

Tees Valley Combined Authority
Hartlepool Station

Outline Business Case

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1 Introduction

1.1 Overview

The economic geography and peripheral nature of the North East region as a whole is one of the greatest challenges, and this is particularly true for the Tees Valley as it contains a number of centres within a small geographical area. Much of the recent activity from the Tees Valley Combined Authority (TVCA) and the Local Authorities has been aimed at addressing the challenges of job losses in the industrial economy, issues of high unemployment and social exclusion and the difficulties within the local housing market. However, whilst the local economy now has stronger foundations as a result, further targeted intervention is required in order to achieve the ambitious growth targets.

The lack of a single dominant commercial centre has transport implications and means that good interconnectivity is vital for the Tees Valley to function effectively. The Tees Valley Strategic Economic Plan (SEP) and Strategic Transport Plan (STP) clearly articulate the need for better transport connections across the City Region, providing businesses and residents with a high quality public transport network that is frequent, integrated, reliable and offers a real alternative to the private car in order to be cleaner and more sustainable.

This will also boost competitiveness through improved connectivity across the North, as identified in Transport for the North's (TfN's) own Strategic Transport Plan, linking key sectors and leading industries with other centres of expertise outside of the Tees Valley. An improved rail network to, from and within the Tees Valley, will also provide more access to global markets, increasing the capacity for growth and creating more jobs for the people of the City Region - this is particularly important as 70% of major local businesses are internationally owned.

1.2 Business Case

This document and its series of appendices comprise the Outline Business Case (OBC) for improvements to **Hartlepool Station**. The aspiration is to bring the second through platform back into use, improving rail transport for local people and businesses.

Hartlepool station is the busiest single platform station in the UK and is the third-biggest station in the Tees Valley, with a footfall of some 630,000 passengers per year (2019/20). In January 2022, the Tees Valley Mayor and the TVCA Cabinet approved £1.5 million to begin developing the scheme, which will assist in accommodating future demands for national, regional and local passenger rail services as well as freight, and provide significant benefits for the town and its economic regeneration ambitions. A maximum of £12 million has since been allocated to the delivery of the scheme through the devolved City Region Sustainable Transport Settlement (CRSTS).

1.3 Document Content and Structure

This document has been prepared in accordance with Transport Business Case guidance, and the Transport Appraisal Guidance (TAG) issued by the Department for Transport (DfT), as well as guidance issued by Network Rail. It also recognises the requirements of the Rail Network Enhancements Pipeline (RNEP), HM Treasury's Green Book and associated supplementary guidance on public sector business cases.

The remainder of the document is structured as follows:

- **Chapter 2: The Strategic Dimension**, which presents the rationale for undertaking the scheme by demonstrating the need for change, and how the intervention furthers the aims and objectives of not only TVCA and Hartlepool Borough Council (HBC), but also Network Rail, rail operators and DfT;
- **Chapter 3: The Economic Dimension**, which demonstrates the effects of the scheme in terms of value for money in relation to economic, social and environmental impacts;
- **Chapter 4: The Financial Dimension**, which explains how the scheme costs have been derived and illustrates how the project is affordable and fundable;
- **Chapter 5: The Commercial Dimension**, which demonstrates that the preferred way forward will result in a viable procurement and a well-structured contract between the public sector and its service providers;
- **Chapter 6: The Management Dimension**, which demonstrates that robust arrangements are in place for the delivery, monitoring and evaluation of the scheme and that the necessary arrangements are in place for change and contract management, benefits realisation and risk management.

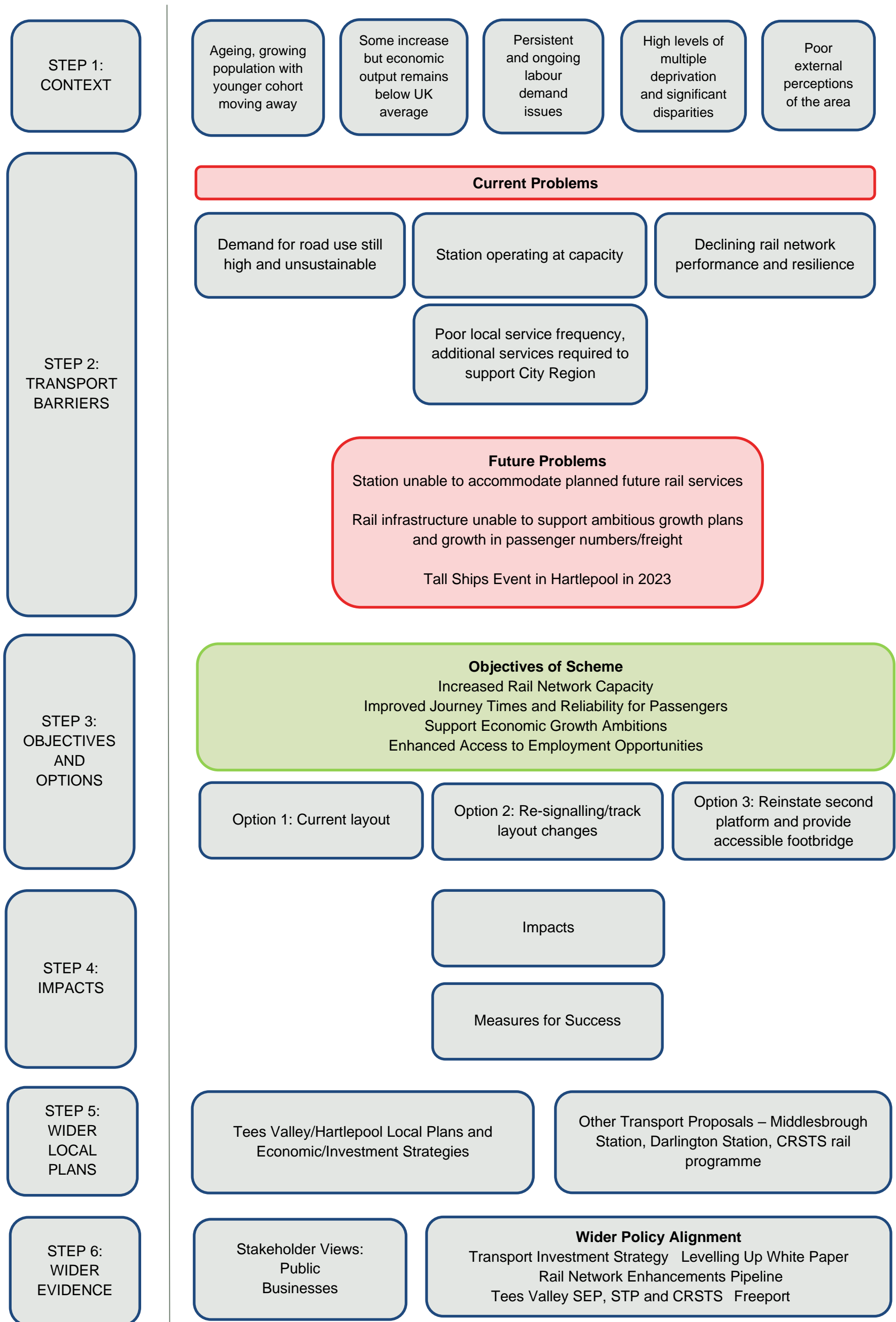
2 The Strategic Dimension

This chapter of the OBC defines the policy and business strategy alignment, examines the existing characteristics of the local area and the problems identified (both current and future), identifies a series of scheme objectives and sets out the options that have been considered. It therefore demonstrates the case for change - that is, the rationale for making the investment.

It has been prepared with particular reference to the DfT's supplementary guidance The Levelling Up Toolkit, published in February 2022, which is designed to help authors of strategic cases assess how a programme or project fits with the objective of spreading growth across the country and also introduces a framework for presenting the rebalancing case more consistently.

Figure 2.1 summarises the justification for the scheme in six steps, each of which is explored in more detail in the following sections.

Figure 2.1: Summary of the Strategic Dimension



2.1 Step 1: Setting the Context

2.2 Step 1: Setting the Context

2.2.1 Tees Valley Area Profile

Covering over 3,300 square miles, the Tees Valley comprises the five local authority areas of Darlington, Stockton-on-Tees, Hartlepool, Middlesbrough, and Redcar & Cleveland. The area represents 1.2% of the population of England and 0.6% of the English land mass. It is highly urbanised, with 90% of the population living in urban areas. The population is concentrated in the five main town centres (35%) with the remaining population located in the suburbs, in smaller settlements, and some 10% of the total in rural areas.

Demographic Context

The Office of National Statistics' mid-2019 population estimate of the Tees Valley is 675,944 of whom:

- 132,111 people are aged 0-15 (19%);
- 413,143 people are aged 16-64 (62%); and
- 130,690 people are aged 65 and over (19%).

Although there has been an upward trend in the size of the population since 2000, population growth has lagged below that in the North of England and England as a whole. Between 2000 and 2020 the Tees Valley population grew by approximately 1,000 per year although growth has now slowed and the population is expected to reach around 680,600 by 2036. By 2037, the population is expected to increase by 1.2% compared to a 10% rise nationally and a 5% rise across the North of England.

The Tees Valley age profile is also older than in the North of England and England, demonstrated by a higher median age (41.1 in Tees Valley, compared with 40.6 and 39.8 respectively), and a lower old age dependency ratio (3.1 persons of working age for every person of state pensionable age in Tees Valley, compared with 3.2 and 3.3 retrospectively). There is an ageing workforce, exacerbated by the high percentage in the 18-20 and 24-29 age cohort who currently choose to move away from the Tees Valley.

Although there is projected growth, it is not expected in all age groups. The working age population (aged 16-64) is predicted to be almost 23,000 lower in 2037 at 57%, down from 62% in 2017. Conversely, there will be an increase in the proportion of over 65s, with the percentage of the population over the retirement age expected to grow

from 19% in 2017 to a quarter in 2037. Coupled with the fall in working age population, this will bring skills shortages when experienced and highly skilled staff leave the workforce. There will also be implications for health services as pressures increase.

To ensure that the proposed economic growth and additional jobs envisaged in the SEP are delivered will require more inward migration from other population centres to counter the decrease in working population or the retention of younger people entering the job market. This will mean the transport network will have to cope with a greater demand for travel to/from and around the City Region. These additional travel demands will exacerbate existing issues on the rail network described later in this section. The improvements proposed at Hartlepool Station are an important step in providing a national, regional and local rail network that is fit for the future.

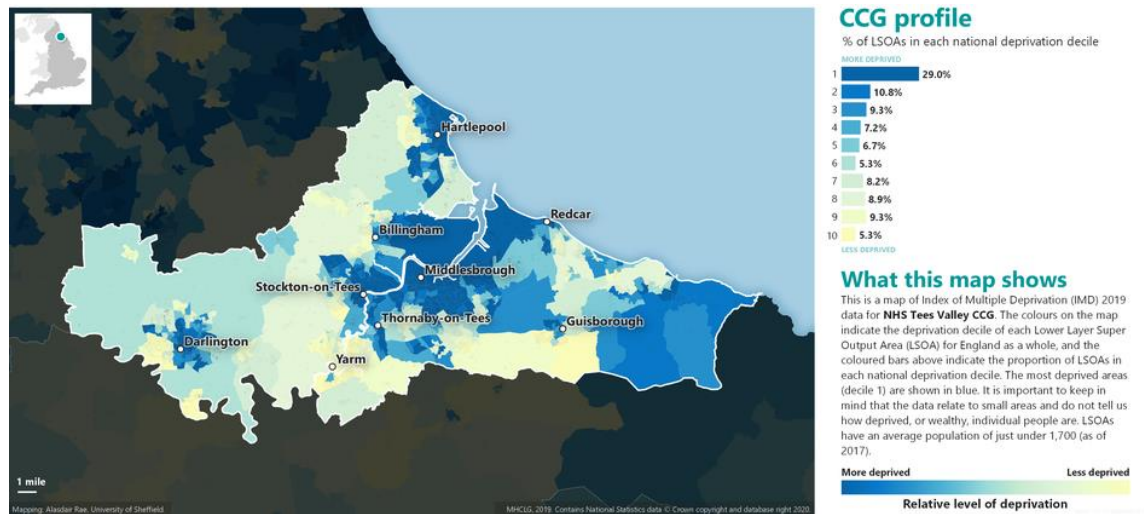
Social Context

Whilst the population of the Tees Valley is predominantly White British (93%), the Tees Valley is home to a small Black and Minority Ethnic (BAME) community with Middlesbrough having an ethnic make-up that more closely reflects the national picture (86% of Middlesbrough's population is White British compared with 80% of England's).

There are still high levels of severe disadvantage across Tees Valley. The Index of Multiple Deprivation 2019 combines different aspects of deprivation, including income, employment, education and skills, health and disability. Compared with other Local Enterprise Partnership (LEP) areas, it ranks as the second most deprived. Whilst this ranking is unchanged since 2015, there has been a slight increase in relative deprivation across Tees Valley in this time.

However, looking at the deprivation at LEP area level hides the diversity of the City Region. There are multiple pockets of severe deprivation in Tees Valley, but also areas that have been ranked within the least deprived in the country. In addition, whilst a much larger proportion of LSOAs are within the most deprived 10% than the national average, the numbers within the second and third deciles match the national average. The number of LSOAs which are within the least deprived in the country has been growing over time, indicating that the polarity within Tees Valley is increasing. The disparity in levels of deprivation is illustrated in Figure 2.2.

Figure 2.2: Distribution of LSOA Deprivation Scores across Tees Valley



The Tees Valley has higher death rates than the national average - by 11% - for both Males and Females - this is equivalent to around 625 extra deaths each year. All Tees Valley Local Authorities have death rates above the national average. Standard Mortality Rates (SMRs) are a strong indicator of deprivation and all the results, with few exceptions, follow the pattern of high SMRs in deprived areas and low SMRs in more affluent areas.

Unemployment is a persistent issue, with youth unemployment, deprivation and barriers to work being particular problems. Long term unemployed people face multiple and complex barriers when accessing work.

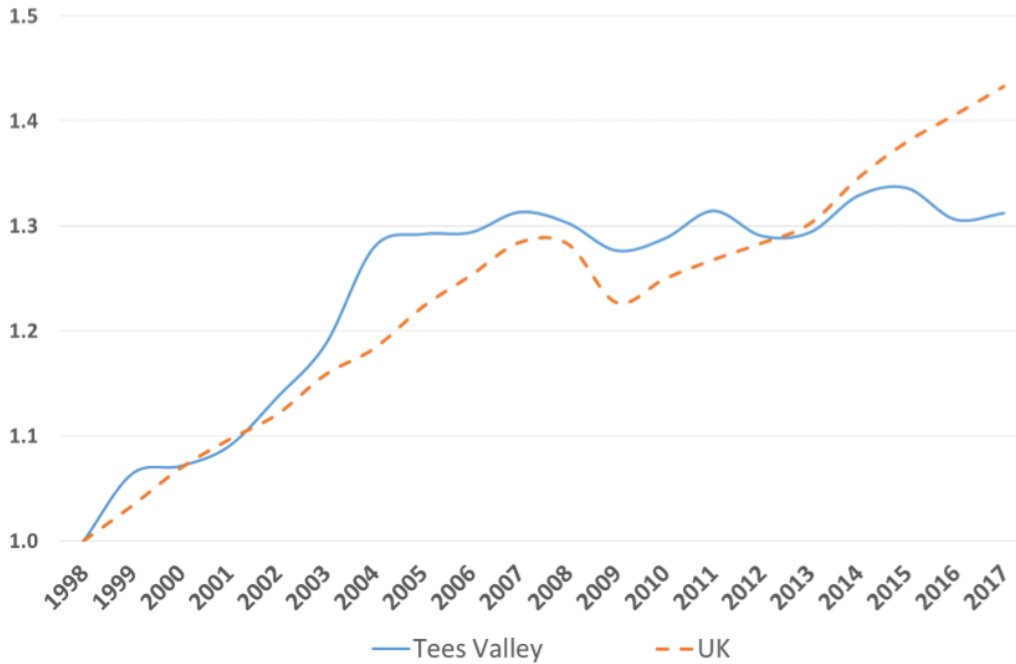
To reduce unemployment, it is vital to ensure education, training and job opportunities are easily accessible, particularly in the identified growth and high demand sectors. Increasing the mobility of residents will help to support the workforce offer of the Tees Valley - it will increase the accessibility of employment sites and contribute to releasing capacity on the transport network to accommodate future development.

There is the opportunity to increase the number of people in employment by ensuring easy and affordable access to jobs, education and training by providing a high quality, cleaner, quick, affordable, reliable, integrated and safe transport network for people and freight. Providing a fitting rail gateway for local, regional, pan-regional and national trips is a crucial element of such a network.

Economic Context

Total economic output (as measured by GDP) from the Tees Valley stood at £16.1 billion in 2019. Tees Valley GVA accounts for 0.8% of England’s total GVA (0.7% for the UK). The annual change in GVA for the Tees Valley pre-COVID-19 pandemic is shown in Figure 2.3.

Figure 2.3: Real Terms GVA Index (1998=1) in the Tees Valley and UK



The recent COVID-19 pandemic had a significantly detrimental impact on GVA across the UK. Whilst there was a recovery in 2021, but it will likely be 2023 before GVA returns to the levels seen at the end of 2019. However, investment in economic infrastructure, such as the rail network, will be vital to ensure that the recovery takes place as quickly as possible to minimise the long term impact to the UK economy. Targeting such investment in areas where GDP was already lagging behind, such as the Tees Valley, will be even more important.

The City Region has a significant productivity challenge, particularly in relation to GVA per head of population, illustrated in Figure 2.4. Tees Valley GDP per capita for 2019 was £23,815 or 72.4% of the UK rate which translates to a GDP gap of £6.1bn, twice what it was a decade ago. High rates of economic inactivity and low levels of employment are major determinants of this performance gap.

Figure 2.4: Tees Valley Productivity Indices (2019)



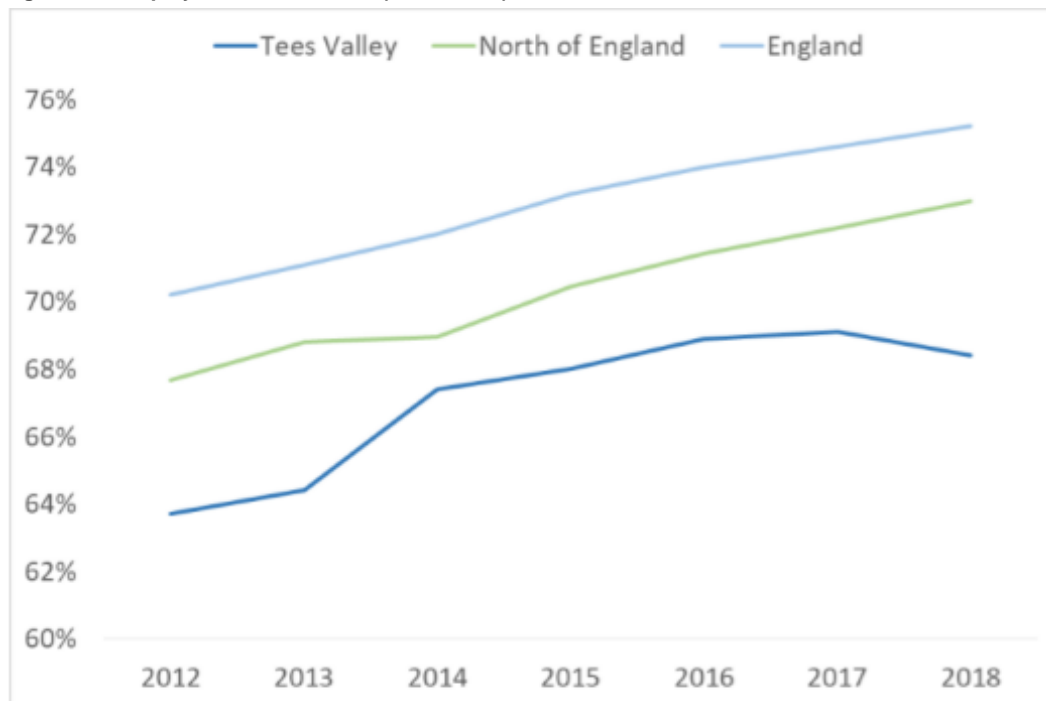
Whilst overall GDP is low, GVA per employee in the production sector (£86,000 in 2014) is well above the LEP average of £76,800, and other major LEP geographies such as Leeds, Manchester and Birmingham. Production industries (such as process or advanced engineering) contribute over 50% more of Tees Valley’s economic output than the sector does for England as a whole. Both Construction and Public Services also account for a higher share of the area’s total GVA than they do nationally. Professional & Business Services and to a lesser extent Other Private Services, including Culture & Leisure, Logistics, Wholesale & Retail, IT and Media contribute relatively less to the Tees Valley’s output than in England as an average.

There were 17,715 enterprises in Tees Valley in 2021, down a little (50 lower) on 2019. This total represents 63.9% of the UK rate for enterprises per resident adults aged 16+. The number of Tees Valley business enterprises increased by 1,215 between 2015 and 2021, an increase of 7.4%. However, this rate of growth was a little slower than for the UK resulting in Tees Valley business density falling from 65.5% of the national rate in 2015 and the business gap increasing from 7,700 to 10,000 over this time. Business density remains a key challenge for Tees Valley.

At 70.2% in the year to June 2021, the Tees Valley employment rate is the highest it has been over the last five years. Between 2020 and 2021, the employment rate has risen by 0.67 percentage points, with an extra 1,700 residents in employment. This compares to a drop of 1.5 percentage point nationally and 1.1 point fall across the North of England. However, with 285,700 Tees Valley residents aged 16-64 in employment in the year to June 2021, the Tees Valley employment rate remains

significantly below the equivalent England rate of 74.7%. Pre-COVID-19 pandemic employment rate trends are shown in Figure 2.5.

Figure 2.5: Employment Rate Trends (2012 - 2018)



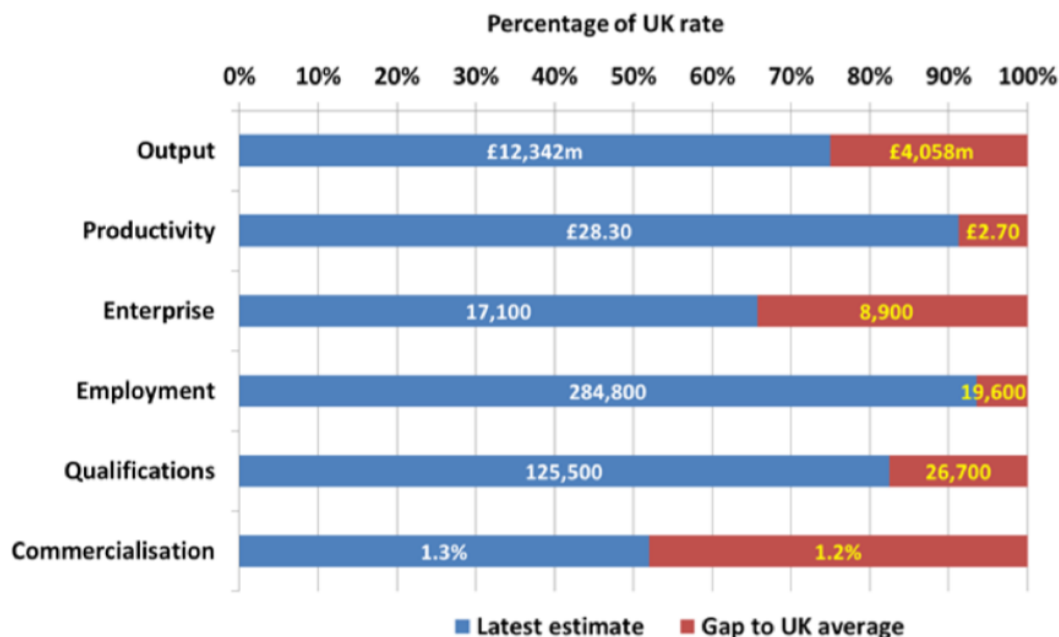
Source: ONS Annual Population Survey (APS)

In February 2022, 5.6% of Tees Valley residents aged 16-64 were claiming either Job Seekers Allowance or Universal Credit (and required to seek work), compared to the national average of 4.4%. This rises to 8.3% for those aged 18-24, compared to 5.1% nationally.

The Tees Valley historically has a low percentage of residents employed in high value occupations compared to the national average. The skills levels of residents can present a challenge in meeting labour demands; Tees Valley residents are less well qualified than those of many other parts of the country. In terms of Degree/Level 4+ qualifications in 2020, just 33.2% of Tees Valley's working age residents were qualified to this level compared to 43.1% nationally.

A summary of these key economic indicators, and the gaps to the national average, is shown in Figure 2.6.

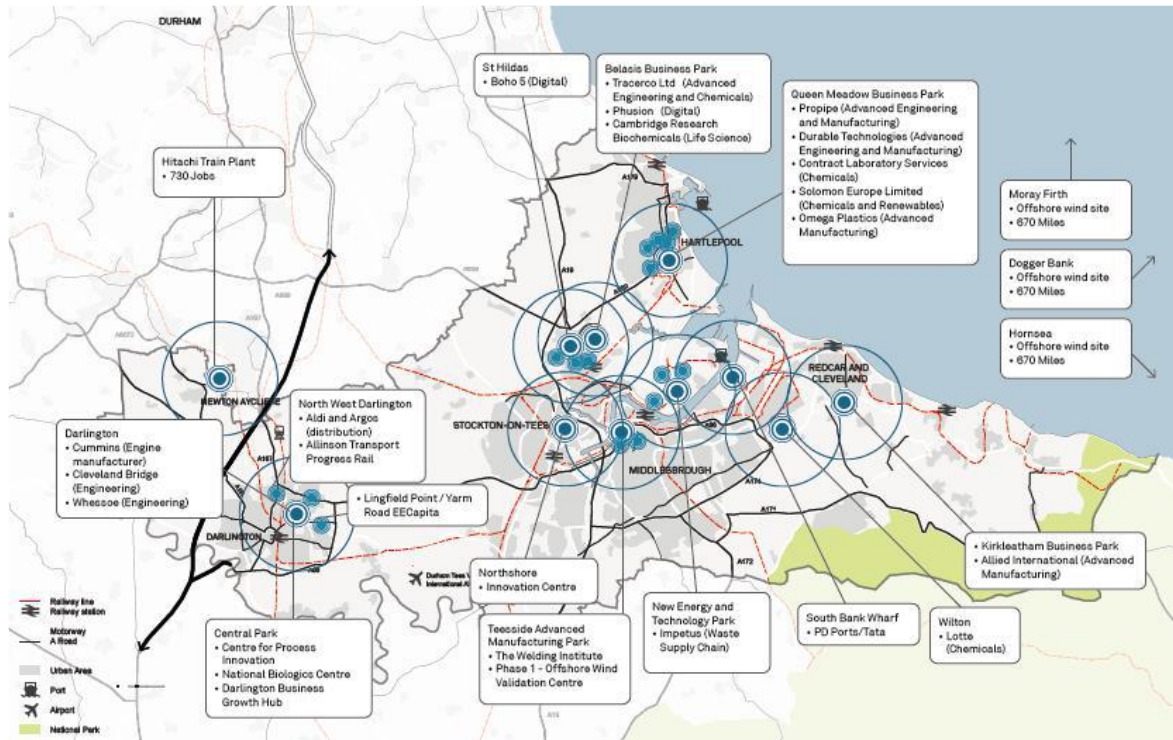
Figure 2.6: Summary Economic Indicators



Despite these issues, the Tees Valley has significant strengths. It has the fourth highest proportion of businesses undertaking product or service innovation in the UK and it is part of the only continuous net exporting region of goods in the UK with additional opportunities to pursue. The Tees Valley has also been ranked in third place in the UK for business expansion of existing companies, and business start-up rates continue to outperform the UK average.

The TVCA has ambitious plans to grow the City Region economy over the next ten years, aiming to create 25,000 new jobs and 23,000 new homes, making the Tees Valley an even better place for residents and businesses. To deliver on these ambitions, the TVCA recognises a need to build on existing strengths and world-class expertise in areas such as advanced manufacturing (particularly oil and gas, metals and automotive), chemicals and process and logistics, and invest in growing capability in new industries - biologics, subsea, digital/creative and the low carbon economy. Businesses within these sectors are spread right across the City Region, as shown in Figure 2.7.

Figure 2.7: Key Tees Valley Business Locations



The most significant catalyst to transforming Tees Valley is the development of the Teesside Freeport, which will create employment across the region and is co-located on the UK’s largest regeneration site at Teesworks. Teesworks, the UK’s largest Freeport, is focused on offshore wind, clean energy, advanced manufacturing and the chemicals and process sectors. This, alongside other Freeport sites in each of the five boroughs, is the cornerstone of the economic transformation of the Tees Valley and will generate an additional 41,780 net direct jobs and £3.2bn of GVA to the City Region.

There are also a wide range of cost-effective sites and premises across the Tees Valley, with a total of 423 hectares available for new business investment that offer financial incentives, as well as simplified planning and superfast broadband. The sites include both new and established business and enterprise parks, plus large cleared industrial sites with access to utilities, port services and logistics.

The existing rail network in the Tees Valley serves all of the Freeport sites, Enterprise Zones and also areas of all four prime capabilities from the Northern Powerhouse Independent Economic Review, including the Hitachi plant at Newton Aycliffe, Central Park, North Shore Innovation Centre and South Bank Wharf.

Despite the clear opportunities for economic growth, the ageing population implies labour supply constraints will increase meaning that there is the potential for there to

be a lack of sufficient local workers in the future. The jobs base is also currently dependent on small number of large employers, although there is a comparatively high business start-up rate, particularly amongst lifestyle entrepreneurs. Therefore, promoting the towns and rural areas of Tees Valley to change external perceptions of the area will assist in attracting and retaining a larger workforce.

New transport investment will make it easier for visitors, leisure and business to come to the Tees Valley. Improvements to the Tees Valley rail network will support the economic prosperity of the Tees Valley through enhanced connectivity, but there are existing constraints that threaten the planned improvements. Overcoming these constraints will be vital to support the economic growth ambitions.

2.2.2 Hartlepool Area Profile

The Borough of Hartlepool covers an area of approximately 9,400 hectares (over 36 square miles) and has a population of around 93,633 (mid-2019 estimates). The Borough comprises the main town of Hartlepool, the seaside resort of Seaton Carew and a rural hinterland, within which lie the villages of Greatham, Hart, Elwick, Dalton Piercy and Newton Bewley.

To the south of Hartlepool is the wider Teesside conurbation and bordering Hartlepool to the north is the administrative area of County Durham.

The main phase of Hartlepool's expansion took place from the mid-19th Century with the building of a new railway and docks to serve the export of coal. The town continued to expand over the next 100 years as port trade increased and the development of heavy industries including steel making, shipbuilding and manufacturing. Like most industrialised towns in the north of England, Hartlepool has suffered over the last half century from structural reform of these industries and the town has had to look for new opportunities to diversify the economy.

Over the past 20 years, Hartlepool has experienced some transformational changes through public and private investment which was stimulated by the development of Hartlepool Marina and investment in the town centre and continued with investment in the historic fabric of the historic Headland for its intrinsic heritage value and for tourism and development of high quality and prestige business parks at Wynyard and Queen's Meadow. This success was recognised in the successful hosting of the Tall Ships Race in 2010, an event which will return to the town in 2023.

The town's regeneration is continuing with ongoing investment in housing renewal and the completion of flagship developments such as Hartlepool College of Further Education, the creation of a new transport interchange and the One Life Centre.

Despite these achievements, Hartlepool today is faced with a number of challenges and opportunities. Unemployment levels have remained consistently above national levels and there remains a need to continue to explore opportunities for business development, growth, and investment. Key opportunities exist within the port area and the town's business parks to support large scale investment in growth industries such as offshore wind and renewable energy and other eco-industries.

The designation of three sites within Hartlepool as Tees Valley Enterprise Zones will continue to help realise these opportunities. The potential development of a new nuclear power station and availability of prime investment land within the marina and at Wynyard Business Park provide scope for significant economic growth in line with Tees Valley ambitions to create 25,000 jobs over the next ten years.

The town centre remains a priority location for investment - it forms a key hub for economic and social activity and its appearance and vitality can influence decisions of businesses, commercial investors and visitors. It is important that previous regeneration investment is built upon and refreshed and that commercial and retail and leisure facilities are consolidated and improved. The Hartlepool Vision recognises the need to improve the connectivity between the town centre and the Marina and seeks to make improvements in the Church Street area around the rail station to enhance the experience for pedestrians.

2.3 Step 2: Identifying Transport Barriers

2.3.1 Tees Valley Transport Issues

The Tees Valley is recognised as an economic functioning geography with several economic foci, rather than one single dominant commercial centre. This polycentric character results in complex patterns of movement between the various centres which, combined with the significance of intra-regional commuting indicates the importance of good, reliable interconnectivity for the economy. The polycentric nature of the labour markets is shown in Figure 2.8.

87% of residents work within the Tees Valley, with relatively few commuters crossing the Tees Valley boundary (around 248,000 people live and work in Tees Valley with 38,000 Tees Valley residents working outside of the area and 35,000 Tees Valley workers resident in other areas).

Whilst most people work within their district of residence, there are substantial proportions travelling between districts within Tees Valley, as illustrated in Figure 2.9.

Figure 2.8: Tees Valley Labour Markets

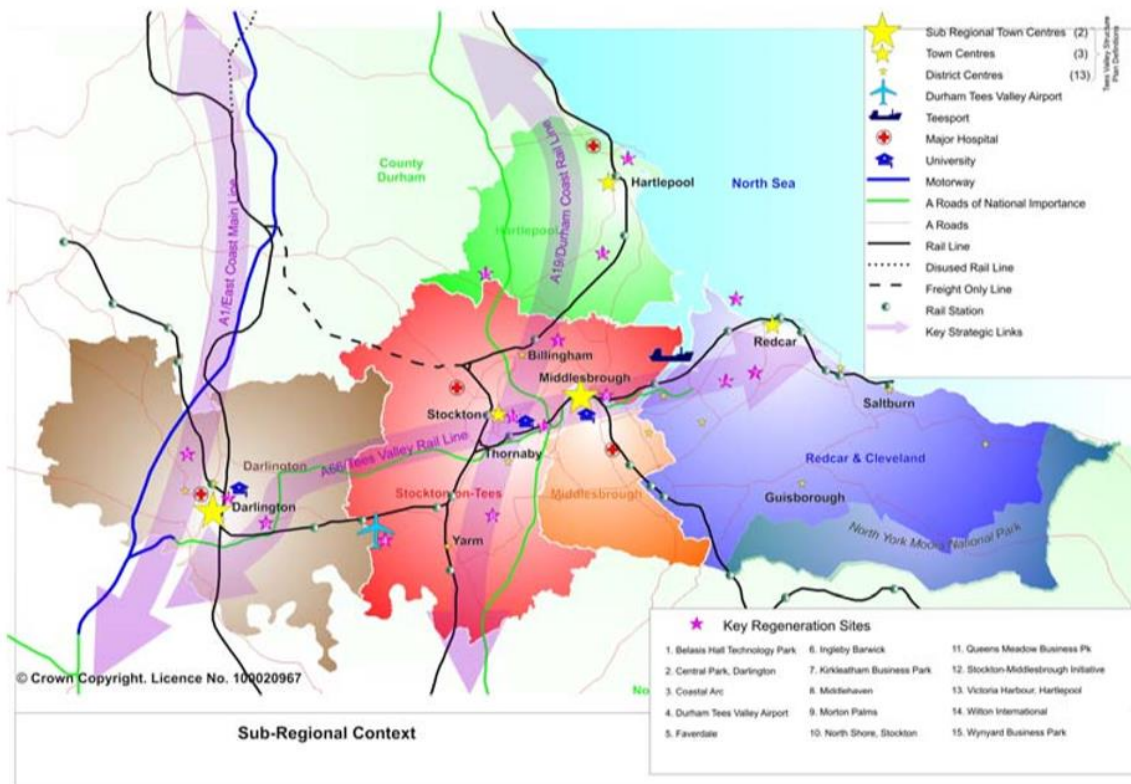
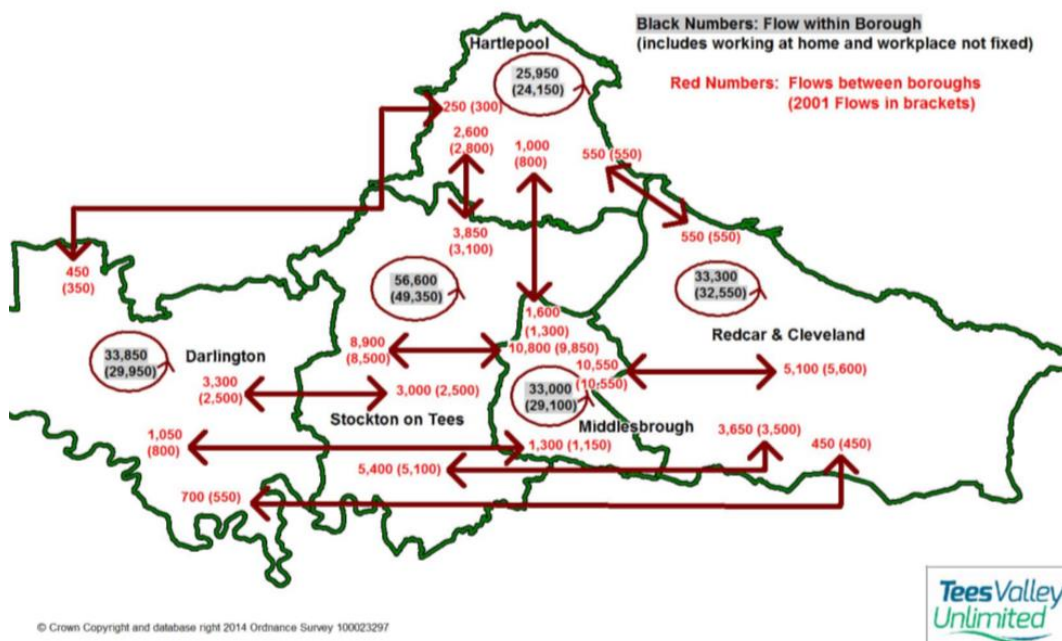


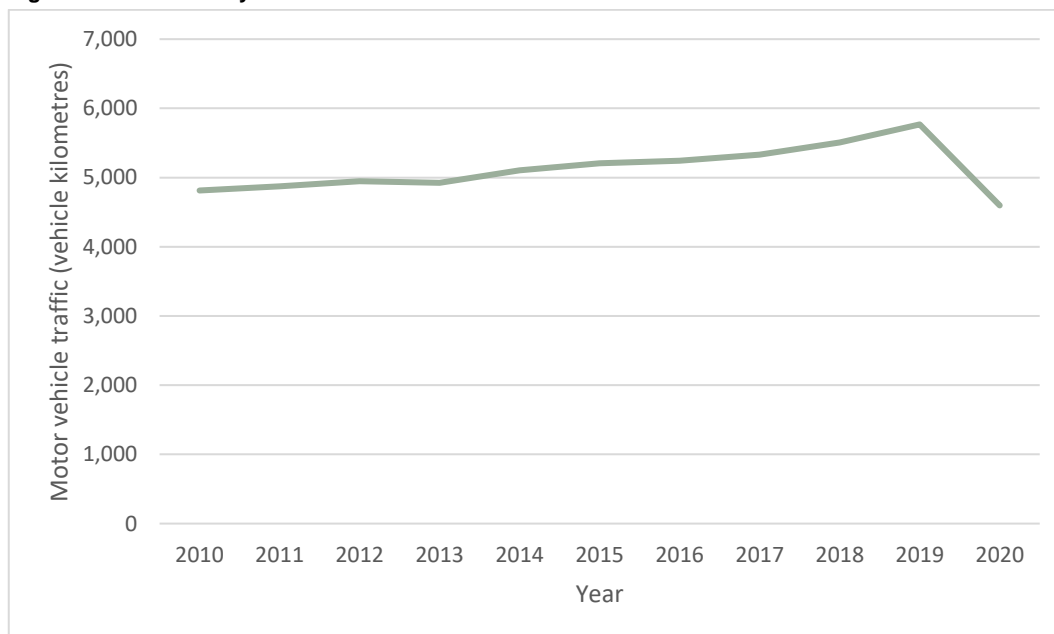
Figure 2.9: 2011 Census Travel to Work Data



In terms of flows to Tees Valley’s neighbouring areas, there is a small net out-flow of around 700 commuters to North Yorkshire (comprised of 9,700 out-flow and 8,900 in-flow) with a similarly small net out-flow to Tyne & Wear of 1,300 (5,800 out-flow and 4,600 in-flow). The largest commuter flows are with County Durham with a net in-flow of close to 6,900 (comprised of 10,600 out-flow and 17,500 in-flow).

With approximately a quarter of the population of the North East and a higher population density, the Tees Valley demonstrates a greater reliance on motor vehicle transport than the wider region. Despite recent and ongoing improvements to sustainable modes, for example through the Tees Valley Bus Network Improvements scheme, motor vehicle traffic has continued to grow in recent years and commuting by road, by any form of motorised vehicular transport, continues to dominate travel patterns within the City Region. Figure 2.10 illustrates the trend in motor vehicle traffic, which has grown year on year until the onset of the COVID-19 pandemic.

Figure 2.10: Tees Valley Motor Vehicle Traffic Trends



Having said this, growth in rail usage has also been strong over a similar period, as shown in Figure 2.11. Over a longer period, between 2000 and 2018, patronage at all Tees Valley stations has grown by 75%, although the COVID-19 pandemic has had a significant impact more recently.

Figure 2.11: Tees Valley Rail Passenger Trends

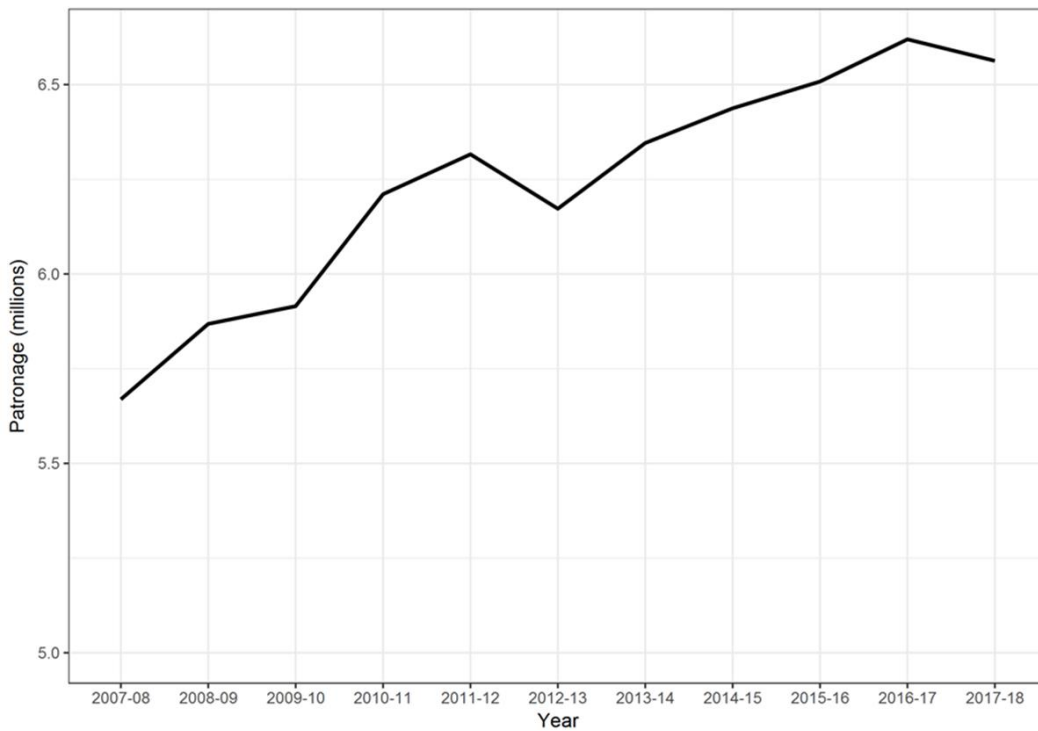


Table 2.1 shows the passenger usage at Hartlepool Station and the Tees Valley’s two principal rail gateways over the last five years for which data are available, highlighting the growth overtime.

Table 2.1: Passenger Usage Trends at Tees Valley Rail Gateways (ORR Data, Table 1415)

Station	2015-16	2016-17	2017-18	2018-19	2019-20
Darlington	2,634,044	2,672,491	2,726,616	2,800,086	2,858,567
Hartlepool	639,428	639,436	639,722	630,366	630,613
Middlesbrough	1,410,296	1,437,190	1,401,590	1,353,160	1,376,998

As the different economic and cultural assets of the Tees Valley become more joined-up, so the rail network will become more important as a public transport alternative.

Continued growth in road traffic will have significant negative consequences in terms of congestion and the environment, both of which will stifle future growth. Ensuring that the Tees Valley has a public transport network that has the requisite capacity and

resilience to cater for future demands, which result in a reduction in the historic growth of motor vehicle traffic, is essential.

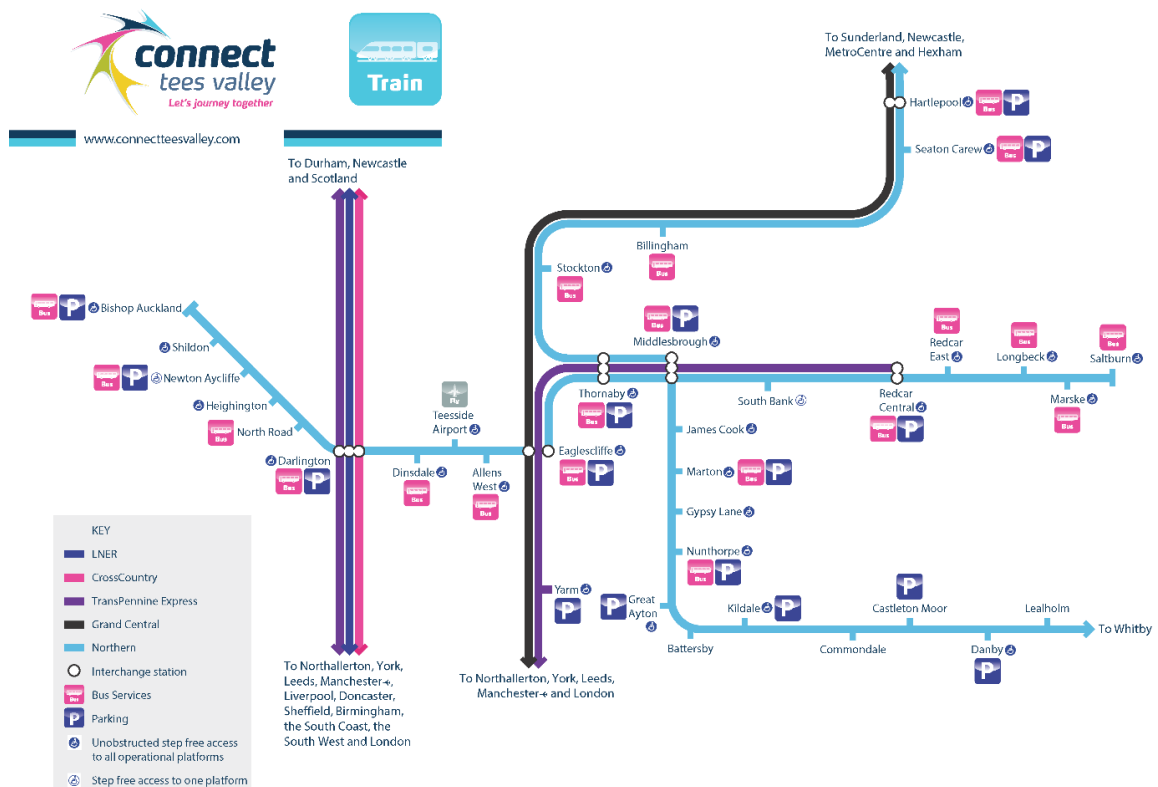
Freight movements by rail have continued to increase as epitomised by the growth in container traffic into and out of the ports of Tees and Hartlepool, which has increased by an average of 7% per annum over the last five years. Approvals and funding are already in place for the Northern Gateway Container Terminal expansion which will significantly add to this by more than doubling the container capacity to 1.1 million TEU and creating up to 4,000 direct and indirect jobs. The development of the Teesworks site will also open up further opportunities for freight growth in this area.

Again, the highway network is the more natural choice for freight operators, as road-based connections are generally lower cost at source, although the overall cost to society in terms of safety and the environment in particular, is much greater. Freight is, and will remain, a vital component of the Tees Valley economy - the aim will be to ensure that rail-based freight operations become the natural choice to support future growth.

2.3.2 Rail Network Issues

The current Tees Valley rail network shown in Figure 2.12.

Figure 2.12: Tees Valley Rail Network



Whilst the network is fairly extensive, it is still based, to a large extent, on historic patterns of development and travel demand and it does not necessarily fully meet the future needs of the City Region.

Passenger service levels, quality and connections are also not up to a sufficient standard to fully support the ambitious growth plans. Most existing local timetables were designed many years ago and connections between services are often far from ideal, services do not always start early or run late enough, Sunday services are often poor and there are even gaps in service at the busiest weekday peak times. Connections are also poor, often with significant waiting times or missed connections and do not offer an attractive alternative to the car.

North-south rail links via the services on the East Coast Main Line (ECML) are principally those operated by London North Eastern Railway (LNER) and call at Darlington and, from December 2021, at Middlesbrough and Thornaby. Hartlepool and Eaglescliffe also continue to benefit from the direct links to London provided by Grand Central. It is important that these links are retained and enhanced to offer optimum provision for Tees Valley passengers and to support the economy.

East-west connectivity across the North is provided by the two TransPennine Express (TPE) services operating to/from the Tees Valley. These are the service from Redcar Central, Middlesbrough, Thornaby and Yarm to York, Leeds, Huddersfield, Manchester stations and Manchester Airport, which will be extended to/from Saltburn in May 2022, and the service through Darlington on the Newcastle-Liverpool route. The economic linkages between the Tees Valley and the Leeds and Manchester city regions in particular, are important to the economic vitality of the area. The service to Manchester Airport is critical in that it is currently the only direct link between the City Region and the North's major international airport for businesses that require a high level of international connectivity.

Connectivity to the Midlands and beyond to the south west, as well as to South Yorkshire, is currently provided by Cross Country services - these services currently call at Darlington.

Local rail connectivity within the Tees Valley, for both passenger and freight services, is also vital to the economic growth plans to ensure that key centres of population and economic activity are well connected together as well as to the national rail network. Whilst there is relatively good east-west local rail connectivity, it is not as good north-south. Northern Trains provides the majority of local rail services which operate on the Tees Valley rail network.

Average Public Performance Measure (PPM) and Right-Time figures show that the recent performance of the local Northern services in the Tees Valley and wider North

East was generally better than for other operators and that in the North East, performance was better than the Northern Rail average.

Whilst this is clearly a positive for Tees Valley passengers, there was an emerging picture of falling performance across all operators between 2016/17 and 2017/18. The figures for the longer distance operators, including TPE, were similar in 2016/17 and showed the same sort of decline in 2017/18.

Performance figures following that period were even lower for both franchises as a result of the well documented problems related to the introduction of the May 2018 timetable changes. However, the pattern of decline in performance before May 2018 is concerning and is likely, at least in part, to be related to increasing issues of lack of capacity and resilience across the rail network that will be discussed in more detail below.

The Tees Valley is still a major hub for the movement of rail freight with the freight-only Stillington Line, which branches off in a north westerly direction north of Stockton, providing an important additional link to the ECML south of Durham. There are also a number of rail-connected freight facilities operating at Middlesbrough, the ports of Tees and Hartlepool, Redcar, Lackenby Wilton, Boulby Mine, Skinningrove, Port Clarence and Hartlepool. These are supported by large marshalling yards at Thornaby (Tees Yard) and Middlesbrough.

As with the historic development of the passenger rail network, local rail freight infrastructure has largely developed on the basis of major flows of dry and liquid bulks to and from private sidings or port facilities, relating to the City Region's position as a major centre for petrochemicals, steel-making and power generation. The development of the Teesworks site is likely to add significantly to the growth potential for freight in the Tees Valley, as well as increasing passenger demand.

In short, the capacity and capability of the passenger and freight rail networks that serve the Tees Valley is now becoming a serious concern in terms of the impact this will have on future economic growth.

Network Rail's recent capacity analysis, published in June 2019 and included at Appendix A, indicated that there will be a number of locations across the Tees Valley's rail network that do not have the capability to accommodate the Indicative Train Service Specification (ITSS) that was developed by the industry at that time. These locations are shown in Figure 2.13 (note that this diagram does not include James Cook, to the north of Marton, and that the 'proposed' Horden station has since been opened)

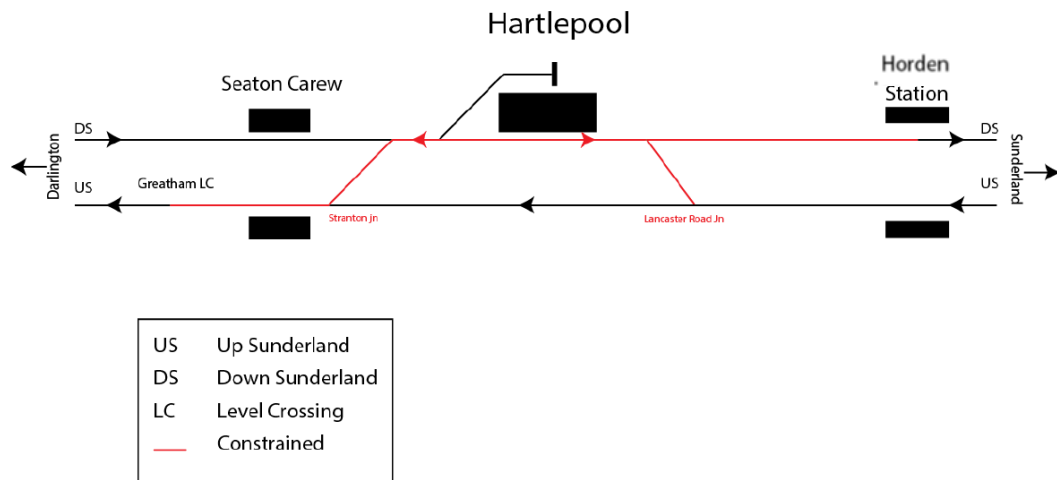
Figure 2.13: Locations of Forecast Capacity Constraints with Baseline ECML ITSS



More specifically, the analysis indicated that there will be capacity problems at Hartlepool Station, principally due to there being only one functioning through platform at Hartlepool, as shown in Figure 2.14.

Incorporating any additional services being current levels severely increases the capacity usage of platform 1 at Hartlepool and the adjoining junctions (Stranton Jn and Lancaster Road Jn). To release capacity, another platform is required - having two operational through platforms at Hartlepool would resolve the existing capacity constraint at Hartlepool and adjoining junctions.

Figure 2.14: Constrained Sections around Hartlepool Station with Baseline ECML ITSS



Other local rail connectivity issues include:

- Most existing local timetables were designed many years ago and are not now reflective of the travel demands of the current Tees Valley economy between the key centres of activity;
- The Tees Valley’s existing rail stations are not always in the ideal locations to meet the needs of new markets and to encourage greater accessibility to the local rail network;
- Connections between services (local, regional and national) are often far from ideal, services do not always start early or run late enough, Sunday services are often poor and there are even gaps in service at the busiest weekday peak times;
- Rail journey times on local lines are also uncompetitive, for example, with a journey from Darlington to Hartlepool often taking 60 minutes or more compared to a car journey of 40 minutes;
- Rail fares are viewed by many passengers as complex with a baffling array of ticket options on offer which often makes obtaining the best deal very difficult;
- There is a lack of integration with other modes of public transport with rail and bus timetables and ticketing often lacking the required coordination; and
- Whilst the provision of cycling parking at stations is improving, more can still be done and the limits on the carriage of cycles on trains remains confusing and acts as a barrier to use.

In addition to this, key freight links on the rail network are currently unable to cater fully for the largest growth market in the Tees Valley which is high cube containers to/from the ports of Tees and Hartlepool. Although a terminal exists at Teesport, which facilitates the transfer of containers onto rail, without the rail network in the Tees Valley having the sufficient gauge clearance to transport the largest containers, there will be a continued reliance on transporting these by road.

At this time, any high cube containers from the South Tees area wishing to go south on the ECML are required to go into the freight sidings to the east of Darlington and reverse out to head south given the lack of W10 or W12 gauge clearance on the route towards Northallerton via Yarm. This is inefficient, time consuming and uses up scarce capacity at Darlington Station.

Economic specialisation within the Tees Valley as part of the vision for regeneration is likely to reinforce the Tees Valley's polycentric form, hence transport solutions that support this economic vision to provide better quality links between centres will be vital. Furthermore, freight movements are key to the Tees Valley economy, both through its manufacturing industries and as movements through its several ports, including Teesport.

Therefore, future economic growth requires that the transport network is able to accommodate increased freight movements. In particular, the option to offer a realistic alternative to use the rail network for freight movements as opposed to a continued heavy reliance on the road network, will be crucial. In general, improved connections beyond the City Region to the rest of the country, and to London in particular, are also highlighted as being desirable.

2.3.3 Hartlepool Transport Issues

Hartlepool's economic strategy is underpinned by an efficient and effective transport infrastructure system will help attract new investors, developers and businesses to the Borough, but will also improve access to employment and training for local residents across the Tees Valley.

As a traditional industrial centre, Hartlepool's freight movement demands have always been well catered for through rail, the port and the A19. The A19 gives access for personal, business and freight movement to national and international destinations.

However, whilst the current road network in Hartlepool is effective, transport flows have increased to the point where the network is near to capacity and forecasts indicate increasing congestion in the longer term. In addition, due to its location, Hartlepool has relatively poor public transport connectivity to other labour market opportunities in the Tees Valley and this can act as a deterrent to people who may wish to commute in and out of the Borough. If not effectively tackled through a more

strategic and sustainable approach, this may impact on the economic growth of the area and prevent local residents and businesses achieving their full potential.

Existing rail services at Hartlepool Station provide a direct connection to Sunderland and Newcastle to the north, and York and London to the south, as well as to other centres across the Tees Valley, albeit mostly requiring an interchange at either Thornaby or Middlesbrough. A second platform will benefit local residents and businesses in terms of improved rail travel, and it will also support efforts to attract more visitors to the town.

The role that rail stations can play in the promotion of an area given that it often provides the first impression, is becoming more understood. In addition to the capacity constraints at Hartlepool, the passenger experience and the facilities offered should be representative of the ambitions of the town and the wider Tees Valley City Region. In 2023, the Tall Ships event returns to Hartlepool and having the new platform available at that time will mean people visiting from across the region and further afield will see Hartlepool at its best.

2.4 Step 3: Exploring Options and Strategic Alternatives

2.4.1 Objectives

Before exploring the options for tackling the transport issues outlined above, a series of objectives were developed, mindful of national and regional rail policy, the transport issues described previously and stakeholder opinions.

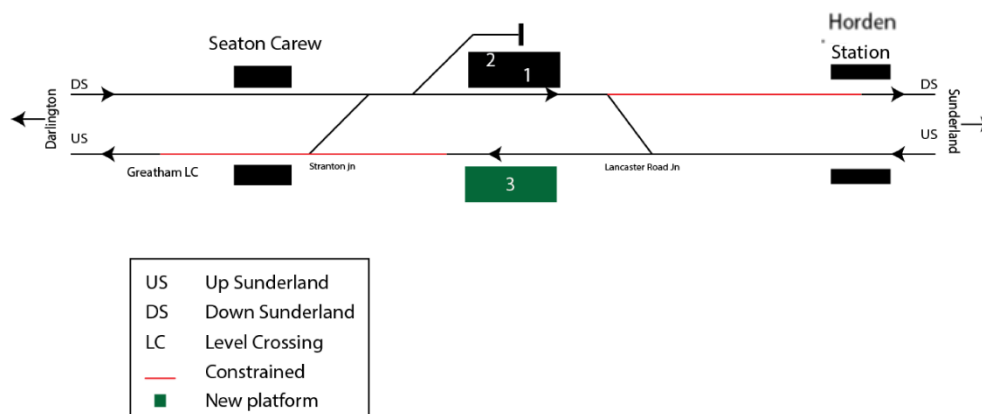
- Ensure that the Tees Valley rail network can cater for expected future growth in both passenger and freight demand;
- Reduce journey times and delays for all passenger rail services at Hartlepool;
- Support the economic growth/regeneration objectives of the Tees Valley with increased inward investment;
- Improve passenger and freight rail connectivity to the Freeport sites, Enterprise Zone sites and economic centres across the Tees Valley;
- Improve access to employment opportunities through low carbon transport choices;
- Provide a station and surrounding area that are accessible and safe for everyone, and protect and enhance its heritage value and appreciation.

These objectives were then utilised in the option development and selection process.

2.4.2 Options

The Network Rail Capacity Analysis identified a broad improvement at Hartlepool Station that would address the identified issues, with a diagrammatic layout shown in Figure 2.15.

Figure 2.15: Diagrammatic Layout of Hartlepool Station with Additional Platform



The first phase of the option sifting process, after agreeing the sifting criteria and undertaking joint constraints mapping, looked at elements for each of the key study areas, including vertical circulation and footbridge, platform arrangement, worksites and wider integration.

Several options were explored for each of the study areas. These were then scored using a RAG assessment at the Elemental Options Sifting Workshop in February 2021 to rule out any options with significant complexities or issues.

The preferred solutions of the individual elements were combined to form a series of six combined options at GRIP2.

These were then sifted into three preferred options at Combined Option Selection Sift Workshop in March 2021, that were developed up to GRIP3 level of detail. A further option was brought into consideration following the completion of the Buffer Stop Risk Assessment on Platform 2, which allowed consideration of a central footbridge option.

The four options were developed in further detail throughout the GRIP3 process. All of the designs followed a common design ethos aimed at providing best value for money, whilst providing a high quality passenger experience. Further structural, mechanical, and electrical input, alongside accessibility input advanced the schemes to a more developed proposal.

The four options were then reviewed against the sifting criteria at the Preferred Option Selection Sifting Workshop in June 2021, in order to ascertain which option was recommended to progress into GRIP4.

The resulting single option design for the improvements at Hartlepool Station are shown on the plan included at Appendix B. Although there were concerns with this option regarding walking distances, the cumulative benefits of the preferred relating to all criteria defined this as the preferred one over the other options.

2.5 Step 4: Exploring Impacts of Interventions

2.5.1 Preferred Option

The preferred option for the Hartlepool Station improvements includes the following components:

- The rail station's redundant second platform brought back into use; and
- A new accessible footbridge (with lifts) linking the new platform and the existing station building.

Figure 2.16 shows an image of the new footbridge and the re-opened Platform 2.

Figure 2.16: Image of Hartlepool Station Improvements



2.6 Measures for Success

Measures for success are the attributes essential for successful delivery of the scheme. They include not only measurable impacts on travel conditions but also consider the strategic fit, value for money and affordability, achievability and commercial aspects of the project.

Success will be through the delivery of a scheme that fully meets the objectives set, which means:

- A fit for purpose station at Hartlepool providing a solution for the future demands of national and regional rail services- this will ensure the Tees Valley’s external public transport connectivity, thus supporting TVCA’s economic prosperity;
- An enhanced local rail network for the Tees Valley that has been made possible by the removal of constraints at Hartlepool - this will ensure much improved rail links within the Tees Valley between TVCA’s key economic centres;
- Completion of the project before July 2023 for when the Tall Ships will return to Hartlepool.

Wider impacts of the scheme include:

- Support for Tees Valley’s economic growth ambitions as set out in the SEP;
- Delivering additional capacity and resilience on the Durham Coast Line; and
- A role in supporting the wider transport and growth agenda for the North as set out in TfN’s Strategic Transport Plan.

These success factors are closely aligned to the outline benefits realisation and monitoring and evaluation plans, both included in the Management Dimension.

2.7 Step 5: Aligning with Wider Local Plans and Objectives

2.7.1 Tees Valley Local Plans

The Local Authorities within the Tees Valley are at various stages of Local Plan preparation. Local Plans have recently been adopted for Redcar and Cleveland (2018), Hartlepool (2018), Stockton-on-Tees (2019) and Darlington (2022) Borough Councils. An updated Local Plan for Middlesbrough Council is currently being prepared. The Local Plans establish a framework for the sustainable economic growth and development over their respective plan periods in part through the identification of sites for housing and employment growth to meet identified needs. In terms of housing delivery, the

Tees Valley Local Plans aim to provide beyond the 23,000 homes in the period from 2016 to 2026 as set out in the SEP.

The rail network is vitally important in connecting the key centres of the commuting population within the Tees Valley and supporting the wider economic growth ambitions. Housing and employment allocations within adopted and emerging Local Plans will increase the number of trips within the City Region and re-emphasise the importance of the rail network in supporting economic growth within the Tees Valley.

2.7.2 Hartlepool Local Plan 2016-2036

Hartlepool's Local Plan was adopted in 2018 and sets the planning framework for the subsequent 15 years.

The Local Plan sets out the vision of what Hartlepool will be in 2031 indicating the main patterns of development and the types and form of development that will help achieve this vision. The vision represents the spatial interpretation of the Sustainable Community Strategy for Hartlepool (Hartlepool's Ambition 2014) which states:

“Hartlepool will be a thriving, respectful, inclusive, healthy, ambitious and outward-looking community, in an attractive and safe environment, where everyone is able to realise their potential.”

Reflecting this vision, the Local Plan seeks to achieve:

- The creation of a healthy local economy (“thriving” and “ambitious” community);
- The creation of mixed communities with all services to hand (“respectful” and “inclusive” community);
- Provision of opportunities for recreational activities (“healthy” community);
- Improvement of transport links (“outward-looking” community);
- Improvements to the quality and design of housing and associated areas and the boroughs natural and historic environment (“attractive environment”); and
- Reduction of the opportunities for crime and improvements in road safety (“safe environment”).

Two key policies of the plan, to be delivered through initiatives to improve rail frequencies and reliability and therefore of direct relevance to this scheme, are:

- To ensure the provision of a safe, efficient and sustainable transport network, accessible to all; and
- To strengthen transport links with the Tees Valley sub-region, region and beyond.

2.7.3 Hartlepool Economic Strategy

Hartlepool's refreshed Economic Growth & Regeneration Strategy 2019-2021 responds to recognised opportunities and challenges for Hartlepool. Developed by key partners including the local business community it promotes a more dynamic, creative and distinctive approach to economic growth which captures the resilience and creativity of local businesses, supports more and better jobs for local people and maximises the potential of the Hartlepool's portfolio of local economic assets.

The strategy also positions Hartlepool as a major contributor to the productive growth ambitions of the Tees Valley and complements the TVCA wider investment and growth plans.

Split between three themes - creative, productive and connected - the strategy forms the three masts of Hartlepool's economy which reflects the distinctive maritime associations from the past and for the future.

The strategy is due to be updated in 2022 to reflect the difficult economic trading conditions due to the COVID-19 pandemic and will set the town's economic priorities for recovery and growth for the coming years. In addition, a new masterplan for the town centre is currently being developed. This document will set out a vision for the town centre following consultation with the community and stakeholders. This consultation will help identify the challenges and opportunities for the town and the masterplan will set out the best plans to help create a town centre for the community's future. The rail station will be an important element within this masterplan.

2.7.4 Other Rail Network Proposals

There is a number of other rail network proposals that are of relevance to this scheme - these are summarised below.

Darlington Station

An OBC was completed in January 2020 for major improvements at Darlington Station, with the intention of developing a holistic solution for the station that will resolve all the capacity and resilience issues identified at the Tees Valley's other principal rail gateway.

The preferred option for the Darlington Station project comprises:

- Two new platforms on the east side to accommodate existing and future Tees Valley local services;
- The track between these platforms and Darlington South Junction designed to ensure the local services can operate independently from the ECML, removing current capacity and reliability issues at Darlington South Junction;
- Another new platform adjacent to the Up Goods Line, to be used by southbound long distance high speed services calling at Darlington;
- A new station building, with multi-modal connections, to service the new platforms;
- A new accessible footbridge linking the new platforms and station building with the remainder of the existing station;
- A new transport interchange and car park adjacent to the new station building, serving rail users and potentially, adjacent developments;
- Access improvements for pedestrians and cyclists from Parkgate; and
- Enhancement to the portico and transport interchange facilities on the western side of the station.

The planned works at Darlington are entirely complementary to the Hartlepool Station scheme and each requires completion of the other to unlock the full potential of the Tees Valley rail network.

Middlesbrough Station

As with Darlington, the work will ensure that facilities and infrastructure at the station are adequate for such a major rail gateway and that it can cater for the planned increase in the number of services and passengers using the station. Crucially it will also ensure improved integration between rail and other modes and better links between the station and the town centre to the south and the Middlehaven Enterprise Zone to the north.

This project has two distinct elements, first, the provision of additional platform capacity at the station to deliver the required capacity for all future growth in service levels including service improvements and enhancements included in both the former Northern and TransPennine Express franchises, new ECML services to London and further improved local services, and second, the provision of improved station

facilities. The planned works at Middlesbrough are entirely complementary to the Darlington Station scheme and each requires completion of the other to unlock the full potential of the Tees Valley rail network. The extension to the existing Platform 2 was completed in June 2021, allowing the commencement of services to/from London in December 2021, and the works to improve the station facilities commenced in May 2022.

Northallerton to Teesport Gauge Enhancements

A major upgrade of the rail line between Northallerton and Teesport is required so that it can be used more effectively by both freight and passenger trains. A key element of this is the provision of W12 gauge clearance of the line, as a precursor to the future electrification of the route. Current proposals would see two tunnels and two bridges improved so that larger containers can use the more direct route heading south to the ECML.

This will support the ongoing development of Teesport as a truly international gateway for the North of England by allowing the largest containers to be transported by rail along the most efficient route as opposed to having to reverse at Darlington as at present. The provision of W12 clearance on this route will also help to alleviate capacity issues at Darlington by removing the need for significant freight movements to pass through the station. GRIP4 work to confirm the requirements for gauge clearance on the route via Yarm is nearing completion.

In addition, locally-led accessibility improvement schemes at Billingham and Eaglescliffe are aimed at enabling the use of the rail network for all users, whilst plans continue to re-instate the stations serving Teesside International Airport and the Teesworks site for frequent usage in support of economic growth ambitions.

2.8 Step 6: Considering Wider Evidence and Stakeholder Views

2.8.1 Stakeholder Views

A stakeholder mapping exercise has been undertaken. Stakeholders were identified and split into three groups to allow a more focussed approach to each:

- **Informed:** those stakeholders who are kept up to date on progress or outcomes;
- **Consulted:** those stakeholders whose opinions and solutions are sought throughout or at particular points; and
- **Actively Involved:** those stakeholders who will be responsible or accountable for achieving the outcome.

Table 2.3 sets out the key stakeholders in each of these three groups and their needs identified to date.

Table 2.3: Key Stakeholders

Group	Sub-Group	Stakeholder	Needs
Informed	Local Residents / Passengers	Local Residents / Passengers	For the project to be a responsible citizen and improved quality of life and opportunities
	Rail User Groups	North East Coastliners	Adherence to legislation and protection of Hartlepool Station Enhanced service provision
	Press (National, Local & Rail)	Press (National, Local & Rail)	Information
	LEPs	Tees Valley LEP	Economic growth, improved connectivity, strong regional brand
	Local Businesses	Local Businesses	Attractive commercial sites, good transport links, access to labour
Consulted	Rail User Groups	Passenger Focus, Urban Transport Group	Improved rail services
	Rail Industry	Railway Heritage Trust	Adherence to legislation and protection of Hartlepool Station
	Rail Industry	Office of Rail and Road	Adherence to regulations and protecting the interests of rail users
	Promoter	Tees Valley Combined Authority	Economic return on investment, improved connectivity, improved quality of infrastructure, creation of jobs

Group	Sub-Group	Stakeholder	Needs
Actively Involved	Local Authority	Hartlepool Borough Council (and other Tees Valley Local Authorities)	Regeneration, economic return
	Rail Industry	Network Rail	Adherence to standards and creation of an improved asset
	Train Operators	Northern, Grand Central	Adherence to standards, improved rail services including performance improvements

2.8.2 Wider Policy Alignment

The major national, regional and local policy priorities are summarised below with a brief commentary on how this scheme is aligned with these priorities.

National

The scheme supports the UK’s **‘Build Back Better: our plan for growth’**, which superseded the post-Brexit Industrial strategy. This strategy, released in 2021, is primarily centred around ensuring that no region is left behind as the Government plans to deliver growth and high-quality jobs.

This scheme is also aligned to the **Levelling Up White Paper**, published in February 2022, which crystallised this key Government policy setting out how it intends to spread opportunity more equally across the UK. The policy aims to realise the potential of every place and every person across the UK, building on their unique strengths, spreading opportunities for individuals and businesses. This will make the economy stronger, more equal and more resilient, and lengthen and improve people’s lives.

The White Paper includes a programme of systems change encapsulated in six “capitals” (one of which is physical infrastructure) and 12 UK-wide “missions” that will serve as an anchor for policy across Government. One of the “missions” is that, by 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares and integrated ticketing.

Targeting investment in improving public transport infrastructure in areas where GVA and productivity was already lagging behind, such as the Tees Valley, will be even more important going forward to deliver on the aims of the White Paper.

This scheme further supports the UK's pledge to bring all greenhouse gas emissions to net zero by 2050 through encouraging modal shift to rail. The **'Net Zero Strategy: Build Back Greener'**, released in 2021, further iterates this pledge and establishes a strategy for its success. This document outlines numerous commitments as a part of this strategy, the following of which are directly related to this scheme:

- Increase the share of journeys taken by public transport, cycling and walking; and
- Support decarbonisation by investing more than £12 billion in local transport systems over the current Parliament;

The **'Decarbonising Transport Plan: A Better, Greener Britain'**, released in 2021, is an overarching document outlining how the UK plans to reduce the environmental impact of transport, primarily through contributions to climate change and air pollution.

The scheme relates to Part 2a 'Decarbonising our railways', through the following commitment *"We are building extra capacity on our rail network to meet growing passenger and freight demand and support significant shifts from road and air to rail"*.

The scheme will achieve this commitment through the increased capacity at the station provided by the additional through platform.

The Hartlepool Station scheme also significantly relates to Part 2b 'Delivering decarbonisation through places'. This section of the document outlines plans to support *"levelling up across the UK, reducing congestion in areas where it is a barrier to productivity, bringing extra capacity to greener public transport, improving health and wellbeing by making places more pleasant to live and work in and supporting jobs to deliver future transport needs."* The potential for improved rail connections as a result of the scheme will encourage modal shift from cars.

Furthermore, this project is supported by the following commitment *"We will support decarbonisation by investing more than £12 billion in local transport systems over the current Parliament, enabling local authorities to invest in local priorities including those related to decarbonisation such as reducing congestion and improving air quality."*

In relation to the DfT policy document **'Connecting people: A Strategic Vision for Rail'**, this scheme directly relates to 'Section 1 - A more reliable network. Section 1.5 identifies the need to invest an overhaul of the network, and making sure the teams

running the railway are talking to each other and working collaboratively when things go wrong, to build the foundation for more reliable services and quicker service recovery.

The scheme also aligns with the approach set out in DfT’s **Rail Network Enhancements Pipeline (RNEP)**, which outlines the requirements for rail enhancements requiring government funding. The Hartlepool Station improvements directly aligned with two of the RNEP’s key priorities, as shown in Table 2.4.

Table 2.4: Key Priorities from ‘Rail Network Enhancements Pipeline’

Priority	Relevance to Hartlepool Station
Priority 1 ‘Keeping people and goods moving smoothly and safely’	This scheme will ease capacity constraints at Hartlepool Station, reducing delays and rail journey times
Priority 3 ‘Offering more: new and better journeys and opportunities for the future’	This scheme enhances the journey experience for users of Hartlepool Station and will also support economic growth within Hartlepool

The **Great British Railways: The Williams-Shapps Plan for Rail**, published in May 2021, sets out how the Government will make railways the backbone of a cleaner, more environmentally friendly and modern public transport system across the country. By replacing franchising, accelerating innovation and integrating the railways, the Government is aiming to deliver an efficient, financially sustainable railway that meets the needs of passengers and those who rely on rail on a daily basis.

The document announced the creation of a new public body, Great British Railways, which will own rail infrastructure, receive the fare revenue, run and plan the network and set most fares and timetables. Network Rail will be absorbed into this organisation, as will many functions from the Rail Delivery Group and DfT. This document further outlines the future strategy for Great British Railways. Table 2.5 shows the particular relevance of key strategic elements from the document to the Hartlepool Station scheme.

Table 2.5: Strategic Elements from ‘Great British Railways: The Williams-Shapps Plan for Rail’

Outcomes	Relevance to Hartlepool Station
Modern passenger experience: Passengers must receive high-quality, consistent services day in, day out. This means accessible, reliable journeys	The scheme will increase reliability and reduce delays in support of this outcome

Outcomes	Relevance to Hartlepool Station
that are well connected with other transport services and include new customer offers at stations and on trains	
New way of working with the private sector: Passenger Service Contracts will replace franchising, bringing a new focus on reliability, performance and efficiency. New opportunities for innovators, suppliers (including small and local partners) and funders will be created through streamlined contracts and more contestability	The scheme will increase reliability and reduce delays, assisting train operators in support of this outcome
Greater control for local people and places: Railways will be more responsive to the needs of local communities and customers	The scheme is being brought forward and funded by TVCA in support of local needs in support of this outcome
Increased speed of delivery and efficient enhancements: Restoring lost rail links and accelerating the delivery of critical upgrades to the network will help level up places across the country, spark new economic growth and improve public transport connectivity and prosperity across our nations and regions	The scheme will enhance connectivity by rail through enhancement of the network in support of this outcome

DfT released the **Inclusive Transport Strategy** in 2018, which sets out the Government’s plans to make the transport system more inclusive, and to make travel easier for disabled people.

The scheme will offer the opportunity to address Objective 4 of this strategy - ‘Inclusive Physical Infrastructure - taking steps to ensure that vehicles, stations and streetscapes are designed and built so they are inclusive and easy to use’. The new pedestrian footbridge will accommodate the needs of all passengers and will meet with the Network Rail Station Planning Guidance Section 3.4 (July 2020).

Regional and Local

The **Tees Valley SEP** was refreshed to coincide with the establishment of the Tees Valley Combined Authority in 2016. The new Plan sets out the growth ambitions and priorities for the Tees Valley over the next ten years to 2026 and provides a framework for economic development activities. The priorities in the refreshed SEP are grouped

into six building blocks which reflect the main challenges, areas of market failure and opportunities for the Tees Valley.

In the refreshed SEP, the Tees Valley has identified four strategic transport priorities within the City Region that will deliver pan-Northern benefits. In addition to the four strategic priorities, there are also ambitions to enhance local rail services through schemes such as the Hartlepool Station project.

The **Investment Plan (2019-2029)** sets out the Tees Valley's investment strategy for the period 2019 - 2029 and is focused around priorities across six growth generating themes. The ten year planning figure used in this Investment Plan is £588.2 million, which is estimated to have a total impact of supporting 16,875 direct jobs and an additional £1,480 million of additional GVA. The Investment Plan contains a local rail network improvement programme which includes reference to Hartlepool Station Platform Capacity

The **Tees Valley STP** was published in early 2020 alongside a series of supporting implementation plans. The plan includes a framework for setting out the main interventions needed based on six themes, which are closely linked together.

The 'Connecting Centres theme identifies the need to deliver and maintain a frequent, high quality, reliable and integrated public transport network via Improvements to local rail services, including increased frequency and newer trains. It is identified that the Master Plans for Hartlepool, Eaglescliffe and Redcar Central stations are developed further as well as for other locations as issues and opportunities are identified.

The **Tees Valley City Region Sustainable Transport Settlement (CRSTS)** business case was submitted to Government in January 2022. The CRSTS investment programme is divided into six packages of investment:

- Making cycling & walking the natural choice for shorter journeys;
- Transforming the Tees Valley rail system;
- A shared commitment with the operators to transform the Tees Valley bus services and grow passenger numbers;
- Positioning the Tees Valley at the forefront of decarbonising transport;
- Putting the Tees Valley at the heart of the digital transport revolution; and
- Ensuring everyone can access opportunity.

Given the importance of the rail network in providing the most effective link between many of the Tees Valley's main centres and in providing crucial connectivity to other parts of the country, the aspiration to transform the Tees Valley rail system set out in the CRSTS, is underpinned by two objectives:

- Delivering a 'metro style' passenger rail system with an aspiration for a minimum 30-minute service at every station in the Tees Valley; and
- Creating capacity for freight growth linked to Teesworks.

Rail has the potential to contribute considerable lasting benefits to the productivity of the Tees Valley, helping to reduce congestion on the road network and facilitating the development of clusters of economic activity around stations. More specifically, the transformed Tees Valley rail network will:

- Support commuting to/from urban centres and other economic clusters of activity, leading to an increase in the density of employment, which raises productivity;
- Facilitate the development of business links and market opportunities because of inter-city connectivity;
- Increase output in other sectors of the economy, since rail services reduce transport costs relative to journeys made by road;
- Deliver other productivity impacts such as enhancing trade between firms;
- Support the tourism and leisure economy by providing access to and from specific attractions;
- Improve quality of life through improving access to education and training, improving social inclusion, lowering the number of people killed or seriously injured on the transport network and reducing environmental impacts of road travel;
- Support international connectivity by facilitating access to the Teesside Freeport and helping to attract inward investment; and
- Support the movement of goods in a sustainable way.

The CRSTS rail programme will improve the reliability of existing services and provide the opportunity for additional services. The latent demand for passenger services presents a commercial opportunity for train operators and the additional capacity enables growth in rail freight.

It will ensure rail becomes a fundamental component of the future integrated public transport network. This will provide much improved access by rail to the growing number of jobs and other opportunities across the Tees Valley and play a key role in delivering economic and decarbonisation ambitions. The improvements at Hartlepool are included within the CRSTS rail programme with an indicative allocation of £12 million for the preferred scheme.

2.9 Summary of Strategic Dimension

The key elements of the Strategic Dimension for the improvements to Hartlepool Station can be summarised as follows:

- The Tees Valley contains a number of centres within a small geographical area - the lack of a single dominant commercial centre means that good interconnectivity is vital for the Tees Valley to function effectively;
- The Tees Valley SEP contains the target for 25,000 new jobs and 23,000 new homes by 2026, but to ensure the proposed economic growth and additional jobs are delivered will require more inward migration from other population centres - this will mean the transport network will have to cope with a greater demand for travel to/from and around the City Region;
- There is the opportunity to increase the number of people in employment by ensuring easy and affordable access to jobs, education and training by providing a high quality, cleaner, quick, affordable, reliable, integrated and safe transport network for people and freight;
- Continued growth in road traffic will have significant negative consequences in terms of congestion and the environment, both of which will stifle future growth unless there is a suitable public transport alternative;
- The existing rail network in the Tees Valley serves all of the Freeport sites and Enterprise Zones - whilst the network is fairly extensive, it is still based to a large extent on historic patterns of development and travel demand and it does not necessarily fully meet the future needs of the City Region;
- The capacity and capability of the passenger and freight rail networks that serve the Tees Valley is now becoming a concern in terms of the impact this will have on future economic growth;
- Network Rail's recent capacity analysis identifies a need to invest in Hartlepool Station to improve capacity and resilience;

- An option assessment process has been undertaken with the support of a range of stakeholders to identify a preferred option that will achieve the agreed objectives; and
- The preferred option has a strong policy alignment with national and regional transport and rail policy.

3 The Economic Dimension

This chapter of the OBC assesses options to identify their impacts, and the resulting value for money. The economic, environmental, social and distributional impacts of a proposal are all examined, using qualitative, quantitative and monetised information to determine the extent to which the project's benefits outweigh its costs.

3.1 Options Appraised

A robust process was adopted for the generation and shortlisting of options, as summarised in the Strategic Dimension. This process confirmed that the preferred option was bringing the station's redundant second platform brought back into use with new lifts and a footbridge installed.

This is therefore the option appraised in this OBC. There are some variances within the overall concept of the option that can be examined in the next stage of scheme development, but none of these would change the fundamental performance of the preferred option, and hence the benefits appraised.

3.2 Methodology and Assumptions

The economic assessment of the scheme has been undertaken in accordance with current TAG guidance, including:

- TAG Unit A1 cost-benefit analysis;
- TAG Unit A2 economic impacts;
- TAG Unit A3 environmental impacts;
- TAG Unit A4 social and distributional impacts; and
- TAG Unit A5.3 rail appraisal

The methodology also references the DfT Value for Money Framework (July 2017) and guidance issued by Network Rail.

The rail specific elements of the assessment have been prepared by the Economic Analysis Team of Network Rail System Operator - the function responsible for long term planning on the rail network. This involved a uni-modal rail appraisal to assess the potential economic case for the improvements based on the most likely demand for services on the Durham Coast Line and adjacent network. Further detail on the modelling approach and assumptions are set out in the Economic Analysis Technical Note included at Appendix C.

3.3 Present Value of Costs

3.3.1 Investment Costs

The cost of the proposed scheme has been estimated at Q1 2022 prices, as set out in detail in the Financial Dimension. These estimates include all costs associated with scheme preparation and construction and include an allowance for risk.

For the purposes of the economic assessment, and in line with the guidance in TAG Unit A1.2, an optimism bias of 33% has been applied to these costs without the risk allowance. This is the recommended uplift for a rail scheme at OBC stage. However, it is important to note that optimism bias is only applied to costs in the economic assessment and is not included in the forecast outturn costs in the Financial Dimension.

For the economic assessment, all costs have also been adjusted to 2010 market prices and discounted to 2010 at an annual discount rate of 3.5% for the first 30 years after opening and 3% for years 31 to 60, in line with TAG. This represents the assumption that costs (and benefits) incurred at a future date are less valuable than costs incurred in the present.

3.3.2 Construction and Maintenance Delays

The capital cost of working within possessions has been allowed for in the rates used in the cost estimate. Risks have been applied to the cost estimate for construction delays.

At this stage in the development of the scheme, it is difficult to quantify the impact of construction and maintenance delays, or how they could be mitigated. However, what will drive good adherence to schedule will be the following:

- Daily progress updates from site on key construction activities;
- Weekly progress reports to monitor progress against critical milestones, 3-6 months out;
- Monthly progress report to identify and track progress against holistic project milestones allowing enough time for Entry into Service activities to be completed, for example, safety assurance sign off and staff training; and
- QSRA (Quantitative Schedule Risk Analysis) to be undertaken on a quarterly basis (as a minimum) to assess the probability of achieving key project milestones; specifically, the milestones for which the programme is dependent on an external

party - this will allow adequate float between the practical completion date, and specified timetable change date (likely to be 3-6 months).

3.3.3 Operational and Maintenance Costs

To provide for an assessment of whole life costs, the additional ongoing operational and maintenance costs for the new facilities have been assumed at 1% of the capital cost of the scheme for the first 20 years after opening and 2% of the capital cost of the scheme thereafter. Again, these have been discounted to 2010 prices as described above and are included within the PVC quoted in section 3.3.1.

3.4 Present Value of Benefits

In terms of scheme benefits, there are a range of quantifiable benefits, including:

- User benefits at Hartlepool and other stations on the Durham Coast Line arising from journey time improvements for existing users;
- Reduced delays at Hartlepool due to increased capacity; and
- Non-user benefits resulting from mode shift to rail.

Further details of how these have been calculated are included in the Economic Analysis Technical Note included at Appendix C.

Assumptions about future service levels and operating costs will be kept under review and updated where necessary for future versions of this OBC and for the FBC. To reflect the ongoing uncertainty, a number of sensitivity tests have been undertaken as described later in the Economic Dimension.

Quantification of these benefits is ongoing.

3.5 Environmental Impacts

3.5.1 Overview

In assessing the environmental impacts of the scheme, an overview of the planning and environmental policy context has been developed for the station and its immediate surroundings, primarily based on the current National Planning Policy Framework (NPPF). Key considerations include:

- Promoting sustainable transport, paragraph 102, requires that the planning system should support opportunities to maximise sustainable transport solutions and this should be taken into account in both plan-making and decision-making;

- Ground conditions and pollution, paragraph 180, identifies that planning decisions should ensure that “... new development is appropriate for its location” and in doing so should “... mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development and avoid noise giving rise to significant adverse impacts on health and the quality of life”;
- Ground conditions and pollution, paragraph 181, states that opportunities to improve air quality or mitigate impacts should be identified, such as through travel management, and green infrastructure provision and enhancement and that any new development in Air Quality Management Areas (AQMAs) and Clean Air Zones (CAZs) should be consistent with the local air quality action plan;
- Meeting the challenge of climate change, flooding and coastal change, planning for climate change, paragraph 150, states that new development should be planned for in ways that “... avoid increase vulnerability to the range of impacts arising from climate change” and “... can help reduce greenhouse gas emissions, such as through its location, orientation and design”;
- Strategic policies, paragraph 20, states that strategic policies should set out an overall strategy for the pattern, scale and quality of development, and make sufficient provision for “... conservation and enhancement of natural, built and historic environment including landscapes and green infrastructure”; paragraph 127 states that developments should be “... sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities)”; paragraph 153 states new development should “... take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption”;
- Conserving and enhancing the natural environment, paragraph 170, states that planning policies and decisions should contribute to and enhance the natural and local environment by “... protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils ... minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”;
- Habitats and biodiversity, paragraphs 175-177, provide guidance on the determination of planning applications that may negatively impact upon biodiversity, habitat sites and the application of presumption of sustainable development;
- Conserving and enhancing the historic environment, paragraph 189, states that applicants must describe their significance of any heritage assets affected and that where a proposed development includes or has the potential to include heritage

assets with archaeological interest, local planning authorities should require an appropriate desk-based assessment, or where necessary a field evaluation; paragraphs 194 and 195 identify that any harm to the significance of a designated heritage asset should require clear and convincing justification; and

- Meeting the challenge of climate change, flooding and coastal change, paragraphs 155, 156, 161, 163 and 165, identify considerations such as flood risk assessments, sequential and exception tests, statutory engagement and sustainable urban drainage systems.

Building upon the information provided above, environmental risks and opportunities relating to the scheme have been identified utilising a RAG (Red/Amber/Green) ratings system, as follows:

- Red: policy conflicts and environmental constraints that cannot be addressed using established and readily deliverable design solutions or mitigation thereby posing a threat to project delivery;
- Amber: policy conflicts and environmental constraints that, whilst potentially significant, can likely be resolved/mitigated with potential implications for programme and budget; and
- Green: policy compliant environmental constraints that are likely be resolved/mitigated within programme and budget.

The RAG rating allows for professional judgement and the overall RAG rating should reflect the ‘most adverse category’ identified. The current RAG assessment for each environmental topic covered by TAG is as described in the following paragraphs.

3.5.2 Noise

Amber
<p>The site is not located within a Noise Important Area (NIA). The nearest NIA to the site is the A689 (NIA ID: 6723), located approximately 620m to the south of the site.</p> <p>There are noise sensitive receptors to the south of the site, including several schools/education establishments such as St Joseph’s Catholic Primary School, Northern School and Hartlepool Further Education College.</p> <p>Existing background noise levels are likely to be characterised by rail movements on the existing rail lines and traffic on the local road networks.</p> <p><i>Construction</i></p> <p>Noise arising from the proposed scheme has the potential to give rise to adverse impacts, especially at any receptors located nearby. However, the potential impacts are likely to be</p>

temporary and given the small scale of the project they are also likely to be relatively short term.

With the implementation of appropriate mitigation and best practice measures, which should be outlined within a Construction Environmental Management Plan (CEMP), potential impacts associated with noise and vibration of demolition and construction of the proposed scheme are likely to be mitigated, although it is noted that working hours are likely to be limited to the daytime. At this stage it is not known whether night-time works will be required.

Operation

At this stage, it is intended that the proposed scheme would enable additional train movements at the station. As such, operational train noise has the potential to give rise to adverse impacts as it is possible that the noise levels at nearby receptors could increase. It is noted however, that the increase of operational train noise levels may not be dissimilar to the current levels and therefore the change in noise may not be significant. However, an operational noise assessment will be required.

The facilities of the station also have the potential to give rise to potential effects including mechanical and electrical plant, Public Address and Voice Alarm and passenger noise. A noise assessment of these sources may be required to consider any potential effects.

Risks

There is the potential for an increase in noise levels at nearby receptors due to the construction and operation of the scheme, arising from mobile and stationary sources. No noise and vibration modelling has been undertaken at this stage, and the potential impact on noise and vibration is currently not known. At this stage, noise surveys have also not been carried out, which would normally determine a baseline noise level for the area.

Opportunities

Mitigation and enhancements to noise protections along the proposed scheme, such as layout, orientation and noise barriers could be considered as part of a sustainable design.

3.5.3 Air Quality

Green

There are no AQMAs within 2km of the scheme or within the Borough of Hartlepool.

The nearest Defra Pollution Climate Mapping (PCM) model compliance link is the A167, which is approximately 500m north west of the scheme. The maximum predicted annual average NO₂ concentration level for 2019 for this road is up to 24.4µg/m³, well below the annual average air quality objective of 40µg/m³ for NO₂. Concentrations of NO₂ for the PCM links are predicted to decrease in future years.

The nearest local authority monitoring sites to the scheme are diffusion tubes D2 and D10, which recorded concentrations of 30.9ug/m³ and 34.1ug/m³ respectively¹.

Construction

In the short term, construction activities have the potential to generate dust due to earthworks, construction and demolition. A construction dust assessment should be carried

¹ Darlington Borough Council, June 2019. 2019 Air Quality Annual Status Report (ASR) [online]. Available from <https://www.darlington.gov.uk/environment-and-planning/pollution/air-quality/> [Accessed January 2020]

out, to determine the potential risk of dust to dust soiling and human health, along with mitigation measures, if required.

At this stage, construction traffic volumes are not expected to be large enough to cause a perceptible change in air quality. Any changes in air quality would be short term and temporary in nature, lasting only the duration of the demolition and construction phase. At present, no construction traffic data is available to screen traffic movements against the Environmental Protection UK (EPUK)/Institute of Air Quality Management (IAQM) land use guidance.

With the implementation of appropriate mitigation and best practice measures, which should be outlined within a CEMP, significant air quality effects are not anticipated during construction.

Operation

The operation of the proposed scheme is not expected to result in adverse impacts on local air quality. At the time of writing, no traffic data is available to screen the traffic movements associated with the operation of the proposed scheme. Once this data is available, screening should be carried out using the EPUK/IAQM guidance to determine if an air quality assessment would be required.

Risk

Air quality modelling has not been undertaken at this stage and therefore potential impacts of the scheme on nearby receptors are not known. Similarly, likely predicted concentrations are therefore not available for comparison with critical loads to determine impacts on ecological receptors sensitive to nitrogen or sulphur deposition. Although it is considered that the scheme presents a low risk to air quality, this cannot be confirmed at this time. This could present a cost and programme risk at later stages of scheme development.

Opportunities

The proposed scheme could lead to improvements in local air quality in the longer term, by enabling additional rail services to pass through the station, particularly improving opportunities for users who can travel longer distances by rail rather than by car.

3.5.4 Greenhouse Gases

Green

The Government's 'Decarbonising Transport' report recognises that rail is a relatively low-carbon form of transport and is one of the most efficient ways of moving high volumes of people into city centres and moving people over long distances. In 2018, greenhouse gas emissions from rail (passenger and freight) made up just 1.4% of the UK's domestic transport emissions, while 10% of passenger miles travelled in Great Britain were by rail.

Construction

There is potential for Greenhouse Gas (GHGs) emissions during the construction of the project, however, given the relatively small scale of works these are unlikely to have a significant effect on GHGs. A CEMP will also be produced and used during the construction of the interventions to ensure that best practice measures are adopted to minimise GHG emissions associated with the construction activities and materials used, where practicable.

Operation

Through design and compliance with railway standards, it is also unlikely that the proposed scheme would pose a greater risk of impacts from climate change, such as flooding or temperature extremes, than the existing station facilities.

Risks

The materials that will be used in the proposed scheme are currently unknown. Where possible, however, the scheme should promote the use of low carbon materials.

It is also unknown at this time as to where the construction materials would be sourced from as this could incur emissions in transporting the material to site. This could also be considered as an opportunity to reduce emissions, by sourcing materials locally where possible.

The potential impact on carbon emissions associated with the construction and operation of the proposed scheme is unlikely to affect the ability of the Government to meet its carbon reduction targets. Although this project on its own is unlikely to affect the Government's ability to meet its carbon reduction targets, it should be acknowledged that the cumulative impact of this project in combination with similar rail projects across the country, may hinder progress to meeting the UK carbon reduction targets. Therefore, cumulatively there is the potential for a conflict with national policy on carbon reduction.

Opportunities

The operation of the proposed scheme would enable more journeys to be taken by public transport (train) - this could reduce the number of car journeys required and therefore emissions.

Assessment of the impact of a changing climate on the drainage of some of elements of the proposed scheme will likely be required within the drainage assessment. This will identify what design measures are required to increase the resilience of the proposed option due to climatic changes.

3.5.5 Landscape and Townscape

Green

The site lies within National Character Area (NCA) 23, Tees Lowlands, which is a broad, open plain dominated by the meandering lower reaches of the River Tees and its tributaries with wide views to distant hills.

The area contrasts the large conurbation around the Lower Tees and Tees mouth of intertidal and wetlands habitat areas alongside heavy industry with the rural area to the south and west, which is largely agricultural.

At a local level the site is located within the urban centre of Hartlepool.

The site is bounded by residential, commercial and municipal properties to the south and west. The coastal edge of the settlement to the north and east includes more widespread commercial and industrial development situated around the Victoria Harbour, Hartlepool Marina and the Park View Industrial Estate and Tees Bay Business Park.

The existing infrastructure is generally surrounded by approximately 2m high security fencing. The equipment consists of the railway lines, switches and crossings, Overhead Line Equipment (OLE), signalling and Hartlepool Station and associated infrastructure, including the existing car park.

Construction

In the short term, construction activities have potential to impact upon the townscape and landscape surrounding the site, lasting the duration of construction. However, any impacts from construction vehicles and materials are likely to be short term and temporary. With the implementation of appropriate mitigation and best practice measures, which should be outlined within a CEMP, however significant landscape and townscape effects are not anticipated during construction.

Operation

In addition to the issues raised within the Historic Environment assessment, A Landscape Visual Impact Scoping Assessment will be required, and likely appraisal/ assessment following from this scoping exercise. This assessment will identify any potential longer-term impacts and potential mitigation measures. The assessment will inform the overall design, scale and massing of the scheme.

Risks

Scheme development must remain mindful of the sensitivities of National Character Area 23 and the Listed Structures close to the site. Impacts on this stemming from design could present a cost and programme risk as the project progresses.

Opportunities

The proposed scheme could lead to improvements in townscape and landscape, providing high design quality additions to Hartlepool and the wider Tees Valley City Region.

3.5.6 Biodiversity

Green

The nearest Site of Special Scientific Interest (SSSI) is Teesmouth and Cleveland Coast SSSI, which is approximately 600 east of the site.

Summerhill is the nearest Local Nature Reserve (LNR) on the outskirts of Hartlepool well away from the station.

There is potential for protected species to use the existing rail corridor as a green corridor

Construction

The potential impact is likely to be low, however no ecological surveys have been carried out to confirm this definitively at this stage.

The nearest SSSIs are located at a distance from the proposed scheme and is considered highly unlikely to experience any impacts as a result of the construction of the scheme.

Operation

It is considered unlikely to that there would be impacts from the operation of the proposed scheme on biodiversity. However, this would need to be confirmed through ecological surveys.

Risk

Aerial mapping shows that the site is likely to support typical rail corridor habitats such as scrub and tall ruderals. All these habitats have the potential to support protected and notable species, and there is potential for invasive plant species such as Japanese knotweed (*Fallopia japonica*), to be present throughout the site.

At this stage, no ecological surveys have been carried out for the area surrounding the proposed scheme. Protected species may use the rail corridor as a green corridor. Surveys should be carried out to determine the presence of protected species and any potential impacts the proposed scheme could have on them.

Opportunities

There is the potential for ecology mitigation, enhancement measures and carefully designed compensation areas to achieve a net gain in biodiversity through the delivery of the scheme.

3.5.7 Historic Environment

Amber

The rail station sits within the Church Street Conservation Area within which there are a number of listed buildings located within the site. The existing station itself has been designated a locally listed building.

There are no Scheduled Monuments or Registered Battlefields within 2km of the site.

Construction

Construction activities associated with both the station and the setting of the listed buildings has the potential to impact upon the assets and what makes them ‘special’.

Given the nature of the proposed scheme it is anticipated that the works will result in alterations to the station itself, and its setting. It is essential that a sensitive approach is taken to the design to ensure it is sympathetic to the adjacent listed assets and their setting.

With the implementation of appropriate design consideration, mitigation and best practice measures, it is anticipated that an acceptable scheme can be developed which would protect and potentially enhance the listed buildings and their setting, but this should remain a high risk until more detailed scheme development is complete.

Operation

It is considered unlikely to that there would be impacts from the operation of the proposed scheme once constructed - the scale of these impacts will become clear as scheme development progresses.

Risks

The design of the proposed scheme should facilitate best practice and sensitive appreciation of the historic assets - poor design and a lack of understanding of the assets and their quality could result in a loss of ‘specialness’ and compromise the overall listing of the assets.

Opportunities

There are opportunities to improve the setting of the existing historic assets.

3.5.8 Water Environment

Green

There are no watercourses located within or immediately adjacent to the site.

The Environment Agency's flood map for planning indicates the site is located within an area of low flood risk (Flood Zone 1). There is an area of medium and high flood risk (Flood Zones 2 and 3 respectively) located approximately 200m to the east of the site.

Construction

Construction activities, in particular any track works, would result in the disturbance of soil. This could lead to the mobilisation of sediment within surface runoff, which could be transported into a surface watercourse. The detailed drainage design is yet to be determined, however, given the nature of the proposed scheme it is anticipated that the works will not lead to any significant difference in hard standing, and no additional risks to drainage or flood risk are anticipated.

Flood risk can increase if impermeable areas are increased. However, the area of works associated with the proposed scheme are already mainly hardstanding so there would not be an increase in impermeable surfaces given the present scheme design. As such, surface water flood risk is unlikely to be impacted.

With the implementation of appropriate mitigation and best practice measures, which should be outlined within a CEMP, significant road drainage and water environment effects are not anticipated during construction.

Operation

It is considered unlikely there would be impacts from the operation of the proposed scheme on road drainage and the water environment, although this should be confirmed once drainage designs are available. As the proposed scheme is not located within a medium or high risk flood zone, it is considered unlikely that a considerable impact would occur due to flood risk.

Risks

The mitigation for water quality and hydrology impacts arising from rail drainage is well researched and understood, therefore any impacts identified would be mitigated through good design to ensure no conflict with policy or legislation. The design of the proposed scheme should facilitate good pollution control practice.

Opportunities

There is the potential to implement Sustainable Drainage Systems (SuDS) as part of the drainage design for the proposed scheme. SuDS can reduce flood risk (often arising from impermeable surfaces in areas not at risk from river flooding), improve amenity and biodiversity by providing habitat.

3.6 Social Impacts

A number of potential social impacts have been identified for the scheme. The themes of these impacts are based upon the Network Rail Aspects and Impacts Guidance Note, and include:

- Supporting Britain's economic development.
- Respecting cultural history and rail heritage;
- Making rail a great experience;

- Inspiring tomorrow’s workforce;
- Keeping communities safe;
- Creating positive industry partnerships;
- Making travel accessible;
- Creating engaged employees;
- Connecting communities with the environment; and
- Being a caring neighbour.

An evaluation of social impacts and their proposed impacts as a result of the proposed investment in Hartlepool Station is presented in Table 3.1.

Table 3.1: Social Impact Assessment

Theme	What does this mean?	Proposed Impacts
Supporting Britain’s economic development	Harnessing the power of rail to create social and economic opportunities for people and businesses.	The proposals will reduce capacity constraints at the station, promoting enhanced connectivity for those working and living in the Tees Valley through journey time savings/reduced delays/greater resilience. Redevelopment of the station will provide construction jobs, supply chain boosts etc. The economic benefits of the scheme are outlined in the Economic Dimension.
Respecting cultural heritage and rail history	Appreciating cultural history and rail heritage - both the physical heritage and the people’s history.	The scheme is proposed to respect and complement existing historic assets and offer improvements and enhancements where possible.
Making rail a great experience	Creating a life-enhancing railway experience for all who use it.	The improvements to Hartlepool Station will improve journey times and punctuality.
Inspiring tomorrow’s workforce	Enabling access to the right skills, at the right time, from the UK’s diverse talent pool.	Tees Valley wide STEM skills and training are promoted. Projects such as Hartlepool Station show practical examples

Theme	What does this mean?	Proposed Impacts
		of these skills offering inspiration to future engineers, but, potentially through engagement, practical STEM project experience.
Keeping communities safe	Keeping everyone safe around the railway, every day.	Appropriate surveys will be undertaken in relation to noise and lighting to ensure that the scheme does not detrimentally impact upon the surrounding community.
Creating positive industry partnerships	Developing relationships, in the supply chain and beyond, that are ethical, responsible and have a positive social impact.	The proposed redevelopment of the station may bolster the supply chain linkages and create work for SMEs.
Making travel accessible	Making rail infrastructure and information available to everyone.	The station improvements are proposed to deliver faster and potentially more frequent train journeys. A fully accessible footbridge with lifts will be provided.
Creating engaged employees	Be a business that people are proud to work for.	Employment opportunities are likely to be generated during construction of the proposed works. An improved station and gateway to the town will help to instil pride of place into workers within the station and also those travelling to the wider town.
Connecting communities with the environment	Working to protect and enhance our lineside surroundings and the wider environment.	The proposed works will provide enhanced connections to the Conservation Area and Marina.
Being a caring neighbour	Promoting positive relationships with our lineside communities.	Visual amenity associated with the station re-development will improve amenity for neighbouring occupiers. Management during construction and operation will be required to prevent adverse impact upon neighbouring occupiers.

A high level assessment of the key societal benefits identified for the scheme is provided in Table 3.2 - these benefits have been ranked by their impact and likelihood of occurrence to provide an overall score, using a scale based upon and adapted from the table identified as ‘Environmental and Social Risk Matrix- Opportunity’ within the Network Rail Environmental and Social Management Plan.

In terms of the outcomes of the assessment, the scores should be read as follows:

- Scores totalling 8+ - significant wide ranging societal benefit expected to occur at least once a year;
- Scores totalling 5-7 - wide ranging societal benefit expected to happen between once in five years up to once a year; and
- Scores totalling 2-4 - societal benefit expected to happen between once in 25 and once in five years.

Table 3.2: Assessment of Key Social Benefits

Social Benefit	Social Benefit Theme(s)	Benefit Score	Likelihood Score	Overall Score
Increased capacity	Supporting Britain’s economic development Making rail a great experience	4	4	8
Supporting the growth and development of the Tees Valley to meet the aspirations of the TVCA SEP	Supporting Britain’s economic development	4	4	8
Improvements to commuting quality and options for local residents	Making travel accessible	3	4	7
Improvements to the station made to an Equalities Act (2010) standard	Making travel accessible	3	4	7
The proposed works will respect and enhance existing listed features on site	Respecting cultural history and rail heritage	2	5	7

Social Benefit	Social Benefit Theme(s)	Benefit Score	Likelihood Score	Overall Score
Potential additional local employment opportunities from capacity enhancements, providing opportunities to standard of living	Inspiring tomorrow's workforce	2	5	7
Supporting the growth and development of the Tees Valley through increased local services. This increase will provide an increase to standard of living and options for residents of Tees Valley	Supporting Britain's economic development	3	3	6
Providing alternatives to personal car use, increasing the use of sustainable transport modes such as walking and cycling	Connecting communities with the environment Keeping communities safe Making travel accessible	3	3	6
Provision of local construction jobs for proposed works, providing opportunities for improvements to standard of living	Inspiring tomorrow's workforce	1	2	3

3.7 Wider Economic Impacts

The wider impacts of the estimated journey time improvements have not been assessed at this stage. Further benefit could be accrued from enhanced local services (both in terms of frequency and available destinations) as well as any commercial activity in the vicinity of the station that may result.

3.8 Value for Money

The Value for Money assessment of the proposed scheme will be calculated in line with TAG and is based on assessment of the economic, environmental, social, and financial impacts as described previously. The Benefit-Cost Ratio (BCR) is defined by dividing the PVB by the PVC.

At this point, it is expected that the Hartlepool Station proposals provide Medium value for money, based on the categories set out the DfT Value for Money Framework.

4 The Financial Dimension

This chapter of the OBC provides information on the affordability of the project and its funding arrangements. It sets out the most recent cost estimates and their financial profile.

4.1 Scheme Costs

An updated cost estimate has been produced for the various elements of the preferred option. The current cost estimate for the preferred option is £8.2 million (2022 prices).

This cost estimate has further been converted to outturn costs, that is including the impact of real terms construction price inflation - this assumes a 5% increase on the cost estimate per year, based on the latest Construction Price Indices for new infrastructure construction. This is considered to be robust given the prevailing rate of inflation at the current time.

This outturn scheme cost is set out below, and is considered proportionate and affordable in relation to the issues identified in the Strategic Dimension and the predicted benefits of the scheme assessed in the Economic Dimension. The scheme cost has been derived in a robust way using information from current and recently completed projects. The works have also been quantified, based on the current scheme designs.

Going forward, at each relevant milestone, following the development of the design, Network Rail will update the cost estimate to reflect new information. At each project stage, Network Rail will identify costs of design, construction, preliminaries, inflation and understand the associated project risks.

4.1.1 Maintenance Costs

The costs of maintaining the proposed new infrastructure at Hartlepool Station are expected to be incorporated in Network Rail's settlement for Control Period 7.

However, an allowance for additional maintenance costs has been included in the Economic Dimension, at a rate of 1% of the base capital costs for the first 20 years after opening and 2% of the base capital costs thereafter.

As part of the ongoing estimating process, Network Rail will consider the whole life costs of the scheme.

4.2 Budgets/Funding Cover

The work done to date has concluded that the design and delivery costs for the interventions considered in this OBC will most likely be funded from TVCA's CRSTS programme.

5 The Commercial Dimension

This chapter of the OBC outlines the commercial viability of the scheme, and the procurement strategy which will be used to engage the market. It provides the intended approach to risk allocation and transfer, contract and implementation timescales, as well as how the capability and technical expertise of the team delivering the scheme will be secured.

5.1 Commercial Viability

The Hartlepool Station scheme is considered to be commercially viable. Network Rail has considered whole life costs during the preparation of the scheme cost estimates set out in the Financial Dimension and there has also been an allowance made for operating and maintenance costs within the Economic Dimension.

The scheme predominantly comprises new or upgraded transport infrastructure that will be maintained by Network Rail and the SFO once constructed. There are no other ongoing costs that will affect the commercial viability of the improvement.

Network Rail as rail system owner and operator would adopt all the works on the operational railway and operate and maintain these enhancements as part of its wider network responsibilities.

Under its Full Repairing and Insuring lease with Network Rail as landlord, Northern Trains is responsible for operation and maintenance of Hartlepool Station for a period of 99 years. It is party to various existing contracts to execute these obligations and TVCA's expectation is that the components of the scheme would be added to this portfolio.

No specific market engagement has yet taken place on the scheme proposals, however, given the nature of the works involved, it is expected that there will be a high demand and strong competition amongst engineering contractors to secure the contract for this scheme given previous experience of similar rail schemes and delivered previously in the Tees Valley.

As part of this scheme and others across the Tees Valley, Network Rail will seek to develop a comprehensive Skills and Employment Strategy that seeks to create a local pipeline of talent to deliver the programme and meet the skills gap in construction, engineering and rail.

5.2 Output-based Specification

The anticipated outputs of the preferred option are set out in the Strategic Dimension and include:

- The rail station's redundant second platform brought back into use; and
- A new accessible footbridge (with lifts) linking the new platform and the existing station building.

The improvements need to be delivered within the available funding envelope, ensuring best value, within the required construction design standards, maximising the economic objectives of the scheme, but with risk reduced to a level that is as low as reasonably practicable.

Development or changes to Network Rail's property requires a number of approvals from Network Rail and may also need approval from the Office of Rail and Road (ORR) and the TOCs who have contractual and regulatory arrangements with Network Rail.

It is expected that the scheme will align with Network Rail's Guide to Railway Investment Projects (GRIP) process - the accepted approach to the planning, delivery and management of rail projects. The GRIP process comprises a standard project lifecycle, standard project deliverables, project control processes and governance arrangements.

More recently, GRIP has been adapted to a new approach terms Project Acceleration in a Controlled Environment (PACE). Although the various GRIP stages are retained, these overlap somewhat within PACE to help speed up the delivery of rail projects. For example, the previously sequential GRIP2 (pre-feasibility) and GRIP3 (option selection) are replaced by parallel PACE stages EC2 (constraints identified and project feasibility confirmed) and EC3 (single option identified and endorsed) to arrive at a preferred option more quickly.

The design work on the scheme will need to be developed in line with relevant railway standards such as:

- Railway Group Standards;
- Technical Specifications for Interoperability;
- Network Rail company standards;
- Accessibility standards (Equality Act); and
- ORR and Health and Safety Executive guidance.

In taking forward all work packages, the following actions are required:

- Achieve cost certainty;

- Minimise preparation costs in regard to scheme design;
- Minimise construction delivery costs;
- Achieve an efficient delivery programme;
- Achieve an appropriate quality of design;
- Incentivise innovation;
- Maintain project knowledge;
- Obtain contractor input to risk management and assessment;
- Obtain planning permission and all necessary consents; and
- Engage with contractors and stakeholders throughout planning to scheme delivery.

5.3 Procurement Strategy

The procurement strategy identifies the best way of achieving the objectives of the scheme and value for money, taking account of the risks and constraints.

Procurement of further scheme development and design services will depend on the contracting strategy adopted by Network Rail. The procurement strategy for the delivery of the scheme, will be driven by the project output specification, key project objectives and appraisal of the design and associated risks.

Network Rail Commercial and Procurement teams will support and identify the most effective route to market for design development and delivery. Three main types of contract are usually considered:

- Competitive tender;
- Cost plus; and
- Framework/alliancing,

Each has their own benefits depending on the scheme's objectives.

The types of contract to be used for this scheme could include:

- Hub and Spoke with a Programme Management team providing specialist design and delivery integration - specific elements of scope could be delivered via a framework supplier or competitively tendered; and
- One supplier that delivers the entire scheme with specialist supply chain or sub-contractors.

The advantages of the former are potential value for money opportunities with the use of frameworks, with the disadvantages being intensive integration activity, if multi-disciplined. With reference to the latter, the main advantage is a single point of accountability with potential disadvantages being some inflexibility and lack of market competition.

In all cases, Network Rail would be responsible for negotiating and appointing the contractor via their frameworks. In January 2020, Network Rail announced the award of 82 framework contracts to deliver design services, worth an estimated £400 million for Control Period 6 and up to £640 million including the options to extend the framework into Control Period 7. The Design Services Framework (DSF) consists of four multi-discipline frameworks and 78 single-discipline frameworks and is aligned to the various Network Rail regions.

The signalling and systems work on the operational railway carries some complexity, due to its increased safety risk and critical interface with the broader rail network. However, the works are still of a standard nature in the context of railway projects and for which the contracting market is suitably developed and liquid to generate competition.

5.4 Payment and Charging Mechanisms

At this time, it is envisaged that Network Rail will lead on the design and construction contract for the first three of the work packages, and the successful contractor will be paid through standard mechanisms as with other similar schemes.

As part of future stages of the GRIP process, there will be further scheme level consideration of payment and charging mechanisms in accord with Network Rail procedures.

5.5 Risk Allocation and Transfer

A more detailed account of the approach to risk management for the scheme is included in the Management Dimension. However, at this stage of scheme development and prior to the letting of any of the construction contracts, the scheme cost estimate contains a greater proportion of risk borne by Network Rail and TVCA than will remain after the appointment of the successful contractors.

Once the tendering process for the various construction contracts is complete, some of the risk (such as scheme cost increases associated with the design and construction) can be transferred to the successful contractors. However, the risk of costs being higher than currently predicted remains until this tendering process is complete.

Other risks that will be transferred to the successful contractor at the appropriate time include those that encompass appropriate planning conditions, estimations of the quantities, mitigation measures and resources. Network Rail and TVCA will continue to take responsibility for risks that encompass residual planning and environmental permission in the next stage of design work, as well as the following specific risks:

- The need for changes to the scheme;
- Inaccuracies or incompleteness of any of the data or information related to the scheme;
- Pre-contract advance works which might result in delivery and programme delays to the contractor;
- Pre-contract arrangements with others/third parties; and
- Change in the law.

Other risks, such as the identification of statutory undertakers' equipment, and mitigation costs associated with these, can be removed from the risk-related element of the scheme costs completely if they do not materialise, or transferred to "actual" scheme costs if they do materialise, rather than remaining within the risk allocation.

5.6 Contract Length and Management

Based on the project plan, it is expected that GRIP4 will be complete and a Full Business Case (FBC)/updated value for money statement prepared for the scheme by Summer 2022.

This will be followed by an implementation contract of around 12 months in length, with entry into service of the scheme planned for July 2023.

ORR authorisation activities associated with the target entry into service date following completion will be fully assessed as part of the next stage of scheme development. Network Rail and their supply chain will enter into dialogue with the ORR during the next stage of scheme development work to mitigate this risk as far as reasonably practicable and to develop a fully assured programme up to entry into service for this element.

Network Rail has developed a standard suite of contracts that it believes reflect a sensible allocation of risk and responsibility between the different parties and that these contracts will save management time for Network Rail and their suppliers and contractors when setting up and managing contracts.

5.7 Human Resource Issues

No significant human resources issues have been identified that could affect the deliverability of the scheme, although it is recognised that it will have a considerable human resources requirement, across Network Rail, TVCA, HBC, the design teams and the contractor teams.

TVCA has a senior management team that is very experienced in developing and delivering major projects - its Finance Director and Commercial and Delivery Director have both private and public sector experience and have worked on the successful delivery of major infrastructure and other projects.

At this time, sufficient resources have been identified to deliver the scheme and further details of the required capabilities and assigned resources are set out in the Management Dimension. The resource requirement will be kept under review by the Station Board and, if necessary, additional resources brought in.

6 The Management Dimension

This chapter of the OBC describes how the scheme will be managed and delivered.

6.1 Evidence of Similar Projects

Network Rail has collective experience in delivering a diverse range of high profile rail projects, and have a strong track record in the procurement and delivery of major track and station improvements in the Eastern Region in recent years including:

- Middlesbrough station improvements - £25 million (Package 1 completed in 2020, Package 2 on site);
- King's Cross remodelling - £260 million (completed in 2021);
- Leeds station improvements - £160 million (completed in 2021);
- Doncaster Platform 0 - £30 million (completed in 2017);
- Peterborough station - £50 million (completed in 2014); and
- Liverpool City Region upgrades - £340 million (completed in 2019 as part of the Great North Rail project).

There is therefore clear evidence of the delivery of similar projects to the Hartlepool Station improvements by Network Rail and that this scheme sits well within the RNEP.

Network Rail is also working closely with TVCA on a number of other projects where the Combined Authority is providing funding including Darlington Station, Middlesbrough, Eaglescliffe and Billingham Station improvements.

6.2 Project Dependencies

The Strategic Dimension identified a number of other transport and non-transport interventions with a relationship to the Hartlepool Station improvements. The latest CP6 Network Rail Delivery Plan for the London North Eastern and East Midlands Route identifies the following interventions planned in the Tees Valley:

- ECML Enhancement Programme, providing increased capacity for long distance high speed train paths from 6tph to 8tph between London and Doncaster, and from 5tph to 6tph between Doncaster and Newcastle;
- Power upgrades on the ECML between York and Edinburgh; and

- Around £220 million of planned renewals spending on the ECML between York and Newcastle, as well as the continued roll-out of the Digital Railway programme,

although there are no other committed schemes close to Hartlepool.

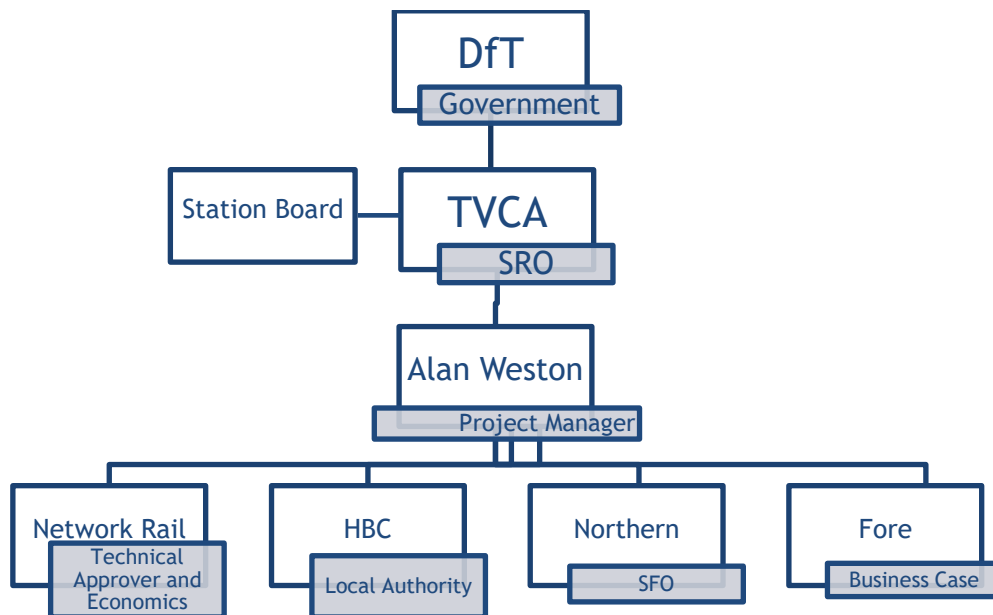
The Network Rail capacity analysis identified a number of other issues across the rail network in the Tees Valley that would need to be addressed in order to realise the future train service ambitions, particularly capacity issues at Darlington and Middlesbrough stations, the latest position on each was set out in the Strategic Dimension.

TVCA will continue to work with Network Rail and the relevant TOCs to identify the most appropriate interventions across the rest of the network in order to realise the local rail ambitions.

6.3 Governance, Organisation Structure and Roles

To date, TVCA has led the development of the scheme in partnership with Network Rail and this will continue until such time as this OBC is agreed. The current governance structure and key roles are illustrated in Figure 6.1.

Figure 6.1: Current Governance Structure and Roles



Senior Responsible Owner (SRO) - the SRO has overall accountability for the delivery of the scheme ensuring the scheme remains focused on achieving its objectives. They have the authority to make decisions concerning the delivery of the scheme within a certain delegation.

The SRO is the TVCA Head of Transport, Tom Bryant, who reports into the Tees Valley Management Group within the TVCA governance structure, and then on to the Tees Valley Combined Authority Transport Committee and Cabinet.

Project Manager - the Project Manager leads and manages the project team with the authority and responsibility to run the project on a day-to-day basis. Alan Weston is the current Project Manager for the scheme employed directly by TVCA.

Station Board - a Hartlepool Station Board was set up to manage the delivery and production of the OBC and supporting workstreams for the scheme. The Board currently meets on a regular cycle and comprises senior level representation from the following:

- Network Rail;
- TVCA;
- HBC; and
- Northern.

The Station Board, via the SRO and/or the Project Manager, reports progress against milestones, as required, to:

- TVCA Transport Committee and Cabinet;
- Tees Valley Transport Advisory Group; and
- Local Authority Cabinets/Executive Groups.

The Station Board receives progress and project exception reports from, and gives direction to, the Project Manager. The Board ensures the timely set up and key deliverables from the technical support teams involved with the scheme, directing the commissioning of the technical work necessary. The Board also provides overview of the risk register and ensures effective communications are implemented.

The Project Manager convenes regular progress meetings of any technical support teams to monitor product delivery against the agreed programme and to identify any significant issues that require escalation, as well as monthly working group meetings of officers of the organisations represented at the Station Board.

In recognition of the preferred delivery route for the scheme, the existing North of England Programme Board will provide oversight of the development and delivery of the scheme from the point where this OBC is approved.

The Station Board will continue to sit, and their ongoing responsibilities include:

- Strategic direction;
- Business case preparation;
- Funding strategy; and
- Stakeholder engagement.

The Station Board would also have the authority to commission any further technical work as necessary and will liaise with other stakeholders with regard to the progress in relation to their interests.

6.4 Project Plan

A Project Plan has been developed for this OBC setting out all the key project tasks and their duration, the interdependencies between each of the tasks, and key milestones and gateways. Certain elements of the programme have a built-in tolerance/contingency to account for risks identified within the risk register which could have an impact upon the programme.

The current version of the project plan, included at Appendix D, includes all significant work activities, significant outputs and key decision points regardless of which organisation is leading the work and Network Rail governance milestones envisaged.

The current project plan shows entry into service of the scheme in July 2023., but the Station Board will seek opportunities to expedite the process where possible to meet this date.

The project plan is a 'live' document and will be reviewed and updated regularly to provide an accurate and integrated picture of progress and dependencies for the project. The Project Manager is responsible for ensuring the plan is reviewed and updated on a regular basis. Any changes or risks to achieving key milestone dates are brought to the Station Board's attention and discussed as part of the regular meeting cycle. All proposed revisions to the project plan are issued to the Station Board for approval.

A greater level of detail will be introduced into the project plan during next stage(s) of the GRIP/PACE process, as detailed design of the scheme progresses and as risk quantification and impacts change.

6.5 Assurance and Approvals Plan

Project assurance provides the basic framework of controls that ensure:

- The project is managed and controlled as directed by the SRO;
- Basic standards are being followed; and
- The project is well-managed.

To date, the development of the scheme has followed by the TAG transport appraisal process advocated by the DfT and elements of Network Rail's GRIP/PACE process in parallel.

The project assurance controls that have been utilised thus far include:

- Regular reporting;
- Exception reporting and re-authorisation;
- Sign-off of GRIP/PACE products as they are produced; and
- Stage gate assessment reviews - evidence-based review that draws on documentation and activities that the project team have already produced.

Whilst some Network Rail GRIP/PACE project assurance controls have been utilised in the main on the scheme to date, it is recognised that responsibility for the assurance and approval of this OBC and thereafter the FBC, rests initially with TVCA, who will assess the technical content of the business cases against appropriate business case and transport appraisal guidance in order to confirm that the scheme represents value for money and is deliverable prior to moving onto the next stage of the process.

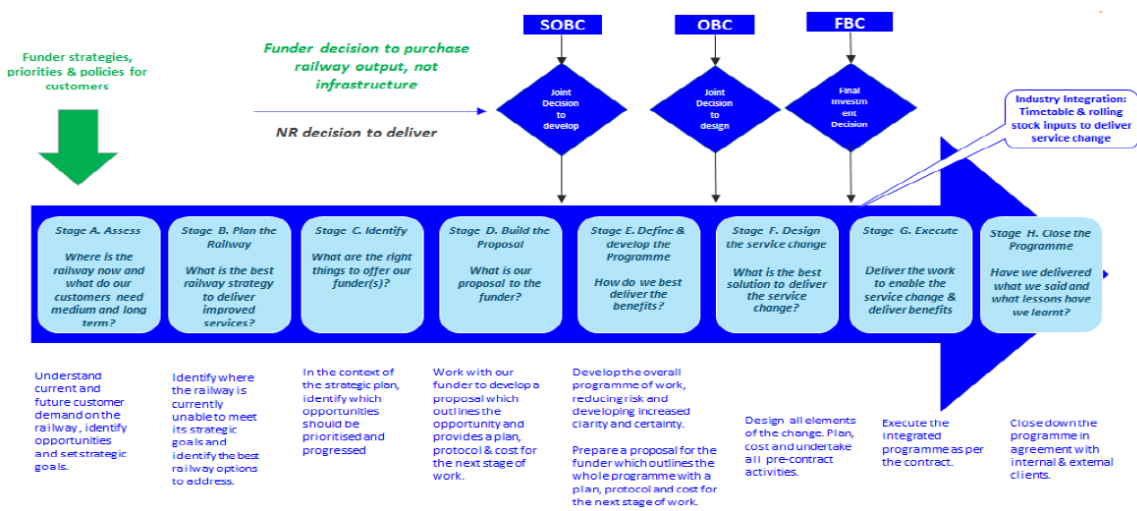
TVCA's agreed Assurance Framework is applied rigorously and requires (inter alia) a clear project governance structure and details how all stages through to project development, evaluation and approval will be applied, monitored and approved. It also requires independent external evaluation and assurance on significant schemes such as this one.

Assurance is provided through TVCA peer reviews staffed by the promoter and delivery personnel either from within the project or from a peer project. Underlying this are a number of assurance activities conducted by both TVCA and the suppliers, including activities such as business case reviews, risk reviews and estimate validation.

The number and timing of reviews are established based on the importance and complexity of the project. A number of gateways are required to be passed to provide evidence that the project is deemed fit to proceed. The output from these gateways are recorded and signed off by authorised individuals. Gateways are typically staffed by a combination of TVCA staff and consultant experts (both from within, and independent of, the project team).

The Network Rail investment decision framework that will apply from the acceptance of this OBC is shown in Figure 6.2.

Figure 6.2: Network Rail Investment Decision Framework



Network Rail has its own procedures for undertaking the development and construction of new infrastructure projects. These follow the GRIP/PACE process to provide an effective, consistent and repeatable standard by which to manage projects across the organisation. This minimises variation and ensures delivery to the desired standard, on time and on budget.

For Network Rail delivered work packages, it is standard practice to hold a full Stage Gate Review at the end of every GRIP/PACE stage.

Before undertaking any proposed changes to the rail network, Network Rail must follow the Network Change consultation process. This is a formal process which allows a proposer to seek agreement from all affected parties that the change may go ahead, and to agree what compensation (if any) will be paid to cover the impact of the change.

Similarly, the Station Change procedure is for when a development entails changes to a station lease area, physical or operational changes to a station, or changes that affect the content or drafting of Station Access Conditions and Annexes. This is a

procedure governed by the regulated ‘station access conditions’ for each station. At franchised stations, the conditions are part of the station leases granted by Network Rail, and in the access arrangements between the train operator tenant and other train operators who use the station. Given the nature of this scheme, the regulatory requirements will also need to be satisfied by making a Station Change Proposal, securing approval of all relevant parties and registering the approved change with the ORR.

6.6 Communications and Engagement

Effective stakeholder communication and engagement is vital for the success of a scheme such as Hartlepool Station. It creates stronger working relationships and increases the understanding of the scheme, with the overall objective of increasing scheme support and buy-in.

A number of key stakeholders across the rail industry and locally have critical roles to play in the successful design and delivery of this scheme and the Strategic Dimension set out the key stakeholders.

As a result, a Stakeholder Management Plan has been developed for this OBC - the latest version is included at Appendix E. The plan has been informed by a stakeholder mapping exercise that was undertaken to help seek views, communicate progress and create consensus during the further development of the scheme. Stakeholders were identified and split into three groups to allow a more focussed approach to each:

- Informed: those stakeholders who are kept up to date on progress or outcomes;
- Consulted: those stakeholders whose opinions and solutions are sought throughout or at particular points; and
- Actively Involved: those stakeholders who will be responsible or accountable for achieving the outcome.

Stakeholder engagement is a fundamental part of how Network Rail seeks to continuously improve its business performance and its network licence contains a stakeholder engagement duty which, requires, to the greatest extent reasonably practicable, that Network Rail treats its stakeholders in ways appropriate to their reasonable requirements. The aims of the future communications and engagement activity are:

- Making available to interested parties, information on the need and impact of the scheme;

- Giving the public and stakeholders an opportunity to express their views on the option(s) under consideration and provide a feedback loop;
- Outlining the sustainable option(s) for consideration and the likely consequences of the scheme; and
- Providing a programme for future stakeholder engagement and public consultation, all of which should ensure the consistent and structured delivery of messages to all key stakeholders throughout the lifecycle of the scheme. This is to ensure that:
 - Customers and stakeholders feel informed about the scheme and how it may impact them;
 - Customers and stakeholders feel they have had the opportunity to share their views about the scheme; and
 - Customers are informed of the benefits the scheme will have on the local area.

The Station Board is responsible for ensuring the plan is implemented. The document is to be updated at each GRIP/PACE stage and at other key points during the project lifecycle, being treated as a 'live' document and additional information added when applicable, including the timings and considerations for external communications for some consideration of future GRIP stages.

TOCs and FOCs will be kept informed of general progress via the North of England Programme Board and RIRG and the Network Change and Station Change procedures described previously will need to be followed, providing TOCs and FOCs with a formal consultation role.

It is the sponsoring party's responsibility to work through any issues raised during the consultation process so there are no outstanding objections. If this means changing the Network Change or Station Change proposal, this must be formally advised to all consultees, who must be given adequate opportunity to consider the revision and provide any comments, rejections or acceptances.

Issues specific to their operations will be discussed directly with the relevant operator on an ad hoc basis as required during the next stage of scheme development.

6.7 Programme/Project Reporting

To date, the progress of the scheme and in particular the progress of the current deliverables has been reported by Network Rail and the consultant(s) involved to the

Project Manager and thereafter the Station Board, in a highlight report. This includes an identification of key risks and issues.

As with all Network Rail delivered schemes, Network Rail reports on projects/programmes on a four weekly basis as a minimum - sometimes weekly dependent on urgency. Each project is categorised reflecting the complexity of the scheme. Typical reports are as follows:

- Network Rail costs;
- Funding drawdown;
- Risk;
- Finance;
- People;
- Safety;
- Schedule;
- Current progress against milestones;
- Earned value, if applicable; and
- Contract status.

For schemes of significant value/significance, this is supplemented by Monthly/Quarterly Reviews with the Route/Regional Managing Director.

Progress is also reported to the North of England Programme Board, which operates a formal change control process - this covers both technical and financial changes. The change control form lists the mandatory approvals required for the request to progress and requires endorsement from both Network Rail at appropriate levels.

Both the project management and reporting arrangements are subject to active and regular review to ensure they are working as effectively as possible. The procedures used are based on good practice, and it is anticipated that they, or a variation of them, will be adopted as the scheme moves forward.

6.8 Risk Management Strategy

To facilitate effective risk management on the scheme, a Risk Register has been produced and the latest version is included at Appendix F. This is maintained by the Project Manager and is the means of recording risk information and monitoring risk exposure at this time. It has been developed in accordance with the Network Rail corporate risk management approach which will also be applied in the continued management of these risks.

The risk register not only records all identified risks and their associated assessments, but also includes necessary risk control plans and responsibilities, as well as the status of all risks. It has been developed through a collaborative process at suitable times during the development of the scheme to date.

Risk identification to date has been undertaken with key stakeholders and the technical support teams across a range of risk categories (for example, technical, operational, safety, legal, commercial and financial). Risks have been assessed to determine the probability and consequences of each risk, determining the relative level of risk, and whether risks should be monitored and controlled or whether a response or action is required.

Reporting of the key risks has been undertaken at the Station Board meetings as necessary - the most recent review of the risk register was undertaken in line with the preparation of this OBC. Updates will be given on key outstanding risks where the risk type/size/response has changed.

At a more detailed level, the high level risk register has been disaggregated into a longer list of more specific risks that will apply to the operational railway elements being led by Network Rail in particular. Typical Network Rail risk management activities include:

- Formal risk identification and monitoring of risks (both threat and opportunity), and suitable mitigation plans and review meetings to manage those risks - this will necessitate identification and quantification of risks;
- It is essential that the relevant risk ownership between client, contractor and infrastructure operator (Network Rail) are clearly understood, documented and agreed at the outset of any next phase requiring funding - the specifics of exactly how the risk transfer is allocated during the contract can then be established; and
- It is also relevant to note that Network Rail has a corporate risk management strategy and system for managing project/programme risks (Active Risk Manager) - this is reviewed and assessed on a four weekly basis and will also be visible to senior regional stakeholders should the risk exposure become significant.

Network Rail Infrastructure Projects uses an Enterprise Risk Model, given that because of the size and scale of the infrastructure portfolio, the key strategic risk is directly linked to its ability to deliver projects on time and to budget. Every quarter, as part of the Business Assurance Committee, Infrastructure Projects' strategic risks are reviewed and decisions taken regarding escalation, delegation and retirement of risks - this is informed by a working level group which is chaired by the Head of Risk and Value Management.

The Designated Project Engineer and Project Manager are responsible for reviewing the requirement and implementation of the Common Safety Method on Risk Evaluation and Assessment (CSMRA) process.

Risks relating to construction works that are relevant to the operational rail network - either during design, construction or during operation, maintenance or deconstruction are progressed through the CSMRA hazard log. Risks relating to construction works that are relevant to areas other than the operational railway network are progressed through the CDM issues log. The Safe by Design process is applied to the hazard elimination and risk mitigation/control for all project phases.

Going forwards, a quarterly QSRA workshop will be held to assess the likely impact of uncertainty on key milestones and project completion date - this will be carried out with all relevant stakeholders. Key inputs to consider include development phase duration, design phase duration, funding approvals, procurement timescales, possession planning, timetabling, Network Change, construction phase duration, with the inclusion of adequate float to allow trial running of trains before formal Entry into Service.

6.9 Benefits Realisation Plan

An outline Benefits Realisation Plan (BRP) has been produced as part of this OBC to begin the process of identifying, tracking and comparing the various benefits expected to be delivered. The scheme objectives and a logic mapping process have been used to develop the “desired outputs, outcomes and impacts” of the scheme. These desired outputs, outcomes and impacts are the actual benefits that are expected to be derived from the scheme and are directly linked to the original set of objectives:

- Desired outputs - tangible effects that are funded and result from the scheme;
- Desired outcomes - what happens as a result of the outputs; and
- Desired impacts - the final impacts brought about by the scheme in the short, medium and long term as a result of the outputs and outcomes.

The scheme objectives and desired outputs/outcomes/impacts are summarised in Table 6.1 and provided the starting point for the development of the BRP.

Given the scheme objectives identified, the outline BRP focuses upon the stimulus to jobs/economic activity and the impact on journey times. To determine whether the scheme benefits are being realised, the desired outputs, outcomes and impacts have been converted into measurable indicators of scheme benefits, and are reported in the BRP, that is closely aligned to the Monitoring and Evaluation Plan.

The outline BRP is included at Appendix G. Responsibility for the BRP and the associated monitoring and evaluation sits with the Station Board.

6.10 Monitoring and Evaluation Plan

The scheme will be subject to a programme of before and after monitoring and evaluation. Monitoring and evaluation are distinct activities - monitoring asks whether delivery is proceeding as planned and evaluation asks whether the intervention has achieved its desired objectives.

The outline Monitoring and Evaluation Plan, include at Appendix H, sets out the activities that will be undertaken to demonstrate the extent to which scheme objectives were met, monitor performance of the scheme and ensure that any potential issues post implementation are identified and addressed.



Table 6.1: Scheme Objectives, Desired Outputs, Outcomes and Impacts

Scheme Objective	Desired Outputs	Desired Outcomes	Desired Impacts
<p>Ensure that the Tees Valley rail network can cater for expected future growth in both passenger and freight demand</p> <p>Reduce journey times and delays for all passenger rail services at Hartlepool</p> <p>Support the economic growth/regeneration objectives of the Tees Valley with increased inward investment</p> <p>Improve passenger and freight rail connectivity to the Freeport sites, Enterprise Zone sites and economic centres across the Tees Valley</p> <p>Improve access to employment opportunities through low carbon transport choices</p> <p>Provide a station and surrounding area that are accessible and safe for everyone, and protect and enhance its heritage value and appreciation</p>	<p>Additional rail network capacity</p> <p>Improved rail network reliability and resilience</p> <p>Improvements to passenger facilities</p>	<p>Additional rail services and frequencies</p> <p>Improved rail journey times and reliability</p> <p>Enhanced passenger experience</p> <p>Mode shift from road to rail</p>	<p>Increase in jobs</p> <p>Increase in GVA</p> <p>Increase in labour market catchments areas</p> <p>Improved journey quality</p> <p>Reduced carbon emissions</p>

The types of measures that may be monitored (covering inputs, outputs, outcomes and impacts) include:

- Scheme build;
- Delivered scheme;
- Costs;
- Rail travel demand;
- Rail revenue;
- Absolute journey times and reliability of journey times on the Tees Valley rail network;
- Economic impacts;
- Mode shift; and
- Customer satisfaction.

Further monitoring and reporting will also be conducted by Network Rail, the form of which will be dependent on elements of the scheme it is remitted to develop or deliver. In all cases this will undertaken in accordance with Network Rail's well established processes for project delivery and performance monitoring.

Consideration would also be given to wider contextual factors that are not related to the scheme but necessary to consider.

The outline plan will be updated as part of the FBC in light of the continued development of the scheme.

Through an evaluation of the scheme, Network Rail and TVCA will seek to:

- Understand whether and how the scheme's main objectives have been achieved, exceeded or not reached;
- Provide transferable evidence that may be used to inform future decision making on similar transport schemes; and
- Improve the efficiency and effectiveness in the delivery of future schemes based on the lessons learnt from this scheme.

The SRO will take overall responsibility for the monitoring and evaluation of the scheme, with the Project Manager taking responsibility for the delivery and programming of the evaluation programme. This may include the procurement of specialist consultancy support and survey contractors to evaluate, report, collect and collate the necessary information, respectively.

6.11 Lessons Management

Lessons learned are shared and reviewed regularly at four weekly stakeholder review meeting.

At the end of the scheme, the risk mitigation measures that have taken place will be analysed and recorded as part of the 'lessons learned' process to inform future management of similar schemes. This process will record not only mistakes made in managing these risks but also good practice. This will ensure that risk and issues are dealt with in the best manner possible in the future and hopefully will reduce the occurrence or impacts of the risk.

7 Summary

This document and its series of appendices comprise the Outline Business Case OBC for major improvements to Hartlepool Station, the Tees Valley's third-busiest rail station, with a footfall of around 650,000 passengers each year in 2019/20.

The station is a major part of the region's rail network, with direct services between London and Sunderland provided by Grand Central, and is a vital interchange on the Durham Coast rail line, which connects Middlesbrough and Newcastle with other key economic centres across the Tees Valley and North East.

The station currently has two through lines, but only one operational through platform, on the Down Sunderland northwards line. The platform on the Up Sunderland southwards line is disused and redundant, limiting capacity and the potential for growth. Analysis undertaken by Network Rail concludes that to achieve the capacity required for future planned rail services, another through platform would be required - having two functioning through platforms at Hartlepool resolves the existing capacity constraint at the station and adjoining junctions.

The scheme has a strong strategic fit and the economic analysis of the preferred option provides confidence that, based on the estimate of the key benefits undertaken to date, the scheme represents Medium value for money.

Beyond the economic analysis, the Hartlepool Station scheme will also:

- Facilitate new rail services serving Hartlepool along the Durham Coast Line;
- Reduce rail journey times and delay for local people and providing the potential of additional local train services and stations, thereby unlocking development potential in the City Region and making the Tees Valley more attractive to inward investors and visitors;
- Support the economic growth objectives of the Borough and the Tees Valley City Region;
- Encourage mode shift from road to rail; and
- Enhance rail station facilities for passengers.

The latest cost estimate for the preferred option is £8.2 million (2022 prices). The costs have been derived in a robust way using information from current and recently completed projects, and the works required have been quantified based on the current scheme designs.

The identified funding route is from the devolved Tees Valley CRSTS programme.

A sound governance structure has been in place throughout the life of the scheme, and Network Rail has been closely involved in its development since inception, leading on the scheme design and assisting with the most recent economic analysis.

A project plan has been produced setting out all the key project tasks and their duration, the interdependencies between each of the tasks, and critical milestones and gateways. This plan shows entry into service of the scheme in July 2023.

As this submission clearly demonstrates, there is a strong and robust case for investment in Hartlepool Station. It is therefore recommended that the scheme continues to be progressed through to delivery, on the basis of the information contained in this OBC.

Appendix A

Network Rail Capacity Analysis

Appendix B

Preferred Option Layout

Appendix C

Economic Analysis Technical Note

Appendix D

Project Plan

Appendix E

Stakeholder Management Plan

Appendix F

Risk Register

Appendix G

Benefits Realisation Plan

Appendix H

Monitoring and Evaluation Plan

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