Peninsula Transport

PENINSULA RAIL STRATEGY

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CONFIDENTIAL

Peninsula Transport

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1 INTRODUCTION

1.1.1. This is the Rail Strategy of the Peninsula Transport Sub-National Transport Body (STB). Peninsula Transport incorporates the local authority areas of Cornwall Council, Devon County Council, Plymouth City Council, Somerset County Council, and Torbay Council.

1.1.2. Alongside this Rail Strategy, the overarching Strategic Transport Plan suite for the peninsula includes:

- Strategic Economic Corridor Studies;
- Carbon Transition Strategy;
- Technology and Electric Vehicle Strategy;
- South West Freight Strategy;
- South West Rural Mobility Strategy; and
- International Gateway Study.

1.1.3. The Rail Strategy is the only product which is mode-specific, reflecting the unique challenges facing decision-makers which must be overcome for the railway to preserve and enhance its function within the peninsula. Care has been taken to be complementary with the findings and recommendations of the wider STP products in the creation of this Strategy.

1.2 BACKGROUND

1.2.1. Prior to the creation of Peninsula Transport, the Peninsula Rail Task Force (PRTF) was set up to represent the local authorities on rail matters. This followed the Dawlish sea wall collapse in 2014, which cut off the western half of the Peninsula from the rail network for two months. This had an immediate impact, causing significant disruption to residents and visitors. There was also an indirect impact in lost economic growth while the railway was closed. The longer-term impact was more difficult to quantify, however being cut-off from the rest of the country undoubtably had an impact on people's perception of the Peninsula as a place to invest, work and do business.

1.2.2. Through diligent evidence gathering and collaborative working with MPs, local authorities, Network Rail, and other stakeholders, the PRTF was instrumental in ensuring more than £600m has been invested in resilience for the South Western Mainline, including significant work at Dawlish.

1.3 CONTEXT

1.3.1. Since the publication of the PRTF's strategic rail blueprint, the context within which the rail industry operates has changed. This is considered in detail throughout the report, but the key drivers of this change have been the impacts of the Covid-19 pandemic, and comprehensive rail industry reform over the short to medium term.

THE COVID-19 PANDEMIC

1.3.2. The changes brought about by the accelerated shift to home and hybrid working as a consequence of precautions introduced in March 2020 to combat the spread of Covid-19 has changed the pattern of rail demand. While traditional 5 day per week season ticket commuting has fallen, the relaxing of restrictions has led to a resurgence in leisure travel, with Great Western Railway advising that passenger numbers in the peninsula have exceeded 100% of pre-pandemic levels at some points. While specific revenue figures cannot be shared as they are commercially confidential, industry data

also shows that for some locations revenue in the peninsula has already recovered to between 90-100% of pre-COVID levels, including a key visitor locations such as Penzance, St Ives and Torquay.

1.3.3. For those who can work from home, some form of hybrid working is likely to remain for the foreseeable future, however it is beneficial for the peninsula that significant numbers of visitors are travelling into and around the region. This is backed up by evidence from the Office for Rail and Road (ORR) that leisure travel has recovered at a faster rate than business travel and commuting[1]. It is within this context that the Peninsula Rail strategy focusses on outcomes to deliver objectives which align with government policy in a deliverable way; in particular supporting regional growth (levelling up) and meeting net zero targets.

RAIL INDUSTRY REFORM

1.3.4. Additionally, the Williams-Shapps Plan for Rail was published in 2021. This set out a vision for the railways with passengers and freight customers at the centre. It also announced the introduction of Great British Railways as the replacement for Network Rail and taking on some functions which currently sit with the Department for Transport. Great British Railways will *integrate the railways, owning the infrastructure, collecting fare revenue, running, and planning the network, and setting most fares and timetables* (DfT 2021).

THE IMPACT ON THIS STRATEGY

1.3.5. Thanks to the comprehensive work undertaken by the PRTF, the problems, opportunities, and constraints of the rail network in the South West Peninsula are well understood. This report has taken these findings, and retained and developed them taking into account the new context the rail industry must now operate in.

1.3.6. Through stakeholder consultation, the strategy has identified several themes which align with local and national policy, and a number of conditional outputs against which targets for improvements can be baselined.

1.3.7. It is important to note that this strategy has not been developed in a vacuum, and significant work has been undertaken both by the PRTF and individual authorities on developing schemes which meet local priorities. Additionally, Network Rail's long term planning process has considered requirements in the Western and Wessex routes in line with their method for prioritising development. Where information is available, it is reflected in this strategy. For information which was still in development during the production of this strategy, the development of conditional outputs is flexible to respond to emerging findings.

[1] ORR passenger rail usage October to December 2021, https://dataportal.orr.gov.uk/media/2050/passenger-rail-usage-2021-22-q3.pdf

1.4 REPORT STRUCTURE

1.4.1. This report is structured as follows:

- Rail's Importance to the Peninsula;
- Rail in the Peninsula;
- Objectives, Themes and Priorities;
- Conditional Outputs;
- Pursuing the Priories; and
- Next Steps.

1.4.2. An Evidence Base to support the conditional outputs is included as an Appendix to this report and should be read in conjunction with the relevant section.

2

RAIL'S IMPORTANCE TO THE PENINSULA

2 RAIL'S IMPORTANCE TO THE PENINSULA

2.1.1. In this section, the role of rail in the social and economic fabric of the peninsula is described. Drawing on Peninsula Transport's wider evidence base, the evolving trends influencing travel behaviours and modal choice are drawn out. In so doing, a chain of logic is created which simultaneously describes the justification for sustained investment in the region's railway, and the consequences of *not* investing.

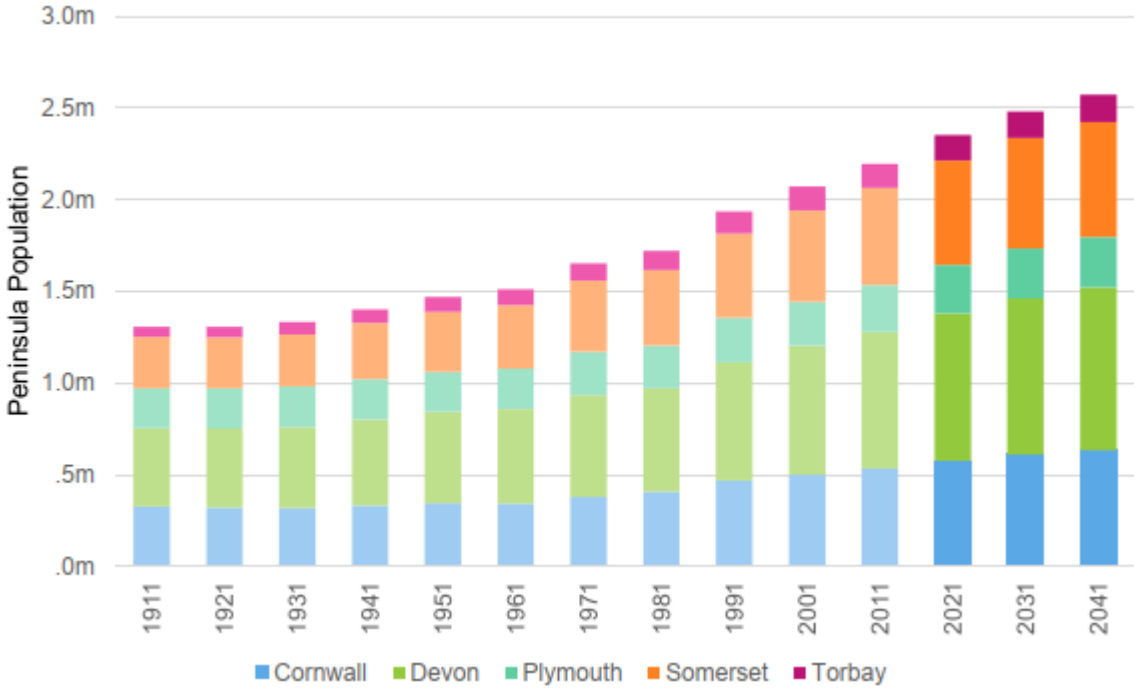
2.2 THE SOCIAL AND ECONOMIC CHARACTERISTICS OF THE PENINSULA

2.2.1. The findings of Peninsula Transport's Economic Connectivity Study[2] examines the region's changing economic geography and the role of transport in enabling intra-regional, inter-regional and international connections. This section draws extensively from this study, highlighting the evidence pertinent to the rail network and its function within the peninsula.

A GROWING AND AGEING POPULATION

2.2.2. The peninsula's population is both growing and ageing. Between 2016 and 2041, population growth is projected to exceed national averages (an increase of 12.8% between 2016 and 2041, compared to 12.1% for England). The scale and distribution of this growth is illustrated in Figure 2-1 below.

Figure 2-1 - Historic and Projected Peninsula Population by Area

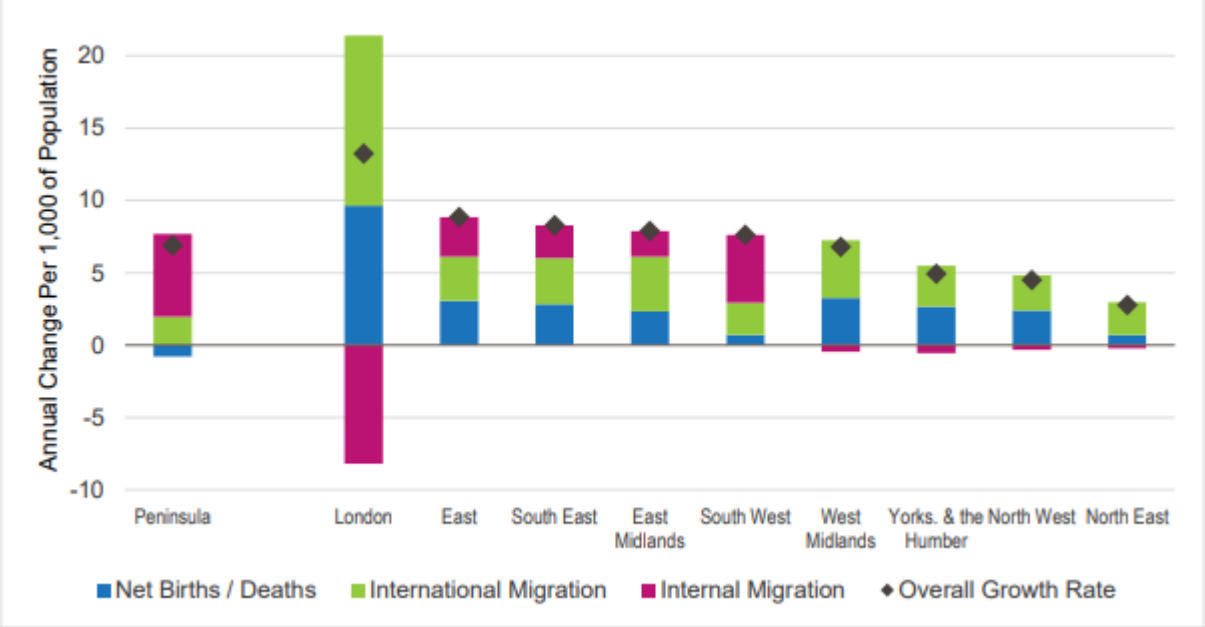


Source: Peninsula Transport's Economic Connectivity Study

[2] https://www.peninsulatransport.org.uk/wp-content/uploads/2020/07/Peninsula-Transport-ECS-Tech-Report-Final-Version-080720.pdf

2.2.3. The Economic Connectivity Study examined recent patterns of population change, which showed that growth in the peninsula has been driven primarily by inward migration (as in, migration from other regions in the UK) as opposed to natural growth through net birth rate or by migration from overseas. This is a scenario unique within England and driven by the net effect of high numbers of people aged 50 and above relocating to the peninsula, offsetting a smaller number of younger people migrating to London and other nearby regions[3]. A regional comparison is illustrated in Figure 2-2 below.

Figure 2-2 - Population Change, Reason and Year by Region in England



Source: PT Economic Connectivity Study, Figure 2-7 (Page 15)

2.2.4. The proportion of elderly residents within the peninsula's population is already significantly higher than the national average (24%, compared to 18% as an average in England). By 2041, this proportion is projected to grow to over 30%[4]. This demographic skew creates added pressure to find ways of delivering mobility to those who are increasingly dependent on others and avoiding social isolation.

LARGE AND GROWING RURAL AND COASTAL POPULATION

2.2.5. The unique natural environment of the peninsula is a key asset which continues to attract people to live, work and visit the region. Most of the 1,000-kilometre South West Coast Path is located in the peninsula and there are also two National Parks, nine Areas of Outstanding Natural Beauty (AONBs), and a number of Nature Improvement Areas (NIA) and Sites of Special Scientific Interest (SSSI). These assets are central to the region's identity and underpin its visitor economy. They also serve as natural features which disperse the population and economic activity across a broad area.

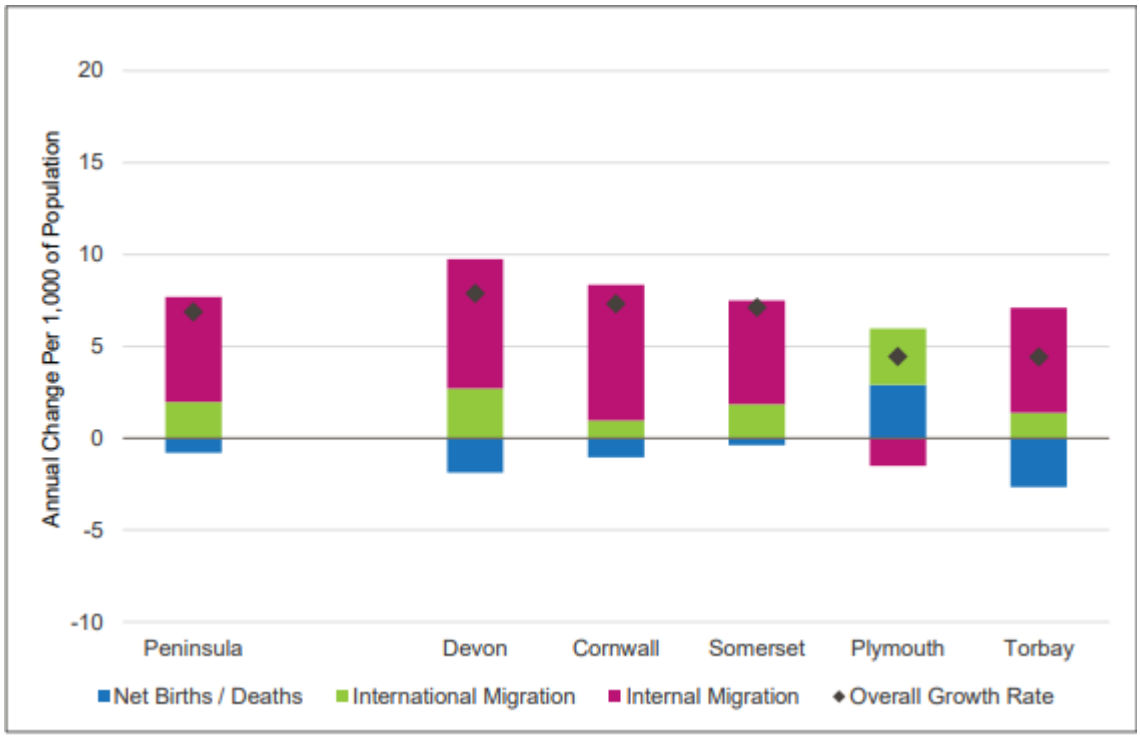
[3] PT Economic Connectivity Study, Figure 2-9
[4] PT Economic Connectivity Study, Page 14

2.2.6. The Economic Connectivity Study, citing Census 2011 data, stated that 56% of the peninsula's population live in an urban area, compared to 82% for England and Wales as a whole. The region is therefore considerably less urbanised that the country more broadly.

2.2.7. The South West Rural Mobility Strategy - commissioned jointly by Peninsula Transport and the Western Gateway sub-National Transport Body - found that those living in rural areas made 87% of their journeys by car. This dependency leads to "transport deserts" and social isolation for those without cars, alongside higher levels of expenditure on transport.

2.2.8. As described above, the peninsula's population is growing. If the spatial distribution of this growth mirror recent trends (as illustrated in Figure 2-3), then growth driven by inward migration will be starkest in the peninsula's predominantly rural counties – Cornwall, Devon and Somerset. This growth can exacerbate development pressures and housing affordability challenges, and places higher numbers of residents in rural settings where car dependency is high.

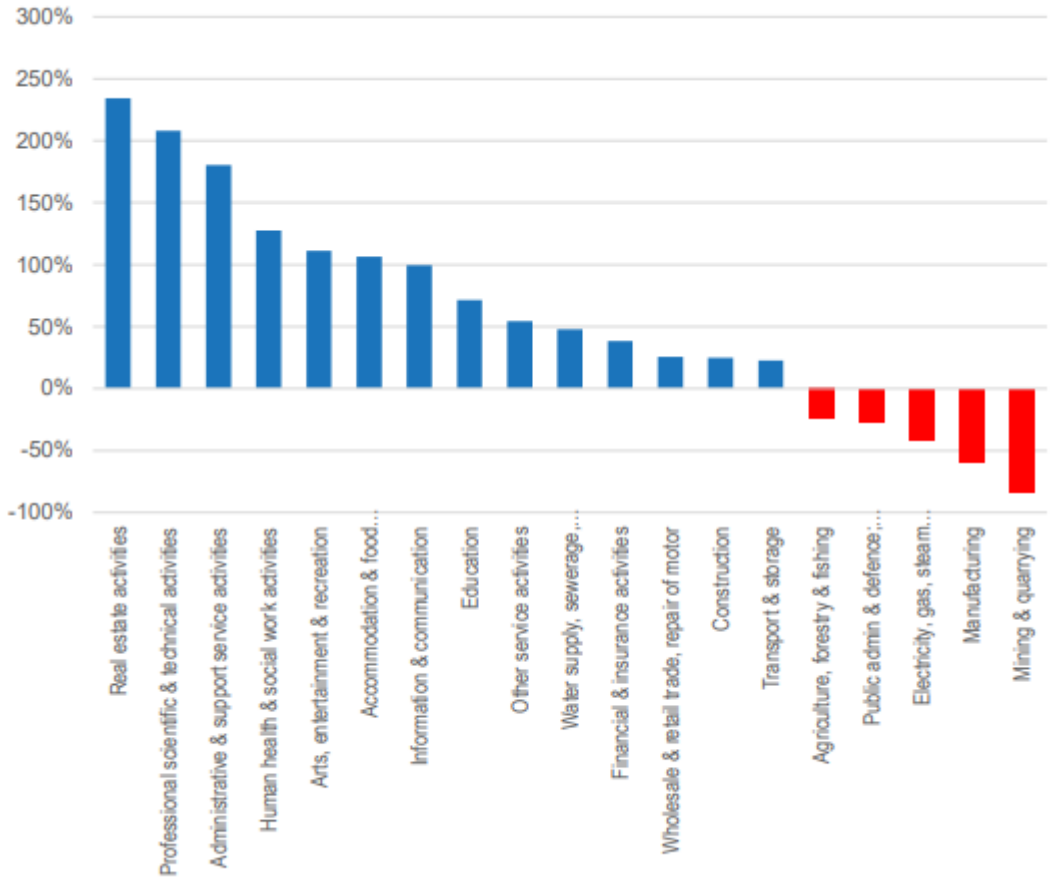
Figure 2-3 - Population Change, Reason and Year by Local Authority



AN EVOLVING AND URBANISING ECONOMY

2.2.10. The economy of the region is evolving. Nationally, traditional sectors such as mining, manufacturing, fishing and agriculture are employing fewer people, as illustrated by Figure 2-4 below.

Figure 2-4 - Growth of Employment between 1978 and 2018, UK



Source: Labour Force Survey

Source: PT Economic Connectivity Study, Figure 6-5

2.2.11. This structural shift is projected to continue[5]. It is a shift which could enable the peninsula to address a productivity gap with the UK average, which would be expected to increase wages and living standards and contribute to national economic growth. The peninsula's two Local Enterprise Partnerships (LEPs) have identified transformational growth opportunities in high-productivity knowledge-based sectors such as marine energy and engineering, sustainable aerospace, advanced engineering, sustainable agricultural intensification, and health & social care[6].

2.2.12. To grow, these sectors will require large, diverse and skilled labour pools and good access to markets and assets such as academia. This may result in clustering in towns and cities, and at

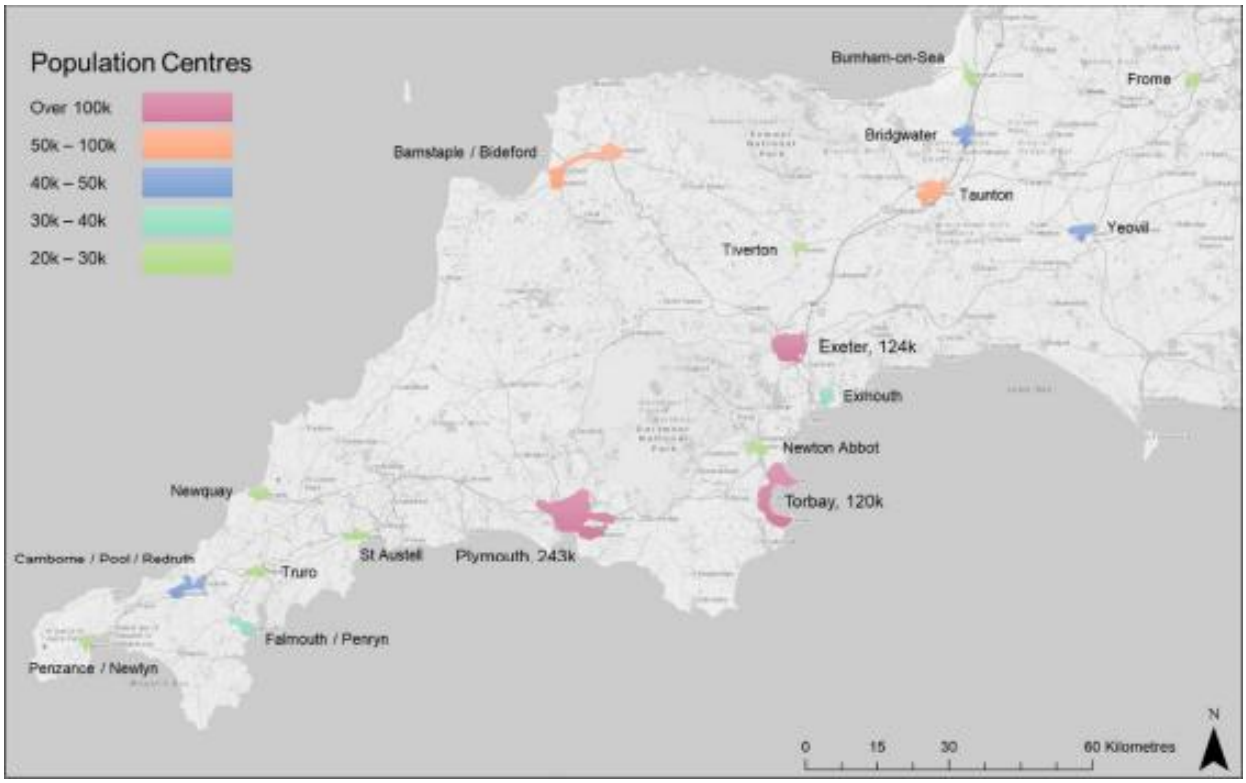
[5] Economic Connectivity Study, Figure 6-19
[6] https://heartofswlep.co.uk/wp-content/uploads/2020/11/201119-Heart-of-the-South-West-Local-Industrial-Strategy.pdf

larger out-of-town science parks and development sites. In parallel, businesses will increasingly look for locations with strong sustainable access as they pursue their own Net Zero goals.

2.2.13. Future generations are being equipped for this evolving economy in colleges and universities which are also clustered in urban areas. The peninsula's principal heathcare facilities are also set in this urban context.

2.2.14. There are relatively few large urban centres in the peninsula. Only Exeter, Plymouth and Torbay exceed 100,000 residents, and the remaining population centres are both considerably smaller and distributed across a wide area. This distribution is shown in Figure 2-5 below.

Figure 2-5 - Peninsula Population Centres Over 20,000 (2017)



Source: PT Economic Connectivity Study (Figure 2-2)

2.2.15. This combination of factors emphasises the importance of connectivity to these centres to enable access to high-value employment, education and health services.

2.2.16. The way in which people work and live is also changing – driven by technological and logistical advances. Even prior to the pandemic, more people worked from home in the peninsula than the national average, and the number of days spent in the workplace each week was declining. With this hybrid pattern now the "new normal", it provides the opportunity for fewer, longer-distance commutes. In turn, raising expectations around connectivity, comfort and productivity. The share of retail sales generated online has grown materially since the early 2000s. Whilst this reduces customer trips, it serves to drive up logistics trips such as delivery vans in the first/last mile.

CONTINUED IMPORTANCE OF LEISURE AND TOURISM

2.2.17. In parallel with the structural shift of the peninsula's economy, the region's leisure and tourism offer will continue to be critical. The document *Vision 2030: Reimagining the visitor economy in the south west*, produced by the Great South West Tourism Partnership explained that, prior to the pandemic, the sector represented 9% of all GVA for the region, and directly supported more than 133,000 jobs[7].

2.2.18. In its market analysis, the Partnership highlighted the seasonality of the market (with almost 50% of spend occurring between June and August), spatial distribution (60% of employment in rural locations) and connectivity within the region as being challenges.

2.2.19. Market statistics produced by Visit England[8] show that inbound and overnight tourism are more prevalent in the South West[9] (70% of visits originate outside the South West, with 55% of trips being overnight holidays). Most visitors travel from within the region itself, or from London/South East and the West Midlands.

2.2.20. The same statistics also highlight the car dependency of trips made to the South West – with 86% using private car, compared to 79% nationally within England.

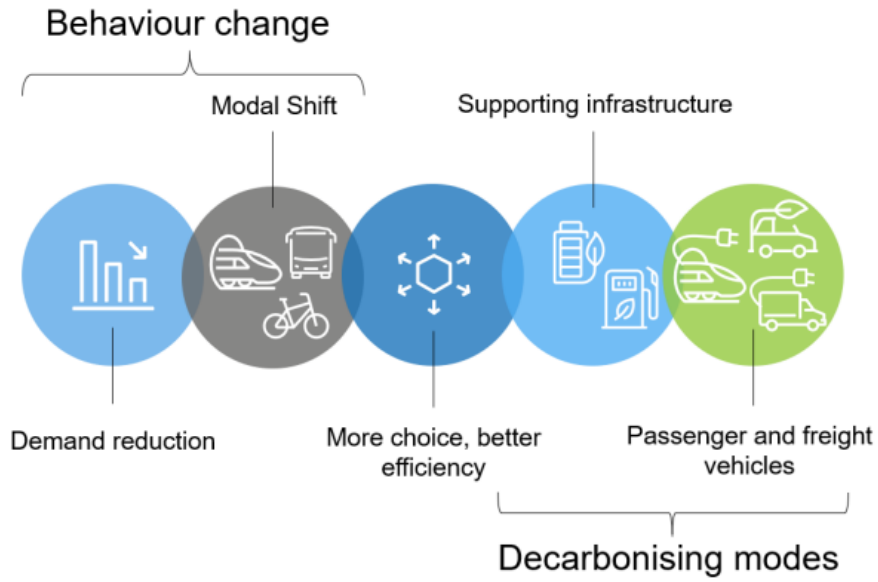
THE PENINSULA'S CARBON TRANSITION CHALLENGE

2.2.21. Peninsula Transport's Carbon Transition Strategy[10] explains the challenge of decarbonising the transport network in the region. With 2020 baseline emissions from transport of over 4,400 $ktCO_2e$, and a reduction of only 25% forecast from existing policy, a number of actions will be required in order to support the national reduction of transport emissions of 65-76% relative to 2019 levels.

2.2.22. The Carbon Transition Strategy sets out five action themes, as illustrated in Figure 2-6 below. Within these, the Modal Shift theme is of highest relevance to rail. Within this theme, the prioritisation of public transport, enabled through this Rail Strategy and partner's Bus Service Improvement Plans (BSIPs), will be driven by Peninsula Transport in the short to medium term.

[7] https://heartofswlep.co.uk/wp-content/uploads/2021/07/Towards-2030-Reimaging-the-Visitor-Economy-in-the-South-West.pdf
[8] https://www.visitbritain.org/sites/default/files/vb-corporate/Documents-Library/documents/England-documents/south_west_2015.pdf
[9] Which in the statistics also includes Gloucestershire, Bristol/Bath, Wiltshire and Dorset
[10] https://www.peninsulatransport.org.uk/wp-content/uploads/2023/03/Peninsula-Transport-WP06_FINAL-ISSUED.pdf

Figure 2-6 - Carbon Transition Strategy Action Themes



INCREASED DEMAND FOR TRAVEL

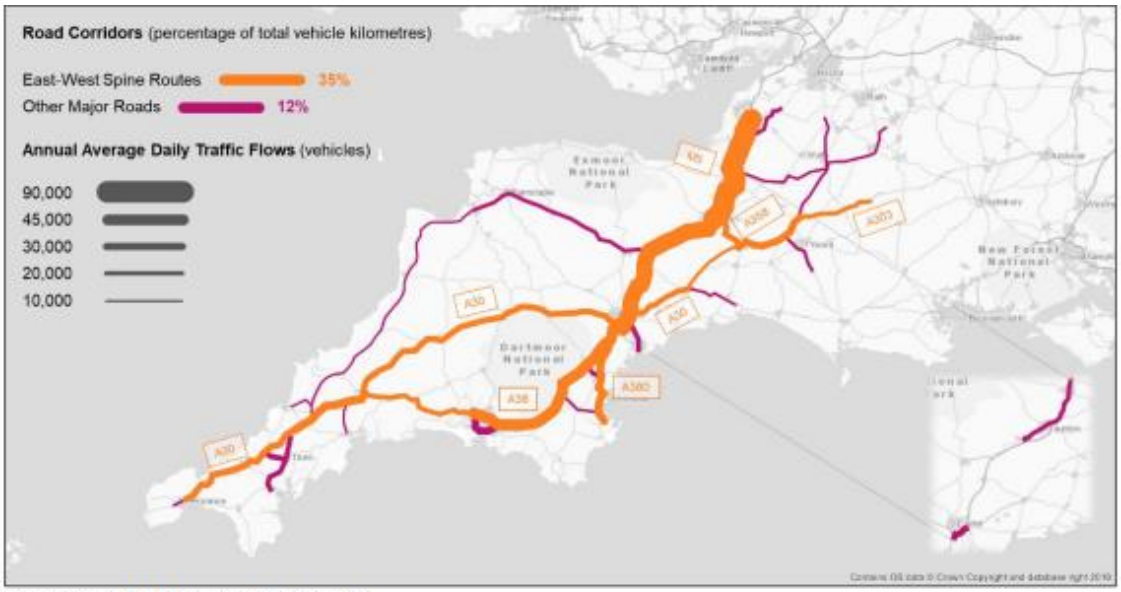
2.2.23. The peninsula's socio-economic characteristics and its emerging changes result in significant demand for travel to, from and within the region. The changes described above are projected to result in significant trip growth over the coming decades.

2.2.24. There are relatively few large urban areas to act as centres for services and hubs for knowledge-based employment. Combined with a broadly dispersed wider population, this places additional emphasis on travel to centres such as Exeter, Plymouth, Taunton, Torbay and Truro, often over much longer distances than experienced elsewhere. In parallel, access to rural and coastal communities will continue to be critical to the leisure economy and to avoid the risks of social isolation amongst an ageing population.

There are 23 billion vehicle kilometres made on the peninsula's road network annually. As illustrated in

2.2.25. Figure 2-7 below, around half of these trips are made on just 5% of the network – the region's Strategic Road Network (SRN) and Major Road Network (MRN). Some 35% of total demand is on the east-west spine network – the M5/A38/A30 and the A303/A358. Demand is projected to grow strongly across the whole network – by between 40-50% on motorways and trunk roads and 30-35% on other routes. This is illustrated in Figure 2-8.

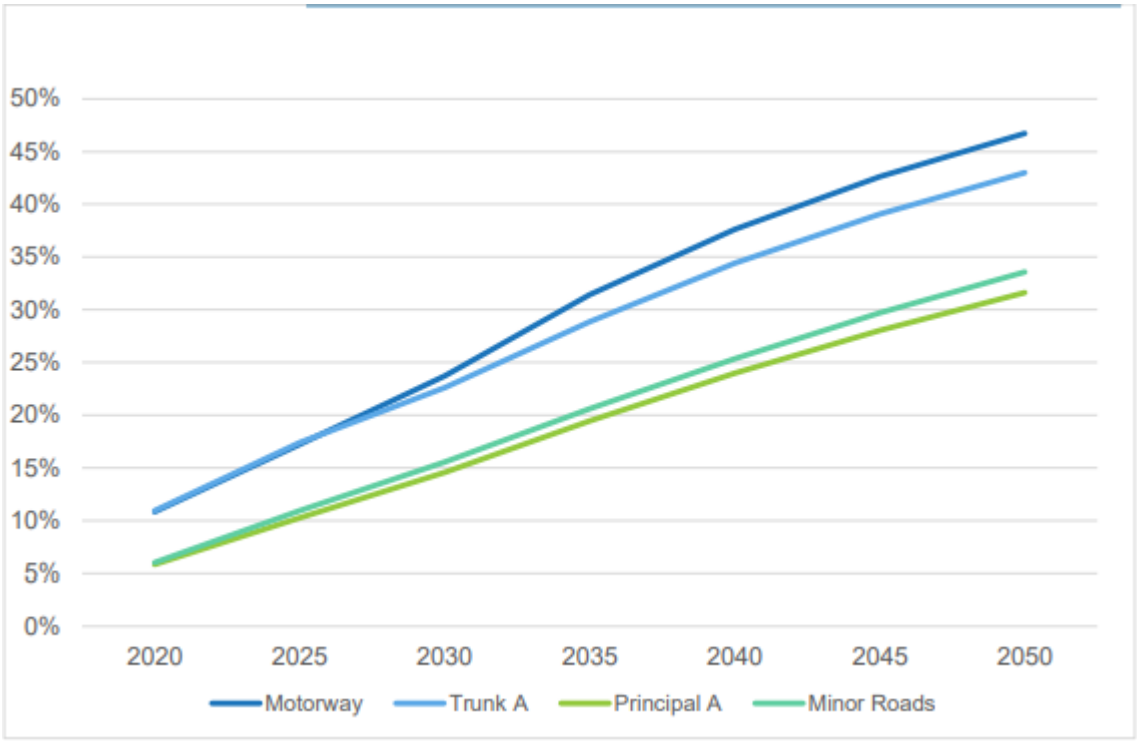
Figure 2-7 - Peninsula Major Road Corridor Flows and Vehicle Kilometres



Source: DfT Major Traffic Counts

Source: PT Economic Connectivity Study (Figure 3-4)

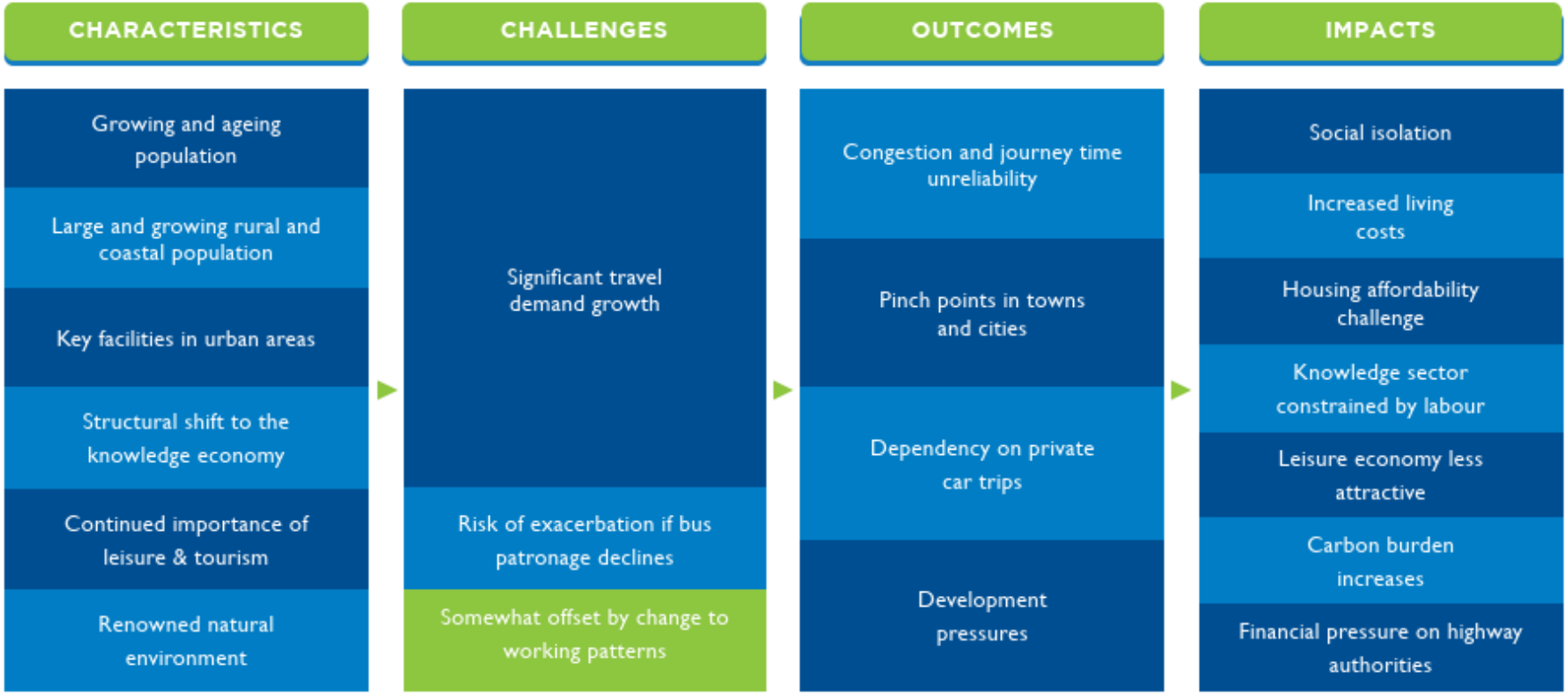
Figure 2-8 - Forecast Percentage Traffic Growth on South West Roads from 2015 by Road Type



2.2.26. This population growth would require considerable financial investment to address the need for further capacity upgrades and relieve pinch-points in towns and cities. This additional traffic (and construction activity) would add to the region's decarbonisation challenge and blight the natural environment, as well as causing congestion, severance and air pollution in urban areas.

2.2.27. Rail plays a key role in reducing traffic and addressing congestion issues on the highway network. This is not only essential for meeting decarbonisation targets, but also to reduce journey times and improve economic productiveness. These ingredients, when combined, clearly demonstrate the importance of delivering a viable alternative to car travel. The logic map illustrates the consequences of “business as usual”.

Figure 2-9 - The Impact of Not Investing in Rail



2.3 POLICY CONTEXT

2.3.1. Ambitions for the future of the rail network feature prominently in the policy priorities of Peninsula Transport's constituent partner authorities and those of relevant bodies at the regional level. There is also strong alignment between the priorities of our local and regional partners and those of national government. A full policy review can be found in Appendix A with the key themes set out below.

LOCAL POLICY

Introduction

2.3.2. The following local policies were reviewed to inform this section:

- Connecting Cornwall 2030- Moving Towards a Green Peninsula;
- Cornwall 2030 Rail Policies;
- Devon and Torbay Local Transport Plan (2011-2026);
- Exeter Transport Strategy (2020-2030);
- Plymouth Local Transport Plan (2011-2026);
- Plymouth Transport Vision (2011-2026);
- Somerset's Future Transport Plan (2011-2026); and
- Net Zero/Climate Emergency declarations and supporting action plans (all authorities).

Key Themes

2.3.3. Whilst these policies cover a diverse range of areas, there are common themes connecting the documents.

Challenges

2.3.4. There are concerns that poor connectivity – such as the long journey times required to reach the more rural areas – is posing a barrier to growth and prosperity. This is paralleled by a desire to reduce deprivation, both in the rural regions and in several urban 'pockets' that are relatively poorly served by public transport of any form, local or strategic.

2.3.5. Secondly, there is a need to improve mobile/internet connectivity, given the increasing importance of access to online resources for travel information and employment opportunities, to name but two elements.

2.3.6. Finally, the issue of route resilience is still highlighted as a potential constrained to increased rail use, particularly for freight where assured deliveries are preferable under the modern just-in-time model.

Desired Outcomes

2.3.7. There is a considerable degree of commonality in the outcomes desired from the region's rail network. Key examples include:

- Support for electrification of the region's core routes;

- Increased use of rail and water[11] for freight movements;
- Increased unity between rail and bus services to allow a seamless door-door travel option;
- Increased station accessibility review, with station access to be available for all demographics;
- Ensuring future developments are aligned with rail access;[12] and
- Increased accessibility to amenities, employment, and leisure opportunities.

Investments

2.3.8. In order to realise the aforementioned outcomes, the councils have set out their intent to invest in several specific schemes. These include the previously mentioned Devon Metro Package, Mid-Cornwall Rail Metro package (which was subsequently secured through the Levelling Up Fund) and station improvements to encourage multi-modal interchange and park and ride opportunities.

REGIONAL POLICY

Introduction

2.3.9. The following regional policies were reviewed alongside the broader suite of products comprising Peninsula Transport's Strategic Transport Plan. These policies include documents put forward by the two LEPs and several regional working groups established prior to the formal Sub-National Transport Body being assembled.:

- The South West Spine: The Case for Greater Investment Across the South West Peninsula Railway Network (Peninsula Transport local authority partners, 2013);
- Investing in the South West (Department for Transport, 2019);
- Greater Connected: Transforming Strategic Connectivity in South West England (Jim French, endorsed by five South West LEPs, 2015);
- Securing our Future: Great South West Prospectus (Great South West partnership, 2020)
- Closing the Gap – Peninsula Rail Task Force

Key Themes

Challenges

2.3.10. Whilst the regional documents being considered span a period of seven years, here are several common challenges identified between them. Firstly, it is acknowledged that the rural areas of the peninsula suffer from poor accessibility to skills and employment opportunities and therefore fall behind the national GVA. Secondly, there is a common observation that mobile coverage in the region needs to be improved, to improve virtual connectivity in line with physical accessibility.

Desired Outcomes

2.3.11. In addition to having broadly similar concerns, the regional documents are quite unified in their desires for the region to grow and for that growth to be supported by an accessible, low emission transport network with sufficient capacity to handle future growth; as aforementioned, rail traffic in

[11] This latter could include rail for some of the journey to port; Fowey Dock is currently served by rail for clay and aggregate traffic, European Metal Recycling's facility is on the waterside whilst Plymouth's former navy base, whilst closed to rail traffic, still has most of the rail infrastructure intact.

[12] Something strongly suggested as having been delivered in the Chapter 2 accessibility review, which showed the majority of developments being in 10km or less of at least one station.

the region is recovering strongly and, in conjunction with the local plan developments focused on locations close to the railways (see Chapter 2) this demand is likely to continue growing.

2.3.12. To support the low emission element, as well as reduce journey times into the peninsula, the documents are uniform in their support of electrification southwest of Bristol, along the main line route to Penzance, with subsequent or parallel wiring of the Newquay and Paignton corridors which also see long distance services call, particularly in the summer months.

2.3.13. There is also a desire in several of the documents for rail freight to be encouraged to alleviate HGV traffic. HGV movements are hard to replace with electric or hydrogen vehicles, particularly on trunk hauls. Also, even if this challenge should be overcome, heavy road vehicles have a disproportionate impact on highway maintenance costs and requirements.[13]

Investments

2.3.14. To support the key policy outcomes identified in the preceding paragraphs, the regional bodies have confirmed funding of the Exeter St Davids Rail Masterplan, which will transform the station into the hub of the City's transport network whilst also regenerating surrounding business and lands at a site with excellent sustainable transport access. Additionally, the Project South West document confirmed business case development for increasing service frequency and capacity on the West of England line, to the east of the study area. Finally, the documents support the continued delivery of the Devon Metro package of service frequency and station improvements.

2.3.15. Alongside the confirmed schemes, and support of those previously identified for funding at a national level (e.g., RYR funding), the regional planning documents underscore their support for the electrification of the region's railways, by overhead wire on the mainlines and key branches. They also lend their support to a prospective Western Access to Heathrow which could be accessed directly from the Peninsula, without the need for travellers to transfer at Reading/Paddington/Old Oak Common.

NATIONAL POLICY

Introduction

2.3.16. The following National Policies were reviewed:

- National Industrial Strategy;
- Levelling Up the UK;
- Climate Change Emergency & Decarbonisation;
- Transport Decarbonisation Plan;
- Connecting People: A Strategic Vision for Rail (DfT);
- Great British Railways: Williams-Shapps Plan for Rail;
- National Investment Funds;
- Consultation on the Re-Planning of Network Rail's Investment Programme (Hendy Review);

[13] It is worth noting that freight trains also have a greater impact on network maintenance compared to their lighter passenger kin. However, rail 'fettling' to a higher standard to take heavier freight generally benefits all users with a better ride, as well as the investment being paid back to Network Rail/Great British Rail through higher track access charges.

- Easier Fares for All: The Rail Delivery Group's Proposal for a More Transparent, Simpler To Use, Modern System Of Tickets And Fares;
- Door To Door: A Strategy For Improving Sustainable Transport Integration; and
- The Nichols Visions Report / Project Speed.

Key Themes

2.3.17. Taken together, there are multiple threads in common between the policies;

2.3.18. Firstly, there is a desire for future economic growth and pandemic recovery to be sustainable in nature; with investment targeted at green technology and sited in locations which are accessible by sustainable modes. This is supported by national investment in infrastructure to support access to upcoming housing locations and tie them into the local and national transport networks.

2.3.19. Secondly, underlining the sustainable aspects, there is a national move towards decarbonisation, of which transport will be a key element. The policies set a 2040 deadline for carbon neutrality across the UK, supported by diesel/petrol cars being removed by 2035 and rail traction decarbonisation by 2040.[14]

2.3.20. Thirdly, there are several key policy outcomes desired of the rail sector specifically-

- Integration between Walking, Cycling, Bus and Rail to provide a seamless alternative to the private car, supported by cross-modal ticketing, enhanced interchange facilities at stations and investment in walking and cycling facilities.
- Acknowledgement of the challenges arising from the UK's aging population, placing a greater importance on accessible, safe station design for any users.[15]
- Strategic investment in the rail network to mitigate capacity constraints[16] and to provide access to new destinations. This is to be supported, particularly, by *Project Speed*, a government initiative to accelerate the delivery of infrastructure projects, create new jobs and reduce associated costs. An example of this in action is the accelerated reopening of Okehampton station.

Investments Proposed

2.3.21. Within the Peninsula, funding released through the National Investment Funds is already beginning to be invested in the region's transport development. Key schemes include:

- Restoring Your Railways (RYR) funding for business case development at:
  - Wellington (Station Reopening);
  - Cullompton (Station Reopening);
  - Langport & Somerton (Station Reopening);
  - Tavistock (Station Reopening / Short line reopening); and
  - Falmouth to Newquay (Service Enhancement).

[14] As set out elsewhere, Network Rail have established a strong business case for how this could be achieved, however funding commitment is yet to be received from central government.

[15] It has been observed previously that locations which do well in terms of accessibility and security for the elderly are generally well received by others.

[16] Whilst demand across the UK was impacted by the COVID pandemic, there is evidence provided in the Sub-Regional policies that shows that demand in the Peninsula is recovering strongly compared to other regions, driven in part by increased leisure traffic remaining in the UK following Brexit and lingering covid restrictions on travel abroad.

- Housing Investment Fund cash supporting:
  - Northern Access Road (Cornwall & Truro Growth Area);
  - Hayle Junction Project; and
  - Southwest Exeter Infrastructure Enhancement.
- Whilst these latter schemes don't directly include rail investment, they support housing growth and accessibility which, in turn, may support further rail traffic; and
- Local Cycling & Walking Investment Prioritisation across several towns and cities in the region, aiding in delivering the cycle connectivity identified in the preceding section.

2.3.22. Transport in the region will be benefitting from other travel investments made over time, such as electric vehicles or potentially, hydrogen powered trains. The main benefit will come from better, more friendly ticketing, with plans to make tickets more accessible, transparent and integrated with other modes of transport in the region, making a door-to-door journey more simple than ever.

CONCLUSIONS

2.3.23. It is evident from the preceding policy documents that there is a common desire at all levels of government to deliver sustainable growth within the Peninsula, which provides access to a wide range of amenities and opportunities, whilst simultaneously having a limited impact on the environment.

2.3.24. Transport is seen by all parties as a key piece in delivering this outcome; with rail forming a key element for intra-regional and interregional accessibility, supporting, and supported by regular bus services (potentially with through ticketing/integrated fairs) and high-quality walking and cycling links.

3

RAIL IN THE PENINSULA

CONFIDENTIAL

3 RAIL IN THE PENINSULA

3.1 INTRODUCTION

3.1.1. The railways of the Peninsula are defined by contrast. Serving the main population centres of the region is the Great Western mainline from London Paddington, with original route via Bristol joining with the “Berks and Hants” line at Taunton before reaching the south coast at Exeter and following it west to Penzance.

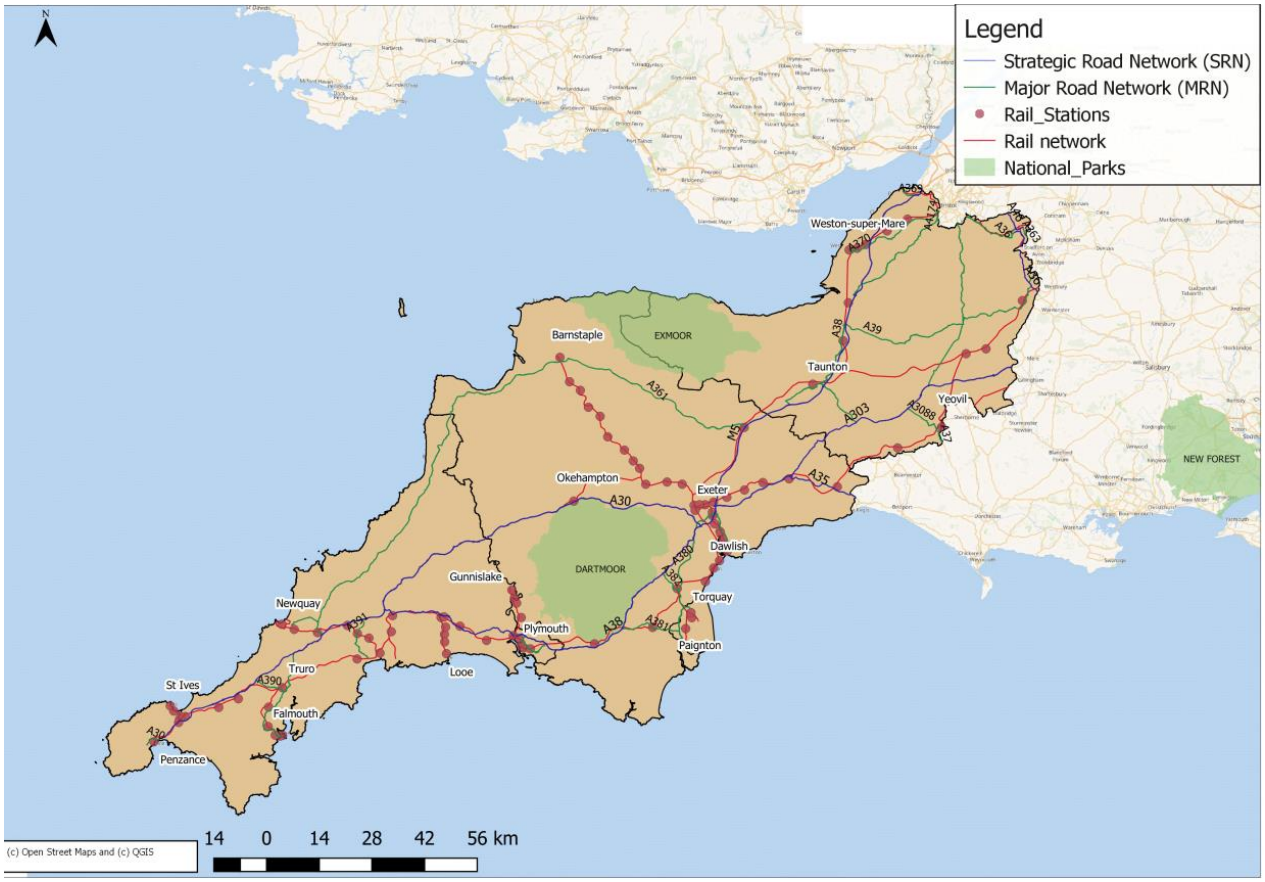
3.1.2. Tying into this spine are several branch-lines serving smaller population centres which form key alternatives to the car for local residents and, in the summer months, become much busier with tourists, some brought in by extension of mainline cross-country services through Exeter to the coasts.

3.1.3. The South Western mainline route into Exeter from London Waterloo via Yeovil, providing an alternative to the Great Western Mainline and some resilience in the event of disruption.

3.1.4. The routes described above only cover those served by regular scheduled passenger trains. The Peninsula is also home to several heritage railways, attracting additional tourists to the region. There are also several routes served only by freight trains, linking a variety of industries with the railway network and connecting them to markets across the UK and beyond.

3.1.5. The current network in the region is illustrated in Figure 3-1 below.

Figure 3-1 – Peninsula Strategic Road and Rail Network



3.2 TODAY'S RAILWAY

3.2.1. In this section, we describe the current characteristics of today's railway in the peninsula, highlighting its strengths and where it poses a constraint. The section has been subdivided into Network – describing infrastructure primarily – and Services – which focuses on the passenger and freight services operating in the peninsula and patterns of usage.

NETWORK

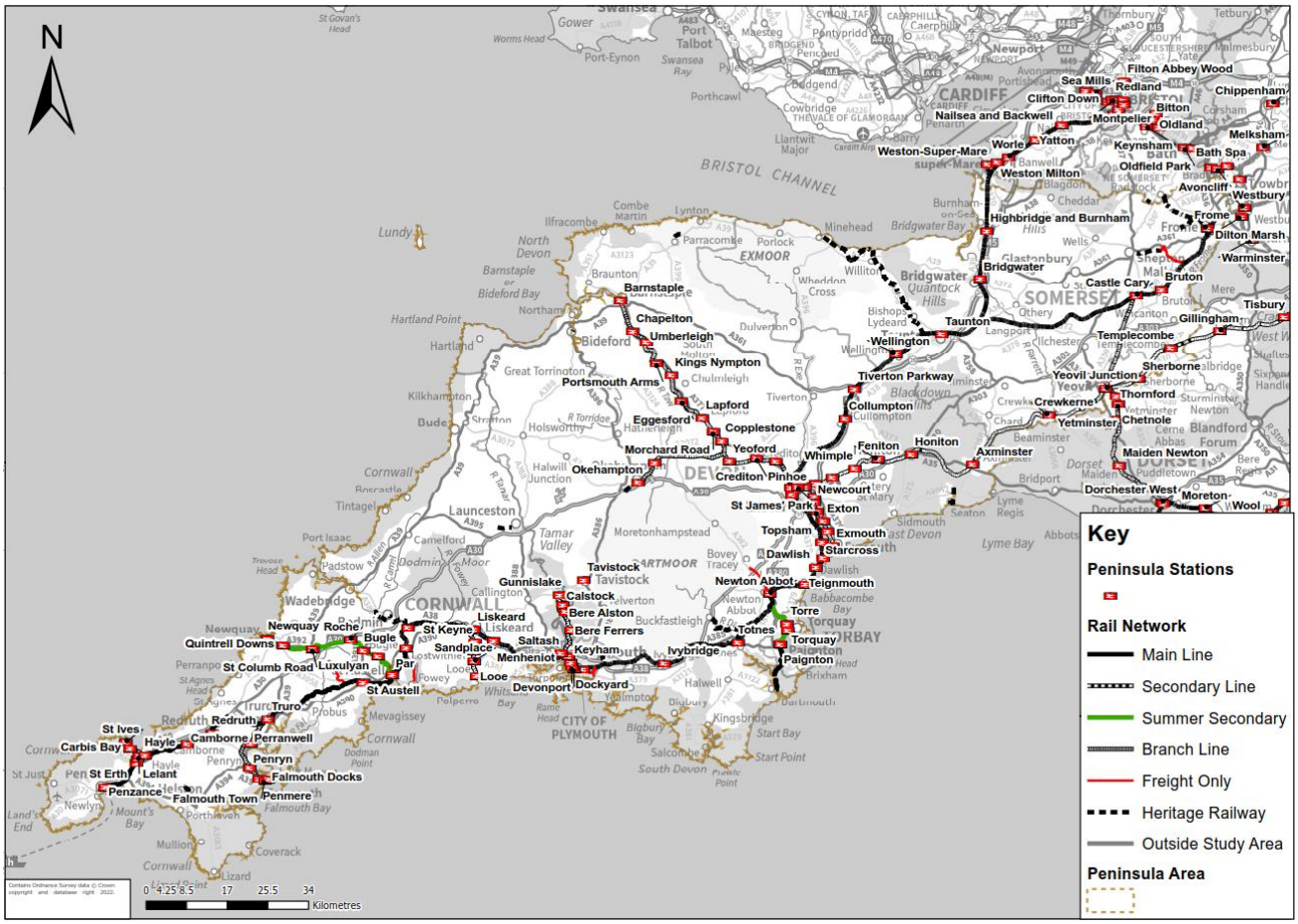
3.2.2. As set out in section 3.1, the network as it stands today is one of contrasts. For ease of discussion, these are grouped into broad classifications set out in Table 3-1.

Table 3-1 - Line Classification

Classification	Description	Example
Main Line	Having a regular, direct service of more than one train per hour to London or Birmingham.	London Paddington – Penzance
Secondary Line	Long distance routes carrying a regular, direct hourly service to London, Birmingham, or Bristol.	London Waterloo – Exeter
Summer Secondary	A line which sees local services for the majority of the year, but is bolstered by long distance trains in the summer season.	Newquay-Par
Rural or Branch Line	Shorter distance routes or with less frequent services.	Liskeard – Looe
Freight	Not routinely carrying passenger traffic.	Newton Abbott - Heathfield
Heritage Railways	Railways operated by heritage organisations, primarily for tourist purposes.	Bishop's Lydeard - Minehead

3.2.3. These classifications are mapped in Figure 3-2 below. Whilst many lines will carry more than one type of service but are defined by the highest classification in Table 3-1 above.

Figure 3-2 - Line Classification

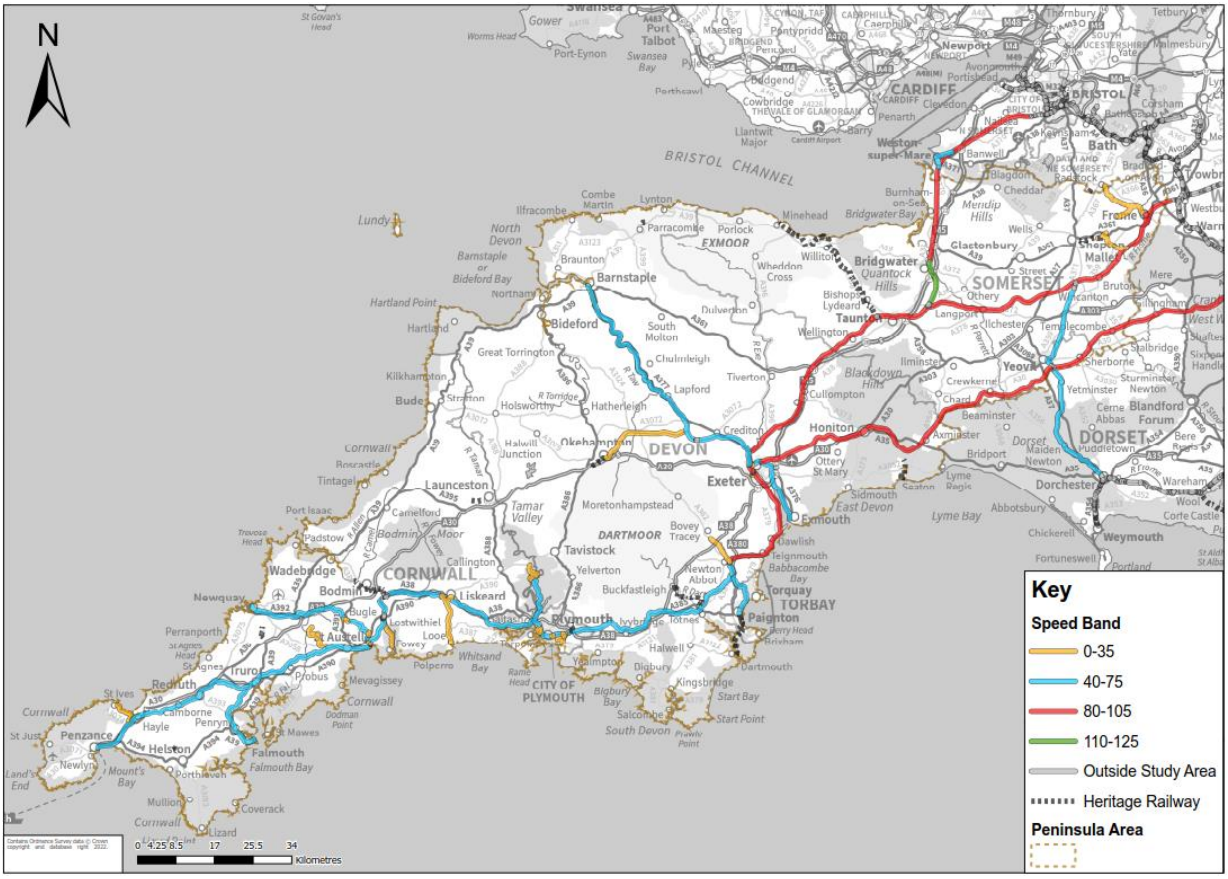


Line Speeds and Journey Times

3.2.4. Line speed and the journey times derived from it are a key element within rail's overall "offer" to prospective passengers and freight users. Journey times determine whether a trip is attractive and/or commercially viable, and whether taking that trip by rail is attractive relative to other options. Line speed is also a contributory factor to the service pattern on a given line; whereby the less time it takes for a train to clear a signalling section, the sooner the next can arrive.

3.2.5. Figure 3-3 sets out the line speeds on network within the peninsula.

Figure 3-3 - Line Speeds in the Peninsula



3.2.6. As can be observed in the preceding figure, the majority of strategic corridors into the Peninsula (the Bristol – Exeter line, the Berks & Hants and the South West Main Line) are capable of supporting 80-105mph operation. Whilst these line speeds are high relative to the rest of the peninsula's network, it is still below the 125mph speed capabilities of rolling stock operated by GWR and Cross Country on these routes, meaning that infrastructure capability acts as a constraint on journey times.

3.2.7. West of Exeter, and on the Heart of Wessex line however, line speeds are considerably lower.

3.2.8. West of Newton Abbot and on the Paignton line, line speeds are limited to 40-75mph over most of the network, including the main line as far as Penzance. On some branch lines (such as to/from Looe and St Ives, and on the Dartmoor line to/from Okehampton), line speeds do not exceed 35mph.

3.2.9. The primary reasons for these low speeds are the twisting nature of the branches restricting possible acceleration, in conjunction with the quality of track on routes only used by lightweight passenger or infrequent freight.

3.2.10. As might be imagined, this constraint on journey times limits rail's competitiveness. In some areas, car travel is also constrained due to factors such as seasonal traffic congestion and limited car parking capacity, which acts as a push factor towards rail. However, it can be hypothesised that weaknesses in transport connectivity (by any mode) supress trips and constrain growth and opportunity.

3.2.11. With low line speeds prevailing over significant sections of the peninsula's network (including much of its main line), journeys to/from the peninsula from elsewhere in the UK can be lengthy. To

illustrate this impact, the table below sets out current rail journey times between major towns and cities within peninsula region and three important external centres.

Table 3-2 - Journey Times to/from Key External Centres

Key Centres	Taunton	Exeter	Plymouth	Truro	Penzance
Birmingham	2hrs	2hrs 20mins	3hrs 30mins	5hrs	6hrs
Bristol	35mins	1hr	2hrs 15mins	3hrs 50mins	4hrs 25mins
London	1hr 45min	2hrs 15mins	3hrs 15mins	5hrs	5hrs 30mins

3.2.12. The table shows that journey times between stations west of Exeter and the external centres are extremely lengthy, a product of extensive sections of low line speeds supressing journey times.

Network Configuration and Single Line Sections

3.2.13. In addition to low line speeds, the configuration of the network poses a significant constraint to performance, journey time and resilience. Single track sections are a common feature across the peninsula, even on strategic routes connecting the region to the rest of the country. These include:

- The West of England Line between Salisbury and Exeter, which was largely singled in the 1960s when the traffic levels of today weren't foreseen; and
- The "Berks & Hants" Line between Taunton and Reading, again partially singled in the 1960s. This constrains its ability to support new traffic flows, such as a local service for prospective stations at Langport and Somerton or freight services from the Midlands and the Southeast ports.

3.2.14. Further single track sections are present on the peninsula's branch lines, including:

- Newquay Branch, which provides rail access to the rural areas of north Cornwall;
- Barnstaple Branch, which provides rail access to north Devon and the growing town of Barnstaple itself; and
- Falmouth Docks, which serves a growing community along the coast.

3.2.15. These constraints are often exacerbated by topological features. There are steep gradients in places such as Somerset and the South Devon Banks, and meandering alignments as the railway navigates the natural environment. Long signalling headways mean that the time between each train is longer than in many other parts of the UK network.

3.2.16. Despite these challenges, there have been repeated examples where unlocking these infrastructure constraints has led to material growth in usage. In 2009, a passing loop was installed on the Falmouth branch line which enabled the service frequency to increase to half-hourly. Usage doubled in less than four years, with passenger growth over a ten-year period exceeding 200% at some stations.

Traction Power & Emissions

3.2.17. Rail contributes only c.1% of the UK's transport emissions and produces significantly less emissions per passenger/freight journey than private cars and goods vehicles[1].

3.2.18. At present, the peninsula's railway is entirely non-electrified, meaning that diesel services prevail across the region, and all services in the peninsula are operated using either diesel-only or bi-mode rolling stock.

3.2.19. However, even diesel hauled trains utilise less energy and produce less emissions than an equivalent number of car, truck or even regional air movements, and provide an important low carbon alternative travel option.

3.2.20. Investment in Class 802 bi-mode trains has delivered significant improvement to the quality of long-distance services and ensured that these journeys are at least partly operated sustainably, taking the first steps towards full decarbonisation. However, it has also created a stark contrast with older 1980s and 1990s diesel rolling stock operating on the branch lines. Given the age of these trains, it is likely that they will require replacement prior to permanent decarbonisation solutions being available.

3.2.21. Decarbonising Transport, the Department for Transport's 2021 plan to decarbonise the UK's transport network, makes a commitment to remove all diesel-only trains from the network by 2040.

3.2.22. Network Rail's Wales & Western Regional Decarbonisation Strategy, building on the earlier national Traction Decarbonisation Network Strategy, puts forward solutions to achieve this. These focus on achieving decarbonisation via rolling stock replacement, including the deployment of battery traction, alongside targeted infrastructure investment in overhead line electrification.

3.2.23. However, battery traction is not yet proven at scale, and electrification schemes require considerable development time, preparation and investment. There is an opportunity for innovative solutions to help close this gap.

3.2.24. Despite its traction emissions, rail has a central role to play in the decarbonisation of transport. A better rail offer would reduce dependency on private car use, which even after migration to electric vehicles will contribute to congestion, accidents, severance and local air pollution via tyre wear.

Network Resilience

3.2.25. 2014 saw two major storms impacting the peninsula region. The first lead to widespread flooding of the Somerset Levels, disrupting trains into the region and closing the lines from Taunton to Castle Cary and Taunton to Bristol for several weeks, both at the time of the incident and for subsequent line reinforcement work. The second lead to the closure of the Great Western Mainline at Dawlish when a large portion of the sea wall and the railway behind it collapsed as a result of storm damage. This event formed part of a nation-wide pattern of disruption to the railways triggered by extreme weather events that have been increasing in their frequency due to the effects of climate change.

3.2.26. In order to mitigate disruption and ensure that the railways remain fit for purpose, Network Rail have made considerable investment in increasing the railway's resilience in the face of these events. Work within the peninsula has included:

- Cliff reinforcement in the vicinity of Teignmouth;
- Hele flood-plain reprofiling and bridge replacement[17];
- Reinforcement of the Dawlish Sea Wall, with simultaneous work to improve Dawlish Railway station; and

[17] Source| https://www.networkrail.co.uk/running-the-railway/our-routes/western/hele-flood-alleviation-scheme/

- Reinforcement of the sea wall between Kennaway and Parson's tunnels.

3.2.27. Further work is proposed for delivery from CP7 (2024–2029) onwards:

- Reinforcement of embankments and coastal defences across the Exe estuary;
- Coryton Cove sea wall and 'beach nourishment' to slow waves impacting the line;
- Additional seawall defences between Powderham and Eastdon;
- Increased sea defences between Exeter Canal and Turf Locks; and
- Teign Estuary flood defences.

3.2.28. There has also been ongoing discussion about the viability of providing an alternative route to Dawlish, whether a new line further in land that would provide a 125mph capable bypass to Dawlish, or the reopening of the former London and South Western Railway (LSWR)/Southern Railway/Southern Region mainline to Plymouth via Okehampton. Provision of such a route would provide an alternative to Dawlish should that route be closed due to extreme weather.

3.2.29. In 2021, part of the former LSWR route reopened, with Okehampton being returned to the national network. There is also a business case being developed for the southern end of the route to be reopened as far as Tavistock, in support of the area's planned growth. However, as of the 2014 West of Exeter Route Study, 18 there has been no viable business case put forward to reopening of the line between Okehampton and Tavistock[19], or providing a bypass in addition to the reinforcement of the existing line along the cost.

3.2.30. Other sections of the network remain vulnerable to severe weather and rising sea levels. Cowley Bridge Junction, just to the north of Exeter, has historically suffered with flooding from the River Exe. Resilience work has included raising signalling and electrical equipment above flood levels and installing barriers that can be deployed across the railway to divert flood water away from key assets. This serves to reduce the amount of time the line is closed, but does not prevent closure altogether.

3.2.31. The Exmouth, Gunnislake and Looe branches also run close to estuaries and tidal rivers at a very low level, leaving them at risk of tidal flooding in the future as sea levels rise. The Looe branch already experiences such flooding and has done for many years; but this is likely to become more frequent and more challenging to manage. The Looe Flood Defence and Regeneration Scheme is looking to address this challenge with multiple construction projects (such as a tidal barrier and a southern breakwater). These projects will aim to be completed by 2028.

3.2.32. The St Ives branch, running at close to sea level along the tidal River Hayle, faces similar challenges. It also runs for some of its length along cliffs exposed to the Atlantic, where coastal erosion may become a challenge and risk in coming years.

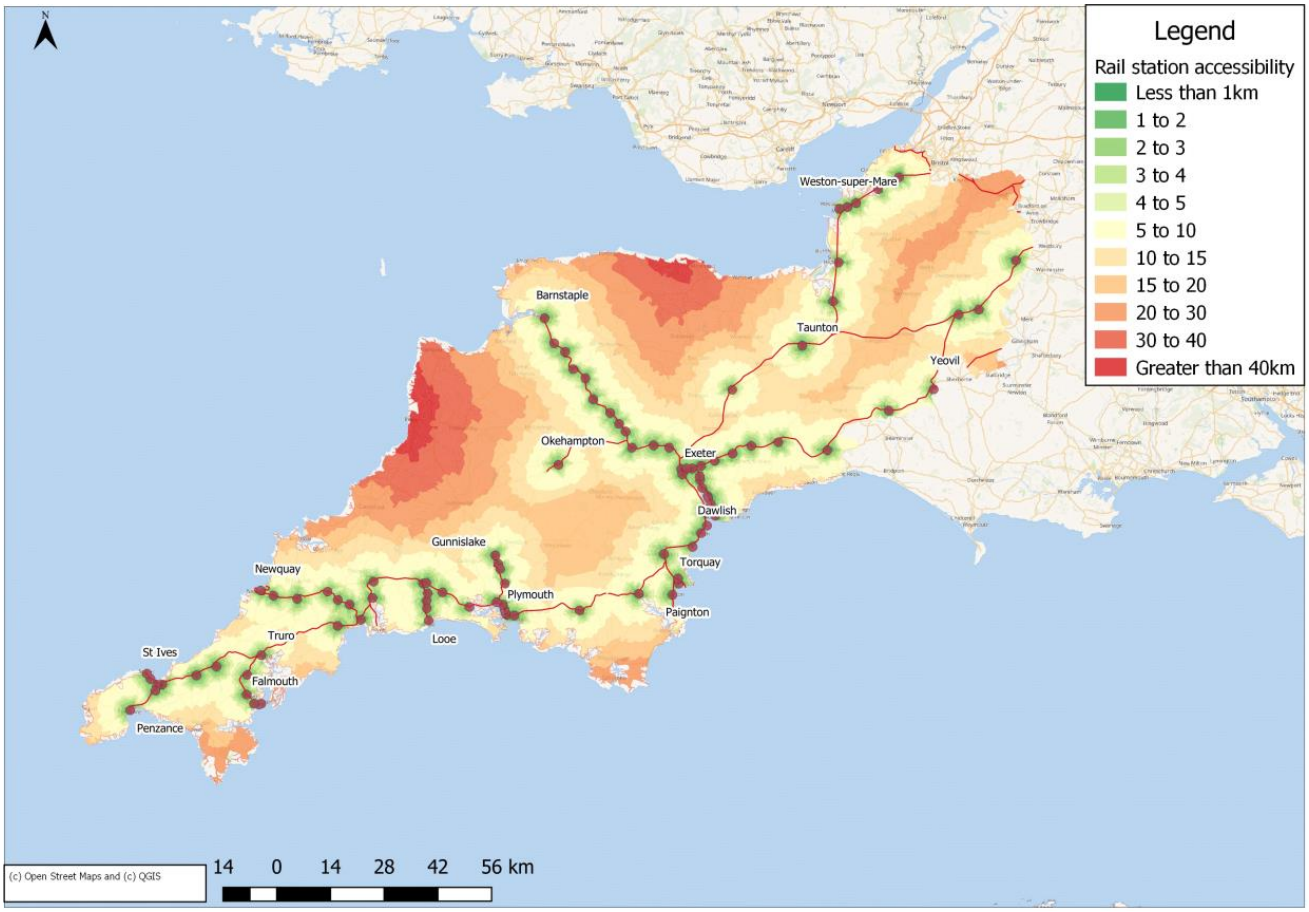
Access to the Network

3.2.33. The dispersed nature of the peninsula's population presents a barrier to network access. Figure 3-4 shows the proximity of railway stations in the peninsula.

[18] Source| West of Exeter Route Resilience Study | Network Rail (2014).

[19] Unlike Okehampton, which forms a natural railhead for Dartmoor National Park, or Tavistock, which is forecast to grow in the area's local plan, the land between the two stations is quite rural in nature, similar to that seen between Exeter and Barnstable. As such, there is no additional market for travel that would be served by the route.

Figure 3-4 - Railway station accessibility in the peninsula



3.2.34. To understand the scale of accessibility challenges in the peninsula, analysis was undertaken to establish the percentage of the population within the following access bands:

- 800m: This has been identified as the average distance that a person is likely to walk to a railway station, based upon data gathered by the Chartered Institute of Highways & Transport;
- 2km: This has been identified as the average distance that a person is likely to cycle to a railway station, based upon data gathered by the Chartered Institute of Highways & Transport;
- 10km: This has been identified as the average distance passengers drive or use public transport to access railway stations, based upon data gathered by the Institute of Transport Studies; and
- 20km: This has been identified as the average distance passengers in the peninsula currently drive to existing park and ride stations, based upon data gathered by the Institute of Transport Studies.

3.2.35. For the purposes of appraisal, the region's 98 stations have been grouped under the following six categories:

Table 3-3 - Station Classification

Classification	Description	Examples	Outline Patronage
City Station	A station meeting one or more of the following criteria: * Serving city * Acting as a railhead for a region * Providing interchange between one or more operators	Taunton, Exeter St Davids, Plymouth	1,000,000+
Regional Hub	A station meeting one or more of the following criteria: * Serving a large town * Serving a large tourist destination * Acting as a larger commuter hub	Totnes, Teignmouth	500,00-1,000,000
Local Hub	A station: * Serving a large town offering a range of amenities * Acting as railheads for remote communities * Acting as a junction for a branch line	Tiverton Parkway, Axminster	250,000-500,000
Commuter	A station which acts as a feeder to a regional hub.	Yeovil Pen Mill, Crewkerne, Looe, Bodmin Parkway	100,000-250,000
Rural	A less-utilised station providing access to the network for smaller communities.	Feniton, Lostwithiel	50,000-100,000
Minor/Request Stop	A station with limited service calls or served by request.	Newton St Cyres, St Budeaux Road, Causeland, Yeoford	0-50,000

3.2.36. Table 3-4 shows the results of this appraisal:

Table 3-4 – Population Access to Station by Class

	800m			2km			10km			20km		
Classification	**Population**	**Portion of Peninsula Residents**	**Portion within 800m**	**Population**	**Portion of Peninsula Residents**	**Portion within 800m**	**Population**	**Portion of Peninsula Residents**	**Portion within 800m**	**Population**	**Portion of Peninsula Residents**	
City Station	47,876	2%	24%	208,920	10%	32%	747,945	34%	49%	1,299,475	59%	
Regional Hub	35,468	2%	18%	101,424	5%	16%	182,526	8%	12%	118,974	5%	
Local Hub	46,655	2%	23%	187,102	9%	29%	415,361	19%	27%	448,705	20%	
Commuter	57,734	3%	29%	142,268	6%	22%	233,468	11%	15%	193,850	9%	
Rural	13,186	1%	7%	54,995	3%	8%	87,590	4%	6%	23,790	1%	
Minor/Request Stop	35,493	2%	18%	58,961	3%	9%	32,892	1%	2%	25,188	1%	
Total	**200,944**	**9%**		**652,247**	**30%**		**1,517,256**	**69%**		**1,991,007**	**91%**	

.

3.2.37. There are several observations that can be drawn from this appraisal. Firstly, 9% of the population live within walking distance of a station and 30% within cycling access. Of that population, the majority are urban residents, living within access to a Commuter, City Station or Regional Hub. This raises an opportunity to increase rail's mode share and sustainability credentials by investing in walking and cycling accessibility to those urban stations.

3.2.38. It also raises a challenge towards making the more rural stations more attractive to walking and cycling users, which could encourage them to walk/cycle beyond the average values identified by the CIHT and other studies.

3.2.39. Secondly, 69% of residents live within 10km of a railway station. This distance is up to 25 minutes by bus, making it a viable mode choice for accessing the station. To encourage use of sustainable transport throughout a passenger's journey, seamless integration between railway services and bus services should be encouraged. At present, this isn't always the case; for example, passengers from the towns east of Taunton have to travel into the town centre before walking 15-20 minutes or catching a separate bus to the railway station.

3.2.40. A good example of bus/rail integration can be seen at Bristol Parkway, just north-east of the study area. This railway station functions as a bus hub for the north of the Bristol where local buses, bus rapid transit and rail meet. This station has been the catalyst for the transformation of a small, fringe location into a commercial hub, demonstrating the potential for rail connectivity to spark employment growth and activity.

3.2.41. Thirdly, for the circa 22% of residents living between 10 and 20km of the station, the car is most likely to be the mode of choice to reach rail, as observed in the 2004 University of Leeds Parkway Rail station study, which showed Peninsula residents driving up to 20km to the parkway stations reviewed in the study.[20] To encourage the use of rail for some or the majority of a journey, stations in more remote locations should be clearly signed from the local highway and have sufficient parking for prospective users. Additionally, as per the preceding example for trips of up to 10km, effort should be made to tie railway stations into the wider public transport network to encourage the use of sustainable modes throughout.

3.2.42. Finally, whilst the use of rail on a park-and-ride basis is well established, for long term transition to sustainability access to railway stations by walking, cycling or public transport should be encouraged. To do this, there is scope to reopen or build new stations so that a greater portion of the population live within 10km of a station and are more likely to access it by sustainable modes. A series of new stations are either under construction or in development across the peninsula, and stakeholders hold aspirations for further openings to extend the reach of the network.

SERVICES

3.2.43. There are currently three commercial passenger train operators in the region:

- Great Western Railway: Three distinct groups of service are provided within the modern Great Western Franchise:

[20] Lythgoe, W.F. and Wardman, M.R. (2004) Modelling passenger demand for parkway rail stations. Transportation, 31 (2). pp. 125-151. ISSN 1572-9435.

- Long Distance services between Penzance and London Paddington;[21]
- Regional services, such as between Penzance to Plymouth; and
- Branch line services, such as Falmouth Docks to Truro.

- South Western Railway: Long-distance services between Exeter St David's and London Waterloo; and
- CrossCountry: Long-distance services between Penzance, the Midlands and beyond.[22]

3.2.44. Whilst the passenger operations are those with which the majority of the public are most familiar, the area also sees considerable rail freight activity. It is vital that these movements are supported and encouraged in any strategy for the region's railways, due to the impact rail freight has on removing heavy lorry movements from the region's roads, with the inherent benefits to congestion, road safety and the environment. Freight Operating Companies (FOCs) present in the area include:

- GB Railfreight (GBRF): Primarily Aggregates Traffic;
- COLAS Rail: Primary contractor for Network Rail maintenance movements, though currently trialling timber shipment; and
- DB Cargo: Traffic to/from the European Metal Recycling (EMR) Terminal.

3.2.45. These operate from a network of yards and terminals discussed in the next section of this document.

3.2.46. Finally, the area also hosts several heritage railways. For the most part, these occupy branch lines that were closed to regular traffic in the 1960s and have subsequently seen a second life as tourist attractions and examples of the conservation of the area's railway heritage. As seen with the recent reopening of Okehampton to commercial services, these also provide opportunities for commercial operations in the future, with increasing local populations and moves away from the private car. Notable heritage railways include:

- West Somerset Railway;
- Dartmouth Steam Railway;
- Bodmin & Wenford Railway;
- Plym Valley Railway;
- East Somerset Railway;
- Somerset & Dorset Railway Heritage Trust;
- Lynton & Barnstable Railway;[23]
- Launceston Steam Railway;[24] and
- Seaton Tramway.[25]

[21] GWR also operate summer weekend services operate between Newquay and London Paddington, as well as Paignton and London Paddington.

[22] CrossCountry also operate summer weekend services between Newquay and the Midlands, as well as Paignton and the Midlands.

[23] This line is unusual in being the restoration of a narrow gauge railway which once provided a link from the main line at Barnstable to the tourist destinations of Lynton & Lynmouth.

[24] This is also a narrow gauge line, however on the trackbed of a former standard gauge line.

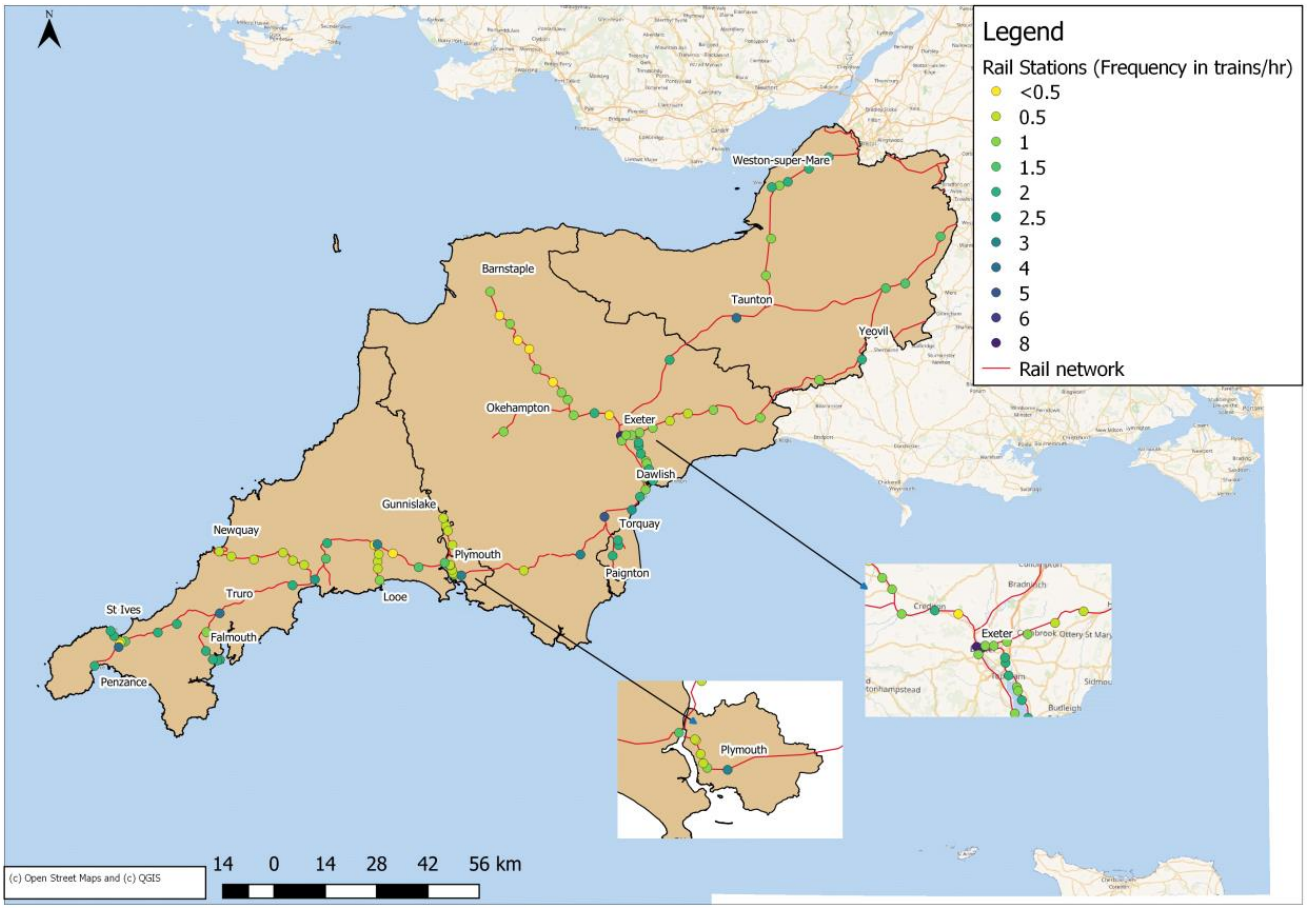
[25] An unusual preserved railway operating 2/3 scale historic trams on the trackbed of the former Honiton-Seaton branch.

Passenger Service Frequency

3.2.47. Frequency is an important factor in people's choice of transport mode. With the increase of frequency from one train per hour (tph) to two, the line between Truro and Falmouth saw a 133% demand increase between 2009 and 2015, whilst a similar enhancement saw patronage on the Cornish Mainline raise by 26% in 10 months. The Paignton branch also saw 16% extra passengers following an increase to 2tph as part of the Devon Metro program discussed further later in this chapter.

3.2.48. Figure 3-5 sets out the service frequencies by station in the Peninsula.

Figure 3-5 - Service Frequency in the Peninsula



3.2.49. Based upon the preceding figure and associated timetable analysis, the following service patterns and frequencies can be observed:

- 1tph on most branch lines (Liskeard-Looe, St Austell-Newquay);
- 2tph on the commuter lines into larger urban centres (Falmouth-Truro, Exmouth-Exeter);
- 2tph to most stations on the main line between Bristol and Penzanze;
- 3-4tph at junctions where branch/commuter routes connect with the main line (Liskeard, St Austell);
- 4-5tph at some principal stations served by a mix of long-distance and local services (Taunton, Truro, Plymouth); and

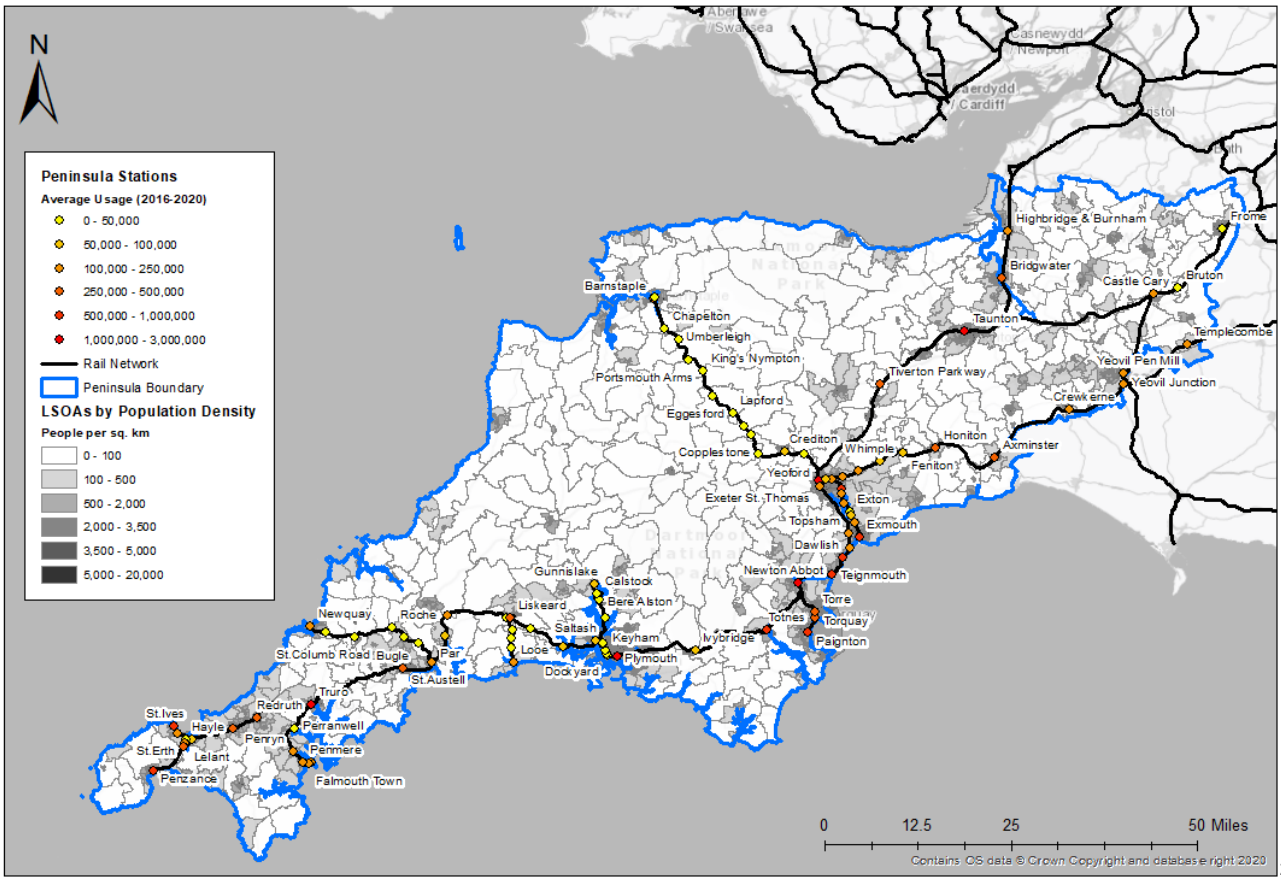
- 7tph at Exeter St Davids, which sits at the centre of a converging network of local services, as well as acting a principal station for long-distances on the Bristol – Penzance main line and on the South West Main Line to/from London Waterloo.

3.2.50. 3-4tph is seen generally perceived as the level at which rail becomes “turn-up-and-go” in nature, where perceived time penalties associated with service frequency are dramatically reduced. 1-2tph is common for secondary stations in the UK.

Existing Demand

3.2.51. Passenger demand statistics are difficult to obtain in a disaggregated form as this information is commercially sensitive, however annual passenger usage statistics are available from the Office of Road and Rail. Average Station usage between 2016 and 2020 are shown in Figure 3-6 below.

Figure 3-6 - Station usage in the Peninsula Rail Station Study Area



[26]

3.2.52. As shown in Figure 3-6, the busiest stations in the region, with more than 1 million passenger journeys per annum are:

- Penzance;
- Taunton;
- Plymouth;

[26] Note: Okehampton station opened in 2021. As such, data wasn’t available regarding its usage.

- Totnes;
- Newton Abbot;
- Paignton;
- Exmouth;
- Exeter St David;
- Exeter Central; and
- Truro.

3.2.53. These stations share several traits in common. Firstly, these stations are generally located in highly developed areas, whether city centres (e.g., Taunton, Exeter, Plymouth) or large towns/suburbs of those cities (e.g., Exmouth, Paignton, and Totnes). Secondly, as illustrated in Figure 3-5, these stations generally benefit from railway services which are frequent and/or connected to a variety of destinations both within and beyond the Peninsula region. Finally, the high level of usage supports, and is supported by, a range of amenities at the station. Such amenities can include toilets, shops and cafes, and higher levels of waiting facilities.

3.2.54. There are some concentrations of stations with fewer than 100k passenger journeys per annum:

- Newquay-Par Branch;
- Liskeard-Looe Branch;
- Gunnislake-Plymouth Branch; and
- Exeter-Barnstaple Branch.

3.2.55. The common feature of these lines is, for the most part, their rural nature. With the exception of the larger towns at their termini, the majority of these branches traverse lightly populated areas, something reflected in the usage of the stations along the lines. Additionally, these stations are often unstaffed request stops, reducing their accessibility further as not many are familiar with this way of working.

3.2.56. One exception to this trend is the Plymouth-Gunnislake branch, as well as the stations on the Great Western Mainline served by services that subsequently serve the branch. These stations are, currently, only served by one train every two hours. This makes them uncompetitive against the private car, as well as bus services within Plymouth. There is considerable potential for growth at these stations, particularly given the high population densities close to the stations within Plymouth's suburbs.

NETWORK USAGE PATTERNS

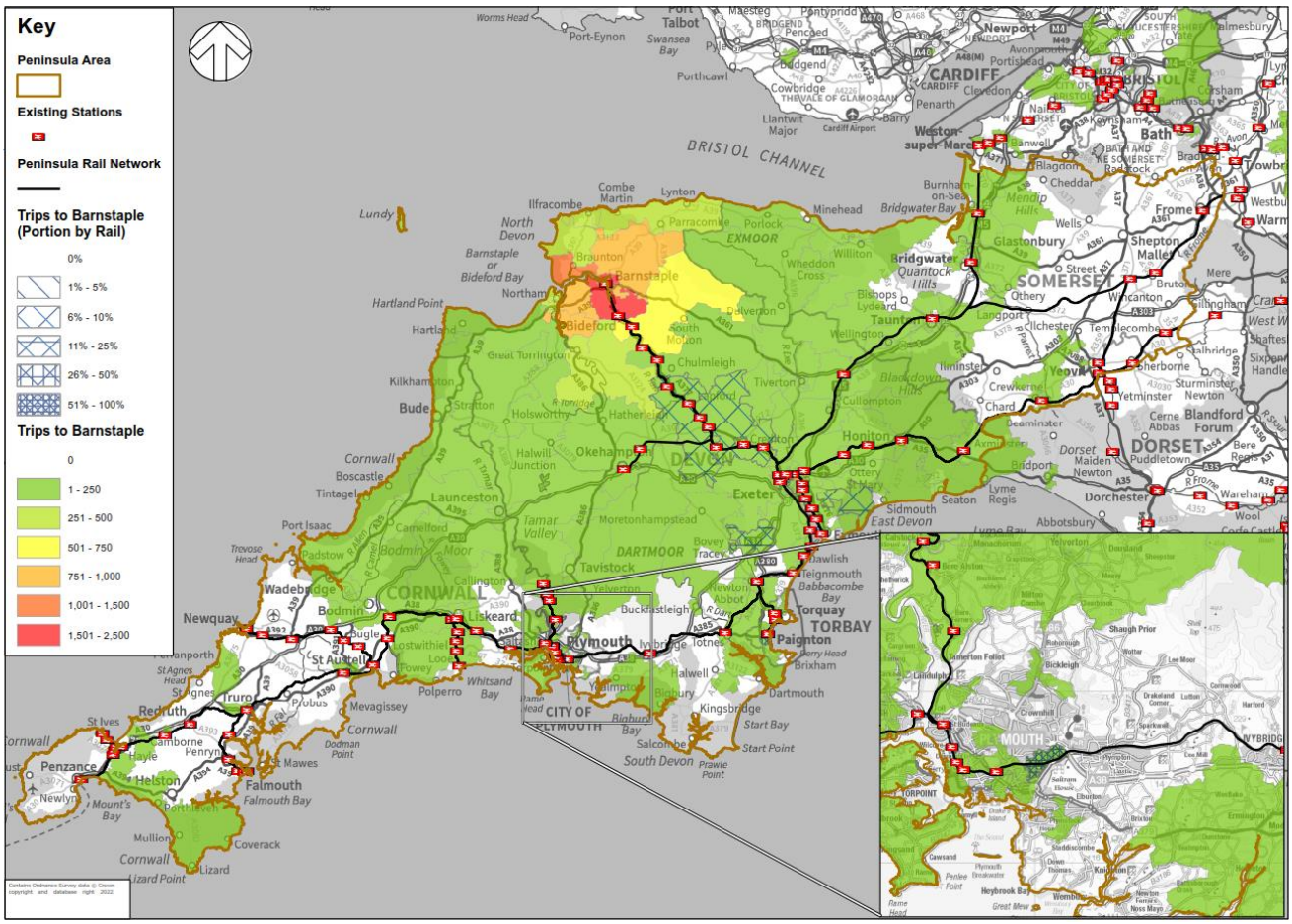
Introduction

3.2.57. To understand how the railway network in the Peninsula is used for access to work, we undertook an appraisal of the origin of travel to work trips to key settlements within the Peninsula. It is worth noting that this is based on the 2011 Census and that, as discussed elsewhere, the network has been considerably enhanced since then. However, it is still illustrative of the association between network access, service provision and rail usage.

Analysis

Figure 3-7 to Figure 3-13 show the relationship between the peninsula's key towns and employment centres and the rail network.

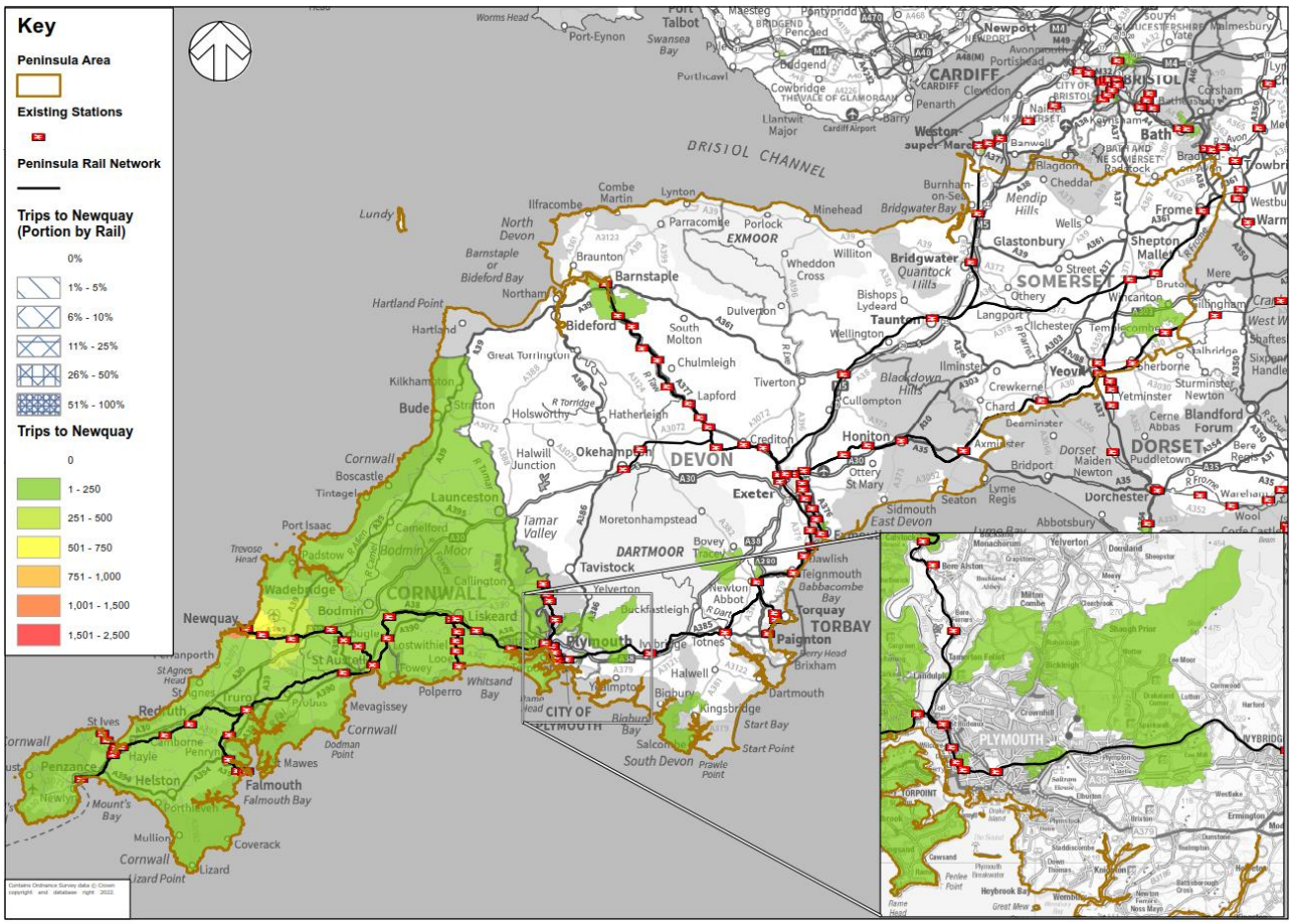
Figure 3-7 - Origin of Trips to Barnstaple and Portion Using Rail



3.2.58. At the time of the 2011 Census, 0.12% of travel to work movements into Barnstaple were made by rail. As shown in Figure 3-7, these trips likely originated from stations on lines with direct connections or with one change at Exeter.

3.2.59. In relation to general movements, it is evident that the core commuter movements into the town are internal, then to the north, east and south. Trips from the north and east have limited potential for rail service, with the lines having been removed in the 1960s, however the south of the town has Umberleigh and Chapelton stations. At the time of the Census, service to these stations was limited, however this has since been uplifted to a regular hourly service which could support increased used for travel to/from Barnstaple, particularly as alternative public transport modes are generally even less frequent and/or slower.

Figure 3-8 - Origin of Trips to Newquay and Portion Using Rail



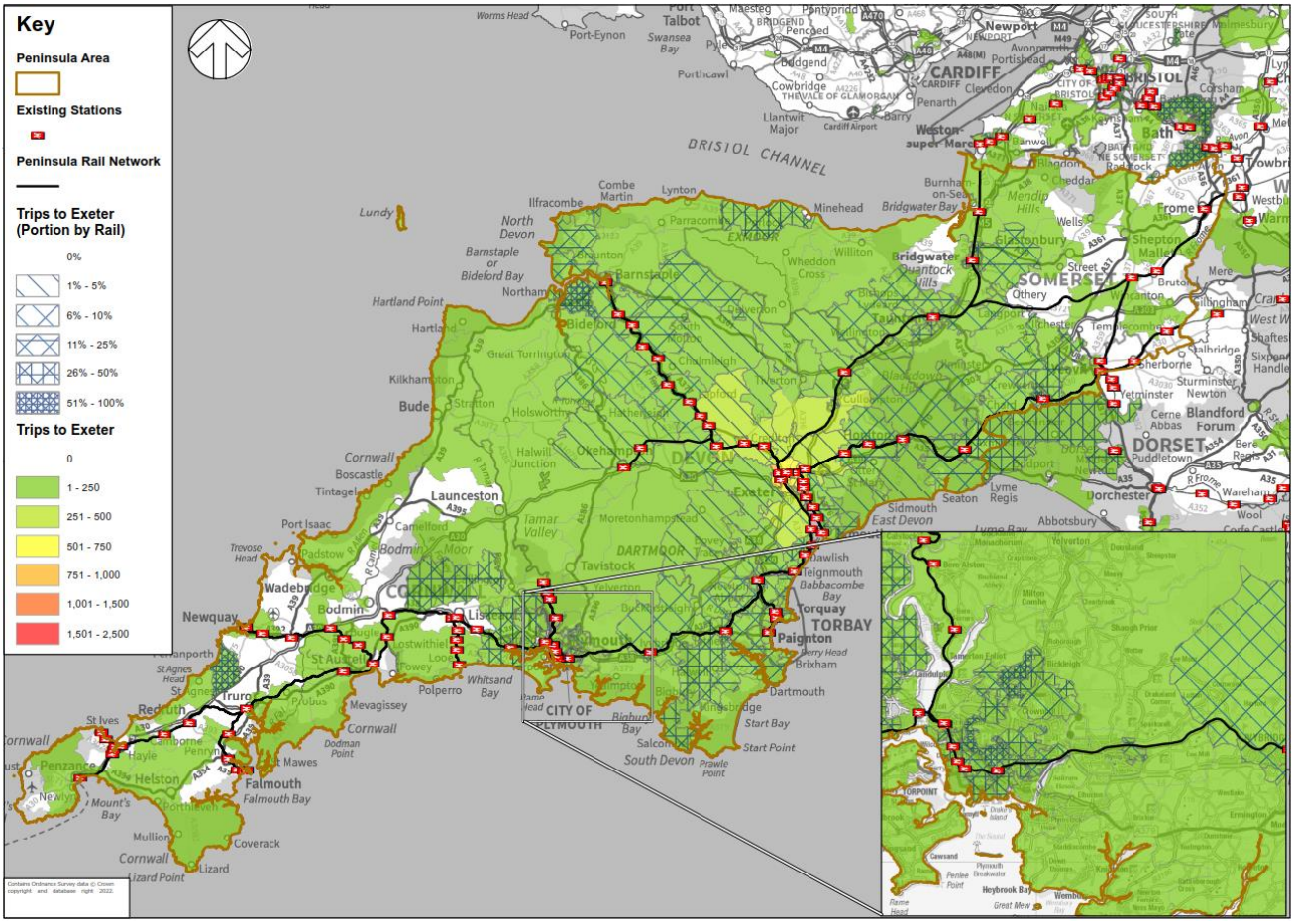
3.2.60. 0.19% of commuter trips into Newquay were made by rail at the time of the 2011 Census. This is reflected by Figure 3-8 showing, effectively, no use of rail in accessing the town. This is despite the MSOA's including Quintrell Downs and St Columb Road generating a substantial portion of the town's commuter trips, with other origin points to the east also being only one interchange away by rail.

3.2.61. A possible reason for this exceptionally low rail use is that services on the line are presently exceptionally low frequency, at circa one train every two hours.[27] This situation is potentially compounded by the stations outside Newquay being ill-connected to the settlements they serve. For example; St Columb Road's access from Station Road requires walking under the railway then doubling back, making the station less appealing to residents who could potentially walk or cycle. Additionally, there is no signage in the town's high street indicating that the station is present, nor any connection with local bus services.

3.2.62. Matters such as the potential for improved signage are discussed further in relation to Conditional Outputs.

[27] Service frequency to Newquay is bolstered by long distance GWR and CrossCountry services in the summer season, however these don't call at the intermediate stations so would be of limited use to local users and/or potential commuters.

Figure 3-9 - Origin of Trips to Exeter and Portion Using Rail



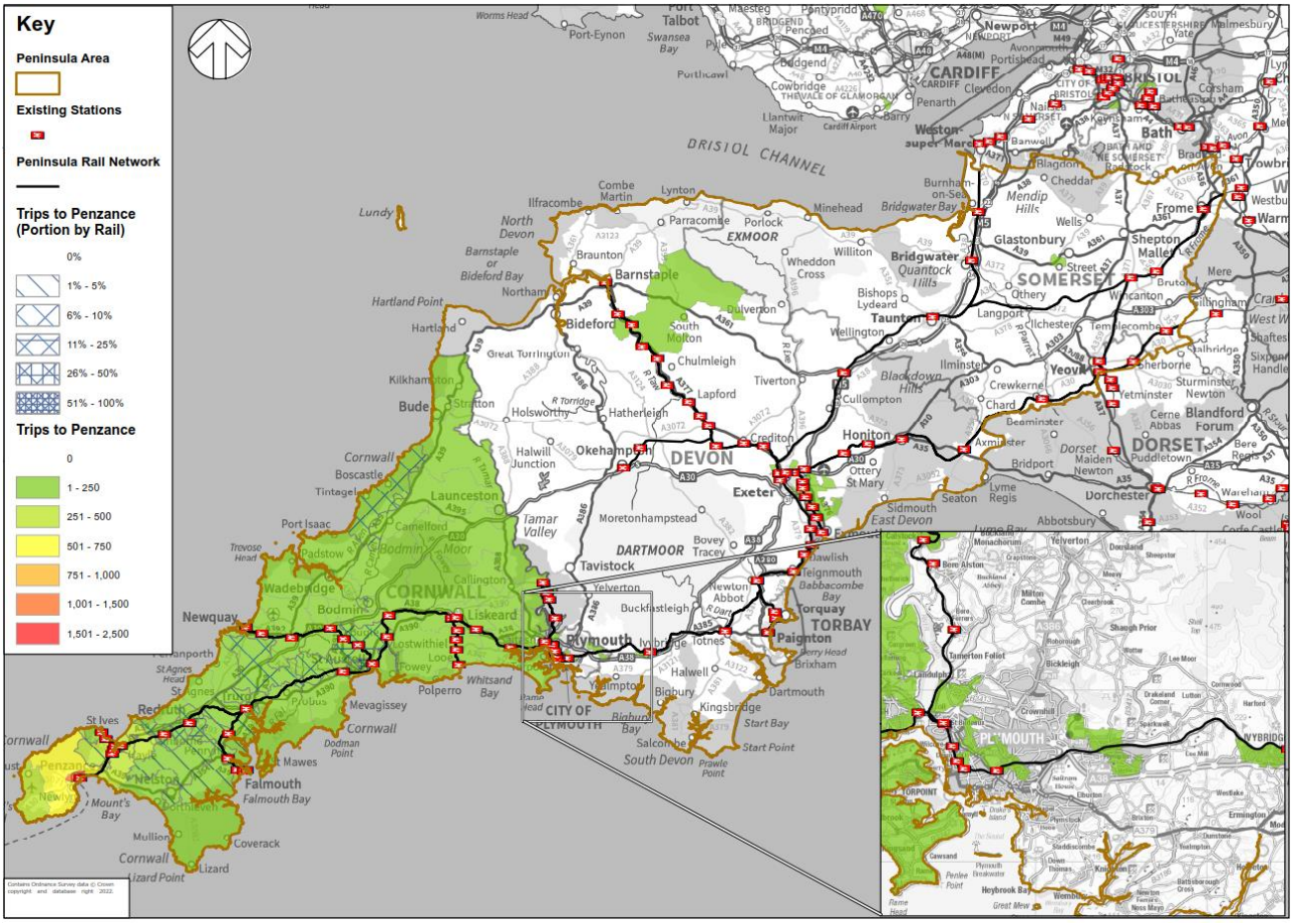
3.2.63. At the time of the 2011 Census, 6.91% of trips into Exeter City Centre were made by rail, above the national average rail mode share of 3% and putting the city as the top in the region for rail usage as a means of travelling to work.

3.2.64. The data presented in Figure 3-9 suggests why this could be the case; the city enjoys excellent rail connectivity from all directions, serving as the confluence of two branch lines,[28] the western terminus of the long-distance services from Waterloo and a key junction for long distance services through the region from London and the North East.

3.2.65. This situation is likely to have improved since the 2011 Census, following service frequency enhancements on the line to Barnstaple and on the Great Western Mainline, as well as improved journey times for trains to London and the east of England.

[28] Barnstaple and Exmouth at the time of the 2011 Census, with Okehampton having been reconnected more recently.

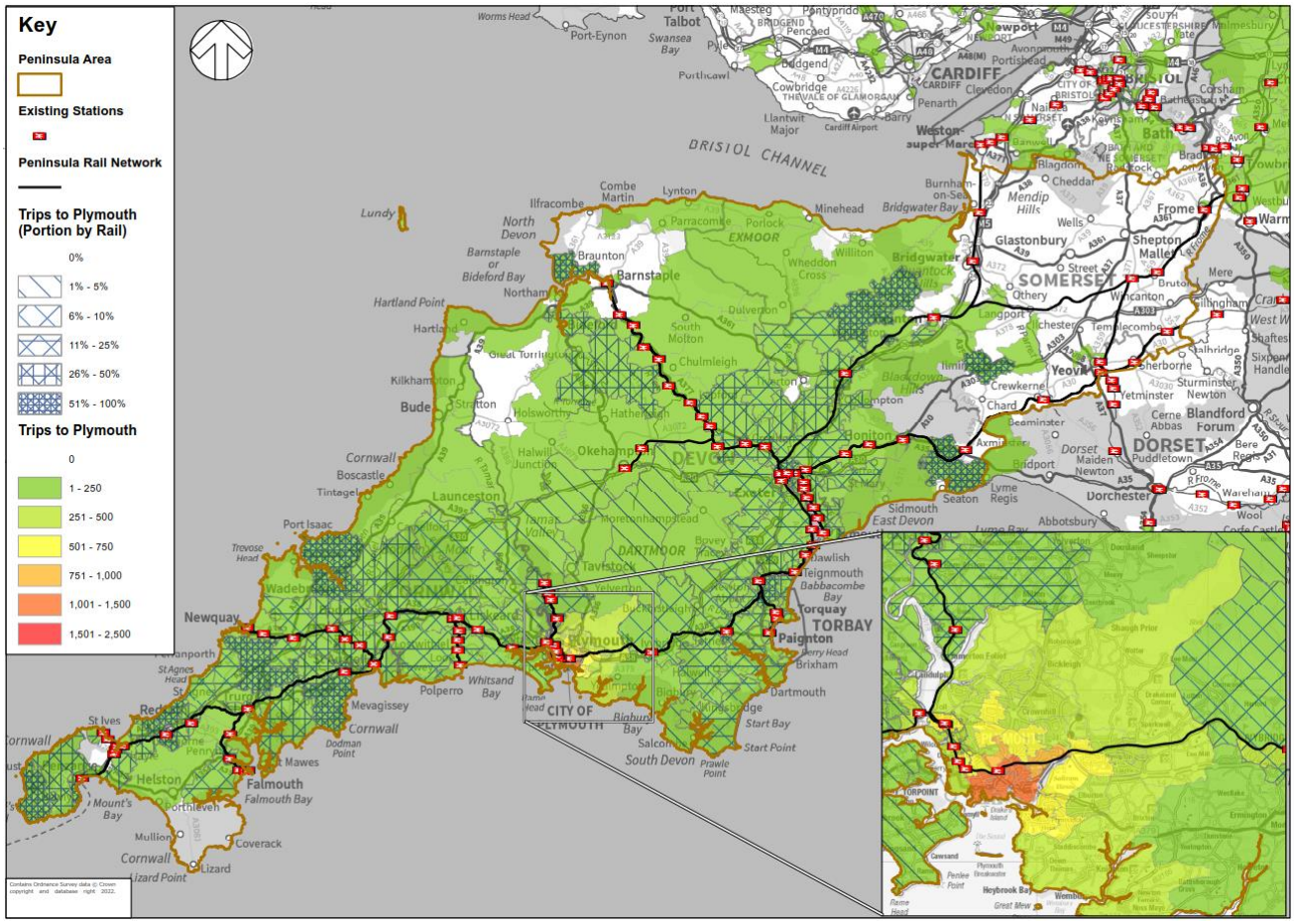
Figure 3-10 - Origin of Trips to Penzance and Portion Using Rail



3.2.66. At the time of the 2011 Census, 1.28% of travel to work trips into Penzance were made by rail. As shown in Figure 3-10, these primarily originate from towns along the Great West Mainline, though those on the North Cornwall coast, around Boscastle, are presumably travelling to the railway and using it on a Park and Ride basis.

3.2.67. It is interesting to note that rail makes a larger mode share for the zones east and north of Truro, despite more of the trips into Penzance originating in the area around St Erth and Redruth. This might have changed since the time of the Census, due to the increase in service frequency on the Great Western Mainline.

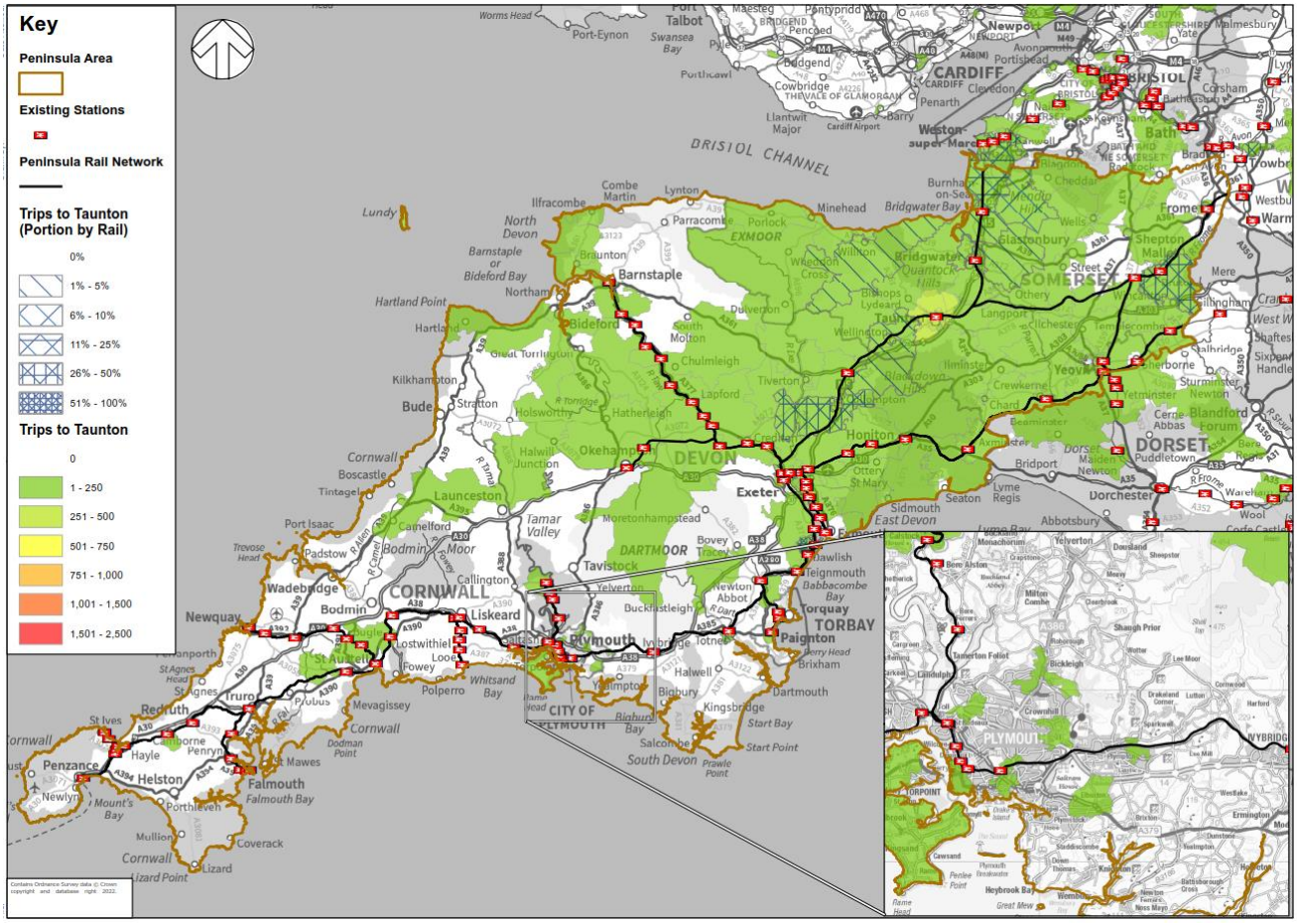
Figure 3-11 - Origin of Trips to Plymouth and Portion Using Rail



3.2.68. At the time of the 2011 Census, 2.63% of trips into Plymouth were made by rail, which is close to the national average and the second largest portion in the Peninsula after Exeter.

3.2.69. Figure 3-11 shows that the majority of these trips from locations further away from the city, on the Great Western Mainline. Despite their being a considerable number of trips originating in the vicinity of Plymouth, a negligible portion of them are moved by rail. This likely reflects the low frequency of rail movements on the Gunnislake branch, as well as the lack of stations serving the city's eastern hinterland. Conversely, the locations with more frequent links, such as the towns around Torbay and St Austell, have a much higher rail mode share. It is also notable that several locations have a high rail share despite the need to change train at least once, including the Newquay branch and locations on the Wessex lines.

Figure 3-12 - Origin of Trips to Taunton and Portion Using Rail

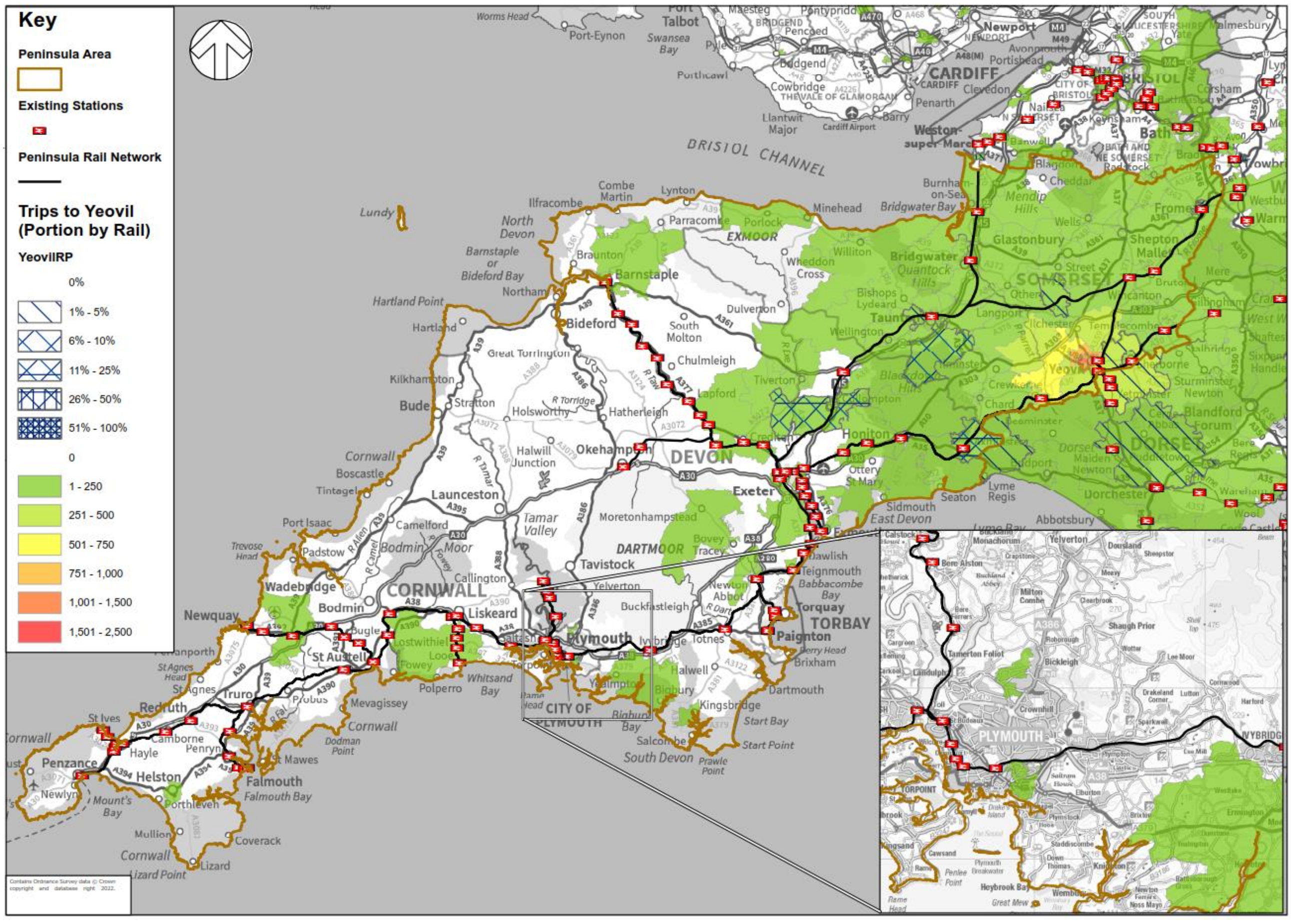


3.2.70. At the time of the 2011 census, less than 1% of trips into Taunton utilised rail as their primary travel mode. This is despite the city being a regional centre, as well as a major junction where the two Great Western routes from London (via Bristol and the 'Berks and Hants') join. Where rail is used to access Taunton, it is from locations on these lines, including the vicinity of Tiverton Parkway to the south and Bridgewater to the north. Rail's mode share to the southwest of Taunton, currently facilitated by Tiverton Parkway, would likely benefit from the delivery of the Wellington & Collumpton stations for which business cases have been recently submitted. These stations would bring their titular towns into walking distance of a station, rather than needing a bus or car trip to Tiverton prior to interchanging onto rail. Rail's mode share to the north of the city is currently low, potentially supressed by the low frequency (hourly) service at Bridgwater, improvement of which would also benefit travel towards Bristol.

3.2.71. Despite a considerable number of trips to the city originating in the vicinity of the Barnstaple branch, it can be assumed the need to catch an infrequent branch service, interchange at Exeter and travel back north is a deterrent to rail use.

3.2.72. It is also notable that there's a considerable number of trips from the east and northeast of the city, which is currently poorly rail served; however, the region could benefit from the Langport & Somerton proposal, which would provide a railhead for the rural area and, potentially, be supported by additional rail services. For example, the Go-Op group have identified a call at a prospective Langport & Somerton location in their open access proposal for services through Taunton.

Figure 3-13 - Origin of Trips to Yeovil and Portion Using Rail



3.2.73. Yeovil saw 0.23% commuter trips into the centre of the town made by rail at the time of the 2011 census. This is very low portion considering that the city is a junction between the Wessex and West of England lines, providing links to all points of the compass. There are several reasons this could be:

- Low service frequency on the two lines joining the station;[29]

[29] It is notable that this is set to change, with business cases for improved frequencies on both lines being supported by NR and local authorities, as detailed elsewhere in the document.

- Poor alignment between station locations and the majority of demand; demand is shown as originating in the northwest of the city. This area was rail served via a branch from Taunton, however this closed in the 1960s and was replaced, in part, by the A3088;
- Distance between stations and town centre: Yeovil Pen Mill is the closest to the centre, though is still approximately a mile east. Yeovil Junction, which has a more frequent service, is located 2 miles south of the town on a road with limited provision for pedestrians and cyclists;
- Poor bus connectivity: Yeovil bus station is located in the City Centre, with services operating on a radial basis from the centre point. There are no cross-city services to tie in either railway station with the residential areas to the north and west, or to encourage the use of rail in a longer public transport journey.[30] This is particularly interesting considering that the West of England Line and Yeovil's dominant bus operator are both part of First Group.

Conclusions

3.2.74. Whilst the preceding Origin-Destination analysis covers a range of locations from cities to towns, there is considerable commonality in the findings. Specifically-

- Stations connected with a direct, frequent service are more likely to encourage rail use.
- However, passengers are willing to interchange to make longer rail journeys if necessary.
- There is limited use of rail for short distance commuter trips in the region, with the exceptions of the Exmouth and Falmouth branch[31].
- Higher rail mode share is often associated with higher quality stations, where there is clear signage to the station and some degree of amenity is provided at the station.
- The Great Western Mainline is a key spine for commuter movement to/from the region's primary settlements.

3.2.75. Finally, it is likely that the mode shares will have changed since the 2011 Census, due to the improvements to the rail network since that period. Unfortunately, the 2021 Census, having been taken during the pandemic when more people were working from home, is less likely to provide such a useful snapshot.

FREIGHT

Freight Terminals

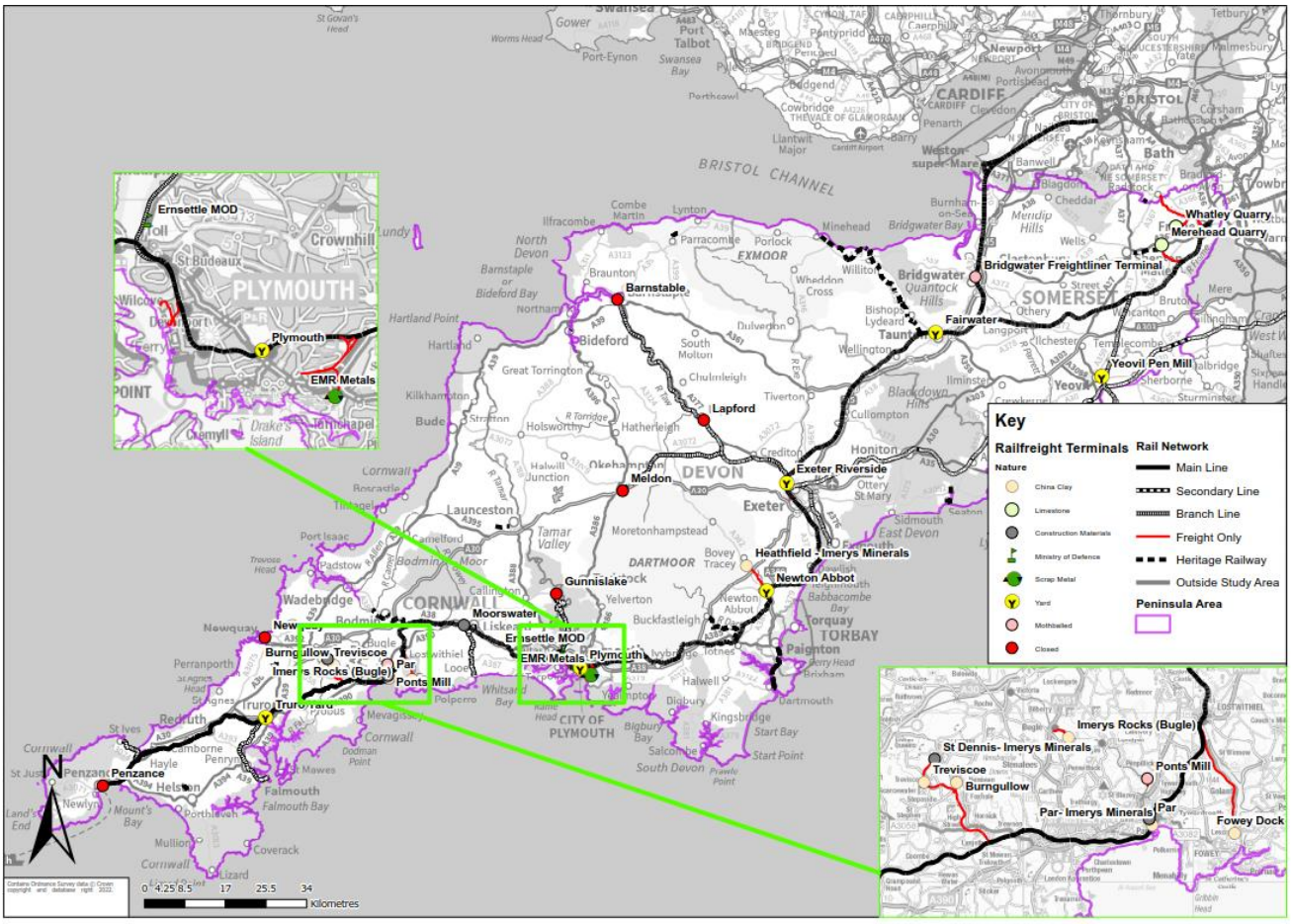
3.2.76. As aforementioned, the region's railways are host to a considerable amount of freight traffic. For these services to operate, loading/unloading termini are required with access to the rail network, as well as, in many cases, the road network for 'last mile' shipment.

3.2.77. The facilities served by the regions freight operators is mapped in Figure 3-14 below.

[30] Source: Firstbus | Yeovil Town Centre map.

[31] Whilst the Falmouth branch isn't included in the case studies, there is considerable evidence of the line's increased use for short trips following the provision of a half hourly service in 2009. These include trips for work, education and leisure.

Figure 3-14 - Peninsula Rail Freight Terminals



3.2.78. As can be observed in the preceding figure, the dominant traffic in the region is minerals extraction, in the form of china clay extracted from the vicinity of Par. This traffic forms up to four trains per day between the freight only branch around Par, Fowey, and Exeter Riverside Yard. From there, trains are assembled into larger block trains for onward shipment to other terminals around the UK, or shipment abroad. In addition to China Clay, there are several other mineral extraction operations in the region. Of these, GRS recently signed a deal with GB Railfreight to ship granite by rail.[32] In addition to China Clay, further aggregates traffic is generated by Merehead and Whatley limestone quarries in the east of the study area, on branches leading off from the Berks & Hants line.

3.2.79. Related to the preceding aggregates traffic, Treviscoe and Moorswater both host construction material plants, refining materials formed from the regional mining activity for shipment to support the nation's housing and industrial growth, as well as shipment abroad.

3.2.80. Two other freight terminals are active within the study area. This includes trains operated as required to and from the Ministry of Defence (MoD) site at Ernesettle, paths being available in the timetable for trains to run several days a week. Whilst currently served by dedicated trains, as recently as the early 2000s MoD traffic was mixed with other forms of freight, supporting more general traffic.

[32] Source: Vast new aggregates potential for south-west England | railfreight.com.

3.2.81. The third location is EMR facility in Plymouth. This site only receives trains on an as required basis, with services being so infrequent that the operation of a train to the facility made the local papers.[33] This demonstrates that even a relatively quiet rail freight terminal can be viable, providing scope for trial sites, a concept discussed further in regard to Conditional Outputs.

[33] Source: Abandoned Plymouth railway line where people have seen a 'ghost train' | Plymouth Live.

3.2.82. Figure 3-14 shows several yards. These are generally locations operated by Network Rail, where maintenance trains are stabled or dispatched, though also include facilities for the marshalling of longer trains, such as the China Clay services assembled at Exeter Riverside for onward movement.

3.2.83. Additionally, during the writing of this document, Pontrilias Timber, in partnership with Colas Rail and Network Rail, have begun operating timber trains from Network Rail's Hackney Yard (Newton Abbott), to this plant in Abergavenny. This is on a trial basis at the time of writing, but it is hoped this can form a regular traffic flow.

Freight Limitations

3.2.84. Although Over 65 million tonnes of goods are lifted in, out and across the peninsula annually and Peninsula region's ports export around 1.5 million tonnes of freight every year, the sector is generally heavily reliant on road transport, with rail freight holding only 5% of the market share. The steady increases in rail freight traffic observed elsewhere in the UK are not happening in the peninsula.

3.2.85. Peninsula Transport and Western Gateway's South West Freight Strategy (SWFS) highlights the limitations currently posed on the rail freight market by a lack of key infrastructure:

- A lack of intermodal freight terminals in the peninsula, either close to population centres or at the major ports. Some of the region's principal import/export hubs, such as Plymouth port, are not connected to the rail network.
- Generally low gauge clearance across the network preventing the movement of container traffic.
- A lack of network capacity and single-line running on many branch lines.
- The lack of electrification necessitating diesel haulage of all services.
- Risks posed due to the vulnerability to severe weather and flooding described previously.

3.3 TOMORROW'S RAILWAY

3.3.1. This section of the report considers proposed changes to the Peninsula's railway network, drawn from Network Rail strategy, Transport Strategy documents put forward by local authorities and Train Operating Company / Freight Operating Company investment plans. These include schemes currently fully funded and programmed for delivery, as well as proposals and concepts which are seen as desirable and/or feasible but not committed at the time of writing.

NETWORK RAIL STRATEGIES AND OPTIONS

3.3.2. Network Rail are responsible for the maintenance and development of Britain's railway infrastructure. In this role, they are responsible for the "running of a safe, reliable, and efficient railway, serving customers and communities".[34] A key element in performing this role is identifying where to make investments in the network, whether for capacity enhancement or for increasing resilience to storm damage. As an independent body, the company are able to develop long-term strategies with a degree of separation from political cycles or franchise term limits, though both of these factor into the amount of funding available and where it should be prioritised.

[34] Source: About Us | Network Rail.

3.3.3. Over the next few years, Network Rail is to be subsumed into Great British Railways (GBR). GBR will: *integrate the railways, owning the infrastructure, collecting fare revenue, running, and planning the network, and setting most fares and timetables* (DfT 2021).

3.3.4. This section of the report considers the strategic developments which Network Rail had proposed for the future and the strategies which GBR will inherit.

Continuous Modular Strategic Planning (CMSP) – West of England Line Study 2020

3.3.5. This document, produced by Network Rail, identifies potential investment opportunities for the West of England Line from London Waterloo to Exeter St. David's via Basingstoke, Salisbury, Yeovil, and Axminster. The contents were based upon the following strategic questions:

1. What are the key markets that the West of England Line serves or needs to serve?
2. Based on the demand analysis, how is capacity best provided and managed on the West of England Line?
3. Where are the stakeholder priorities for improved journey times and by how much?
4. How can the West of England Line best support local and market growth opportunities?
5. What are the potential opportunities for onward connectivity from locations on the West of England Line?
6. What does the rail freight industry require of the West of England Line?
7. What is the extent of poor resilience and performance on the West of England Line, how can this be addressed and how can the West of England Line support the resilience of other lines?

3.3.6. Opportunities thus identified were:

- Closure of the level crossings at Poole and Wareham to increase service speed, safety, and reliability;
- Three corridors for increased service frequency:
- A 1 train per hour (tph) service on the Heart of Wessex Line with an additional call at Yeovil Junction via a new south chord;075
- +2tph between Wareham and Brockenhurst; and
- An improved half hourly interval between services operating from Weymouth to London Waterloo.

3.3.7. Station Masterplans, to improve their attractiveness to passengers, increase integration with other public transport services (i.e., bus) and make them fit for the 21st Century. Of those included within the study, only Wareham, Yeovil Junction and Yeovil Pen Mill fall within the Peninsula Region; however improved interchange facilities at sites outside the region could still benefit those making multi-modal trips using the line.

3.3.8. These interventions would be supported by infrastructure investment to increase journey speeds and improve capacity on the corridor.

Network Rail Route Strategies

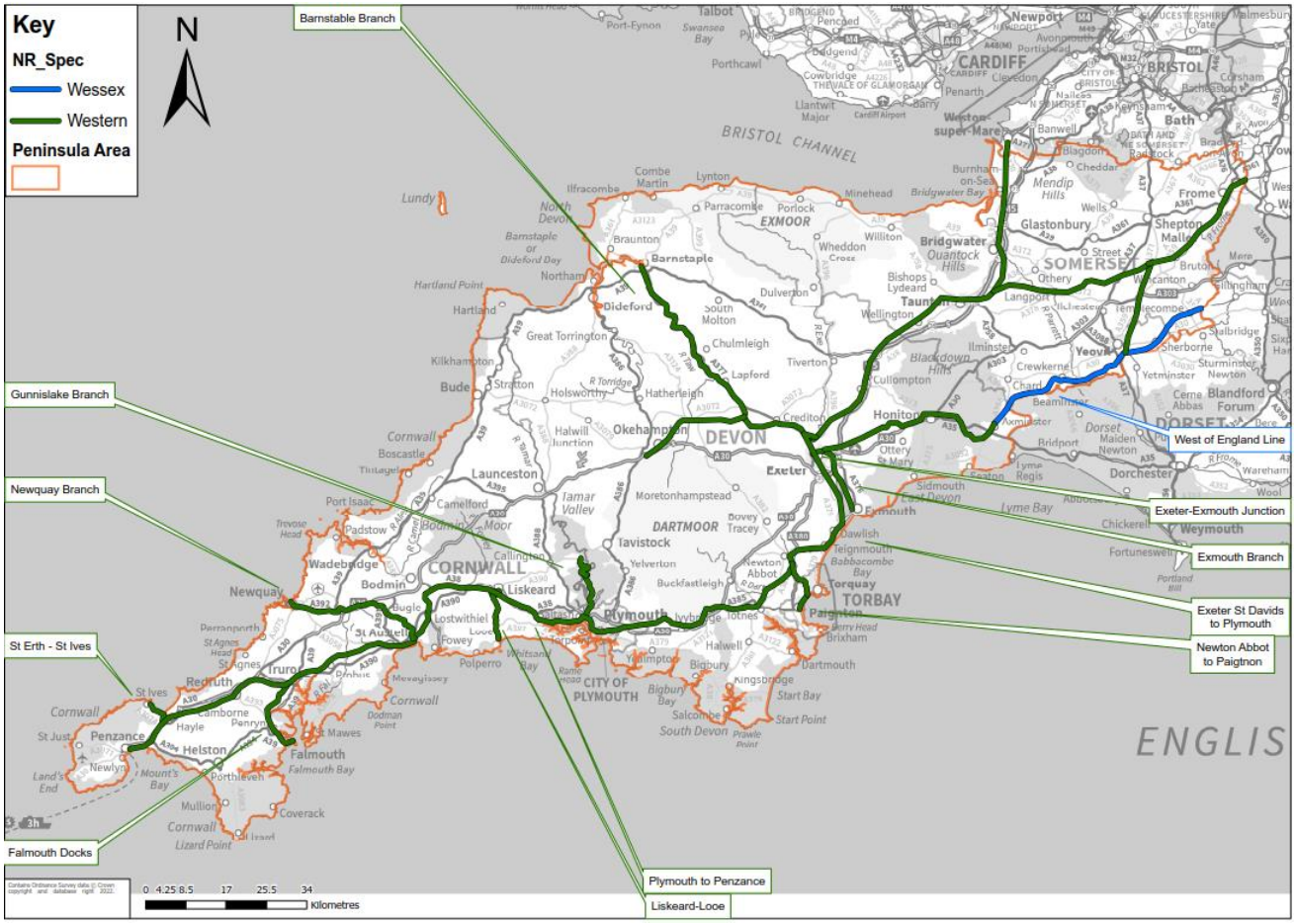
3.3.9. Network Rail is responsible for the strategic planning of the railway through its System Operator function leading a Long-Term Planning Process. The process involved national Market Studies for different passenger markets plus freight, creating conditional outputs around capacity and connectivity. This was then followed by regional Route Studies to develop options to deliver on the conditional outputs, and to assess the economic case for doing so. Beginning in 2013, Network Rail

led a series of Route Studies to assess changes to the railway's capability and capacity during CP6 (2019-24), and in the longer term, and to outline Choices for Funders, which are defined options to deliver a particular capability/capacity output which is desired. These were followed by Route Specifications, providing additional details to support the RUS.

Route Utilisation Strategies & Route Specifications

3.3.10. The Western and Wessex Route Study documents are relevant to the Peninsula area. The scope of these is set out in Figure 3-15.

Figure 3-15 - Network Rail Route Specification Areas



Western

3.3.11. The Western Route Study covers the majority of the railways in the Peninsula with the exception of the line into Exeter from London Waterloo. The document, published in 2015, set an optimistic forecast for the Western Route, with a program of line-speed and capacity improvements being set out for delivery in CP6 or future consideration. The document stated that the railway should:

- Support economic growth;
- Reduce its environmental impact; and
- Improve the quality of life for communities and individuals using it.

3.3.12. The Western Route Specification was published in 2018 and provided a more detailed set of proposed and potential investments, which also considered lessons learnt from the challenging Great Western Electrification program.

3.3.13. For this review, proposals will be split between those *Internal* to the Peninsula and those *External* to the Peninsula, but still benefiting passengers in the region; such as measures to accelerate through Bristol that will improve services for Peninsula residents travelling through that city.

Internal

3.3.14. As per the Route Specification (RS) document, interventions and aspirations will be set out on a section-by section basis.

- **Bristol Temple Meads to Exeter St Davids:** This route crosses into the Peninsula north of Bridgwater and forms the primary rail corridor into the region, carrying CrossCountry, Long Distance High Speed services via Bristol and local stopping services. The section of the line within the Peninsula is double track throughout and allows for 110mph operation. The document identifies potential improvements 'by 2043', consisting of electrification, new rolling stock and line speed improvements where possible. Additionally, the Taunton Station Masterplan is currently being delivered, which provides improved passenger experience and interchange facilities for those using the station.
- **Newbury to Cogload Junction (north of Taunton):** The Route specification identifies the importance of this route section as a long, double track line served by three to four trains per hour, split between several long distance services and one stopping service. The line has loops at Westbury and Frome, which allow flexibility and capacity for use of the line in re-routeing long distance services. This section of line has a line speed of 100mph for much of its length, so incremental line speed improvements are only identified for 2043, in conjunction with electrification and associated new rolling stock. In the same period, it is proposed to raise passenger services to three Long Distance High Speed and 2 regional services, the latter operating as extensions of existing Thames Valley electric commuter service.
- **Exeter St Davids to Plymouth:** The Route Specification identifies the importance of this route section for a range of journey purposes, including long distance services from Plymouth/Penzance to Bristol and beyond and stopping services linking local communities and leisure/holiday destination. The RS proposes that, by 2043, the line should be electrified and benefit from incremental line speed improvements where possible. Additionally, it forecasts a doubling of long-distance service frequencies, a goal set in the RUS. Finally, this section identifies Devon County Council's intent to deliver a new station at Marsh Barton which was opened in July 2023.
- **Plymouth to Penzance:** Similar to the Exeter to Plymouth section, this line sees a mix of long distance and local services and is proposed to be electrified by 2043 alongside Exeter-Plymouth. The RS sets out potential for an additional long-distance service in the peaks, as well as incremental line speed improvements made possible by the increased presence of more powerful trains in the region which, in turn, can accelerate faster from the line's stations.
- **Exeter-Exmouth Junction:** This section of line is served by a mixture of long-distance South Western Railway services on the Wessex route (see below) and Great Western Railway branch line services to/from Exmouth. Investment in this area is intended to see incremental line speed increases, depending on the capabilities of the rolling stock on the service.

- **Newton Abbot-Paignton:** This line sees a mixture of long-distance Great Western Services in the peaks, supplemented by local services to/from Exmouth via Exeter across the day. Additionally, CrossCountry services to Exeter are extended through to Paignton during the summer season. The route specification for this line consists of line speed increases and rolling stock improvements similar to those recorded in relation to Exeter-Exmouth. More significantly, the RS acknowledges the ambition for a new station at Edginswell as part of the Devon Metro strategy; further detail on which can be found subsequently in this report. Finally, in the long term (to 2043), the RS cites the potential for electrification of the branch to enable long distance services to operate under electric power throughout their journey.
- **Barnstable Branch:** The Barnstable Branch from Exeter to Barnstable is currently served by 1tph operating from Exeter or Exmouth. Additionally, the southern end of the line is served by trains diverging to serve the recently opened Okehampton station. The branch is identified for incremental line speed increases where possible, with the RS not identifying any scope for change to the current 1tph service north of the junction for Okehampton. A key constraint for the line's capacity is the single-track nature of much of the route.
- **St Erth-St Ives** is a single-track line between the titular towns, operated by two trains per hour. The line has recently received investment in a new Park and Ride facility at St Erth, replacing a previous facility at Lelant Saltings. The RS document identifies long term potential for incremental linespeed improvements going forward, though no increase in frequency is forecast due to the constrained nature of the single tack formation.
- **Liskeard-Looe** is a single-track branch between a junction with the mainline at Liskeard and a terminus at Looe, the train reversing at Coombe. Unlike the St Erth-St Ives branch, this line sees regular freight services on its northern section from the terminal at Moorswater. In regard to interventions, the Route Specification identifies the potential for incremental line speed improvements where possible with the stock and infrastructure.
- **Exmouth Branch** is a single-track branch line from Exmouth junction on the West of England line to London Waterloo. The branch turns south from the junction and is single track throughout, with the exception of a passing loop at Topsham. The Network Rail RS acknowledges the Devon Metro proposals for the line and detailed later in this chapter, however investments in the RS are limited to incremental line speed improvements by 2043, enabled by the aforementioned rolling stock improvements in the region. These improvements are also to be supported by platform lengthening at Exeter St James Park and Lympstone Commando.
- **Falmouth Docks** is a single-track branch line between Truro and Falmouth Docks. The line was provided with an additional passing loop at Penryn in 2009, allowing a doubling in service frequency from 1tph to 2ph. This, in turn, lead to more than doubled patronage. Within the RS, no further improvements are considered beyond incremental line speed adjustments where possible within the existing alignment and dependent on improved rolling stock.
- **The Newquay Line** is single track beyond the immediate vicinity of its departure from the mainline, where a freight line diverges to Par Harbour. This line is proposed for a small increase in service by 2043, from six trains per day focused on the peaks to a more regular interval two trains per hour. The line is also identified for incremental investment in line speed made possible by improved rolling stock.
- **The Gunnislake Branch** is a single-track line diverging from the Great Western Mainline at Keyham. The line continues north to Bere Alstom, where trains reverse before continuing to

Gunnislake. Similar to other branches considered in this study, the line is marked for incremental improvements to line speed.

- There are several **freight branches** in the Peninsula Region. Nothing is proposed for these lines in terms of investment, though the line from Plymouth Laira to Cattewater is mentioned as being mothballed pending a future freight use, whilst Newton Abbot to Heathfield is mentioned as being mothballed with the potential for a future passenger operation.

3.3.15. To summarise, the key committed scheme is the delivery of the new station at Marsh Barton. The two other schemes identified, electrification of the spine route to Plymouth and program of incremental improvements to line speed across the region's routes, remain aspirational/desirable with no further details being set out.

Wessex

3.3.16. The Wessex Route Specification contains the specification for the West of England Line between London Waterloo and Exeter via Salisbury and Yeovil. The line is double track between London and Salisbury, then has several single-track sections (Salisbury-Templecombe, Yeovil-Axminster and south of Axminster to Pinhoe) before joining the Western Route area at Exmouth junction.

3.3.17. The Route Specification provides options for increasing the capacity of the line. These options include:

- Axminster: Extending the double-track section or increasing linespeed between Templecombe and Wilton to allow services to access/egress the double track sections more rapidly;
- Wilton South Junction: Extending the double-track section north from Axminster or increasing linespeed between Templecombe and Axminster to allow services to access/egress the double track sections more rapidly;
- Gillingham: Several investments:
  - Add an additional loop at Crewkerne
  - Add an additional loop at Feniton or add an extension of the existing loop at Honiton.

Conclusions

3.3.18. As can be observed, the proposals in the Western Route Specification for 2043 are focusing on incremental uplifts to speed enabled by rolling stock cascaded from elsewhere on the railway network. The most notable consideration is the electrification of the Great Western Mainline through Taunton, Exeter, and Plymouth to Penzance, allowing long distance services to operate on electric power throughout. This proposal was further expanded upon in the 2020 Traction Decarbonisation Network Strategy, considered below.

3.3.19. Regarding the small section of the Wessex Route Specification within the area, the capacity proposals in the area could lead to increased train headways on the line and/or increased service reliability.

COMMITTED AND PLANNED INVESTMENT

Mid Cornwall Metro

3.3.20. The Mid Cornwall Metro will connect Newquay, Par, St. Austell, Truro, Penryn and Falmouth with year-round hourly rail services. It will also increase the frequency of main line services between Par,

St Austell and Truro. Local and long-distance services will run concurrently along the Newquay branch.

3.3.21. Works to be carried out will include: a new platform at Newquay Station; a new passing loop at Tregoss Moor; upgraded level crossings; new signalling at Goonbarrow; a new accessible lift bridge at Par Station; extended platforms at Falmouth stations; infrastructure at Newquay, Roche, Bugle, Penryn and Falmouth stations.

3.3.22. The programme was awarded funding through the Government's Levelling Up Fund in January 2023, with Cornwall Council providing a local contribution. Cornwall Council are working in partnership with Department for Transport, Network Rail and GWR to deliver the programme.

New Stations and Lines

3.3.23. Earlier in this Strategy, the challenge of network accessibility for the peninsula's dispersed population was illustrated. Partners across the peninsula have achieved considerable success developing and delivering new stations, and more are being progressed, including:

Marsh Barton

3.3.24. Marsh Barton station, located south west of Exeter, opened in July 2023 and serves a large employment west of the River Exe. On its website, Great Western Railway (the station operator) states that:

"The station will help to unlock development and employment opportunities at Marsh Barton whilst also benefitting existing businesses and residents by encouraging people to shift to a more sustainable mode of transport.

The station will also encourage leisure travel through its close proximity to the Riverside Valley Park, providing easy access for walking and cycling activities. It will also provide a close link to the Royal Devon and Exeter Hospital as well as County Hall".

Edginswell

3.3.25. A new station at Edginswell, in the north-western suburbs of Torquay, will provide the large residential community with connectivity towards Paignton, Newton Abbot, Exeter and Exmouth. It will also unlock sustainable access to Torbay Hospital, Edginswell Business Park, and other nearby employment. In additional to connectivity benefits, the new station is aimed at alleviating congestion and parking problems in the area, making it a greener and more attractive place to live and work.

3.3.26. The new station is being funded via a combination of central government, local government and private sector contributions, as is being developed collaboratively between Torbay Council, Network Rail and GWR. Construction is expected to start in the Summer of 2023 and will be open and running by the end of 2024.

West Devon Transport Hub

3.3.27. The West Devon Transport Hub will deliver a new station and car park in the east of Okehampton, and will be easily accessible from the A30. The station will provide a further point of access on the Dartmoor Line, which reopened with great success in November 2021.

3.3.28. The station's platform will include a passenger lift with greater accessibility for all travellers as well as cycle facilities and electric vehicle charging points to promote active and green travel.

3.3.29. Funding for the station was secured via the Government's Levelling Up Fund, following close partnership working between West Devon Borough Council, Devon County Council, Network Rail and Great Western Railway.

Wellington and Cullompton

3.3.30. Network Rail is currently developing the Full Business Case for new stations serving the towns of Wellington (Somerset) and Cullompton (Devon). The new stations would help to unlock extensive housing and commercial growth planned for both towns, alleviate congestion on the adjacent M5 motorway and within the towns themselves, and contribute to sustainable access into nearby trip attractors such as Exeter, Taunton and Bristol.

3.3.31. The case for the new stations has been developed over several years through close partnership working across the industry, and funding is being sought via the Government's Restoring Your Railway fund, which seeks to reinstate some of the network and station closures made during the 1960s via the "Beeching Axe" reforms.

Tavistock Line Reopening

3.3.32. A further proposal under the Restoring Your Railway umbrella is the reopening of the section of network between Bere Alston (on the Gunnislake branch line) and Tavistock.

3.3.33. Promoted by Devon County Council, the reopening of the line would seek to enable the growth of employment in Plymouth by providing fast, reliable and sustainable access to workers in the town of Tavistock. It also promotes sustainable travel for travellers making trips to Dartmoor, and for Tavistock residents travelling into Plymouth and beyond. As a consequence, congestion on the A386 will be alleviated, helping to protect the National Park.

Devon Metro

3.3.34. Devon Metro is an ongoing program of investment in the integration and enhancement of rail services in the Exeter travel to work area, now being progressed by Devon County Council (DCC).

3.3.35. There are three principal elements:

- Providing new stations to provide rail access to the new housing developments and major employment areas;
- Improving the train services to provide a regular clock-face timetable with frequency and train capacity matched to demand. This should also include the branding of train and stations together with an effective marketing and ticketing strategy; and
- Delivering improvements to the infrastructure to provide the necessary line capacity for the preceding enhancements.

3.3.36. Since the launch of the concept in 2016, several successes have been associated with the scheme:

- Restoration of year-round services to Okehampton and Sampford Courtenay, reconnecting residents to the national rail network and providing access for tourists wanting to visit north Dartmoor;
- Clock-face, half-hourly service between Paignton to Exmouth via Exeter;
- Increased capacity at Lympstone Commando and Exeter St James Park Stations;
- Increased line speed at Exmouth Junction;
- Construction of Newcourt railway station; and

- Construction of Marsh Barton Station in Exeter

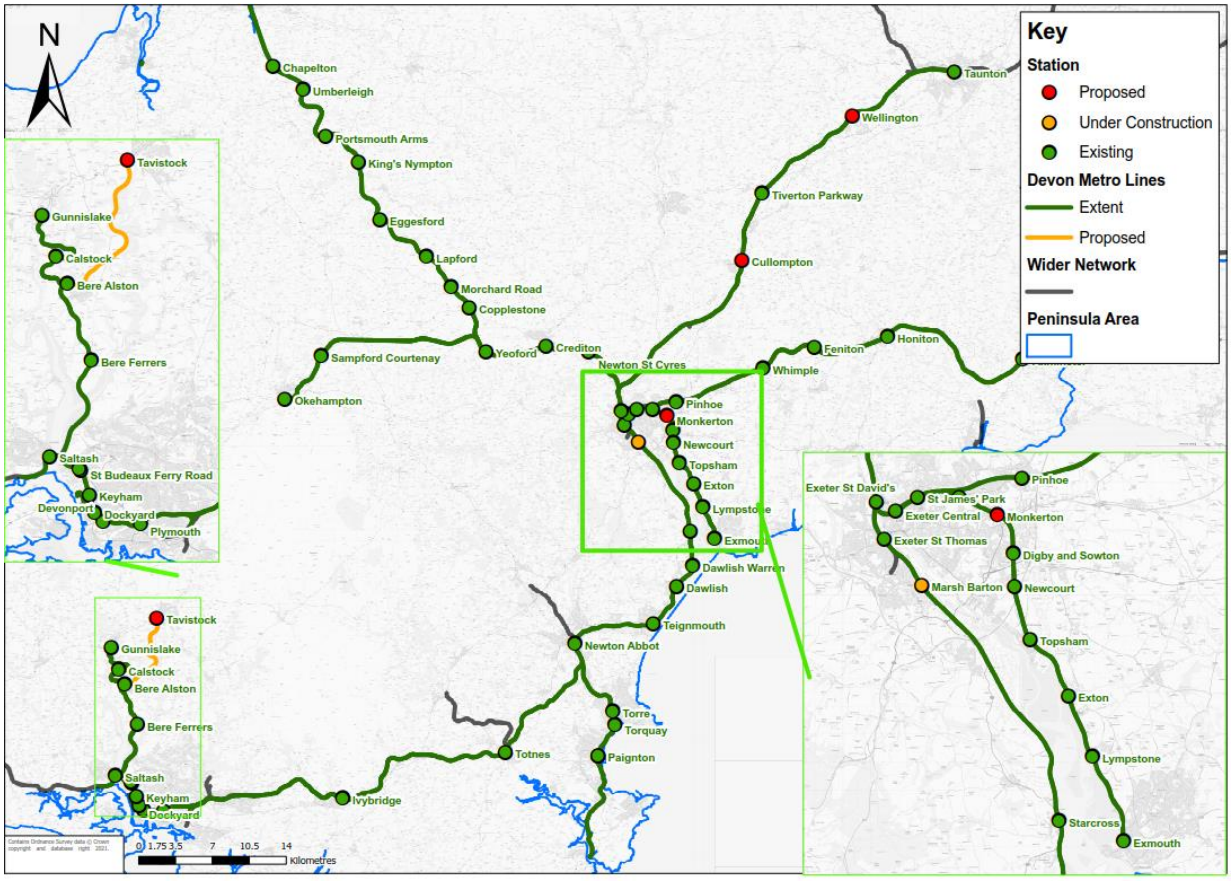
3.3.37. This has already begun to deliver real impacts on passenger demand and rail mode share, with the Paignton line experiencing a 16% increase in patronage in the three months following implementation of 2tph, compared to stable figures in preceding years.

3.3.38. Looking forward, the Devon Metro program integrates two of the aforementioned RYR funding applications; Wellington & Cullompton Stations and Edginswell Station. The scheme also has the following further ambitions:

- Marsh Barton station is proposed to serve the business park at Marsh Barton on the GW main line west of Exeter St Thomas as well as access to the Royal Devon & Exeter hospital;
- Barnstaple-Axminster services. This extends the current Barnstable-Exeter St James Park station through to Axminster, with a loop at Cranbrook. This concept will give a 2tph services from Exeter-Axminster in conjunction with the South Western services from Waterloo; and
- Reopening the branch to Tavistock in conjunction with proposed developments.

3.3.39. Figure 3-16 draws together confirmed rail investments within the Peninsula.[35]

Figure 3-16 - Devon Metro Routes and Stations



[35] This doesn't include the GBRF freight investment, as the exact terminals to be used is yet to be confirmed. Likewise, the TOC investments cover the majority of the region, so there a not pin-point schemes to map.

Train Operating Company Investments

3.3.40. To attract the rising leisure market, GWR have invested in the quality of their on-board services. For example, the company has been publicising their 'Pullman' dining services on the journey from London to the Peninsula, where travellers can enjoy a three course meal at their seat; a feature lost from the wider UK railway network prior to the pandemic.

3.3.41. Additionally, prior to the pandemic, the company also repurposed some of their former long-distance Class 43 High Speed Train Sets to replace conventional DMUs on stopping services on the Great Western Mainline in the Peninsula, as the Class 43s were replaced on the services to London by the hybrid powered Class 800 sets.

3.3.42. Alongside these changes, there have been other updates to various stations and lines across the South West. These include a £1.2m investment into Bridgewater, upgrading the forecourt to be more attractive to cyclists and pedestrians, increasing the potential patronage at the station. A disused platform at Frome is set to be revitalised in order to improve the beauty of the area, making the station more attractive to use. Highbridge station has received a £30,000 investment from the Governments for improvements and is set to apply for another £1-2m grant to continue upgrades in the area. Taunton station also received a major overhaul, upgrading the ticket office and providing a brand new multistorey car park.

3.3.43. These refurbished trains have enabled a reduction in journey times as they have faster acceleration, as well as offering more capacity and a better travelling environment; demonstrating that physical infrastructure is not the only mechanism to deliver enhancements to speed, capacity and comfort for travel to the Peninsula.

3.3.44. In addition to this enhancement, changes to service patterns and infrastructure elsewhere in the UK, most notably the electrification of the London suburban services, are enabling a cascade of equipment to the South West. In turn, this will support better service frequencies and/or increased capacities on some lines, as well as newer rolling stock than the 'Sprinter' units which are used on the region's branch lines and date from the 1980's.

3.3.45. GWR are also trialling two systems outside of the Peninsula region which might be applicable to the region in the long term. Firstly, they have established a partnership with VisitBritain/VisitEngland, in the form of Great West Way brand. This promotes locations alongside the Great Western Mainline from London to Bristol, including sites and walks accessible from railway stations, alongside the rich history of the railway itself. Something similar could be adapted for the Peninsula region, for example in association with the reopened Okehampton station and subsequent access to the Dartmoor area by rail and bike. Secondly, they are trialling "Window Seater" on-train audio guides, providing history and information about the world outside the train. This could attract further tourist use of scenic and historic lines such as Liskeard Looe.

3.3.46. In addition to GWR, two other operators are present within the study area; South Western Railways and CrossCountry Trains. South Western Railways services into Exeter from Waterloo are operated by class 158 and 159 DMUs build in the early 1990s. There is no replacement confirmed for these units, however SWR have been refurbishing these units following their takeover of the franchise from South West Trains. CrossCountry services in the region are operated by Class 220/221 DMUs,. Their trains were refitted to provide additional seating and luggage storage early on in the franchise, circa 2007. No new stock has been confirmed for the franchise, however there are two possible opportunities that've been discussed in the industry:

- Reinforcement of the 220/221 fleet with trains formerly operated by Avanti West Coast, which are being replaced by Class 80x series units that can operate under electric power for portions of the journey.
- Replacement of CrossCountry's 220/221 fleet with Class 80x units similar to those operated by GWR, allowing them to operate under electric power for portions of the journey[36].

Either of these scenarios would lead to long-term increases in rail capacity for the Peninsula.

THE FUTURE OF MOBILITY AND ITS IMPACT ON RAIL

3.3.47. Innovation in technology and transport is now occurring at such a pace that conventional transport networks are seldom equipped to handle. For example, ride-hailing services such as Uber have significantly contributed to congestion and falling public transport patronage in cities around the world. Travel and working behaviours are also changing rapidly, affecting how transport networks are used and designed. Understanding the trends affecting these changes will be crucial to developing a sustainable rail strategy.

3.3.48. While rail is still the most efficient and one of the most sustainable forms of transport, these factors alone will not ensure its success in a changing mobility environment. This section will define and contextualise the concept of future mobility and outline the trends which will affect the peninsula in the future.

3.3.49. To ensure success in a changing mobility environment, the Department of Transport published **Future of Mobility: Urban Strategy** in March 2019. The report outlines the government's approach to maximising the benefits from transport innovation in cities and towns. It sets out the principles that will guide government's response to emerging transport technologies and business models. Whilst it has an urban focus, its themes are still relevant for wider communities in the UK. The document also presents the 6 high-level 'key changes' that are fuelling the evolution of transport, which are:

- **Cleaner Transport:** This is in part due to decreasing battery prices, improvements in energy density and the developments of alternative fuels. The UK has plans to be at the forefront of the design and manufacturing of zero emission vehicles, aiming for all new cars and vans to be zero emission by 2040.
- **New Modes:** Technology is enabling new ways of transporting people and goods. Examples of technological advancements for transport include drones, new forms of micro-mobility and light electric freight vehicles.
- **Data & Connectivity:** The increasing availability of data and improved connectivity is enabling travellers to have access to more information related to their journeys as well as enabling vehicles to communicate with each other and provide information to network providers.
- **New Business Models:** New digitally enabled business models are emerging in the transport sector. Recent models include ride-hailing and mobility as a service (MaaS), which can be major disruptors or major beneficiaries of rail transport.
- **Automation:** Improved sensor technology and computing power/software is enabling increasing levels of automation in transport across a number of modes.

[36] This would work well in parallel with Network Rail's desire for a rolling program of electrification with increasing portions of the CrossCountry routes being powered.

- **Changing Attitudes:** Road travel demand across England and Wales is expected to increase over the coming decades, however this is mainly driven by population growth. When looking at travel per person, people are actually travelling less. This is due to a decline in commuting driven by flexible working and working from home, as well as decreases in leisure trips such as trips for shopping (these have decreased by 30% over the last decade).

3.3.50. Additionally, the report outlines the following nine principles that will underpin the Government's approach to facilitate innovation in urban mobility for freight, passengers, and services:

- New modes of transport and new mobility services must be safe and secure by design;
- The benefits of innovation in mobility must be available to all parts of the UK and all segments of society;
- Walking, cycling and active travel must remain the best options for short urban journeys;
- Mass transit must remain fundamental to an efficient transport system;
- New mobility services must lead the transition to zero emissions;
- Mobility innovation must help to reduce congestion through more efficient use of limited road space, for example through sharing rides, increasing occupancy, or consolidating freight;
- The marketplace for mobility must be open to stimulate innovation and give the best deal to consumers;
- New mobility services must be designed to operate as part of a sustainable integrated transport system combining public, private, and multiple modes for transport users; and
- Data from new mobility services must be shared where appropriate to improve choice and the operation of the transport system.

3.3.51. The report's conclusion highlights the need to effectively manage the technological changes associated with the transport sector to boost productivity and investment, increase export opportunities, and create high quality jobs. If these changes are not managed, undesired effects such as increasing congestion or reducing sustainable travel could occur. It is expected that these key changes and principles will also be consistent and applicable to the Peninsula Transport Rural Mobility Strategy.

Major trends and disruptors

3.3.52. This section provides a future forecast of major trends which will affect mobility behaviours in the peninsula over the coming decades. This is a high-level overview for context setting, but it is based on wider in-depth research and evidence bases wherever possible. It covers five broad areas:

- Future political and industry structure;
- How climate change will affect the ability to run a railway;
- Future employee skills requirements;
- How customer demands and expectations will change; and
- New mobility technologies and business models.

3.3.53. These future trends will provide the basis to formulate medium- and long-term strategies and can also inform short-term decision-making.

3.3.54. In researching our report we've made a small number of general assumptions. We have focused on the following general view of the future:

- UK GDP will grow slowly;
- Rail companies will remain in some form of private operation;
- Climate change will happen, driven by global emissions levels that currently lie between the UK Climate Projections (UKCP18) medium and high emissions scenarios; and
- The best forward-looking government forecasts have been prepared in a robust way.

Political and industry structure

3.3.55. Significant political flux is currently influencing rail industry structures and investments in the near-to-medium term.

- The Williams-Shapps Review and the introduction of Great British Railways will significantly change the rail industry structure in the near- to medium-term. Increased vertical integration is likely, although significant political will and restructuring will be needed to engender the institutional capacity to implement major changes.
- Devolution of power to cities and regions will continue, regardless of national politics.
- Regulated industries will need to demonstrate their social impact far more clearly.
- Markets and suppliers will continue to globalise.

Environment, climate and energy

3.3.56. Climate change and its effects on the environment will significantly affect the railway and its customers.

- Future weather patterns will significantly impact the ability to run an on-time railway;
- Heavy downpours, droughts and heatwaves are key environmental changes across the network;
- Network Rail's route resilience plans are of utmost importance;
- Train fleet resilience is a key consideration, e.g., performance in extreme temperatures, air conditioning reliability, pantograph strength in high winds;
- Stations will require operational plans and employee training for normal, abnormal, emergency, and degraded modes in relation to prolonged hot weather periods and extreme weather events. These plans will also need to cover onward travel connections and cooperation with local stakeholders;
- Air quality will increasingly impact urban areas and key areas around the network;
- Stations may need 'heat refuge' areas for customers and perhaps also the wider community;
- Scarcity of resources, such as rare earth materials, will affect the quantities and types of technologies which will be available;
- Low carbon and renewable energy sources will continue to increase in supply and use, but also may require different grid or operational structures to sustain them. This also creates opportunities for increased energy security;
- Hydrogen trains are maturing as a technology in the near-term, to be deployed in the medium-term, and could offer a feasible alternative to diesel on non-electrified lines. Zero-carbon supply chain options for hydrogen generation are also feasible; and
- Railway electrification will continue, but the network is unlikely to be fully or even majority-electrified by the 2040s.

When planning to electrify the lies in the South West, areas that are most vulnerable to environmental damage, such as cliffs and coastline areas, battery powered trains should also be considered, as the electrifying equipment would be susceptible to damage, but the batteries would not.

Future Rail Customers

3.3.57. Wider societal and mobility trends will significantly affect who travels and how they travel.

- Customer demographics will change. The population becomes older but doesn't want to be treated as old. Population changes will bring new mental and physical health needs for customers and employees.
- Employers are likely to offer hybrid working patterns to those employees who can work from home to enable them to remain competitive when attracting staff.
- Increasing retirement age and taking on larger financial burdens later in life means that people will need to work for longer, leading to an ageing economically active population.
- Fewer people are undertaking physical activity, and many are suffering ill effects of an unhealthy, inactive lifestyle.

3.3.58. Why customers travel will change.

- Pre-pandemic people were travelling 10% less than they were about fifteen years ago, especially for commuting, shopping, and visiting friends. Post-pandemic commuter travel has returned to around 70% of previous levels, however demand for leisure travel has almost recovered to 100%. In the long term the number of people in each region will grow, so it is assumed there will still be a growing baseline demand for travel.
- Urbanisation is increasing. Cities are growing at a rapid pace with people moving to them from more rural locations.
- Social inequality still exists within and between areas.
- Family composition is changing and the birth rate is dropping leading to a change in demand for different types of transport and mobility.
- Automation and data connectivity have the potential to significantly disrupt who travels, and why.
- Ride hailing services have abstracted from public transportation and added congestion in urban environments in the UK and globally; they will continue to be a threat, but they could be part of a solution in a robust first-mile, last-mile model of service.
- The core rail service will remain by far the most important factor, especially the importance of delivering a reliable service which is affordable and represents value for money, but customer experience becomes much more important. The customer becomes more demanding, expecting the same level of service and experience they get from other companies.
- A future of trust will be central to business, where companies address the most important issues for society in addition to the core service. But customers don't generally expect to pay more.
- As rail integrates with other modes and improves its first- and last-mile connectivity, it offers more potential to work with couriers and logistics operators to enable small freight transport via passenger rail.

Customer expectations

3.3.59. Customer expectations continue to evolve, placing more demands on rail each year.

- The “sharing economy” model is increasing in prevalence, meaning many people are increasingly happy to share assets, data, and services, if it is convenient and the price is right.
- People expect services to be available immediately and all the time. They always want data or wi-fi to be available.
- Mobility is becoming a “utility”, with an expectation of seamlessness and intuitiveness, not needing to think about navigating transport along your journey. Everything should be paid for using a contactless card or an app, not smart cards, or paper tickets.
- Customer centricity is key: the customer is always right and service providers must engage more actively with customers through a range of channels.
- The rise of the experience economy means that people are buying less “stuff” but are spending more time and money on activities. This might be good for rail stations and journeys, if they can be an enjoyable part of the experience, and rail the mode of choice, instead of just a mode.
- Customers, both individual and corporate, are more aware of the carbon footprints of their travel choices, such as in the recent “fly shame” movement; this presents a great opportunity for rail.

EMPLOYEES AND SKILLS

3.3.60. Demographic and societal changes will have significant impacts upon employees, as well as their expectations and skills.

- By 2030, up to 30% of current railway operator employees will have retired.
- Automation will have a profound impact on society: railway roles will change, and certain railway roles may become redundant. The UK public expects companies to treat employees fairly in this process.
- Current rail workforces will need to be re-trained and upskilled to deliver technical and soft skills required in the future. A purposeful skills strategy is important as skills levels vary across the UK.
- A need for life-long learning will increase; changes in technology mean a career for life may no longer exist, with the resulting need to retrain periodically.
- Ethnic and gender diversity become essential to demonstrate social purpose and deliver great service. Today most of the railway workforce is white, male, and middle-aged.
- Air Quality becomes a key issue for employees (and customers). Nitrogen Oxides and fine particulates are the key concerns.

New mobility trends

3.3.61. Each year, new mobility modes and service models emerge which may complement, enhance, or threaten rail services. This list focusses on broad trends, rather than specific technologies.

- Digital technology has led to a blurring of mobility services.
- Active travel and new ways of travel grow, especially in cities, including dockless bikes, e-bikes, and the growth of shared and ride-hailing services.
- Autonomous transport is purported to be the next stage of private and shared mobility, but autonomous road transport projections have recently lost momentum due to safety concerns and complexity. Self-driving trains may become more prevalent on certain rail networks.
- Electric-dominated transport becomes the norm. It may be cheaper to buy an electric car rather than a petrol or diesel car by 2025.

- With success comes failure. With so much innovation, inevitably some new mobility entrants, such as Mobike, will fail.
- The rail freight industry is seeing some innovative market entrants, such as iPortRail, the “Uber for rail freight”, which offers new potential to shift more of the freight market onto rail.

Digital Rail

3.3.62. The Digital Rail programme will continue to unlock the potential for better rail planning and higher capacity.

- Cyber security will become even more essential.
- Blockchain, a distributed ledger technology, will become more common, but potentially more for freight than passenger services.
- Traffic management systems and moving block signalling technology will offer the highest capacity solutions for the rail network, but it will remain dependent upon infrastructure and rolling stock upgrades.

3.3.63. Overall, this section shows a lot of information about how future mobility will look, with a big focus on major technological advances for rail and travel as a whole. For this to work, the region will have to embrace these changes, as they are what is needed to revamp the modes of travel in the area, helping all communities along the way.

4

THEMES AND PRIORITIES

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4 THEMES AND PRIORITIES

4.1 INTRODUCTION

4.1.1. It is evident from the preceding chapters that rail in the Peninsula forms a key element in the region's success; connecting residents to opportunities within the peninsula, bringing visitors and tourists into the region and providing a vital alternative to the HGV for the movement of freight, to name but a few.

4.1.2. It is also apparent that, for the railway to continue to perform this roll into the future and to build on the progress made to date, further development and enhancement of the network will be required.

4.1.3. This chapter of the report draws upon the findings of the Chapter 2 study of the current network, as well as the Chapter 3 Policy Review, to identify key themes and priorities for guiding network investment and development into the future.

4.2 THEMES, OBJECTIVES AND PRIORITIES[37]

4.2.1. Drawing upon the review of the network undertaken in Chapter 2, the policy context established in Chapter 3 and the stakeholder consultation summarised in Chapter 2,[38] 5 key Themes were identified under which subsequent Objectives and Priorities could be grouped.

4.2.2. These Themes are:

- Improving Choice,
- Reducing Emissions,
- Supporting Demographic Change,
- A Resilient Network, And
- Underpinning Growth

4.2.3. The structure of the Objectives and Priorities is illustrated in Figure 4-1. Table 4-1 then provides further detail on the Objective of each Theme and Priorities needed to achieve it.

4.2.4. Building on these themes further, we developed an objective and a number of priorities for each theme, incorporating many of the less significant aspects identified during the stakeholder engagement.

[37] The structure of this Chapter has been established using the Transport for the North Long Term Rail Strategy and Western Gateway Rail Strategy as examples of good practice which align with Department for Transport requirements, the key output from the initial stakeholder engagement undertaken was to develop a set of objectives that the remainder of the rail strategy would be structured around.

[38] A separate Technical Note (Peninsula Transport Strategy Initial Report – November 2021) is provided in Appendix B that outlines the detailed findings of this engagement work.

Figure 4-1 - Framework for Themes, Objectives and Priorities

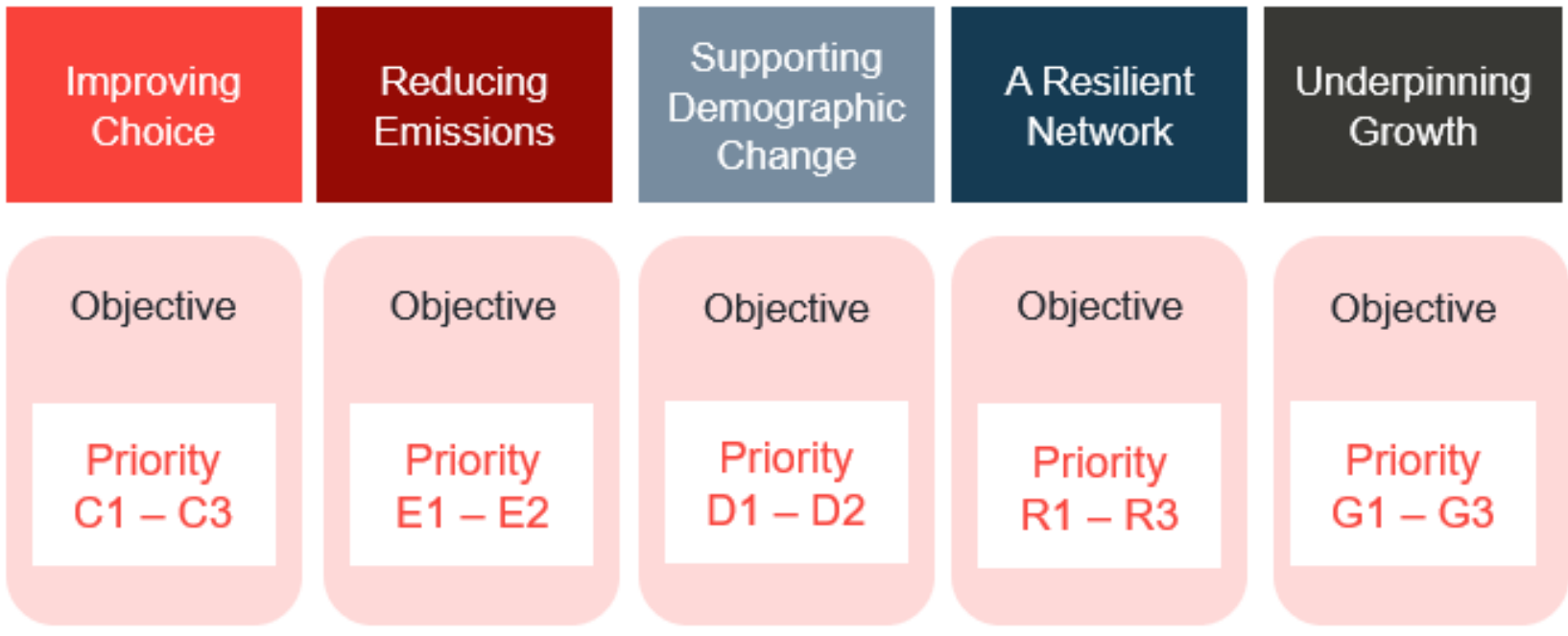

Table 4-1 - Themes, Objectives and Priorities for Peninsula Rail Strategy

THEME	Objective	Priority 1	Priority 2	Priority 3
IMPROVING CHOICE	**We will improve connections between people, business, and places**	C1: Improve frequency and/or speed of services to provide more flexibility in travel options.	C2: Improve access to the network through joined-up mobility solutions.	C3: Deliver a virtually integrated network, with a one-stop-shop for information and the best fare from door to door.
REDUCING EMISSIONS	**We will deliver affordable, zero-emissions transport for everyone**	E1: Optimise the network to capture passenger and freight journeys from the highway – particularly our strategic spine roads.	E2: Decarbonise the network by removing diesel-only trains.	
SUPPORTING DEMOGRAPHIC CHANGE	**We will help to improve the health and wellbeing of communities in the Peninsula**	D1: Develop a set of station standards to prioritise investment towards a network that is accessible and welcoming to all.	D2: Support flexible lifestyles with consistent data connectivity.	
A RESILIENT NETWORK	**We will enhance the resilience of the transport network**	R1: Future-proof the network to protect against the impacts of climate change.	R2: Ensure train services operate when customers need and expect them to, and better manage things when they go wrong.	R3: Ensure that there is resilience to the key strategic spine of our network.
UNDERPINNING GROWTH	**We will help the Peninsula to be a great place to live and work**	G1: Unlock the potential of rail freight through facilities and network capacity.	G2: Ensure that the network around our key towns and cities can accommodate future service growth.	G3: Ensure that rail maximises its potential to deliver social value through skills, employment and supply chain.

4.3 THEME 1: IMPROVING CHOICE

We will improve connections between people, business, and places

4.3.1. A lack of journey opportunities – whether driven by unattractive journey times, inaccessible stations or a lack of freight facilities, restricts choice and leads to dependence on road travel. We will encourage the development of rail to make it a natural choice for the movement of people and goods.

4.3.2. Many of our routes and stations provide service levels which are uncompetitive with car equivalents, but there is considerable evidence from the region that higher service frequencies and new journey opportunities lead to significantly increased service usage. In some cases, both road and rail are slow, which can isolate communities from opportunity.

4.3.3. With a considerable portion of the population living 10km or more from a regular rail service, providing integrated mobility solutions will be vital. This is particularly true in our rural and coastal communities.

4.3.4. Consultation and policy goals show that passengers feel ticketing systems are inconsistent, too complex2 and need to be better integrated with that of other sustainable modes, in particular buses but also hire bikes and local taxi services. Passenger information can also be fragmented across a number of national and local channels. Trialling and implementing technology to provide door-to-door journey information and the best-value fare across all modes of transport is a key element of this strategy.

4.3.5. Quicker, simpler and more affordable journeys will make it easier for more people to access our towns and cities, broadening labour pools and visitor catchments and relieving pressure from our roads.

4.3.6. Within this theme, we have identified four priorities:

1. *Improve frequency and/or speed of services to provide more flexibility in travel options.*

   This priority was established from the considerable evidence in the region where improvements to service frequency have led to significantly increased service usage, whilst and reducing journey times for existing users. Increased service speed, meanwhile, can simultaneously increase the range of destinations within a reasonable journey time by rail, thus increasing the potential number of opportunities available for passengers and the employment pool for companies (for just two examples), but also enhance rail's competitive edge over less sustainable modes.

2. *Improve access to the network through joined-up mobility solutions.*

   This priority considers 1) the provision of new access locations to increase the reach of the rail network and 2) ways to improve access to existing stations

   This has been identified from the network review showing that considerable areas of the peninsula are 10km or greater from a regular rail service, as well as the lack of general freight facilities west of Taunton. The need for a change from this situation is driven by policy goals relating to enhancing the region's connectivity, as well as observations made during consultation that the sparse rail accessibility in some areas was driving car dependency.

As identified in the Origin Destination study, there is a relationship between rail usage and the connection between stations and their hinterland. This conclusion was further supported by evidence provided in support of rail-related policy, which established a need for investment in the routes to and from stations and terminals to deliver their full potential.

3. *Deliver a virtually integrated network, with a one-stop-shop for information and the best fare from door to door.*

   Rail's ticketing system needs to simultaneously simplified *and* better integrated with that of other sustainable modes, particularly buses.[39] By providing a one-stop-shop for information, the mode's inclusion as a natural choice in people's planning can be encouraged. Stakeholders expressed a strong desire to trial and implement technology which has already been proven to deliver a compelling customer proposition of providing the best-value fare across all modes of transport.

[39] But also, potentially, including through connections to hire bikes/e-scooters and/or local taxi services as appropriate.

4.4 THEME 2: REDUCING EMISSIONS

We will deliver affordable, zero-emissions transport for everyone

4.4.1. Decarbonising transport will be critical if the UK is migrate to a Net Zero economy by 2050. Each of the peninsula's local authorities have declared a climate emergency, and the impact of cars and goods vehicles on our roads is a blight to our precious natural environment. Rail is already one of the cleanest means of moving large volumes of people and goods. Migrating passenger and freight journeys to rail is the most effective way in which rail can support decarbonisation in the short term. However, we face a challenge to remove remaining diesel-only vehicles from our network.

4.4.2. Two priorities were identified for enhancing rail's contribution to a low emission future.

Priorities

1. *Optimise the network to capture passenger and freight journeys from the highway – particularly our strategic spine roads.*

   One way to reduce the emissions impact of a given trip is to distribute that impact among more people or goods. Therefore, this priority considers methods of attracting additional users to the existing network and its services.

2. *Decarbonise the network by removing diesel-only trains.*

   Another way of reducing emissions produced by rail users is to use zero emission technology in powering the train. As such, this priority considers both long-term methods of reducing rail's emissions, such as the electrification discussed in several policy documents, as well as what short-term methods could be delivered to accelerate transition to net zero.

4.5 THEME 3: SUPPORTING DEMOGRAPHIC CHANGE

We will help to improve the health and wellbeing of communities in the Peninsula

4.5.1. Our population is growing and ageing. We must plan for the challenges ahead to ensure that our communities remain active and connected. Making our stations accessible and welcoming to all will reduce dependency on car travel and preserve independence for people as they grow older. We will also work with the industry to reduce any mobility barriers caused by interchange, making this process as seamless as possible and reducing perceived challenges for those with additional mobility needs. Increased investment into infrastructure upgrades and collaborative working with local accessibility groups is needed to ensure the socio-economic objectives cover all demographics.

4.5.2. Enhancing the reach of our network into new communities will reduce isolation and help relieve the pressure of supporting our growing population.

4.5.3. In parallel, the way that people work and shop has changed. Already evolving prior to the pandemic, the shift to remote and hybrid working has had a profound impact on traditional commuting markets. The rail industry must keep pace with these emerging trends and ensure that passengers are offered flexibility and value in their travel options.

4.5.4. The following priorities were identified for achieving these goals.

1. *Develop a set of station standards to prioritise investment towards a network that is accessible and welcoming to all.*

   Ensuring the rail network is accessible to all is a vital element in ensuring public transport can play a part in delivering socio-economic objectives. A clear strategy for investment will ensure that the most value can be achieved for every pound spent in the peninsula.

2. *Support flexible lifestyles with consistent data connectivity.*

   The demographic elements of the rail strategy incorporate a number of requirements which should encourage development. They include a recognition that work is changing, and that continuous mobile data is both a hygiene factor for passengers, as well as being important for enabling business users to make more productive time on the train – particularly when considering the long distances involved when travelling to major centres from the west of the peninsula region.

4.6 THEME 4: A RESILIENT NETWORK

We will enhance the resilience of the transport network

4.6.1. The risks posed by climate change and the subsequent increase in extreme weather events are well understood within the region. The 2014 Dawlish sea wall collapse severed the strategic spine of our network. The rapid response and subsequent major works have made our railway stronger, but risks remain.

4.6.2. Many lines run close to coastlines, floodplains, estuaries and tidal rivers. Some of these already experience flooding, which are likely to become more widespread and severe as the effects of climate change are felt in our region. This will place additional pressure on a network already characterised by single lines in many places, where unplanned disruption can be challenging to recover quickly. The rail industry's response to unplanned disruption is often cited as a major factor influencing satisfaction and usage.

4.6.3. A combination of external factors have contributed to a 41-year high inflation rate in the United Kingdom. This is having a direct affect on the rail network with material and labour costs increasing, affecting all aspects of service delivery from maintenance to operations. Rail fares continue to increase, providing an additional hurdle for passengers when deciding to travel via train. In addition, on-going industrial action has caused significant cancellations.

4.6.4. Passengers needs must be at the heart if decision making and transport operators must work together to ensure journeys can always be completed during disruption. The aim is to deliver a public transport service which fosters confidence that door-to-door journeys can always be completed.

4.6.5. The railway must also be resilient to the change in demand patterns observed following the pandemic. Our railways have experienced a strong recovery, driven by our leisure and visitor economy. However, certain markets may have changed forever, posing a financial challenge. While planning for the future, we must continue to encourage users on to the railway and continuously ensure that existing capacity is used effectively.

1. *Future-proof the network to protect against the impacts of climate change.*

2. As identified in the context of the Climate Emergency declarations from all of the peninsula's authorities, the risks posed by climate change and the subsequent increase in extreme weather events are well understood within the region. This priority considers methods and best practice which Network Rail could apply in mitigating such events and reducing disruption to rail users.

3. *Ensure train services operate when customers need and expect them to, and better manage things when they go wrong.*

   Passengers consistently cite punctuality and reliability as critical drivers of satisfaction. Ensuring that passengers receive a consistently punctual service will be critical to build lasting confidence and discourage seepage back to less sustainable modes. When things do go wrong, there is a need to ensure that passenger needs are put at the heart of decision making. Passengers expect timely, clear information to be available to them, and to be supported to complete their journey, using other modes if necessary due to location and timing.

4. *Ensure that there is resilience to the key strategic spine of our network.*

   The strategic spine of the peninsula's network, connecting it to the rest of country, is fundamental to the economic prosperity of the region. This importance of was bought into stark focus by the collapse of the sea wall at Dawlish in 2014, and the prolonged disruption this caused. With the risk of climate change and other factors placing more pressure on a limited number of critical routes, predicting and mitigating resilience challenges will be key.

4.7 THEME 5: UNDERPINNING GROWTH

We will help the peninsula to be a great place to live and work

4.7.1. The economic structure of the peninsula is changing. To realise the potential of our emerging specialisms and strengthen our existing key sectors we must broaden the catchment of our towns and cities. This includes people within the peninsula making daily trips and visitors travelling to, from and around our region.

4.7.2. Achieving this without sacrificing our environment will mean greater reliance on public transport and, in particular, rail. Our travel catchments are currently constrained by long journey times and infrequent services, and put at risk by enduring resilience challenges.

4.7.3. Our freight producers and exporters are constrained by a lack of facilities and network capacity, fostering reliance on HGV movements. Our ability to deliver new housing can often be constrained by a lack of alternatives to car access.

4.7.4. The theme of growth therefore underpins the preceding four themes, as growth generally occurs in locations with a strong choice of transport options, where access is resilient in the face of disruption and therefore positive socio-economic outcomes can be delivered. For the growth to be sustainable, emissions generated by transport to and from developments should be a key consideration at all levels of planning.

4.7.5. In parallel, the role of the rail sector as an employer and driver of social value should be preserved and enhanced. Diverse and resilient supply chains will foster innovation, improve skills and broaden access to opportunities.

4.7.6. Three priorities have been identified to ensure that the peninsula's railway industry can continue to support regional growth going forward.

1. *Unlock the potential of rail freight through facilities and network capacity.*

   Freight usage is key to the region's growth and already plays an important role for the UK. With a small market share and reliance on road transport, investment is required to improve freight capacity and planning on the network. Specific focus must be placed on improving intermodal connectivity at ports and closer to population centres. Smaller, localised upgrades across the network to improve factors such as gauge clearance will also enable better freight pathing.

2. *Ensure that the network around our key towns and cities can accommodate future service growth.*

   As the frequency of service into our towns and cities grows, more capacity will be required around principal stations and on key junctions. These future requirements should be planned ahead of time, ensuring that our busy sections of network do not become bottlenecks constraining future growth.

3. *Ensure that rail maximises its potential to deliver social value through skills, employment and supply chain.*

   The railway is an important driver of social value. It supports an extensive and diverse supply chain creating jobs and opportunities across society. It directly employs thousands of people nationally and creates new skills and training opportunities. Rail's ability to deliver social value should be maximised by close working between local partners and industry.

5

PURSUING THE PRIORITIES

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5 PURSUING THE PRIORITIES

5.1 SHORT TERM INITIATIVES

5.1.1. Whilst it is clear that achieving many of the desired outcomes will require sustained work over a number of years, it is believed that meaningful progress can be made via a series of short-term initiatives.

5.1.2. Each of these initiatives will require careful development in collaboration with the rail industry and local partners, but it is confident that they are deliverable within the next 12-24 months. Critically, these initiatives do not require extensive infrastructure or rolling stock changes, but they retain ambition.

5.1.3. We want this to first step towards a broader programme of development which equips the network to support the peninsula as it evolves. The cross-industry support and investment being delivered at Dawlish provides the template for collaborative working, one which will retain and improve through close partnerships.

5.1.4. A list of short initiatives with references to the relevant conditional outputs includes:

Initiative 1: Joined-up mobility (C2)

- Integrated fare and ticketing solutions between rail and other forms of local mobility.
- Timetable integration between rail and local bus services, and connection guarantees.
- Stations as local mobility hubs with targeted infrastructure investment.

Initiative 2: One-stop-shop for rail (C3)

- Whole-system mapping, consistent across all modes.
- Combined portal for door-to-door travel information.
- Expansion of the Devon & Cornwall Rail Card to cover Somerset.
- Improved onward travel information at stations and on trains.

Initiative 3: Trialling innovation (E2)

- Examining the potential for the network to be a test bed for emerging decarbonisation solutions.

Initiative 4: Joined-up disruption management (R2)

- A joined-up approach to disruption management, covering rail and local mobility.

Initiative 5: Improving accessibility (D1)

- Developing a minimum standard for the stations and delivering priority investment.

Initiative 6: South West Mobile Connectivity Trial (D2)

- The South West Connectivity Trial, under Network Rail's Project Reach, aims to reduce or remove connectivity dead zones along the region's network.

Initiative 7: Short-term capital investment (D1, R1, R3, G3)

- Securing commitment to the development of Dawlish Phase 5.
- Securing funding to complete the transformation of Plymouth station.

- Secure funding to deliver new stations at Wellington and Cullompton.

5.2 DEVELOPING THE NETWORK

5.2.1. Network Rail have conducted a number of strategic studies of the peninsula's network, in collaboration with Peninsula Transport partners and train operators. Collectively, the reports findings set out an evidence-led train service specification, accommodating the growth and expansion of the peninsula's network. This train service specification could be delivered across two stages, as described below:

Stage 1:

- Mid Cornwall Metro connects Falmouth and Newquay. Newquay branch frequency improved to hourly, plus additional 1 train per hour (tph) Par-Truro;
- All Paddington – Plymouth trains extended to Penzance providing an hourly service;
- Reinstatement of Tavistock branch delivers hourly Plymouth – Tavistock service;
- New 0.5tph Paddington – Exeter semi-fast service to give an overall regular hourly service;
- All North West – Bristol Cross Country services extended to Exeter to deliver regular 2tph;
- Extending Cardiff-Taunton services to Exeter St Davids every two hours;
- Amending nine daily Manchester-Exeter services to call at Bridgwater;
- Hourly Exeter St Davids – Axminster (potentially extending to Barnstaple) service to provide combined 2tph;
- Second hourly service between Salisbury and Yeovil Junction;
- Regular 1tph between Bristol and Weymouth.

Stage 2:

- Extra service Liskeard – Looe provides 2tph on branch;
- Extend additional 4tpd Paddington – Exeter to Paignton to total 8tpd Paddington – Paignton;
- Extend additional 4tpd Midlands/North – Exeter to Paignton to total 8tpd Cross Country service to Paignton;
- Hourly Paignton – Exmouth service provides 3tph Torbay cross-Exeter;
- New hourly service Plymouth – Penzance calling all stations;
- New seasonal weekly Cross Country service to Newquay (Fridays & Saturdays only);
- New hourly service Penzance – St Ives provides 3tph on branch including 1tph direct to Penzance;
- New hourly service Tavistock – Paignton providing 2tph on Tavistock branch and another cross-Devon main line service;
- 3tph on Falmouth branch, new service extending to Newquay giving 2tph on that line;
- New two hourly service between Taunton and Exeter Central;
- Extending all Manchester-Bristol services to Exeter;
- Extension of double track at Yeovil Jn and of Axminster Loop giving additional 1tph diversional capability in both directions;

- Restored service between Taunton and Bishops Lydeard, providing access to the West Somerset Railway;
- Regular hourly service on the Heart of Wessex line between Bristol and Weymouth Growing the role of rail freight.

5.2.2. Delivery of the specification would increase services across the majority of the peninsula's network and make considerable progress towards the priority of improving the frequency and/or speed of services to provide more flexibility in travel options.

5.2.3. Delivering the train service specification will require additional capacity as shown below. We now wish to proceed with the development of a whole-programme feasibility study and business case for the enhancements, within which individual assessments of each intervention can be structured.

5.3 EXPANDING OUR EVIDENCE BASE

5.3.1. Beyond the train service specification, Network Rail's studies recommend a detailed examination of specific areas of opportunity:

Exeter Area Station Strategy (C2, G2):

5.3.2. Examining the potential of Exeter St Thomas station to provide a southern gateway to the city centre and unlock development. There are currently accessibility challenges at the station and additional services would be required.

Plymouth Suburban Stations (C2, G2):

5.3.3. Examining how the five stations in western Plymouth – Devonport, Dockyard, Keyham, St Budeaux Victoria Rd and St Budeaux Ferry Rd – could make a broader contribution to public transport provision within the city. The reinstatement of the railway to Tavistock would deliver a step-change in service provision which unlocks an opportunity to attract new users and support the development of the adjacent major employment sites around the dockyard.

West of Plymouth Railhead Strategy (E1):

5.3.4. A strategically-placed park and ride facility has the potential to relieve highway congestion on the A38 and western approaches to Plymouth. This could be at an existing station in east Cornwall or a purpose-built new facility. A study will be required to consider the issue in detail and identify and develop the preferred solution.

Network Resilience (R1, R3):

5.3.5. The resilience improvements at Dawlish have significantly strengthened the strategic spine of Peninsula's rail network. However, other areas of the network remain vulnerable. With climate change expected to deliver an increase in extreme weather events, we should continue to future-proof the network. Given the unique geography of the peninsula's strategic spine and network of branch lines, there is merit in a multi-modal assessment of climate change transport risks and mitigations across the region.

Peninsula Fares Study (C3):

5.3.6. Stakeholders have cited inconsistencies between fares for similar trips across the peninsula. There are also instances of poor integration between modes which serves to penalise those making door-to-door journeys. The fares study will identify these inconsistencies and inform future work between Peninsula Transport and the rail industry to resolve these over time.

New Stations and Routes (C2, E1):

5.3.7. There is strong appetite to expand the reach of the rail network by opening new stations and new routes. In many cases, these would re-open facilities which were lost under the “Beeching Axe” of the 1960s, which cut off communities from the access to the railway.

5.3.8. Peninsula region has experienced great success securing funding for new and re-opened stations and routes. The Dartmoor Line to Okehampton opened in November 2021 and provides an hourly service between Exeter and the gateway to the National Park. The reopening has been a tremendous success, attracting over double the number of journeys originally forecast.

The Dartmoor Line will be enhanced further with the delivery of a new station and integrated transport hub to the east of Okehampton, after securing £13.4m from the Levelling Up Fund.

5.3.9. Elsewhere, the new station at Marsh Barton is due to open later in 2023, and funding has been secured to deliver a new station at Edginswell, the third station serving Torquay. The ambition to re-instate rail services to the towns of Wellington and Cullompton has been backed by government with the award of funding to proceed to detailed design stage. Proposals to deliver a new station for Langport and Somerton are also being developed.

5.3.10. These successes demonstrate the potential offered when the railway is brought closer to the people it serves. There are ambitions to bring forward other new and re-opened stations and routes across the peninsula, with Network Rail already highlighting the potential value of a new station at Plympton, for example. We will prepare early feasibility work to examine the case for these openings, and work closely with local and industry stakeholders to support them through the process.

5.4 GROWING THE ROLE OF RAIL FREIGHT

5.4.1. This strategy endorses the interventions put forward in the South West Freight Strategy (SWFS), aimed at addressing the challenges faced by the rail freight sector. These interventions are listed in the table below:

Table 5-1 – South West Freight Strategy Interventions

SWFS Intervention ID	Intervention
RL1	Feasibility study to operate intermodal container trains from deep seaports to intermodal sites.
RL2	Support electrification and gauge enhancement of the core rail network.
RL3	Pursue rollout of new alternative fuel locomotives and wagon technology.
RL4	Support and signpost businesses and local authorities to transition to rail freight.
RL5	Understand the availability of grants to help facilitate modal switch to rail.
RL6	Partnership working with stakeholders to promote South West priorities.
RL7	Encourage the establishment of rail freight terminals with a catchment of 1 hours' drive time by HGV. Indicative locations might include: Bristol, Westbury, Poole, Bridgwater, Exeter, Plymouth and mid-Cornwall.
RL8	Safeguard rail freight sites through developing Supplementary Planning Guidance.
RL9	Allocate sufficient freight train paths on the main line and diversionary routes.

5.4.2. In addition, a number of the studies and initiatives put forward by this rail strategy will support the growth of freight – including examination of network resilience and increased network capacity and capability.

6

NEXT STEPS

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6 NEXT STEPS

6.1.1. Delivering on our priorities will require sustained collaboration, focus and resources. Every stakeholder in the industry will have a role to play in delivering the initiatives and interventions necessary to transform our railway.

6.2 OUR COMMITMENTS

6.2.1. As Peninsula Transport, we commit to:

- Fostering collaborative relationships between the rail industry, local businesses and planners, to ensure a joined-up approach across our economy and society.
- Along with our partners, leading the integration of our transport networks to deliver door-to-door mobility solutions.
- Sponsoring the technical work necessary to underpin and refine our ambitions.
- Targeted provision of match-funding to support the delivery of projects.
- Presenting a unifying voice for the region on the national level.

6.3 OUR REQUESTS

6.3.1. To deliver the outcomes set out in this Strategy, we will need support from government:

- A provisional development fund to progress our package of short-term initiatives and mature our network design work.
- A meaningful, effective role for Peninsula Transport in the future structure of the rail industry.

6.4 MANAGING THIS STRATEGY

6.4.1. The Peninsula Rail Task Force (PRTF) is the strategic rail sub-group for Peninsula Transport. It makes recommendations to the Peninsula Transport Board on rail priorities for the peninsula through its own work with the rail industry. The PRTF oversaw the development of this strategy and will be responsible for monitoring progress and updating it as required.

6.4.2. PRTF was set up in 2013 following severe storms that damaged rail lines across the South West. Its formation saw local authorities and Local Enterprise Partnerships across Cornwall, Devon, Plymouth, Somerset and Torbay come together, speaking with one voice, to make the case for investment into the rail network to improve resilience and deliver better services for rail customers.

6.4.3. In 2014, PRTF responded on behalf of communities and businesses across the South West following the line collapse at Dawlish and flooding across the Somerset levels. Representatives attended Transport Select Committees, pressing both the then Prime Minister and Secretary of State for Transport on the need to invest in making the peninsula's rail network more resilient in the face of more frequent extreme weather events.

6.4.4. PRTF was the catalyst for local authorities working in partnership on all strategic transport matters across the region and in 2018, Peninsula Transport was formed. In 2020, PRTF became the strategic rail sub group of Peninsula Transport. Joining the two groups enabled the five local transport authorities to be able to take a holistic approach to strategic transport decisions across the peninsula.

6.4.5. PRTF meets with the rail industry quarterly, feeds back to Peninsula Transport at board meetings and has clear terms of reference. This strategy will guide the agenda of the PRTF, with progress reports being made quarterly to the Peninsula Transport Board.

6.4.6. PRTF is chaired by Councillor Jonathan Drean, Cabinet Member for Transport at Plymouth City Council and is supported by a rail officers group made up of representatives from each of the constituent local authorities and the Heart of the South West LEP.

6.5 DELIVERY

6.5.1. The final part of the rail strategy will be to set out the timescales and pathway to delivering all the interventions identified. This will involve a prioritisation of schemes and locations, based on a number of factors including affordability and economic viability, ease of delivery, contribution to vision and objectives, and political / stakeholder acceptability.

6.5.2. Following agreement by the Peninsula Transport board, this will then form the baseline and delivery plan for the expected lifetime of the rail strategy.

6.5.3. Delivering on the priorities will require sustained collaboration, focus and resources. Every stakeholder in the industry will have a role to play in delivering the initiatives and interventions necessary to transform the railway.

6.6 MEASURING SUCCESS

6.6.1. To evaluate the impact of the initiatives put forward in this Strategy, continuous monitoring of quantified, measurable outputs will be carried out. This will enable the Strategy to be refined and updated in line with progress. It will also enable quantified reporting to Peninsula Transport Board.

DEFINING METRICS

Strategic Definitions

6.6.2. In the metrics below, two sets of classification are used to simplify discussion:

- Service Classification; and
- Station Classification

6.6.3. Station Classification has previously been discussed in Chapter 3. For service classification, we have identified a set series of service-pattern formats will enable the clear setting of goals.

6.6.4. Four service patterns are considered within the COs:

- **Intercity:** long distance, limited-stop service from National Hub stations (see below) to London or Birmingham;
- **Regional:** limited-stop service between City Stations / Regional Hub stations (see below) which is not intercity but intended to provide longer-distance connectivity between larger stations;
- **Urban:** short distance service from suburban Commuter Stations to City Stations / National Hubs; and
- **Rural:** other services such as a rural branch line to a Regional Hub / City Station.

6.6.5. Some services might change nature during travel. For example, the services to Exeter from London Waterloo are Regional services east of Dorchester, becoming more Rural in nature as they provide the sole service for smaller stations such as Sherborne.

Monitoring progress against the priorities

6.6.6. The following metrics will be used to continuously monitor progress against each priority area. Data will be required from sources across the industry, and reporting will be owned and carried out by Peninsula Transport.

C1: Improve the frequency and/or speed of services to provide more flexibility in travel options.

How Measured?	▪ Target service pattern[40]: Urban - Turn Up and Go (15mins) Intercity - Clockface half-hourly Regional - Clockface half-hourly Rural - Clockface hourly ▪ Journey times to equal or better the car alternative
When?	Minimum compliance: 75% of services by category by 2030 Aspiration compliance: 90% of services by category by 2030

[40] It is recognised that there are some locations where a specific train service requirement exists which sits outside these targets which would encourage modal shift. In particular services which support the visitor economy (e.g. summer Saturday services to Newquay).

C2: Improve access to the network through joined-up mobility solutions.

How Measured?	▪ Increased % of residents within a defined station catchment ▪ Identification of freight terminals that could be brought back online and/or be revised for new usage. ▪ Sufficient car and cycle parking spaces (against NR design standards) ▪ Reduced number of PIC on station approaches ▪ Rail/bus Interchange for key routes across the peninsula to be no longer than 10 minutes wait time for connecting service, where key routes are defined as those where bus provides strategic connectivity to non-rail connected places from Local and Regional Hubs. ▪ Rail to bus transit (walk) time should be no longer than 2 minutes (i.e., local buses directly serve railway stations).
When?	To be prioritised and delivered over next 12 – 18 months

C3: Deliver a virtually integrated network, with a one-stop-shop for the best fare from door to door

How Measured?	▪ Improved passenger/freight customer perception on value for money and ease of use for public transport
When?	Aligned with rail reform, and the delivery of the BSIPs. Target for a pathfinder/feasibility project by 2025 with coverage of the entire Peninsula by 2030.

E1: Optimise the network to capture passenger and freight journeys from the highway – particularly our strategic spine roads.

How Measured?	▪ Reduction in direct emissions per passenger
When?	On-going throughout the life of the Strategy

E2: Decarbonise the network by removing diesel-only trains

How Measured?	▪ TOC/FOC Fleets Operating in the Peninsula ▪ Miles of Track Electrified ▪ Delivery of Battery Charging/Hydrogen Fuelling Points
When?	In line with the DfT's Transport Decarbonisation timeline, diesel traction should be replaced by 2040

D1: Develop a set of station standards to prioritise investment towards a network that is accessible and welcoming to all.

How Measured?	▪ Adoption of the station standards (input measure) ▪ Compliance % by station category (input measure) ▪ All stations to meet minimum accessibility standards ▪ Passenger satisfaction with station standards
When?	Station standards adoption by 2024, full compliance by 2040

D2: Support flexible lifestyles with consistent data connectivity

How Measured?	▪ Increased % uptime/proportion of journey with good Wi-Fi (as defined by Network Rail business case)
When?	Aligned to existing business case being developed by Network Rail for improved network connectivity.

R1: Future-proof the network to protect against the impacts of climate change

How Measured?	▪ Reduced number of delays and incidents caused by climate change impacts, such as extreme weather.
When?	Prioritised list of vulnerable locations within 12-18 months. Interventions at key sites by 2030.

R2: Ensure train services operate when customers need and expect them to, and better manage things when they go wrong.

How Measured?	▪ Increased passenger survey satisfaction with incident management.
When?	Top 10 locations reviewed and improvements identified: 12 months Next 30% of locations: 18-24 months Remainder of network: 2 – 5 years as resource allows

R3: Ensure that there is resilience to the key strategic spine of our network.

How Measured?	▪ A on-going reduction in the number of disruption events on the spine of our rail network – the main line between Penzance, Exeter and Bristol, the West of England line and the “Berks & Hants”.
When?	Progressive over the life of the strategy, aspiring for no events causing lengthy disruption

G1: Unlock the potential of rail freight through facilities and network capacity.

How Measured?	▪ A on-going reduction in the number of disruption events on the spine of our rail network – the main line between Penzance, Exeter and Bristol, the West of England line and the "Berks & Hants".
When?	Progressive over the life of the strategy, aspiring for no events causing lengthy disruption

G2: Ensure that the network around our key towns and cities can accommodate future service growth..

How Measured?	▪ A on-going reduction in the number of disruption events on the spine of our rail network – the main line between Penzance, Exeter and Bristol, the West of England line and the "Berks & Hants".
When?	Progressive over the life of the strategy, aspiring for no events causing lengthy disruption

G3: Ensure that rail maximises its potential to deliver social value through skills, employment and supply chain.

How Measured?	▪ A on-going reduction in the number of disruption events on the spine of our rail network – the main line between Penzance, Exeter and Bristol, the West of England line and the "Berks & Hants".
When?	Progressive over the life of the strategy, aspiring for no events causing lengthy disruption

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