains Wales as having the fewest delays to services out of 22 train operating companies. 'Which' also found that for overall passenger satisfaction Arriva Trains Wales ranked 18 of 22 rail operating companies.

30 The Campaign for Better Transport is an independent charity and pressure group providing research and solutions to transport problems, and in December 2013 it published **The Effectiveness of the Rail Network Across Great Britain – a comparative analysis**.

31 The industry practice is to report customer satisfaction with the performance of the train operating companies, such as Arriva Trains Wales. However, passenger satisfaction is likely to reflect some factors outside the control of Arriva Trains Wales. For example, the actions of Network Rail to maintain, renew and enhance infrastructure will affect the punctuality and reliability of trains.

32 For a series of measures (for example train cleanliness), the franchise agreement sets out a target satisfaction score. Where Arriva Trains Wales misses the target, it is required to submit an action plan which sets out how it plans to improve performance.

Box 3 – National Rail Passenger Survey

In spring and autumn each year, Transport Focus carry out the National Rail Passenger Survey which it describes as ‘a network-wide picture of passengers’ satisfaction with rail travel in Great Britain’. Nationally, each survey round covers approximately 30,000 people, with the autumn 2015 survey sampling 1,109 Arriva Trains Wales passengers.

Transport Focus asks passengers for their views about the specific journey they are undertaking at the point they are surveyed. Passengers are asked to rate their overall satisfaction with their journey, with the station at which they boarded and with the train on which they travelled. Passengers are also asked a series of 33 satisfaction questions about more specific aspects of the station at which they boarded and the train on which they travelled.

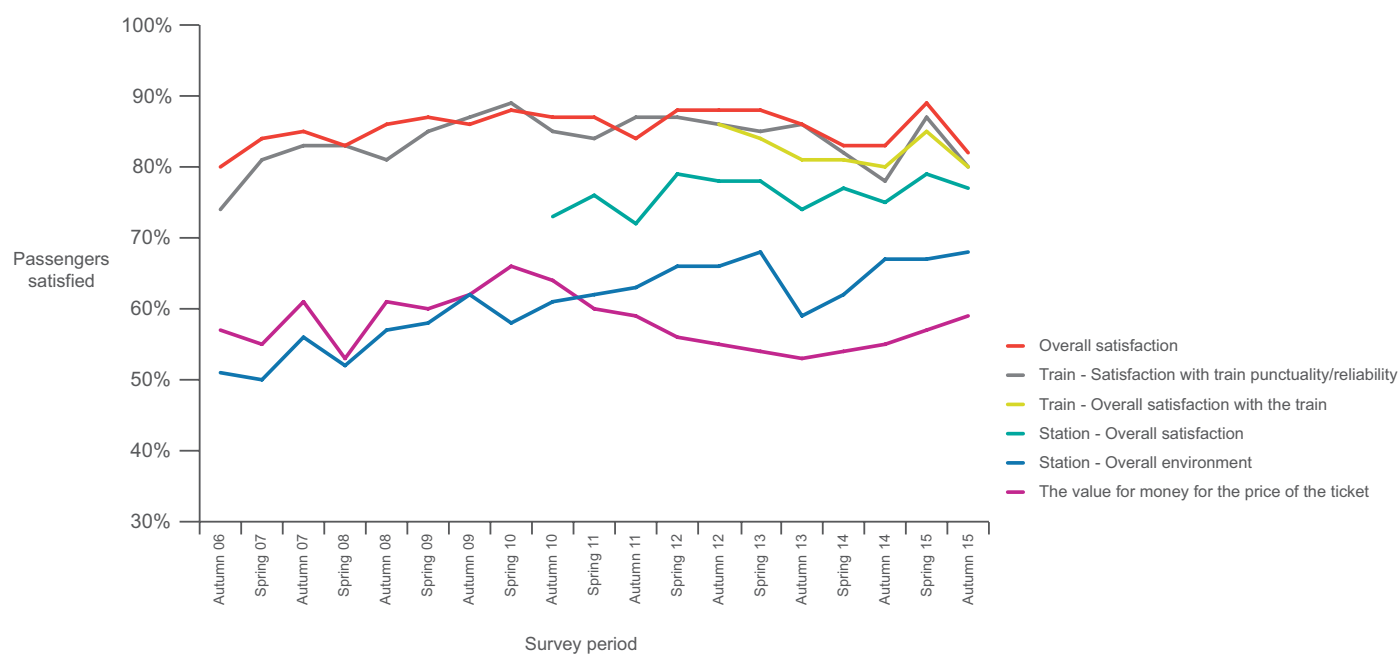
Transport Focus produces a wide range of analysis using information collected during the survey, including analysing satisfaction data at three levels: UK, train operating company and routes. The route-level data includes routes that come into Wales but are not part of the Wales and Borders franchise.

Further information on the survey is available on the Transport Focus website.

Source: Wales Audit Office

- 3.16 For each train operating company, Transport Focus produces a report which identifies the main on-train and station factors influencing overall satisfaction scores. Its most recent analysis (autumn 2015) shows that for Arriva Trains Wales, 12 of the 33 measures are influencing overall satisfaction levels. The two measures with the biggest impact on overall satisfaction are on-train factors, namely the cleanliness of the inside of the train followed by the comfort of the seating area. For Arriva Trains Wales passengers, the punctuality and reliability of the train are of less importance than the previous two factors in explaining overall satisfaction levels. In contrast, at a national level the punctuality and reliability of the train is the most important factor influencing passengers’ overall satisfaction with the journey.
- 3.17 Also, Transport Focus compares passenger satisfaction with punctuality against the actual punctuality of each train company, using measures including the public performance measure (moving annual average) discussed above. Its analysis appears to show that for Arriva Trains Wales as punctuality improves so does passenger satisfaction and vice versa.

Figure 11 – Passenger satisfaction with Arriva Trains Wales, autumn 2006 to autumn 2015

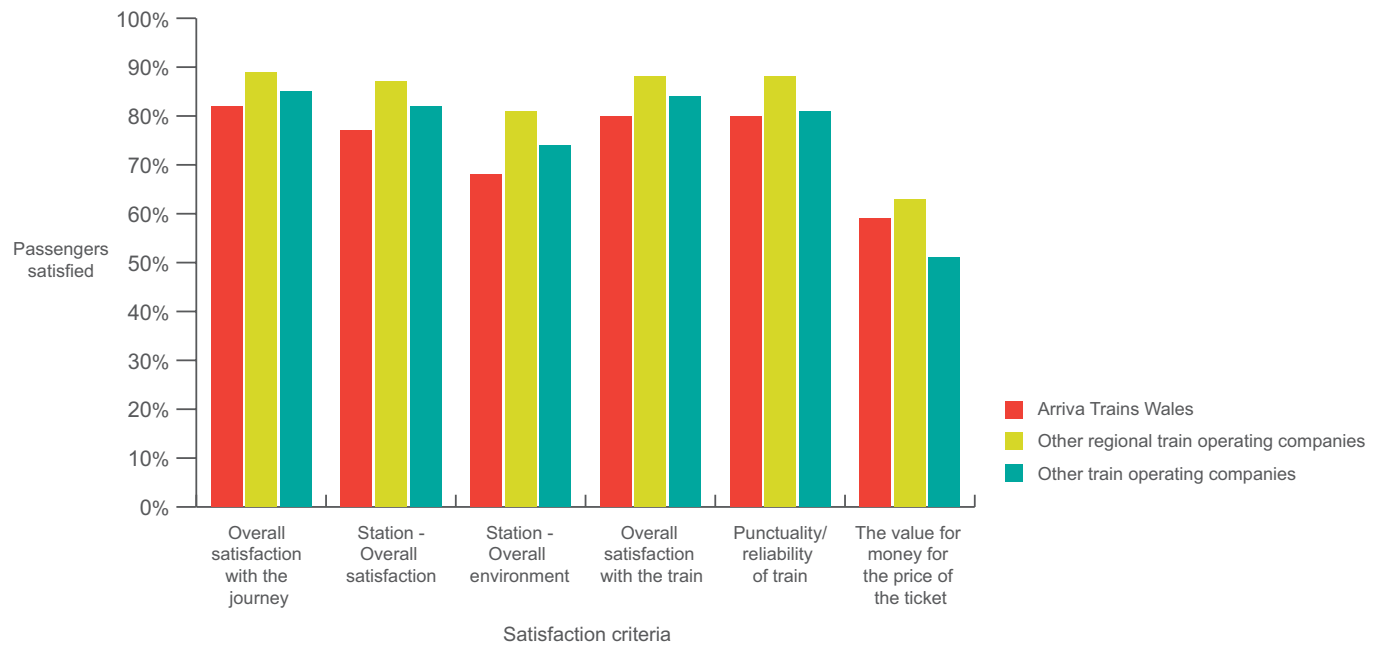


Note

The percentage of passengers defined as satisfied comprises the numbers of passengers responding 'fairly satisfied' and 'very satisfied'. This report does not examine rates of and reasons for dissatisfaction. However, Transport Focus reports in a number of ways on dissatisfaction. For example, for each train operating company it considers the main factors influencing passenger dissatisfaction. 'Dissatisfaction' is also a composite of passengers responding 'fairly dissatisfied' and 'very dissatisfied'. For each satisfaction question, passengers are also given the option to respond 'neither satisfied nor dissatisfied' and 'don't know/no opinion'.

Source: Transport Focus National Rail Passenger Survey data

Figure 12 – Arriva Trains Wales passenger satisfaction compared with other UK train operating companies, autumn 2015



Note

This figure includes data for all of the four 'regional operating companies', Arriva Trains Wales, Merseyrail, First ScotRail and Northern Rail.

Source: Transport Focus National Rail Passenger Survey data

Part 4

The procurement of the Wales and Borders services from 2018 presents new risks, challenges and opportunities for the Welsh Government with some key decisions still to be made



- 4.1 The final part of this report considers the Welsh Government's plans for procuring Wales and Borders services from 2018. The Welsh Government's Deputy Permanent Secretary for Economy, Skills and Natural Resources is the 'Senior Responsible Owner' for the procurement project.
- 4.2 We have not undertaken a detailed review of the Welsh Government's project management arrangements for specifying and procuring the services. However, the Welsh Government has undertaken its own initial Gateway review of the joint procurement of the Wales and Borders services and Metro infrastructure.
- 4.3 The Gateway review found that delivery of the procurement within the required timescales 'appears feasible but significant issues already exist requiring management attention. These appear resolvable at this stage and, if addressed promptly, should not present a cost/schedule overrun'. Issues include: clarity of governance arrangements; the need for an overarching Master programme for the procurement and beyond which includes resourcing, key dependencies and critical path; and the need for greater clarity on the desired outcomes of an integrated contract and the minimum requirements which must be delivered through the procurement.

The recent example of the InterCity West Coast franchise in England highlights some of the inherent risks in the procurement process for the new Wales and Borders services

- 4.4 The UK Government's Department for Transport is currently responsible for managing and letting the 16 rail franchises across England and Wales. This responsibility has rested with the Department for Transport since 1994, and it awarded the first franchises in December 1995.
- 4.5 On 3 October 2012, problems with the procurement led the Department for Transport to rescind its provisional decision to award the InterCity West Coast franchise to First Group, and to temporarily suspend its entire franchising programme. The National Audit Office examined the background to the suspension of the procurement and identified a number of lessons to safeguard against poor decision making on major projects in the future (Box 4).

Box 4 – Lessons from the cancellation of the InterCity West Coast franchise in England

The National Audit Office identified five essential safeguards against poor decision making on major projects, and concluded that none of these safeguards operated effectively in the case of the InterCity West Coast competition:

- 'Clarity of objectives helps decision makers to form appropriate judgements by being a touchstone to refer back to throughout the decision-making process.
- Strong project and programme management brings together and co-ordinates the different streams of work, identifies interdependencies and the sequence of events – the critical path – a programme needs to follow.
- Senior oversight acts as a sense check.
- Effective engagement with stakeholders, such as suppliers, helps by contributing their knowledge, signalling problems and brings them into the process.
- Internal and external assurance provides a sense check and can identify any areas of concern to management'.

Source: National Audit Office, **Lessons from cancelling the InterCity West Coast franchise competition**, December 2012

The Welsh Government has established a transport company and a strategic advisory board to increase its capacity to procure the new Wales and Borders services

- 4.6 In December 2014, the Welsh Government established a new Strategic Advisory Board³³ to guide the development of integrated transport in Wales, including the South Wales Metro, and the specification and procurement of the new Wales and Borders services. The Welsh Government has also appointed a new Rail Programme Director to co-ordinate various major projects.
- 4.7 The Welsh Government has also formed a not-for-dividend transport company – Transport for Wales. The relationship between the Welsh Government and the company is governed by a number of key documents (Box 5). The current role of the company is to provide advice and support on the procurement of the next Wales and Borders franchise and Metro infrastructure. The main contracts for the rail franchise and delivery of infrastructure will be between the Welsh Government and the provider(s), with Transport for Wales providing advice and expert services. The Welsh Government considers that the company will increase its capacity and capability to deliver its ambitions for rail at the same time as reducing its costs³⁴. The Welsh Government anticipates that the company will enable it to:

33 The Strategic Advisory Board comprises the chief risk officer of Admiral Group (replaced the chief executive officer of Admiral Group who attended previously), a former managing director of South West Trains and First Group (who is now chief executive of the Civil Aviation Authority), and the former managing director of Virgin Trains and Arriva Trains Wales (who is now a non-executive director of Network Rail).

34 In October 2014, the National Audit Office reported that the UK Government's Department for Transport needed to develop its capacity and skills to deliver major rail-infrastructure projects. The report noted that arm's length arrangements, such as Crossrail Limited can make it easier to recruit experienced, capable people. However, the report also emphasised that the supply of skills could become more difficult given the number of large infrastructure projects in progress and planned (National Audit Office, **Lessons from major rail infrastructure programmes**, October 2014).

- a Better scale up or scale down its resources to meet changing demand. The Welsh Government believes that establishing the Company to recruit appropriately skilled and expert staff will help to develop its credibility in the eyes of suppliers and contractors.
- b Reduce its reliance on external consultants. The Welsh Government has concerns that consultancy costs could increase as the scale of its rail-related activities expands.

Box 5 – Governance arrangements Transport for Wales

The company board currently comprises eight directors, (including the chair):

- five non-executive directors, drawing in wider experience and expertise in areas such as HR, finance, infrastructure delivery and governance, all of whom are Welsh Government employees; and
- three executive directors with expertise specific to their area of responsibility³⁵.

The relationship between the Welsh Government and the company is governed by the following key documents:

- A delegation letter issued by the Permanent Secretary gives the Deputy Permanent Secretary for Economy, Skills and Natural Resources additional accounting officer responsibilities which he is to discharge through his appointment as Chair of the company.
- A Management Agreement between the Welsh Government and the company outlines the purpose of the company, its accountabilities and responsibilities. The Management Agreement will be reviewed periodically to ensure it remains fit for purpose.
- A remit letter from the Welsh Government outlines the key objectives and outputs the company is expected to deliver.
- A business plan, produced by the company, that sets out how the company will deliver the objectives and outputs outlined in the remit letter. The November 2015 business plan identifies the deliverables and critical success factors which must be in place to complete the procurement of the integrated contract on time.

Source: Wales Audit Office

³⁵ Two Executive Directors are currently on secondment from the Welsh Government. The third, the Managing Director, is not a Welsh Government employee.

The Welsh Government wants a different operating model for the next franchise, but has not yet established what that operating model is

- 4.8 Current legislation³⁶, which will not be amended prior to the procurement of the next franchise, means the remit of Transport for Wales cannot extend to operating services. The Welsh Government's current thinking is that it will use the competitive dialogue process to construct an agreement that matches its objectives. It has considered how the operating model for the next franchise needs to reflect the particular circumstances in Wales and specific Welsh Government policy objectives, but has yet to confirm its position.
- 4.9 The Welsh Government had previously considered moving from a 'franchise' model to a 'concession' model, with envisaged benefits including the ability to reinvest in services as revenue increases. However, the Welsh Government's current thinking is that it will use the procurement process to confirm the operating model. The Welsh Government has also yet to confirm the details of its approach to incentivising the operator of the franchise and maximising reinvestment in railway services.
- 4.10 The nature of the services provided by the Wales and Borders franchise (which is a mix of rural services, a commuter network in south-east Wales and a number of interurban services), and the likelihood that services will require subsidising into the future mean that the Welsh Government needs to develop a clear position on the following issues:
- a The level of control over service specification and delivery that sits with the Welsh Government. Commonly, franchises where high levels of control rest with the authority are referred to as 'management contracts' or 'concessions', whilst those where control is largely or totally with the operator are referred to as 'commercial franchises'.
 - b Its approach to the allocation of a range of risks, such as revenue risk allocation. In a commercial franchise, revenue risk tends to sit largely or totally with the operator who also has the opportunity to increase profits if it can grow its revenue. Whereas in a management contract the revenue risk sits largely or totally with the authority. The Welsh Government must also determine an approach to the allocation of risks, such as fuel cost variation. In a commercial franchise the operator often includes the risk of fuel cost variation in its operating cost calculations, whereas in a management contract the risk of fuel cost variation may sit largely or totally with the authority.

³⁶ Section 25 of the Railways Act 1993 prevents 'public sector operators' from running rail franchise in Britain. However, the Scotland Act (Amendment) Bill 2015-16, which is currently being considered by the UK Parliament, proposes to devolve to the Scottish Government the power to allow public sector operators to bid for rail franchises funded and specified by Scottish Ministers. The UK government has agreed to consider whether to give Wales the same powers in this respect.

- 4.11 As part of developing a different approach to operating Wales and Borders services, the Welsh Government has met the Scottish Government to discuss its approach to awarding the ScotRail franchise. The new ScotRail franchise includes a 'deep alliance' between the franchisee – Abellio³⁷ – and Network Rail as the owner and operator of the infrastructure. Network Rail say that a 'deep alliance' is an alliance in which they and a train operator 'share upside or downside risk against an agreed baseline for all and most of their activities'. In a 'deep alliance', there should be an integrated management team and a single Managing Director who is accountable to both companies. The Welsh Government discussed the potential benefits of an alliance model at a briefing it held with the rail industry in June 2015.

The Welsh Government aims to let an integrated Wales and Borders and Metro contract in 2017 worth an estimated £3.5 billion, through a competitive dialogue process

- 4.12 In 2017, the Welsh Government aims to let an integrated contract for the Wales and Borders franchise and Metro. Its view is that combining the procurement of the Metro with the Wales and Borders franchise will give a step change in quality, including faster journey times, improved reliability and less overcrowding.
- 4.13 The Welsh Government has estimated the value of the integrated contract at £3.5 billion. The estimated value reflects an assumption based on a 15-year franchise, although a final determination on the length of the franchise will emerge during the procurement process. The length of the franchise makes it particularly important that the Welsh Government gets the contract specification right. The lack of provision for passenger growth is a widely acknowledged limitation of the current franchise³⁸.
- 4.14 In November 2015, the National Audit Office published its review of the UK Government Department for Transport's approach to passenger rail franchising since the collapse of the InterCity West Coast competition³⁹. The report identified a number of risks to achieving value for money in the refranchising programme, including the 'challenging interdependencies' between major infrastructure works, rolling stock and franchises. Transport Scotland has sought to manage these interdependencies through the 'deep alliance' model. The Welsh Government considers that procuring an integrated contract should offer the opportunity to manage such interdependencies better.
- 4.15 The Welsh Government has chosen to adopt a competitive dialogue process to procure the integrated contract. The competitive dialogue approach should allow the Welsh Government to design a feasible, fit-for-purpose, solution to achieve the Welsh Government's objectives rather than specifying this up front⁴⁰.

³⁷ In October 2014, the Scottish Government awarded the ScotRail franchise to Abellio, a subsidiary of the Dutch national operator. The contract runs for a minimum of seven years from 1 April 2015 with an option to extend the term to 10 years by mutual consent after five years.

³⁸ For a discussion of the strengths and weaknesses of the current franchise which was procured by the Department for Transport in 2003, see, National Assembly for Wales Enterprise and Business Committee, **The Future of the Wales and Borders franchise**, December 2013.

³⁹ National Audit Office, **Reform of the rail franchising programme**, November 2015.

⁴⁰ The Auditor General's May 2015 report on **Welsh Government investment in next generation broadband infrastructure** notes that the Welsh Government adopted the competitive dialogue process for its procurement of its Superfast Cymru contract with BT.

4.16 The current timetable is as follows:



- 4.17 The Welsh Government had previously envisaged completing the specification phase by early 2016. However, it has taken longer than originally estimated to negotiate an arrangement to deliver its preferred approach with the Department for Transport and Network Rail. This delay has had a knock-on effect on the procurement phase, which was originally due to be completed by late 2016. The Welsh Government told us that early planning timescales were indicative and allowed for delays. The Welsh Government is confident that the revised timescale will still enable the new franchise to start in autumn 2018. In May 2016, Transport for Wales appointed consultancy firm Mott MacDonald to act in an advisory role and provide expertise during the procurement process.
- 4.18 The Welsh Government is engaging with key stakeholders to develop its plans for specifying and procuring the franchise and for delivering its Metro Phase 2 infrastructure projects. The Welsh Government held a number of consultation events during 2015 and, in January 2016, issued a consultation document **Setting the Direction for Wales and the Borders Rail**. Issues covered by the consultation include: station improvements; the future performance management regime for the next Wales and Borders franchise; the appropriateness of current Wales and Borders services (for example, the current frequency of services) and ticketing (for example, views on replacing the current paper-based ticketing system).
- 4.19 In May 2016, Transport for Wales, on behalf of the Welsh Government, held a Wales and Borders and Metro procurement event to provide detail to prospective bidders and the immediate supply chain (such as rolling-stock manufacturers, rolling-stock companies and major infrastructure contractors).
- 4.20 The Welsh Government will need to manage a series of risks when working with the industry to deliver the integrated contract within the required timescales. In a 12 July 2016 statement to the National Assembly for Wales on priorities for his government, the First Minister raised the possibility that due to the result of the referendum on membership of the European Union, the South Wales Metro project could take longer to deliver than originally anticipated. Uncertainties around timescales may impact upon the level of interest within the industry in delivering the project. Should the procurement not be completed by the end of the current franchise then, for the franchise element, the Welsh Government has the ability to make a Direct Award or extend the existing franchise.
- 4.21 Transport for Wales has identified and assessed the risks to the successful procurement of an integrated Wales and Borders franchise and Metro procurement. These risks are reported to the company board.

The Welsh and UK governments have yet to agree some details of the financial settlement for the next Wales and Borders franchise

- 4.22 On 17 September 2015, the Department for Transport told the Enterprise and Business Committee that it had agreed with the Welsh Government that a key principle of the future financial settlement for the next Wales and Borders franchise between it and the Welsh Government was that ‘the block grant would be unaffected’⁴¹. This agreement between the two governments comes with a number of implications and risks.
- 4.23 The future financial settlement will not include any additional funding to cover the costs of the enhanced services, which the Welsh Government has funded to date (paragraph 2.5 and Appendix 3). To continue to run the additional services from 2018, the Welsh Government will continue to have to fund these services at a cost of approximately £20 million annually (based on the current franchise). The Welsh Government told us that it expects these services to be delivered at less cost under the new franchise, as they will be competitively procured and benefit from potential integration with other services.
- 4.24 The **National Transport Plan 2010** identifies a number of additional services that the Welsh Government aspired to, but is yet to deliver. One such example is the introduction of half-hourly peak services between Caerphilly and Pontypridd, via Cardiff. The Welsh Government has estimated the total costs of the as yet undelivered aspirations within the National Transport Plan to be approximately £13 million per annum.
- 4.25 The **National Transport Finance Plan 2015** commits the Welsh Government to reviewing its proposals for service enhancement. Budget constraints resulting from the ongoing real-terms reductions in the Welsh Government’s block grant from the UK Government will inevitably be a consideration in decisions about the affordability and overall prioritisation of enhanced services in the medium term.
- 4.26 The Welsh and UK governments are yet to agree the extent to which the next Wales and Borders franchise will include the more lucrative cross-border services, such as Cardiff to Manchester, which currently subsidise the less commercially viable services. The Department for Transport has committed to the Welsh Government being no better, no worse off as a result of any remapping from 2018. However, as acknowledged by the Department for Transport, quantifying exactly what this means in terms of a final funding package is, in practice, quite difficult.

⁴¹ This agreement covered a number of other issues, for example, the Department for Transport contributing £125 million at 2014 prices to the costs of Valley Lines electrification.

4.27 Also, in October 2014, the then Director General for Economy, Science and Transport told the National Assembly's Enterprise and Business Committee that there had been a failure to index link the funding provided to the Welsh Government, when it took over responsibility for the franchise in 2006. He said that this failure will have added 'about £60 million to £70 million to the cost' of the franchise by time it ends in 2018. The Welsh Government remains concerned about this issue. However, Department for Transport officials told us that it is for the Welsh Government to manage this financial risk as part of procuring the next franchise.

The Welsh Government's approach to managing and acquiring rolling stock will be decided as part of the competitive dialogue process for the franchise procurement

4.28 The National Assembly Enterprise and Business Committee's December 2013 report on **The Future of the Wales and Borders Franchise** recommended that the Welsh Government 'develop and publish a rolling stock strategy as a matter of urgency'. The Welsh Government accepted this recommendation in principle, but also noted in its response to this and a number of the other Committee recommendations that it was not at that time the franchising authority.

4.29 Rolling stock is a particular issue because of regulations, widely known as the Persons with Reduced Mobility Regulations, which mean that all trains must be by 1 January 2020⁴². As part of the competitive dialogue process for the franchise procurement, the Welsh Government is looking to Transport for Wales to identify the most appropriate option, for example, lease from rolling-stock operating companies or Welsh Government ownership, and establish a delivery programme. Decisions about rolling stock cannot be made until the Welsh Government decides upon the technical solution to deliver the South Wales Metro, for example, light rail or heavy rail. There are consequently certain risks in terms of the lead-in times for delivering the required rolling stock that the Welsh Government will need to manage.

⁴² Rail Vehicle Accessibility (Non Interoperable Rail System) Regulations 2010 (RVAR 10) applies to mainline trains built from 1999 to 2009 and non-mainline rail vehicles. Technical specification for interoperability for persons with reduced mobility (PRM TSI) applies to mainline trains built from 2010 onwards. However, as of January 2020, trains built before 1999 will also be required to be accessible. The Office of Rail and Road is responsible for enforcing RVAR 2010 and PRM TSI.

Appendices



Appendix 1 - Methods

Scope of our work

Our examination focused on whether the Welsh Government has put in place effective arrangements to support the development and delivery of rail infrastructure and services in Wales. As part of our examination, we have set out public-sector investment in rail services and infrastructure since April 2011. We took this as the starting point for our analysis because this is when Network Rail started recording Wales-level data. Prior to this date, expenditure data from Network Rail was only available on a UK-wide basis.

We have also analysed the performance of, and passenger satisfaction with, the services operated by Arriva Trains Wales under the Wales and Borders franchise. Since 2006, the Welsh Government has been responsible for the day-to-day management of the Wales and Borders franchise and can choose to fund additional services to the core franchise. However, the Welsh Government does not have similar responsibilities and powers over the franchises operated by Virgin, First Great Western and CrossCountry which all include routes that come into Wales.

This study was not an audit of the operations and effectiveness of Network Rail. From September 2014, reflecting new European Union reporting rules, the Office for National Statistics reclassified Network Rail as a public body, rather than a private non-financial corporation. Subsequently, under the September 2014 Framework Agreement between Network Rail and the Department for Transport, the Comptroller and Auditor General became Network Rail's appointed auditor and gained powers to carry out value-for-money studies under the National Audit Act 1983 examining the economy, efficiency and effectiveness with which Network Rail has used its resources in discharging its functions.

In October 2015, the National Audit Office published a memorandum for the Westminster Public Accounts Committee. This memorandum covers: the processes for determining spending on rail infrastructure; the scale and scope of Network Rail's current investment programme and how this differs from previous investment programmes; how issues have become known with the delivery of the current programme and the UK government's response to the emerging issues⁴³.

The delivery by Network Rail of its enhancement programme has been reviewed by Sir Peter Hendy and Dame Colette Bowe. Other aspects of Network Rail's performance have been reviewed by Nicola Shaw (Box 6).

⁴³ National Audit Office, **Planning and delivery of the 2014–2019 rail investment programme**, October 2015.

Box 6 – Recent reviews of Network Rail

Bowe review of the planning of Network Rail's enhancements programme, 2014 to 2019

The UK Government asked Dame Colette Bowe, Non-Executive Director Department for Transport, to identify:

- the causes of the increases against cost estimates and delays to projects within the Control Period 5 (2015-2019) enhancements programme, including looking at the treatment of schemes in an early stage of development;
- the extent to which Network Rail's plans include the creation of capability and skills in the company and its supply chain to deliver the programme;
- lessons to be learnt from different delivery models for rail infrastructure enhancements (for example, the Thameslink Programme); and
- changes to process and practice that will lead to improved outcomes for Control Period 6 (2019-2024).

Dame Bowe's report was published in November 2015. Her review concluded that there was no single reason to explain the increasing costs and delays, which if remedied would prevent similar problems occurring in 2019-2024. Instead, she found a number of reasons, including:

- planning processes which were inadequate to deliver projects of the scale and the complexity of those scheduled for delivery during Control Period 5, in particular to deliver a programme of electrification the scale of which was previously unseen within the UK;
- unclear roles and responsibilities between the Department for Transport, the Office of Rail and Road and Network Rail;
- poor scope definition and ongoing 'scope creep' which led to increasing costs;
- changing internal structures and responsibilities within Network Rail, which obscured lines of accountability and hampered project and programme management; and
- early cost errors, unanticipated interdependencies and machinery which did not deliver as expected, which slowed the rate of electrification.

Hendy review of the replanning of Network Rail's investment programme

Reflecting concerns about delays and cost overruns in Network Rail's £11.8 billion five-year programme of UK-wide enhancements, on 15 September 2015, the Secretary of State for Transport commissioned Sir Peter Hendy, the then recently appointed Chair of Network Rail to 're-plan' the enhancement programme. The Hendy review's terms of reference are to ensure that enhancements are re-planned so that:

- 'the work planned is deliverable within the resources available to Network Rail and its supply chain in any given financial year;
- maximum value is gained through finding the most efficient means of delivery;

- work that cannot be afforded, or is not deliverable, between 2014 and 2019 is profiled for delivery beyond 2019, pending availability of funding;
- work is prioritised taking particular account of interfaces with other infrastructure programmes and the need to deliver the required passenger and freight benefits, franchise or rolling stock commitments’;
- Network Rail was scheduled to deliver two major infrastructure projects in Wales in Control Period 5: Great Western Electrification (London Paddington to Swansea) and Valley Lines Electrification.

The Hendy review was published in November 2015. The review found the two main reasons for the cost and delivery problems were inadequate planning and scope definition of some projects and poor cost estimation. The review described how Network Rail and the Department for Transport have worked together to identify additional funding to deliver Network Rail’s enhancements programme (sale of assets and increased borrowing). However, while this approach is sufficient to fund the vast majority of enhancement projects scheduled for Control Period 5, it is not sufficient to fund all projects and a number have been identified for completion in Control Period 6.

As part of its overall review of Network Rail’s enhancement programme, the Hendy review reassessed and replanned the Great Western Mainline electrification programme which includes electrification of the line from London Paddington to Swansea. Under the new programme, completion of electrification to Cardiff is still planned to be completed in Control Period 5 within the estimated total cost of £2.8 billion (in 2012-13 prices), although at the time the Hendy review was published, cost and delivery milestones were still subject to final review. However, electrification beyond Cardiff to Swansea is now expected to be completed in Control Period 6 at the earliest.

Shaw review of the future shape and financing of Network Rail

On 8 July 2015, the UK Government announced that it had asked Nicola Shaw, Chief Executive of High Speed 1, to ‘develop recommendations for the longer-term future shape and financing of Network Rail’. In November 2015, Ms Shaw published a ‘scoping document’ which included: her approach to conducting the review; some background issues, such as the way in which Network Rail operates and is funded, and identified some of the implementation issues which would be further explored in her final report.

The final report identified four main problems with the way in which infrastructure services are delivered by Network Rail and made seven recommendations to address these problems.

Sources: Department for Transport, **Report of the Bowe Review into the planning of Network Rail’s Enhancements Programme 2014-2019**, November 2015; Network Rail, **Report from Sir Peter Hendy to the Secretary of State for Transport on the replanning of Network Rail’s Investment Programme**, November 2015; Department for Transport, **The future shape and financing of Network Rail**, March 2016.

Review of literature, data and statistics

We reviewed a wide range of documents and data, including:

- a Welsh Government policy documents; including the **National Transport Plan 2010** and the **National Transport Finance Plan 2015**.
- b Welsh Government Ministerial statements about rail services and responses to National Assembly for Wales' reports on rail services.
- c Welsh Government published data, including those used to monitor the National Transport Plan.
- d Welsh Government financial data, including spending on the current franchise, additional services, infrastructure improvements and forecast expenditure on rail projects.
- e Data from the Office of Rail and Road on passenger numbers, the Public Performance Measure and train operating company subsidies since 2011.
- f Data from Transport [formerly Passenger] Focus on national rail passenger surveys since 2011.
- g Data from the Department for Transport about Access for All funding in Wales.
- h Network Rail data on rail expenditure in Wales since 2011.
- i Other audit reviews, scrutiny reports and research papers, including:
 - National Assembly for Wales Enterprise and Business Committee, **The Future of the Wales and Borders Rail Franchise**, December 2013.
 - National Assembly for Wales Enterprise and Business Committee, **Priorities for the future of Welsh Rail Investment**, March 2016.
 - National Assembly for Wales Research Service:
 - **Quick Guide to the Operation of the railways in Wales**, May 2011;
 - **Rail Infrastructure Planning in Wales – a quick guide**, July 2016;
 - **Rail franchising in Wales**, July 2016.
 - Welsh Government Internal Audit Services reviews of the Rail Franchise and Rail Capital Contracts both conducted in 2014.
 - A **Rail Services Efficiencies Review** conducted by Arup for the Welsh Government in 2013.

- National Audit Office:
 - **Lessons from cancelling the InterCity West Coast franchise competition**, December 2012;
 - **Lessons from major rail infrastructure programmes**, October 2014;
 - **A short guide to Network Rail**, July 2015;
 - **Planning and delivery of the 2014-2019 rail investment programme**, September 2015; and
 - **Reform of the rail franchising programme**, November 2015.
- Credo Business Consulting LLP in association with the Campaign for Better Transport, **The Effectiveness of the Rail Network Across Great Britain – a comparative analysis**, December 2013.

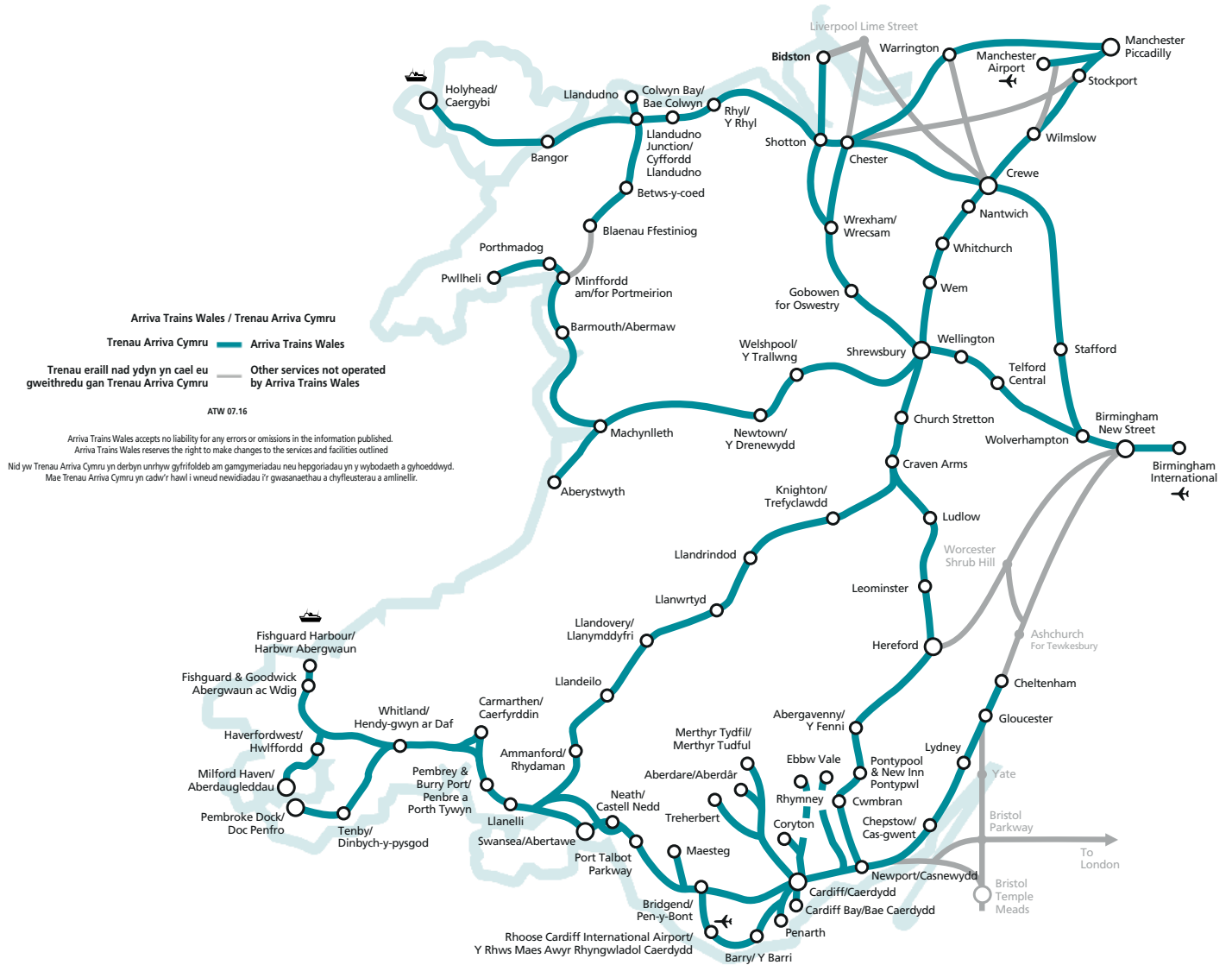
Interviews with the Welsh Government, Network Rail, Arriva Trains Wales and other organisations

We interviewed a range of Welsh Government officials with responsibilities for: developing rail policy; overseeing the operation by Arriva Trains Wales of the current Wales and Borders franchise and leading the specification and procurement of the next franchise; planning and managing the delivery of rail capital projects and monitoring and evaluating the impacts of Welsh Government investment in rail. We also interviewed officials at the Department for Transport and the Office of Rail and Road.

We spoke to key officials at Network Rail in Wales as well as key officials at Arriva Trains Wales. We also interviewed representatives of Transport Focus in Wales and Disability Wales.

We also observed one meeting of the Network Rail/Welsh Government Programme Management Board.

Appendix 2 - Map of Wales and Borders franchise routes



Source: Arriva Trains Wales

Appendix 3 - Welsh Government investment in enhanced services 2011-12 to 2015-16

Service enhancement	Start date	Details	Total Cost 2011-12 to 2015-16 (£ million)
Valley Lines Strengthening	2007	Provision of longer trains on key morning and evening commuter services on the Valley Lines network to address passenger growth/crowding.	34.397
Ebbw Valley line services ¹	2008	Introduction of hourly services, following re-opening of the line to passenger services.	21.733
North-South premier express service	2008	Fast weekday return service between Holyhead and Cardiff.	14.695
Cambrian line strengthening	2007	Funding of additional carriages to address passenger growth/crowding issues on services between Aberystwyth and Birmingham.	9.733
Cardiff to Holyhead two-hourly service	2004	Introduction of additional services to create a timetable with direct Holyhead-to-Cardiff services every two hours.	4.957
Merthyr half-hourly service	2009	Increase of service frequency between Merthyr and Cardiff during the day from hourly to half-hourly.	6.739
Fishguard services	2011	Provision of an additional five return services per day to Fishguard Harbour.	6.447
Vale of Glamorgan	2005	Introduction of hourly services, following re-opening of the line to passenger services.	6.726
Wrexham to Bidston Sunday service and strengthening	2006	Funding of provision of six return services on Sunday plus provision of longer trains on all services.	3.434
Heart of Wales Sunday service	2004	Provision of a second service (in each direction) on Sundays to allow return journeys.	0.241
Total			109.102

Note

¹ Between 2011-12 and 2015-16, under a profit share arrangement with Arriva Train Wales, the Welsh Government received an income of £6 million from the Ebbw Valley line. We have presented the full cost of enhanced services above without netting off this income. The total estimated profit-share income to the end of the franchise in 2018 is £12 million. The total estimated costs of delivering services on the Ebbw Valley line to the end of the franchise in 2018 is £41 million.

Source: Welsh Government

Appendix 4 - Recently completed and ongoing rail-infrastructure projects supported in part by Welsh Government funding

Figures 13 and 14 set out the recently completed and ongoing rail-infrastructure projects which include an element of Welsh Government funding. Neither table includes projects in Wales which were funded by the UK government through Network Rail but which did not include a Welsh Government contribution. For example, non-Welsh Government funded components of the Cardiff Area Signalling Renewal (Case Study 3 on page 36), which is itself part of a wider south Wales area re-signalling programme.

Figure 13 – Completed rail-infrastructure projects in Wales supported in part by Welsh Government funding, between January 2011 and May 2016

Project	Funding sources (£ million)				Total cost
	Welsh Government	European Union	UK Government Department for Transport	Network Rail	
Gowerton Station modernisation and redoubling ¹ of the line between Gowerton and Loughor (completed 2013) ²	14.4	13			27.4
Energlyn new station, Rhymney Valley line (completed 2013)	2.7	2.8			5.5
Swansea High Street station modernisation (completed 2012)	3.5		1.7	2.8	8
Newport station modernisation (completed 2011)	7.7			20.2	27.9
Gaer Junction upgrade (completed 2011)	2.9				2.9
Rhymney Valley stations park and ride (completed 2011)	3.6	3.1			6.7

Funding sources (£ million)

Project	Welsh Government	European Union	UK Government Department for Transport	Network Rail	Total cost
Pye Corner new station and park and ride (completed 2014)	1.3		2.1		3.4
Pontypridd station reinstatement of bay platform for potential additional frequencies (completed 2014)	2.6	3.3			5.9 ³
Cardiff Area Signalling Renewal ⁴ :	6.1	2.8			8.9
• Caerphilly station –reinstatement of bay platform for potential additional frequencies (completed 2013)	2	2.8			4.8
• Barry turnback – reinstatement of bay platform and signalling for potential additional frequencies and replacement footbridge (completed 2014)	4.1				4.1

Funding sources (£ million)

Project	Welsh Government	European Union	UK Government Department for Transport	Network Rail	Total cost
Wales Station Improvement Programme	7.6	21.4		3.8	36.2
• Aberystwyth	1.4	1.5		0.1	3
• Humps	0.2	1.5			1.7
• Llandudno		2.0		3.0	6.6 ⁵
• Pontypridd	1.2	3.8		0.2	5.6 ⁶
• Rhyl	0.6	1.0		0.5	2.1
• Ystrad Mynach	0.7	0.9			1.6
• Porthmadog Harbour		0.6			1.0 ⁷
• SWWITCH station access programme ⁸		0.9			0.9
• Carmarthen	0.1				0.4 ⁹
• Customer Information System/Shelters	0.4				0.4
• Port Talbot Parkway	3	9.2			12.9 ¹⁰

(all completed by May 2016)

Funding sources (£ million)

Project	Welsh Government	European Union	UK Government Department for Transport	Network Rail	Total cost
Access for All programme (replacement of footbridges with lifts and ramps)	1.82		2		3.82
• Ystrad Mynach	0.88		1		1.88
• Chirk	0.94		1		1.94
(completed by July 2015 and October 2015 respectively)					
Totals	54.22	46.4	5.8	26.8	136.6

Notes

- 1 A double-track railway which usually involves running one track in each direction, compared to a single-track railway where trains in both directions share the same track.
- 2 Alongside this Welsh Government-led project, Network Rail replaced the Loughor Railway Bridge over which the new double track could run at a cost to it of £20.3 million.
- 3 Does not include unforeseen costs of £0.23 million met from Network Rail's 'Rail Industry Risk Fund' (see paragraph 1.35).
- 4 Within the Cardiff Area Resignalling Scheme the Welsh Government is also funding improvements at Tir Phil but this work is not yet fully complete (see Figure 14).
- 5 The Llandudno station improvement scheme also received funding from Taith (£1.4 million) and the Railway Heritage Trust (£0.15 million)
- 6 Includes Arriva Trains Wales investment of £0.4 million.
- 7 Includes £0.4 million match funding from Ffestiniog Railway Trust.
- 8 A programme of minor access improvements to a number of stations in the SWWITCH area (Pembrokeshire, Swansea, Neath Port Talbot and Carmarthenshire). Swansea City and County Council co-ordinated scheme delivery on behalf of the Welsh Government.
- 9 Includes local-authority investment of £0.27 million and Arriva Trains Wales investment of £0.09 million.
- 10 Total includes a contribution of £0.7 million from Neath Port Talbot County Borough Council.

Source: Welsh Government

Figure 14 – Ongoing rail-infrastructure projects in Wales supported in part by Welsh Government funding, as of May 2016¹

Scheme	Indicative cost £ million	Estimated completion date
North – South journey time reduction/ capacity enhancement (partial redoubling of single line between Wrexham to Chester, signalling and upgrading four level crossings).	49	Physical works by March 2017, commissioning by December 2017.
Ebbw Vale Town new station and line extension from Ebbw Vale Parkway, including line speed enhancements.	11.5	Station/extension operational by May 2015, line speed improvements completion date to be agreed.
Design of Maesteg branch frequency enhancement to enable potential half-hourly service to/from Cardiff (currently hourly).	0.9	By April 2017.
Rhymney Valley line – passing loop and new platform and signalling at Tir Phil to enable potential half-hourly service Bargoed to Caerphilly (currently hourly).	7.7 (Welsh Government with European Union funding)	Complete, except minor platform works at Tir Phil station that were delayed and are scheduled for completion in December 2016.
Ebbw Vale Frequency Enhancements (redoubling Crosskeys to Aberbeeg plus additional platforms at Llanhilleth and Newbridge to enable additional services).	39 (Welsh Government with European Union funding)	Completion 2017-18.
Access All projects – Barry, Treforest, Taffs Well, Llanelli, Cathays, Treherbert.	16 (Welsh Government with Department for Transport funding)	Design 2015, delivery 2016-17.
Access for All projects – Flint, Pengam, Cadoxton - design only. ²	0.5	Design 2015, delivery by April 2019, subject to Department for Transport funding.
Porth station park and ride.	1.8	Completion scheduled for July 2016.
Metro Station Improvement Programme - all stations Cathays to Merthyr.	13.7	Completion due 2016-17.

Scheme	Indicative cost £ million	Estimated completion date
Talerddig (Cambrian Line) level-crossing closure programme.	7.5 (Welsh Government with Department for Transport funding)	Completion due 2016-17.
Access for All projects – Mid-tier station accessible replacement footbridge – Radyr, Llandaf, and Machynlleth stations.	7.6 (Welsh Government with Department for Transport)	Completion due July 2016.
Design for new station at Bow Street, near Aberystwyth.	0.25	Completion due June 2016.
Design for infrastructure enhancements in North Wales.	0.4	Completion April 2017.
Total current projects	155.85	

Notes

- 1 This analysis excludes projects that the Welsh Government is committed to but which are not fully underway, such as Valleys Line electrification.
- 2 The Welsh Government is funding the design work for access improvements at these stations. However, it is yet to be confirmed whether these stations will receive Access for All funding.

Source: Welsh Government

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