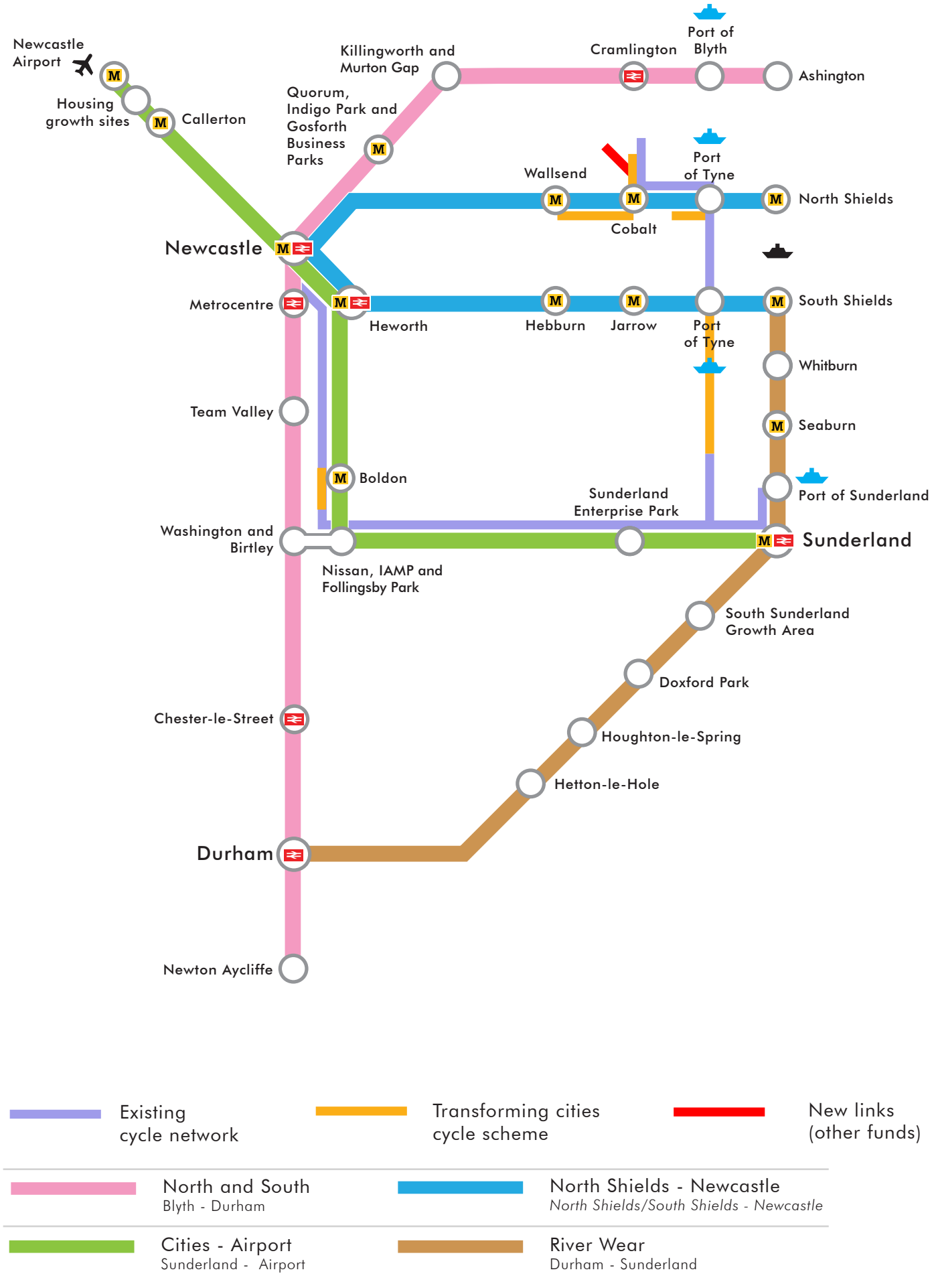
Annex A: Map of scheme

Cycling to employment sites



Annex B

The Geographic, Economic and Social Context Background Evidence

1. Geographical scope

1.1 The North East

We are a region that is culturally rich, steeped in history, with beautiful landscapes and coastlines together with an ambitious drive to improve our economy in the future for our residents and businesses. Our population in 2017 is 1.97m[1] across the area.

The North East area is made up of:

- 7 Local Authorities County Durham, Northumberland and the Metropolitan County of Tyne and Wear (Gateshead, Newcastle, North Tyneside, Sunderland and South Tyneside).
- 2 Combined Authorities
- 1 Local Enterprise Partnership
- 1 Passenger Transport Executive.
- 3 diverse and globally recognised cities

In addition, the North East area is home to:

- 21 Enterprise Zones (which are the focus for developing new employment in our specialist areas and priority sectors)
- Over 10 major employment sites (Quorum/Indigo Park/Gosforth Business Park, Cobalt/Silverlink, Longbenton, Team Valley, Metrocentre, Washington, Sunderland Enterprise Park, Nissan, Doxford Park)
- 2 World Heritage Sites (Durham Cathedral and Hadrian's Wall)
- 4 areas identified for significant housing growth

Our three great cities are rich in history and have bright and bold aspirations for the future. Newcastle has vibrant science, education, culture, digital and service sectors. Historic Durham has a leading university, science and tourism sites. Sunderland is renowned for its manufacturing capability, being the home of Nissan's world-leading car manufacturing base and the focus of one the Europe's leading automotive clusters.

Our cities are connected into a strong and diverse urban hinterland. Strategic digital and transport links, available land and labour supply provide a compelling combination to attract investment.

We are strategically located between Scotland and the wider northern economy. The North East is well connected to markets in the rest of the UK, Europe and the rest of the world by:

- air (Newcastle International Airport);
- sea (five ports and North Shields Ferry Terminal);
- rail (East Coast Mainline, Trans Pennine routes); and

[1] ONS, 2017 estimate http://www.nomisweb.co.uk/reports/lmp/lep/1925185556/report.aspx#tabrespop

- road (A1(M), A19, A66 and A69).

Our locational diagrams are located at appendix G, together with our transport connections.

The North East's Strategic Economic Plan – More and Better jobs sets the strategic context for this bid.

- The Productivity gap
- More and Better Jobs

1.2 Overview

- 2 million people
- An economy generating £40 billion[2] each year,
- Our ambition is that by 2024 there will be 100,000 more jobs.

2. The Economy

Traditionally, the North East economy was dominated by mining and manufacturing. Whilst manufacturing remains an important part of the regional economy. It is growing with clusters in automotive and medicines, and is increasingly advanced in profile. The wider regional economy has grown, developed and diversified over the last 40 years.

In addition to the manufacturing base, the North East has:

- Key assets in the energy sector, in particular in offshore energy and in other energy technologies and utilities
- A strong life sciences sector including medicines' manufacturing, science and research and a strong and innovation-focused health service
- A rapidly growing digital and creative sector with a number of specialisms
- Strengths in a number of services sectors including financial professional and business services, education and transport and logistics
- A higher proportion of employment in the public sector than other areas. Over and above the services of our local authorities, we have strong education and health services, and a concentration of shared service and back office functions for government and other agencies
- The North East also has a strong tourism and cultural sector and food and rural sectors reflecting the extensive rural area.

Figure 1 below, provides a headline overview of the North East economy, as set out in the 'Performance of our Economy – 2018', published by the NELEP.

Figure 1 - North East Economy Overview[3]

[2] ONS, Regional Accounts, 2017 (Provisional)
[3] https://www.nelep.co.uk/wp-content/uploads/2018/03/performance-of-our-economy.pdf

Overall performance of North East LEP area economy

Indicator	Most recent data	Change since 2014W	NE as % of England excl. London	Gap closing with England excl. London
GVA per head	£19,658 (2016)	Increased by 5.2% (nominal)	83	No change
Population	1.97 million (2016)	Increased by 0.7%	-	-
Working age population as % of total population	63.3% (2016)	Decreased by 0.5 percentage points	102	No change
Economically active as % of working age population	76.1% (Oct 2016 to Sep 2017)	Increased by 1.6 percentage points	97	Yes
Employment as % of working age population	71.2% (Oct 2016 to Sep 2017)	Increased by 3.1 percentage points	95	Yes
Productivity (GVA per hour worked)	£28.70 (2016)	Increased by 4.5% (nominal)	88 (UK)	No change (UK)

Key finding – We are making good progress in providing more and better jobs by 2024. To continue with progress, we will introduce measures that support access to employment centres and development sites which will create extra jobs, reduce congestion and improving the reliability of journey times.

2.1The GVA productivity gap

Gross Value Added (GVA) measures the value of the goods and services produced in an area, industry or sector - and is used to estimate the size of their economies.

In 2016:

- the GVA of North East LEP area was £38.7 billion, which is 2.6% of English GVA.
- the GVA per head of the North East LEP area was £19,658, below the GVA per head of England (£27,060).
- GVA per head increased by 5.2% between 2014 and 2016 in the North East LEP area, slightly below the England excluding London rate of increase (5.4%).

Figure 2 below shows the GVA per head for the North East area compared with the English average excluding London, and the English average.

Figure 2 - GVA per head[4]

[4] https://www.nelep.co.uk/wp-content/uploads/2018/03/performance-of-our-economy.pdf

Key finding – the North East economy lags behind the English average in productivity. To reduce this gap, we will introduce measures that support access to employment centres and development sites which will create extra jobs, reduce congestion and improving the reliability of journey times.

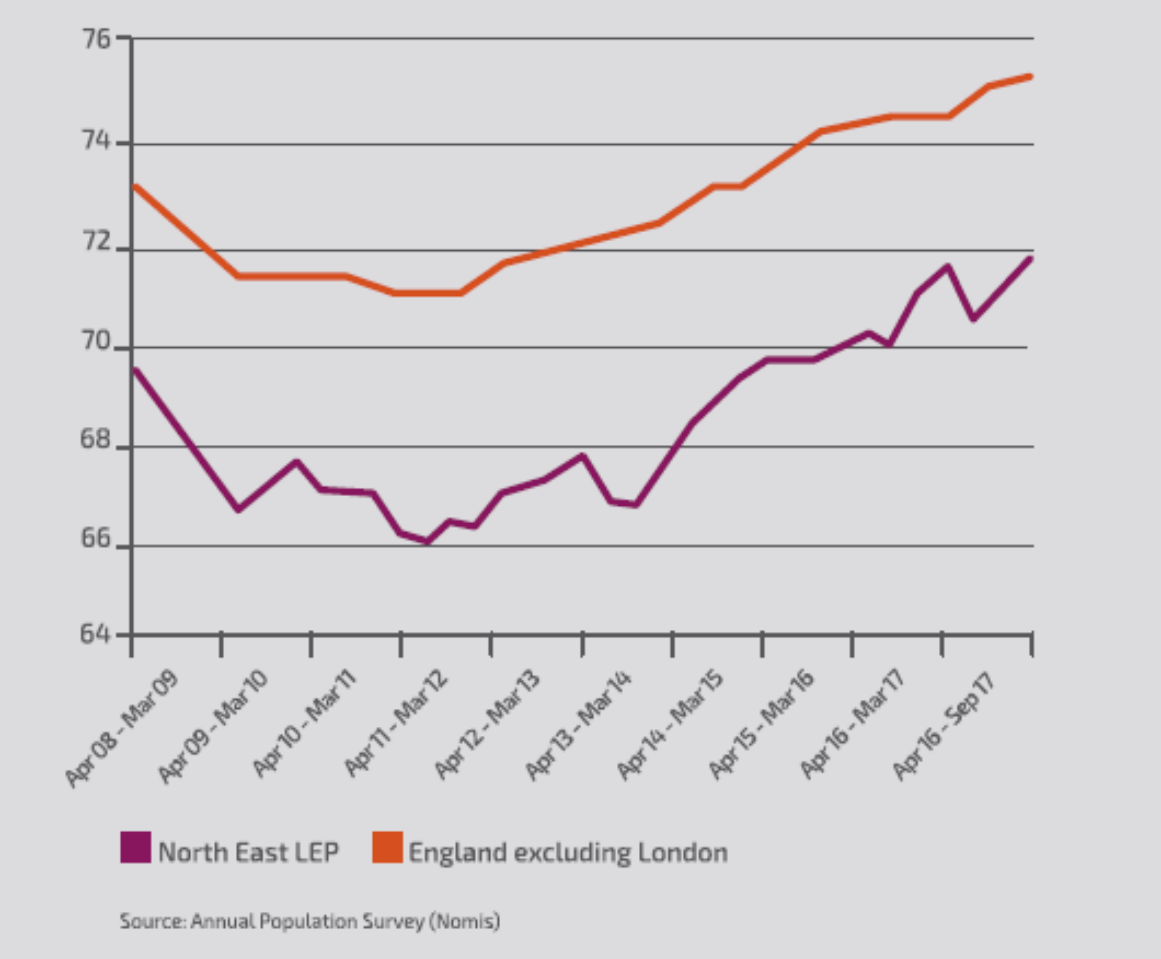
2.2 Employment Rate

We want to Increase the proportion of residents in employment, to enhance opportunities for individuals and help underpin economic growth of the region.

We want to close the gap between the North East's employment rate for 16-64 year olds with England (excluding London) by 100% by 2024.

Figure 3 - Employment Rate[5]

[5] https://www.nelep.co.uk/wp-content/uploads/2018/03/performance-of-our-economy.pdf



Key finding – Despite good progress in reducing the gap in the employment rate between the North East and London, we recognise that we need to continue to increase the number of jobs, and employability of residents. We will introduce measures that support access to employment centres and development sites which will create extra jobs, reduce congestion and improving the reliability of journey times to employment centres.

Our Strategic Economic Plan sets out how we will provide 'more and better jobs' in our region by 2024. We want to reduce the economic gap between ourselves and the English average, and assist in meeting the Government's objective of rebalancing the economy.

In 2014, there were 811,600 jobs in the North East LEP area. We have a target to provide an additional 100,000 jobs by 2024[6].

In 2017, the total number of jobs in the North East LEP area had increased by 55,200, so we remain on track to meet our target.

[6] https://www.nelep.co.uk/wp-content/uploads/2017/08/north-east-sep-final-march-2017.pdf

We want 70% of the additional 100,000 jobs to be 'better jobs'[7] .Of the 55,200 additional jobs since 2014, 73% 40,300 are 'better jobs'[8].

2.3 Employment sectors

Our largest employing sectors in the North East LEP area are[9]:

- Health (15.7%)
- Manufacturing (11.0%)
- Retail (10.0%)
- Education (9.4%)

The SEP is focused on growing the following sectors to accommodate the aim of more and better jobs:

- Technology and digital – The NELEP area is the fastest growing tech economy in the UK[10]
- Advanced manufacturing – automotive and medicines – 62,500 people are employed in this sector in the North East, making it in the top 5 in the UK. 120,000 people are employed in wider manufacturing
- Energy sector – the North East is world leading in offshore and sub-sea technology.
- Enabling services – for a growing and productive service economy

[7] defined as managers, directors and senior officials; professional occupations (such as civil engineers and doctors); and associate professional and technical occupations (such as laboratory technicians and graphic designers).
[8] https://www.nelep.co.uk/wp-content/uploads/2018/03/performance-of-our-economy.pdf
[9] https://www.nelep.co.uk/wp-content/uploads/2017/08/north-east-sep-final-march-2017.pdf
[10] ibid

Figure 4 - Employability Summary Table[11]

Employability and inclusion in the North East LEP economy

Indicator	Most recent data	Change since 2014	NE as % of England excl. London	Gap closing with England excl. London
% of 16-64 population that are economically inactive	23.9 (Oct 2016 to Sep 2017)	Decreased by 1.6 percentage points	111	Yes
% of 16-64 economically active population that are unemployed	6.4 (Oct 2016 to Sep 2017)	Decreased by 2.2 percentage points	146	No - widened
% of 16-24 economically active population that are unemployed	15.6 (Oct 2016 to Sep 2017)	Decreased by 5.1 percentage points	130	No - widened
% of 50-64 economically active population that are unemployed	4.7 (Oct 2016 to Sep 2017)	Decreased by 1.4 percentage points	162	No - widened
Median gross weekly wages of full-time workers (£)	£506.2 (2017)	Increased by £27.50 (2014)	91 (England)	No change (England)

Sources: Annual Population Survey (Nomis) and Annual Survey of Hours and Earnings (Nomis)
Notes: 1. To ensure that seasonal factors are not affecting comparison, the same time periods are used for both the most recent year and the 2014 benchmark year for each indicator. For example, the most recent Annual Population Survey data is for the period July 2016 to June 2017 – so July 2013 to June 2014 is used as the comparator. 2. Unemployment rates use the ILO measure

2.4 The income gap

The gap in income between the North East and England (excluding London) remains, and over one in five households in the North East are living in poverty.

Between 2013/14 – 2015/16:
22% of households in the North East region were living below 60% median household income after housing costs. This is equivalent to 600,000 individuals in the region living in households in poverty

The average wage for a full-time worker in the NELEP area (£506.20 per week) are below the English level (£555.80 per week)[12]. This is shown in figure 5. This is the second lowest amongst the core city LEPs.

[11] https://www.nelep.co.uk/wp-content/uploads/2018/03/employability-and-inclusion.pdf
[12] Annual Survey of Hours and Earnings and the Family Resources Survey

Figure 5 - Median gross weekly wage of full time workers by location[13]

Median gross weekly wages of full-time workers (£), North East LEP, core city LEPs and England, 2014 and 2017

	2014	2017	% Change 2014 to 2017
Greater Birmingham and Solihull	494.2	536.6	8.6
Greater Manchester	481.6	515.4	7.0
England	523.5	555.8	6.2
Leeds City Region	479.5	508.3	6.0
North East	478.7	506.2	5.7
Sheffield City Region	474.2	499.8	5.3
West of England	522.6	550.0	5.2
Derby, Derbyshire, Nottingham and Nottinghamshire	488.3	510.3	4.5
Liverpool City Region	492.6	513.8	4.3

Key finding – the gap in income between the North East and the rest of England remains, and when IMD data is added, it highlights that there are significant disparities between areas in the North East and the rest of the country. Our proposals will aim to reduce these gaps, by providing better access to employment centres and development sites.

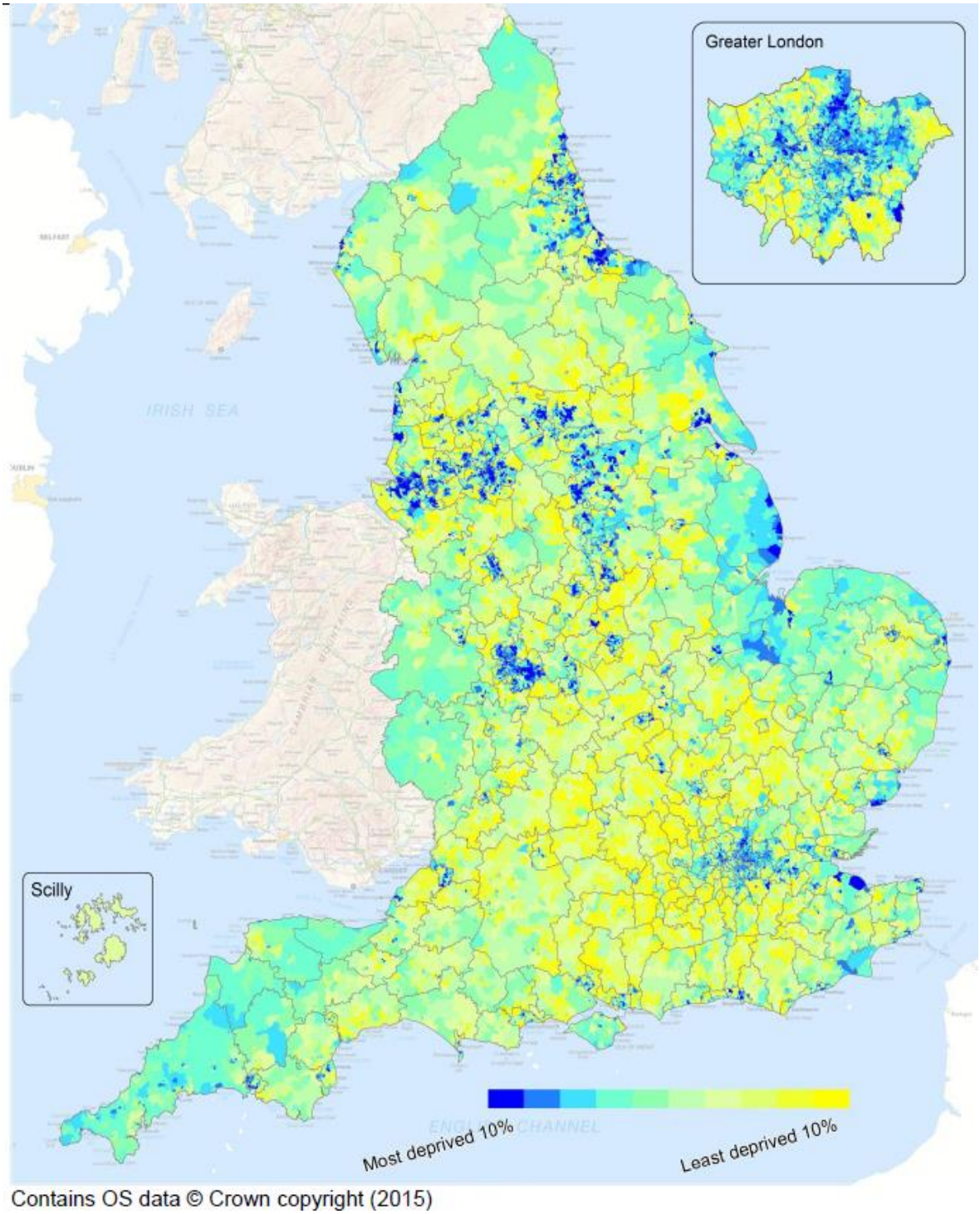
2.5 Indices of Multiple deprivation

The North East LEP area remains significantly deprived and is the 10th most deprived partnership area in the country with all seven local authorities being in the most deprived 50% and four within the most deprived 25% of local authorities

Figure 6 shows the distribution of IMD across England in 2015, it can be seen that within the NELEP area, there are a significant number of areas that rated in the highest 10% of deprivation in England.

[13] https://www.nelep.co.uk/wp-content/uploads/2018/03/employability-and-inclusion.pdf

Figure 6 - IMD 2015, England[14]



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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/465791/English_Indices_of_Deprivation_2015_-_Statistical_Release.pdf

2.6 Summary

Despite numerous sectoral strengths and a positive balance of trade from the region the area continues to lag behind the rest of the UK on key performance indicators around productivity, employment rates and income. This leads to a lower employment rates, standard of living and impacts negatively on health and life expectancy.

We aim to close the gap on these indicators, growing the economy, improving productivity and creating more and better jobs. And our KPI's, will ensure that we will increase the number of jobs, reduce the GVA gap and improve the employment rate.

The KPI's are:

- Increase the number jobs in the North East economy by 100,000 by 2024 (60% of all jobs created from 2014 will be will be better jobs)
- Improvement of productivity measured by the Gross Value Added (GVA) per full-time equivalent job – 50% reduction in the gap by 2024
- Close the gap in employment rate. Target - 100% reduction in gap by 2024

2.7 Our Transforming Cities Programme

Our vision is: 'more sustainable connectivity, more mobility', making sustainable transport the natural choice for people moving around our city region, banishing congestion and its polluting effects, and improving air quality and public health.

Our ambition through this bid is to help close our area's productivity gap, creating more and better jobs.

Our bid focuses on improving connectivity to Key Economic and Employment Centres, these include:

Key City Centre Employment sites of:

- Newcastle City Centre
- Sunderland City Centre
- Durham City Centre

Between them these sites employ 98,000[15] people. [16]

Key Enterprise zones including:

- Newcastle Airport
- Port of Blyth
- Port of Tyne
- North Banks of the Tyne
- Holborn Riverside, South Shields
- International Advanced Manufacturing Park/Nissan/Follingsby

[15] ONS, Business Register and Employment Survey, 2017 [from NOMIS]
[16] Source: Business Register and Employment Survey, 2017

- Port of Sunderland

Between them, these sites employ 38,000[17] people [18], however these are the sites which will see significant growth in employment in coming years.

The bid also supports established employment sites, as identified earlier located on our key corridors. Between them, approximately 549,000[19] people [20] are employed.

The map of these can be found in annex G.

These important economic sites are linked by four key corridors:

- North and South
- Cities – Airport
- Banks of the Tyne
- River Wear

The map of these can be found in annex F.

These corridors are critical to the economic success of the important regional employment sites, allowing the movement of people, good and services between sites, from strategic housing sites and for the onwards distribution of good via our ports and airport.

These corridors however suffer congestion and do not offer reliable connectivity and the out of town cities are often poorly connected by sustainable transport thus negatively impacting on the productivity of the region.

Improving journey time reliability on these corridors gives great access to employment and ensure that new and established businesses have access to a large pool of talented workers.

The corridors also link our key residential suburbs, housing growth sites and areas of deprivation to our key employment sites. Our major housing growth sites are:

- Murton Gap, North Tyneside (approx. 3000 dwellings)
- Killingworth Moor, North Tyneside (approx. 2000 dwellings)
- Upper, Middle and Lower Callerton, Newcastle (approx. 3000 dwellings)
- Sunderland South Development (approx. 3000 dwellings)

Improving reliability and journey times on our corridors will assist in linking these new sites to employment by sustainable means, helping to reduce reliance on private car.

The map can be seen in annex A.

[17] Ibid
[18] Ibid
[19] Ibid
[20] Ibid

3. Local Challenges – transport

3.1 Journey Time reliability

Add journey time reliability

When making a journey, having a reliable estimate of the time it may take is likely to be as great a consideration as the total time taken. There is evidence at national level of the concern that both freight and bus operators have about the negative impacts of unreliable journey times due to congestion, both in terms of increased costs for operators and lower bus passenger volumes, due to the perception of bus travel as increasingly unreliable and protracted.[21] [22]

Within the North East there are particular congestion hot spots on key routes into urban centres and at river crossings, and this is likely to lead to greater journey time unreliability. This is of particular concern relating to the four key corridors quoted in section 2.7. As a result, bus journey times are particularly lengthy in the peak making this form of sustainable transport less attractive.

3.2 Transport Costs (rail, tube, bus, coach)

Following on from the income gap statistics, the people in the North East spend a greater proportion of income on transport services than most other parts of the UK[23].

Figure 7 Percentage of Household income spend on transport services

[21] Written evidence submitted by the Confederation of Passenger Transport UK to the Transport Select Committee, health of the bus market 2018 http://www.cpt-uk.org//_uploads/attachment/4677.pdf

[22] Congestion on UK roads worst for over 10 years, FTA survey reveals, Freight Transport Association 2015 https://fta.co.uk/press-releases/20150316-congestion-on-uk-roads-worst-for-over-ten-years-fta-survey-reveals

[23] https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/datasets/detailedhouseholdexpenditurebycountriesandregionsuktablea35

4. The Environment and Public Health

We know that 66% of trips were under 5 miles in England, of which 56% were by car[24], these are journeys that could be made by sustainable modes, with the right infrastructure and plans in place.

4.1 Carbon

Carbon dioxide (CO_2) is the main greenhouse gas, accounting for about 81 percent of the UK greenhouse gas emissions in 2015[1]. The Department for Business, Energy and Industrial Strategy publishes statistics on carbon dioxide (CO_2) emissions.

Key points from our data show:

- In 2015, road transport in the North East area was estimated to account for just under a third of CO_2 emissions.
- Since 2005, North East total emissions per capita have fallen by 42% while transport emissions per capita have fallen by 15%.
- There are forecasts for a 16% increase in trips made by car drivers between 2018 and 2038 in our area[25]

[24] National Travel Survey, DfT, 2015
[1] Local Authority Carbon Dioxide Emissions Estimates 2015, Department for Business, Energy and Industrial Strategy, 29 June 2017.
[25] NTEM Version 7.2

- a 24% increase forecasted for the number of cars in our area[26]

The Census, 2011 presented details on the mode of transport for people travelling to work. In our area:

- 60% as a car/van driver
- 7% as car passenger
- 14% public transport users
- 10% walking
- 2% cycling

.

Key finding – despite road transport's contribution to falling CO2 levels, there remains significant challenges, through forecasts showing the number of cars will increase in the future, which could mean more CO2 emissions. Our proposals will aim to continue the downward trajectory of CO2 emissions by encouraging mode shift away from the car to public transport, cycling and walking for journeys to work.

4.2 Public health

Physical activity through travel

Public Health England produce data that measures the level of physical activity attained through travel, by walking 3 days a week or more, and by cycling 3 days a week or more. These are broken down by area and are measured in percentage terms, benchmarked against the English rate.

For our area, in terms of the percentage of adults walking more than 3 days per week:

- Newcastle performs better than the benchmark
- Northumberland and Sunderland are under the benchmark rate.

Figure 8 – Percentage of adults walking for travel at least three days per week 2016/17[27]

[26] ibid

[27] https://fingertips.phe.org.uk/profile/physical-activity/data#page/3/gid/1938132899/pat/126/par/E47000005/ati/102/are/E08000037/iid/93439/age/164/sex/4

Area	Value	Lower CI	Upper CI
England	22.9	22.6	23.1
CA-North East	-	-	-
County Durham	20.6	16.8	24.4
Gateshead	22.5	17.3	27.7
Newcastle upon Tyne	29.7	26.8	32.6
North Tyneside	24.2	19.4	28.9
Northumberland	15.7	12.6	18.8
South Tyneside	18.5	13.7	23.4
Sunderland	16.3	13.3	19.3

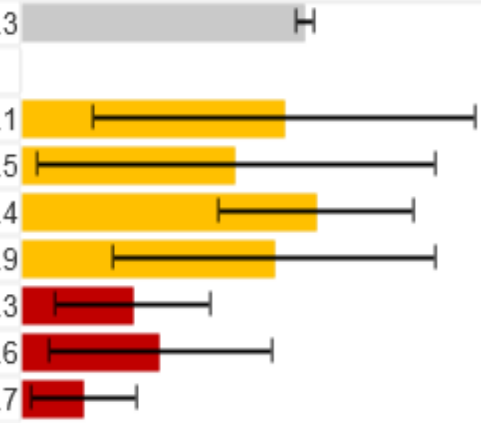
Source: Department for Transport (based on Active Lives, Sport England)

For our area in terms of the percentage of adults cycling more than 3 days per week: Newcastle, although rated similar to levels across England, is actually 0.1% higher. Northumberland, South Tyneside and Sunderland have levels that are under the benchmarked rate.

Figure 9 - Percentage of adults cycling for travel at least three days per week 2016/17[28]

[28] https://fingertips.phe.org.uk/profile/physical-activity/data#page/3/gid/1938132899/pat/126/par/E47000005/ati/102/are/E08000037/iid/93440/age/164/sex/4

Area	Value	Lower CI	Upper CI
England	3.3	3.2	3.4
CA-North East	-	-	-
County Durham	3.1	0.8	5.3
Gateshead	2.5	0.2	4.8
Newcastle upon Tyne	3.4	2.3	4.6
North Tyneside	2.9	1.1	4.8
Northumberland	1.3	0.4	2.2
South Tyneside	1.6	0.3	2.9
Sunderland	0.7	0.1	1.3



Source: Department for Transport (based on Active Lives, Sport England)

Key finding – there is significant potential to improve on the number of adults cycling and walking at least 3 times a week. Through our proposals to encourage more people to cycle and walk to work, we can increase the rates of cycling and walking trips

4.3 Air quality

The main contributor to local air pollution in our area is road traffic (petrol cars 36%, diesel cars 29%, diesel LGV 16% and HGV 13%)[29].

Defra have identified that a number of road links in the area which are the subject of air quality exceedances.

- the Tyne Bridge
- parts of Newcastle city centre,
- A1 western Bypass
- A1058 Coast Road
- It is estimated that poor air quality is responsible for around 360 deaths each year in Central Newcastle/Gateshead alone.

The map, figure 10, below identifies these routes.

Figure 10 Air Quality exceedance points

South Tyneside and Sunderland also have routes that are currently in exceedance, these being the A194 corridor in South Tyneside and the link into the Galleries Shopping Centre in Washington.

[29] DfBIS 2015

To complete the picture, four authorities also have designated Air Quality Management Areas (AQMAs).

Authority	**Location(s)**
Durham	Durham City Chester Le Street
Gateshead	Town Centre
Newcastle City Council	City Centre Gosforth
South Tyneside Council	Boldon Lane / Stanhope Road Leam Lane / Lindisfarne Roundabout

Key findings – we have pockets of poor air quality in our area, and in some areas are forecast to be in exceedance of legal limits. Our proposals will help improve air quality in certain locations, and eliminate AQMA's through better public and sustainable transport.

Annex C

The Transport Barriers and our key corridors

1. The North East

The transport barriers which are limiting growth in the region are:

- Restricted sustainable connectivity
- Restricted Mobility

1.1 Sustainable Connectivity

Sustainable connectivity across the region is impaired by the following issues:

- Not all key housing, employment and enterprise zones are well connected by sustainable means;
- Where connections do exist, there are often capacity, reliability and resilience concerns;
- Current connectivity may place reliance on the car, increasing congestion, impacting on air quality and discouraging active travel, and;
- "Last mile" links which connect the sustainable network to key sites can be lacking or may need improvement, especially for active travel.

1.2 Mobility – Use of Sustainable Transport

In instances where the current network is already well established, perceptions of the service offered can be a barrier to its use:

- Perception of price is a barrier to use;
- Perception of convenience is a barrier to use, including:
    - Access to the network and ease of interchange between modes;
    - End to end journey time and frequency;
    - Reliability of the service and the practicalities of using active travel.
- Perception of security on the sustainable network.

2. Our Transforming Cities Programme

The transport barriers in relation to the key employment sites, corridors and strategic housing sites identified in our Expression of Interest and set out above are:

- Poor sustainable Connectivity
- Mobility – use of sustainable transport

The transport barriers outlined in Rebalancing the Economy can equally apply to parts of our region

- Congestion
- Connectivity
- Capacity
- Reliability

2.1 Sustainable Connectivity

North – South Corridor - Key challenges

- There are areas of high deprivation along this corridor (Parts of South East Northumberland, Newcastle and Gateshead have wards ranked within England's most deprived areas).
- There are significant gaps in life expectancy between areas of most deprivation and least deprivation, for example life expectancy is 9.5 years lower for men and 7.1 years[1] lower for women in the most deprived areas of Northumberland than in the least deprived areas.
- Congestion on key routes into urban centre (A1/A1(M), A189, A167, A184) and overcrowding on peak Metro and some local train services.
- There are areas of poor air quality within the urban core.
- There are no direct train services to SE Northumberland or Washington
- Public transport journey times from SE Northumberland to Newcastle are lengthy at peak times (average of 64 minutes for 17 mile journey)
- Ensuring that major developments do not add further strain to transport network through extra trips generated

Banks of Tyne Corridor – Key challenges

- There are areas of high deprivation along this corridor (Parts of North Tyneside, East End of Newcastle, Gateshead and parts of South Tyneside have wards ranked within England's most deprived areas).
- There are significant gaps in life expectancy between areas of most deprivation and least deprivation, for example life expectancy is 8.4 years lower for men and 8.1 years[2] lower for women in the most deprived areas of South Tyneside than in the least deprived areas.
- Congestion on key routes into urban centre, particularly at river crossings (A19, A1058 Coast Road, A167, A184, A194, A195) and overcrowding on peak Metro services.
- There are areas of poor air quality within the urban core.
- Journey times by bus are lengthy, for example the bus journey South Shields to Newcastle, via Heworth in the AM peak is 1 hour 23 minutes for a 14 mile journey. An AM peak bus from North Shields to Newcastle is 52 minutes for a 10 mile journey.
- Limited capacity and lack of resilience on parts of Metro network in South Tyneside

Cities and Airport Corridor – Key Challenges

[1] http://fingertipsreports.phe.org.uk/health-profiles/2017/e06000057.pdf

[2] https://fingertipsws.phe.org.uk/static-reports?profile_key=health-profiles&file_name=e08000023.pdf&time_period=2018

- There are areas of high deprivation along this corridor (Parts of Sunderland, South Tyneside Gateshead and West Newcastle have wards ranked within England's most deprived areas).
- Congestion on key routes into urban centres, particularly at river crossings (A19, A1, A194/A184, A167, A186 and A696, A194, A195) and overcrowding on peak Metro services and peak heavy rail services between the city centres
- There are areas of poor air quality within the urban core, with limited opportunity for integration with Park and Ride.
- Journey times by bus are lengthy, for example the bus journey Sunderland to Newcastle, via Washington in the AM peak is 1 hour 25 minutes for a 17 mile journey. An AM peak bus from Newcastle Airport to Newcastle is 25 minutes for a 6.5 mile journey.
- Providing access to unlock housing and employment development via sustainable modes
- Increasing issues with reliability of existing Metro fleet
- Poor quality and appearance of stations and interchanges not conducive to new customers

River Wear Corridor – Key challenges

- There are areas of high deprivation along this corridor (Parts of Sunderland Coalfields area and Central Sunderland have wards ranked within England's most deprived areas).
- There are significant gaps in life expectancy between areas of most deprivation and least deprivation, for example life expectancy is 7.7 years lower for men and 7.1 years[3] lower for women in the most deprived areas of Durham than in the least deprived areas.
- Congestion on key routes into urban centres, particularly A690 to Sunderland and Durham, A177 into Durham and A183 into Sunderland
- Congestion at pinch points A19/A690 junction at Doxford Park and A1018.
- There are areas of poor air quality within urban centres
- Journey times by bus are lengthy, for example the bus journey from Durham to Sunderland, in the AM peak is 1 hour 06 minutes for a 17 mile journey. An AM peak bus from Sunderland to South Shields is 35 minutes for a 6 mile journey.
- Providing access to unlock housing and employment development via sustainable modes
- Ensuring network in city centres allows traffic to flow more efficiently

[3] https://fingertipsws.phe.org.uk/static-reports?profile_key=health-profiles&file_name=e06000047.pdf&time_period=2018

2.2 Mobility – Use of Sustainable Transport

[Provide an commentary for each corridor on future demand and capacity constraints in the context of Mobility – use of sustainable transport[

North – South Corridor - future demand and capacity constraints in the context of mobility and use of sustainable transport

- Present and future demand, particularly using sustainable forms of transport such as public transport and cycling, is constrained or deterred by
    - The current lack of train services to Ashington, Team Valley and to Washington
    - The limited train service at both Cramlington and Chester-le-Street stations, and the location of Cramlington station
    - Long peak time bus journey times from SE Northumberland to Newcastle (average of 64 minutes for a 17-mile journey)
    - Some of the business parks are not well served by public transport particularly for shift workers
    - Lack of cycling facilities at key points
- Capacity constraints consist of congestion on key routes into urban centres (A1/A1(M), A189, A167, A184) and overcrowding on peak Metro and some local train services.

Banks of Tyne Corridor – future demand and capacity constraints in the context of mobility and use of sustainable transport

- Present and future demand, particularly using sustainable forms of transport such as public transport and cycling, is constrained or deterred by
    - Long peak time bus journey times for example South Shields to Newcastle via Heworth is 1 hour 23 minutes for a 14-mile journey and North Shields to Newcastle is 52 minutes for a 10-mile journey.
    - Lack of cycling facilities at key points
    - Lack of reliability of the existing Metro system and fleet, particularly in South Tyneside
- Capacity constraints consist of congestion on key routes into urban centres, particularly at river crossings (A19, A1058 Coast Road, A167, A184, A194, A195) and overcrowding on peak Metro services.
- There is particularly limited capacity on parts of Metro network in South Tyneside

Cities and Airport Corridor – future demand and capacity constraints in the context of mobility and use of sustainable transport

- Present and future demand, particularly using sustainable forms of transport such as public transport and cycling, is constrained or deterred by
    - Long peak time bus journey times for example Sunderland to Newcastle via Washington is 1 hour 25 minutes for a 17- mile journey and Newcastle Airport to Newcastle is 25 minutes for a 6.5-mile journey.

- Newcastle Airport, Nissan and Follingsby Park are not well served by public transport at shift work times
- Lack of cycling facilities at key points
- Lack of reliability of the existing Metro fleet
- Poor quality and appearance of stations and interchanges not conducive to new customers

- Capacity constraints consist of congestion on key routes into urban centres, particularly at river crossings (A19, A1, A194/A184, A167, A186 and A696, A194, A195) and overcrowding on peak Metro and heavy rail services centres

River Wear Corridor – future demand and capacity constraints in the context of mobility and use of sustainable transport

- Present and future demand, particularly using sustainable forms of transport such as public transport and cycling, is constrained or deterred by
  - Long peak time bus journey times for example Durham to Sunderland is 1 hour 06 minutes for a 17-mile journey and Sunderland to South Shields is 35 minutes for a 6-mile journey.
  - Doxford business park is not well served by public transport particularly for shift workers
  - Lack of cycling facilities at key points

- Capacity constraints consist of congestion on key routes into urban centres, particularly A690 to Sunderland and Durham, A177 into Durham and A183 into Sunderland and also at pinch points A19/A690 junction at Doxford Park and A1018.

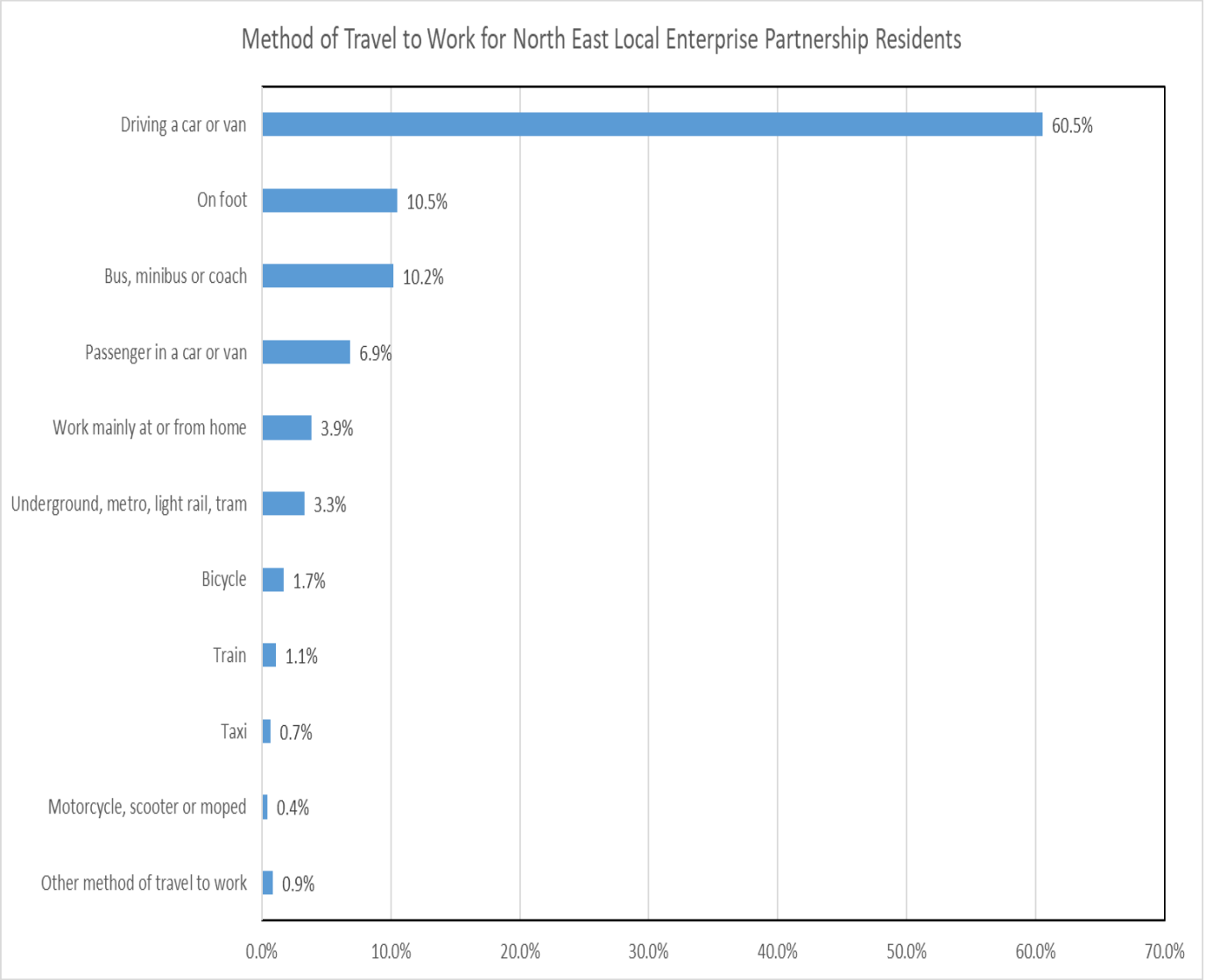
2.3 Congestion, connectivity, capacity and reliability

2.3.1 Congestion

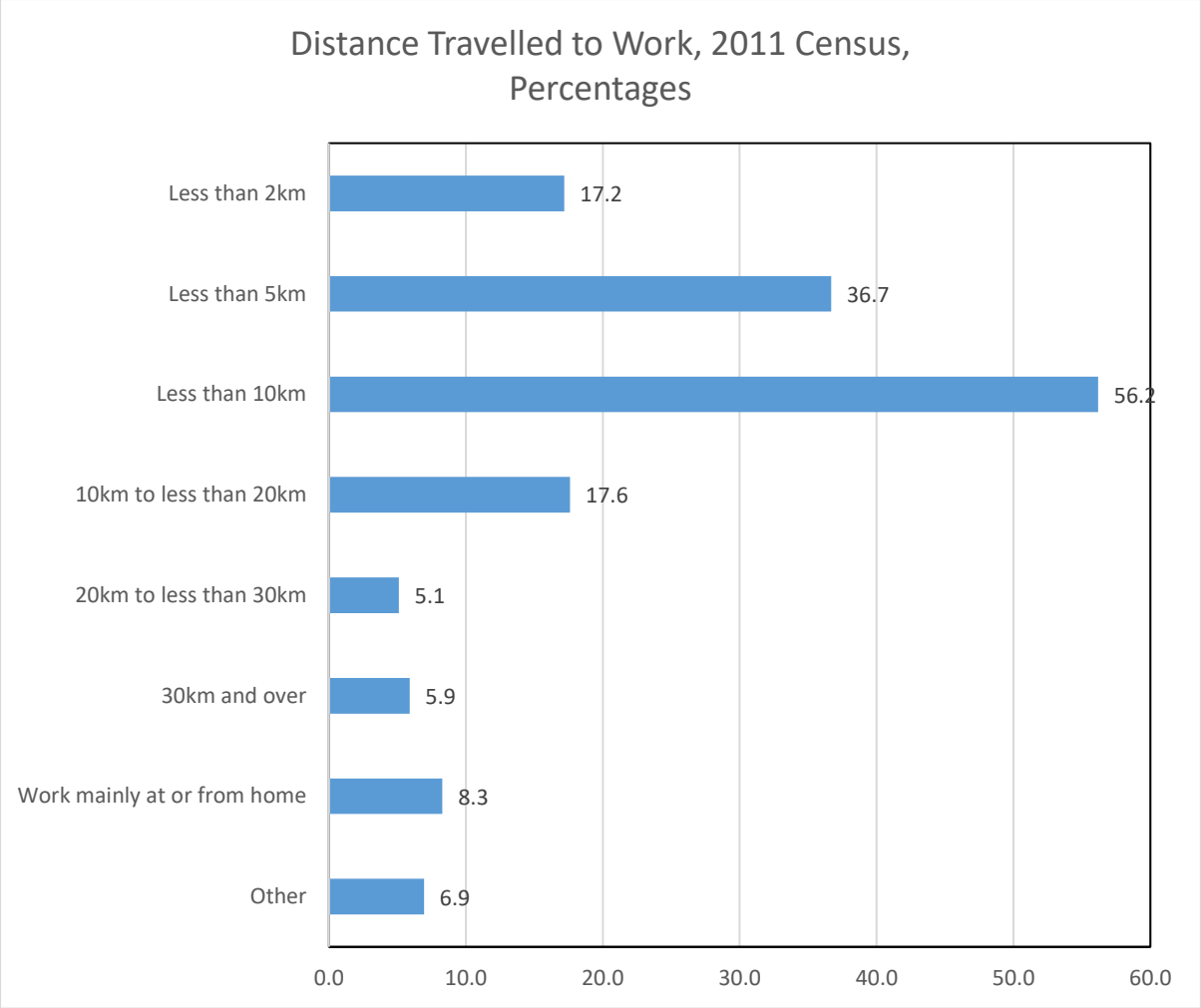
Although car ownership remains lower than in other parts of the UK, it has increased from 763,000 to 822,000 over an 8 year period,[4] and congestion is a growing problem.

- 67% of commutes are by car (either as passenger or driver)[5]
- majority of commutes under 10km in distance.[6]
- 20% extra travel time needed on the busiest routes in the North East.

[4] Department for Transport, Table VEH0105, 2009 to 2017.
[5] 2011 Census, ONS Crown Copyright Reserved [from Nomis]
[6] Ibid



Source: 2011 Census, Office for National Statistics (Nomis).
All usual residents aged 16 to 74 and in employment.



Source: Office for National Statistics (Nomis).
All usual residents aged 16 to 74 and in employment within the North East Local Enterprise Partnership.

The region's spectacular river valleys form natural physical barriers, leading to bottlenecks across, and on the approaches to, important river crossings whilst journeys into and out of city centres and other major employment sites are also subject to delays.

2.3.2 Connectivity

The region has higher than average levels of public transport use and a major locally-owned transport asset in the Metro system, supported by national rail provision. However, the Metro and rail networks are not extensive enough to reach all areas of housing and employment opportunity, while bus patronage has declined substantially.

Peripheral areas, for example South-East Northumberland, are isolated from the urban core by slow public transport links, whilst major out-of-town employment sites such as Doxford Park and Team Valley have limited public transport provision. Car use thus becomes the natural choice for such journeys, which adds to congestion and results in economic isolation for those without access to a car.

There are a number of deterrents to multi-modal journeys.

- Park and Ride sites are not in optimal locations to intercept traffic before it reaches the urban core.
- Interchanges are of variable quality and are not always perceived as attractive or secure locations to change modes, especially at night.
- The overall standard of cycling and walking routes are variable
- major road links can cause problems of severance

In general, people are switching away from public transport because of:

- poor perceptions of reliability, value for money and convenience and personal security,[7]

Whilst pedestrian and cycle networks are not yet sufficiently comprehensive or attractive to generate the levels of sustainable trips that we see elsewhere in Europe.[8]

2.3.3 Capacity

Major new housing sites such as Killingworth Moor and Murton Gap, and new employment sites such as IAMP, risk adding pressure to the existing transport network by building in high levels of car dependence and need new sustainable links to unlock their potential.

Peak-hour overcrowding affects key rail links into Newcastle whilst overcrowding on the Metro system is a growing challenge at busy periods, compounded by poor availability of the ageing train fleet.

2.3.4 Reliability

For commuters and businesses, being able to reliably estimate the time a journey may take is an important consideration alongside the total time taken. Both freight and bus operators have highlighted the negative impacts of unreliable journey times due to congestion, both in terms of increased costs for operators and lower bus passenger volumes, due to the perception of bus travel as increasingly unreliable and protracted.[9] [10]

Customer satisfaction with the Metro service is becoming worse, we have just recorded our worst average score, as set out in the chart below. Increasing levels of

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[7] Public attitudes to bus services 2013, Department for Transport, 2013 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/253219/buses-report-2013.pdf

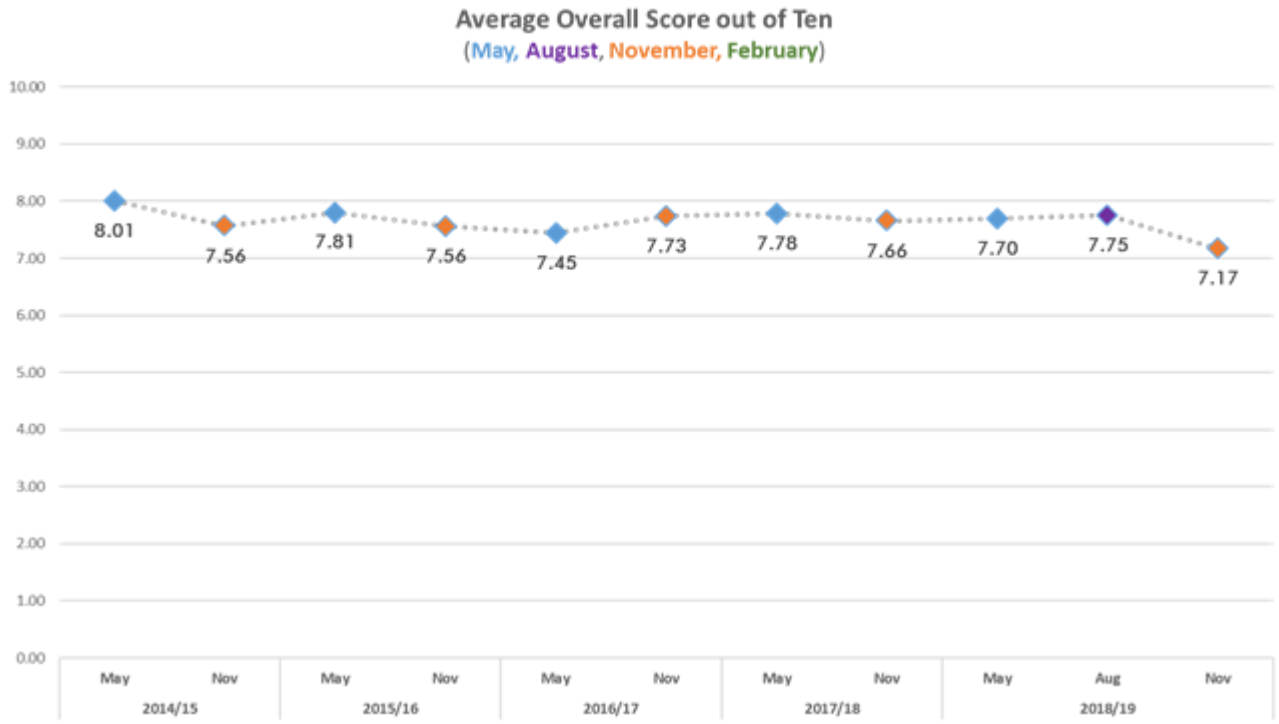
[8] Cycling UK's Cycling Statistics, CTC 2018 https://www.cyclinguk.org/statistics

[9] Written evidence submitted by the Confederation of Passenger Transport UK to the Transport Select Committee, health of the bus market 2018 http://www.cpt-uk.org//_uploads/attachment/4677.pdf

[10] Congestion on UK roads worst for over 10 years, FTA survey reveals, Freight Transport Association 2015 https://fta.co.uk/press-releases/20150316-congestion-on-uk-roads-worst-for-over-ten-years-fta-survey-reveals

dissatisfaction mean a deterioration in people's perception of reliability of Metro, which affects patronage.

Figure 1 - Trend of Metro satisfaction scores



Annex D
National and Regional Objectives

1. The National Objectives

1.1 The Industrial Strategy

The Government's Industrial Strategy (2017) sets out the plan to develop the economy of the UK, boosting productivity and earning power, through the vision for:

- The world's most innovative economy
- Good jobs and greater earning power for al
- A major upgrade to the UK's infrastructure
- The best place to start and grow a business
- Prosperous communities across the UK

The strategy focuses on four 'Grand Challenges'. The Grand Challenge pertinent to Transforming Cities is the one called 'Future of Mobility'.

1.2 Transport Investment plan

The Transport Investment Strategy sets out targeted packages of investment which will drive economic development as part of a wider programme of interventions focusing on the specific circumstances of each area.
Through this investment the government will seek to:

- Create a more reliable, less congested, and better connected transport network that works for the users who rely on it;
- Build a stronger, more balanced economy by enhancing productivity and responding to local growth priorities
- Enhance our global competitiveness by making Britain a more attractive place to trade and invest;
- Support the creation of new housing

1.3 Transforming Cities

Set out the Overarching Transforming Cities objectives
The Transforming Cities Fund was created with the aim of driving up productivity to spread prosperity through investment in public and sustainable transport in some of the largest city regions. The fund is focused on intra-city connectivity, making it quicker and easier to get around and access jobs. The overarching objectives of the Transforming Cities fund are to:

- Invest in new local transport infrastructure, to boost productivity and to support and facilitate local economic development
- Improve public and sustainable transport connectivity
- Improve access to employment sites, Enterprise Zones, development sites, or an urban centre that offers particular growth/employment opportunities
- Reduce incidences of poor air quality, reducing carbon emissions and increasing the health benefits of active modes
- Reduce regional economic disparities

- Support the Industrial Strategy 'Future of Mobility' Grand Challenge

1.4 Cross Cutting Priorities

- Improving access to work and connectivity within and between city regions
- Delivering a boost to productivity
- Encouraging the use of new mobility systems and technology as part of the 'Future of Mobility' Grand Challenge
- Tackling air pollution and reducing carbon emissions
- Delivering more homes
- Delivering apprenticeships and improving skills

1.5 Draft Clean Air Strategy

The draft Clean Air Strategy recognises the role that modal shift to lower emission modes of travel can play in reducing transport emissions. The Government is committed to encouraging more sustainable modes of transport like cycling, walking and public transport.

Encouraging an increase in cycling and walking for short journeys delivers a reduction in traffic congestion and emissions from road transport, as well as health benefits from more active lifestyles.

The draft Clean Air Strategy also highlights the importance of public transport in reducing emissions, "modal shift to rail, particularly on electrified lines, can help to reduce road traffic congestion and emissions" (p48)[1].

2. Supporting National Objectives

Our Transforming cities programme objectives link to:

2.1 The Industrial Strategy

Our Transforming Cities objectives seek to support the goals of the Industrial Strategy, to build on local strengths and deliver economic opportunities through:

- Reducing the productivity gap
- Providing better access to jobs and education
- Improving sustainable connectivity in our city region
- Reducing congestion through mode switch and improved public transport reliability and journey times.

2.2 The Transport Investment Plan

[1] https://consult.defra.gov.uk/environmental-quality/clean-air-strategy-consultation/user_uploads/clean-air-strategy-2018-consultation.pdf

Our Transforming Cities objectives align with those of the Transport Investment Strategy by:

- Targeting traffic congestion hotspots on our strategic corridors
- Making journey times more reliable
- Providing opportunities for easy interchange between modes
- Ensuring our transport system helps to boost local growth priorities in our employment centres.

Our objectives to make sustainable journey times quicker and more reliable and to develop innovative transport solutions will enhance the investment opportunities within our city region, and will help to meet the challenge of increasing demand on the transport system generated by the creation of new housing, supporting future developments.

2.3 The Transforming Cities objectives

Our specific bid objectives are designed to align closely with and build upon the national objectives of the Transforming Cities fund.

- Our objective to create 100,000 more and better jobs aligns with the national objective to support and facilitate local economic development, and to reduce regional economic disparities.

- Our bid objectives around increasing patronage of Metro and buses, and increasing walking and cycling, reflects the government objectives of improving sustainable and public transport, reducing instances of poor air quality, and increasing the health benefits of active modes.

- Our emphasis on innovation and sustainability ensures that our Transforming Cities objectives support the Industrial Strategy's 'Future of Mobility' Grand Challenge, in line with the national objectives of the fund.

2.4 Cross Cutting priorities

Our bid objectives have a particular emphasis on the priorities that are shared by the above national strategies.

- Our objectives seek to create more and better jobs, improve access to jobs and education, and reduce the productivity gap, all of which tie in with the cross-cutting themes of improving connectivity, boosting productivity, and delivering apprenticeships and improving skills.

- Our objectives of servicing major developments in an innovative and sustainable way, and of showcasing 5G connectivity and innovative solutions, link to the theme of encouraging the use of new mobility systems and technology.

- The objectives aiming to reduce congestion and encourage use of public transport and active modes reflect the cross-cutting priority of tackling air pollution and reducing carbon emissions.

- The creation of more homes will be enabled by the improvements to sustainable transport set out across our bid objectives, which will help to meet the additional demand generated by such developments.

3. Supporting Regional objectives

Our Transforming Cities programme objectives help deliver:

3.1 The regional objectives for Transport

Our regional transport goals are to deliver a North-East transport network that is easy to use, reliable, affordable and accessible, and which also contributes to the region's challenging air quality targets. The measures set out in this bid will assist in all these objectives.

Better cycling provision will make the network more **easy to use**. Our various ITS and junction improvements, by optimising vehicle flow and cutting delays at key bottlenecks on bus corridors, will make the bus network more **reliable** and attractive to passengers. A more efficient bus network enables better utilisation of vehicles, potential passenger growth and making fares more **affordable**.

The high-quality decarbonised transport provision that we aim to deliver with assistance from the Transforming Cites programme will contribute to a more **accessible** and inclusive network, linking people to jobs, and ensuring areas of economic exclusion are sustainably connected to growth hubs. **Air quality** will benefit through the wider availability of excellent cycling and public transport options that provide an attractive alternative to car use and that complement ongoing work to deliver a greener bus and taxi fleet.

3.2 The Strategic Economic Plan Objectives

The schemes proposed in Tranche 1 of the TCF will help to deliver the objectives set out in the SEP. By reducing congestion through encouraging mode shift, we will reduce journey times, meaning people and goods can reach markets more quickly, thereby increasing productivity.

By investing in ITS systems to improve traffic flow, and give public transport priority we are removing barriers that prevent some residents from accessing employment opportunities.

Improving active travel provision that links people to employment sites will help to meet the SEP's goal of decarbonising our transport network and fostering sustainable economic growth.

Annex E: AMAT Cycling to Employment Sites Package

Cycle to Employment Package

Cycle to Employment	PVB	PVC	BCR
New Rd - Lingey Lane	1062.82	740.95	**1.43**
Coast Rd	2678.58	1316.14	**2.04**
Tyne View Terrace	1193.29	345.96	**3.45**
Northumberland Park to Cobalt	127.70	116.11	1.10
	457.91	116.04	3.95
	585.61	232.16	**2.52**
A19 Strategic Cycle Link	2530.41	909.00	**2.78**
Package	**8050.71**	**3544.19**	**2.27**

Cycle to Employment Package

	New Rd - Lingey Lane	Coast Rd	Tyne View Terrace	Northumberland Park - Cobalt (Ph2)	Northumberland Park - Cobalt (Ph3)	Northumberland Park to Cobalt	A19 Strategic Cycle Link	**Package**
Congestion benefit	60.76	124.32	66.17	8.60	28.79	37.39	60.01	**348.65**
Infrastructure	0.21	0.43	0.23	0.03	0.10	0.13	0.20	**1.19**
Accident	6.20	12.88	6.75	0.88	2.94	3.82	6.12	**35.77**
Local Air Quality	0.03	0.08	0.04	0.00	0.02	0.02	0.03	**0.20**
Noise	0.41	0.86	0.45	0.06	0.20	0.25	0.41	**2.38**
Greenhouse Gases	1.18	2.49	1.29	0.17	0.56	0.73	1.17	**6.85**
Reduced risk of premature death	634.36	1313.24	690.88	89.81	300.53	390.35	626.51	**3655.34**
Absenteeism	147.72	311.83	160.88	20.91	69.98	90.90	145.89	**857.21**
Journey Ambience	216.79	922.86	271.87	7.92	57.09	65.01	1694.85	**3171.38**

Coast Road cycle route (final phase)

Scheme Name	Coast Road cycle route (final phase)
Scheme Promoter	NECA

Scheme Details

Scheme Opening Year	2019
Last year of funding	2019
Type of area scheme is located	Inner and Outer Conurbations

Mode information

Cycling

			Evidence
Number of journeys without the	375	per day	PCT tool. Midpoint of range.
Number of journeys with the	581	per day	CCAG 57% target, current value inflated by 55% (diff target-census)
The average proportion of a trip	36.96%	%	
Current cycling infrastructure for this route	No provision		
Proposed new cycling infrastructure for this route	Off-road segregated cycle track		Scheme drawings. Shared space proposed.
Are any additional shower facilities being added?	No		
Are any additional secure storage facilities being added?	No		

Walking

Number of journeys without the proposed scheme	391	per day	Estimated from local population in affected OA s from census data and proportion of walking trips from NTS.
Number of journeys with the proposed scheme	391	per day	
The average proportion of a trip which uses the scheme infrastructure	175.42%	%	

Current walking infrastructure for this route

Street lighting	Yes	
Kerb level	Yes	
Crowding	No	
Pavement evenness	No	
Information panels	No	
Benches	No	
Directional signage	No	

Proposed walking infrastructre for this route

Street lighting	Yes	Scheme drawings and description
Kerb level	Yes	Scheme drawings and description
Crowding	No	Scheme drawings and description
Pavement evenness	No	Scheme drawings and description
Information panels	No	Scheme drawings and description
Benches	No	Scheme drawings and description
Directional signage	No	Scheme drawings and description

Coast Road cycle route (final phase)

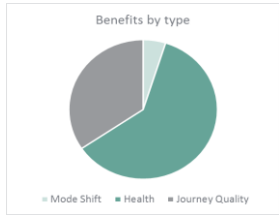
Year	Total scheme costs '000£	Private sector contribu tions '000£
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019	1,700	
2020		
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		
2030		

Analysis of Monetised Costs and Benefits (in £'000s)

Congestion benefit	124.32
Infrastructure	0.43
Accident	12.88
Local Air Quality	0.08
Noise	0.86
Greenhouse Gases	2.49
Reduced risk of premature d	1313.24
Absenteeism	311.83
Journey Ambience	922.86
Indirect Taxation	-9.97
Government costs	1316.57
Private contribution	0.00
PVB	2678.58
PVC	1316.14
BCR	**2.04**

Benefits by type:

Mode Shift	131.08	4.9%
Health	1625.07	60.7%
Journey Quality	922.86	34.4%



Scheme Name	Northumberland Park to Cobalt cycle scheme Phase 2	
Scheme Promoter	NECA	

Scheme Details

Scheme Opening Year	2020	
Last year of funding	2019	
Type of area scheme is located	Inner and Outer Conurbations	

Mode information

Cycling

			Evidence
Number of journeys without the proposed scheme	26	per day	TADU avg. daily traffic counts, site 9790
Number of journeys with the proposed scheme	40	per day	Increase by 57%, eveidence from CCAG scheme introduction
The average proportion of a trip which uses the scheme	3.34%	%	
Current cycling infrastructure for this route	No provision		
Proposed new cycling infrastructure for this route	Off-road segregated cycle track		Scheme drawings
Are any additional shower facilities being added?	No		
Are any additional secure storage facilities being added?	No		

Walking

Number of journeys without the proposed scheme	106	per day	Estimated from local population in affected OA s from census data and proportion of walking trips from NTS.
Number of journeys with the proposed scheme	106	per day	
The average proportion of a trip which uses the scheme infrastructure	15.85%	%	

Current walking infrastructure for this route

Street lighting	Yes	
Kerb level	Yes	
Crowding	No	
Pavement evenness	Yes	
Information panels	No	
Benches	No	
Directional signage	No	

Proposed walking infrastructre for this route

Street lighting	Yes	Scheme drawings and description
Kerb level	Yes	Scheme drawings and description
Crowding	No	Scheme drawings and description
Pavement evenness	Yes	Scheme drawings and description
Information panels	No	Scheme drawings and description
Benches	No	Scheme drawings and description
Directional signage	Yes	Scheme drawings and description

Northumberland Park to Cobalt cycle scheme Phase 2

Year	Total scheme costs '000£	Private sector contributions '000£
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018	150	
2019		
2020		
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		
2030		

Analysis of Monetised Costs and Benefits (in £'000s)

Congestion benefit	8.60
Infrastructure	0.03
Accident	0.88
Local Air Quality	0.00
Noise	0.06
Greenhouse Gases	0.17
Reduced risk of premature death	89.81
Absenteeism	20.91
Journey Ambience	7.92
Indirect Taxation	-0.66
Government costs	116.14
Private contribution	0.00
PVB	127.70
PVC	116.11
BCR	**1.10**

Benefits by type:

Mode Shift	9.08	7.1%
Health	110.73	86.7%
Journey Quality	7.92	6.2%

Scheme Name	Northumberland Park to Cobalt cycle scheme Phase 3		
Scheme Promoter	NECA		
Scheme Details			
Scheme Opening Year	2020		
Last year of funding	2019		
Type of area scheme is located	Inner and Outer Conurbations		
Mode information			
Cycling			**Evidence**
Number of journeys without the proposed scheme	87	per day	TADU counts, 9979, avg daily traffic
Number of journeys with the proposed scheme	135	per day	increase by 57%, eveidence from CCAG scheme introduction
The average proportion of a trip which	8.82%	%	
Current cycling infrastructure for this route	No provision		
Proposed new cycling infrastructure for this route	Off-road segregated cycle track		Scheme drawings
Are any additional shower facilities being added?	No		
Are any additional secure storage facilities being added?	No		
Walking			
Number of journeys without the proposed scheme	205	per day	Estimated from local population in affected OA s from census data and proportion of walking trips from NTS.
Number of journeys with the proposed scheme	205	per day	
The average proportion of a trip which uses the scheme infrastructure	41.86%	%	
Current walking infrastructure for this route			
Street lighting	No		
Kerb level	Yes		
Crowding	No		
Pavement evenness	No		
Information panels	No		
Benches	No		
Directional signage	No		
Proposed walking infrastructre for this route			
Street lighting	No		Scheme drawings and description
Kerb level	Yes		Scheme drawings and description
Crowding	No		Scheme drawings and description
Pavement evenness	Yes		Scheme drawings and description
Information panels	No		Scheme drawings and description
Benches	No		Scheme drawings and description
Directional signage	No		Scheme drawings and description

Northumberland Park to Cobalt cycle scheme Phase 3

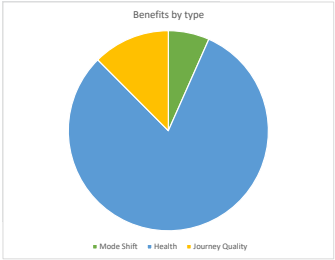
Year	Total scheme costs '000£	Private sector contributions '000£
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
	150	
2019		
2020		
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		
2030		

Analysis of Monetised Costs and Benefits (in £'000s)

Congestion benefit	28.79
Infrastructure	0.10
Accident	2.94
Local Air Quality	0.02
Noise	0.20
Greenhouse Gases	0.56
Reduced risk of premature death	300.53
Absenteeism	69.98
Journey Ambience	57.09
Indirect Taxation	-2.19
Government costs	116.14
Private contribution	0.00
PVB	457.91
PVC	116.04
BCR	**3.95**

Benefits by type:

Mode Shift	30.40	6.6%
Health	370.52	80.9%
Journey Quality	57.09	12.5%



New Road/Lingey Lane cycle scheme

Scheme Name	New Road/Lingey Lane cycle scheme		
Scheme Promoter	NECA		
Scheme Details			
Scheme Opening Year	2020		
Last year of funding	2019		
Type of area scheme is located	Inner and Outer Conurbations		
Mode information			
Cycling			**Evidence**
Number of journeys without the	184	per day	TADU average weekday counts, 98
Number of journeys with the	285	per day	Increase by 57%, eveidence from C
The average proportion of a trip	29.82%	%	
Current cycling infrastructure for this route	On-road segregated cycle lane		
Proposed new cycling infrastructure for this route	Off-road segregated cycle track		Scheme drawings
Are any additional shower facilities being added?	No		
Are any additional secure storage facilities being added?	No		
Walking			
			Estimated from local population in affected OA s from census data and proportion of walking trips from NTS.
Number of journeys without the proposed scheme	317	per day	
Number of journeys with the proposed scheme	317	per day	
The average proportion of a trip which uses the scheme infrastructure	141.53%	%	
Current walking infrastructure for this route			
Street lighting	Yes		
Kerb level	Yes		
Crowding	No		
Pavement evenness	No		
Information panels	No		
Benches	No		
Directional signage	No		
Proposed walking infrastructre for this route			
Street lighting	Yes		Scheme drawings and description
Kerb level	Yes		Scheme drawings and description
Crowding	No		Scheme drawings and description
Pavement evenness	Yes		Scheme drawings and description
Information panels	No		Scheme drawings and description
Benches	No		Scheme drawings and description
Directional signage	No		Scheme drawings and description

New Road/Lingey Lane cycle scheme

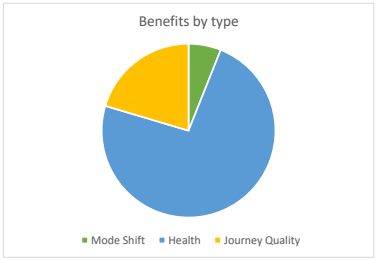
Year	Total scheme costs '000£	Private sector contributions '000£
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019	957	
2020		
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		
2030		

Analysis of Monetised Costs and Benefits (in £'000s)

Congestion benefit	60.76
Infrastructure	0.21
Accident	6.20
Local Air Quality	0.03
Noise	0.41
Greenhouse Gases	1.18
Reduced risk of premature death	634.36
Absenteeism	147.72
Journey Ambience	216.79
Indirect Taxation	-4.63
Government costs	741.15
Private contribution	0.00
PVB	1062.82
PVC	740.95
BCR	**1.43**

Benefits by type:

Mode Shift	64.17	6.0%
Health	782.07	73.6%
Journey Qu	216.79	20.4%



A19 cycle route

Scheme Name	A19 cycle route		
Scheme Promoter	NECA		

Scheme Details

Scheme Opening Year	2020		
Last year of funding	2020		
Type of area scheme is located	Inner and Outer Conurbations		

Mode information

Cycling

			Evidence
Number of journeys without the	175	per day	PCT tool. Midpoint of range.
Number of journeys with the proposed scheme	275	per day	Increase by 57%, eveidence from CCAG scheme introduction
The average proportion of a trip	71.43%	%	
Current cycling infrastructure for this route	No provision		
Proposed new cycling infrastructure for this route	Off-road segregated cycle track		Scheme drawings
Are any additional shower facilities being added?	Yes		
Are any additional secure storage facilities being added?	Yes		

Walking

Number of journeys without the proposed scheme	604	per day	Estimated from local population in affected OA s from census data and proportion of walking trips from NTS.
Number of journeys with the proposed scheme	604	per day	
The average proportion of a trip which uses the scheme infrastructure	338.98%	%	

Current walking infrastructure for this route

Street lighting	Yes	
Kerb level	Yes	
Crowding	No	
Pavement evenness	Yes	
Information panels	No	
Benches	No	
Directional signage	Yes	

Proposed walking infrastructre for this route

Street lighting	Yes	Scheme drawings and description
Kerb level	Yes	Scheme drawings and description
Crowding	No	Scheme drawings and description
Pavement evenness	Yes	Scheme drawings and description
Information panels	No	Scheme drawings and description
Benches	No	Scheme drawings and description
Directional signage	Yes	Scheme drawings and description

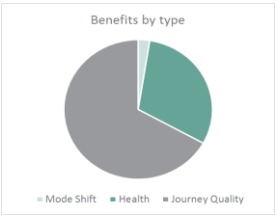
Year	Total scheme costs '000£	Private sector contribu tions '000£
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019	700	
2020	500	
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		
2030		

Analysis of Monetised Costs and Benefits (in £'000s)

Congestion benefit	60.01
Infrastructure	0.20
Accident	6.12
Local Air Quality	0.03
Noise	0.41
Greenhouse Gases	1.17
Reduced risk of premature d	626.51
Absenteeism	145.89
Journey Ambience	1694.85
Indirect Taxation	-4.57
Government costs	909.20
Private contribution	0.00
PVB	2530.41
PVC	909.00
BCR	**2.78**

Benefits by type:

Mode Shift	63.37	2.5%
Health	772.39	30.5%
Journey Quality	1694.85	67.0%



Scheme Name	Tyne View Terrace	
Scheme Promoter	NECA	

Scheme Details

Scheme Opening Year	2020	
Last year of funding	2019	
Type of area scheme is located	Inner and Outer Conurbations	

Mode information

Cycling

			Evidence
Number of journeys without the proposed scheme	610	per day	TADU counts, 9881 & 9766 - 0.5 of each site use scheme. Site 9881 growthed 2013 to 2017 using growth factor from site 9766, plus 50% of the ped/cycle users of the ped/cycle tyne tunnel (333)
Number of journeys with the proposed scheme	720	per day	18% growth applied, just below Go Dutch scenario growth in Propensity to cycle tool
The average proportion of a trip which uses the scheme infrastructure	7.64%	%	
Current cycling infrastructure for this route	No provision		Site visit. Evidence of some painted markings at eastern and western extents. Classed as no provision as central section of scheme has no current facilities
Proposed new cycling infrastructure for this route	Off-road segregated cycle track		Scheme drawings
Are any additional shower facilities being added?	No		
Are any additional secure storage facilities being added?	No		

Walking

Number of journeys without the proposed scheme	333	per day	20,000 users/month of Tyne Tunnel in 2010 (cyclist and ped). Used assumption of 50/50 walkers/cyclists. Ref: Sustrans (https://www.sustrans.org.uk/blog/tyne-pedestrian-and-cyclist-tunnels-reopen-early-2019)
Number of journeys with the proposed scheme	333	per day	
The average proportion of a trip which uses the scheme infrastructure	36.27%	%	

Current walking infrastructure for this route

Street lighting	Yes	
Kerb level	Yes	
Crowding	No	
Pavement evenness	No	
Information panels	No	
Benches	No	
Directional signage	Yes	

Proposed walking infrastructre for this route

Street lighting	Yes	Scheme drawings and description
Kerb level	Yes	Scheme drawings and description
Crowding	No	Scheme drawings and description
Pavement evenness	Yes	Scheme drawings and description
Information panels	No	Scheme drawings and description
Benches	No	Scheme drawings and description
Directional signage	Yes	Scheme drawings and description

Tyne View Terrace

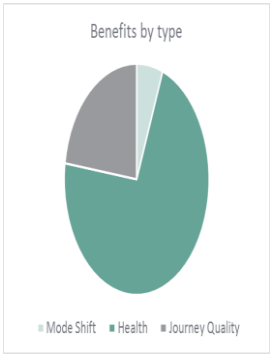
Year	Total scheme costs '000£	Private sector contributions '000£
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018	447	
2019		
2020		
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		
2030		

Analysis of Monetised Costs and Benefits (in £'000s)

Congestion benefit	66.17
Infrastructure	0.23
Accident	6.75
Local Air Quality	0.04
Noise	0.45
Greenhouse Gases	1.29
Reduced risk of premature death	690.88
Absenteeism	160.88
Journey Ambience	271.87
Indirect Taxation	-5.04
Government costs	346.18
Private contribution	0.00
PVB	1193.29
PVC	345.96
BCR	**3.45**

Benefits by type:

Mode Shift	69.88	5.9%
Health	851.76	71.4%
Journey Quality	271.87	22.8%



Annex F: Location Map

Spatial Map


A1
To Berwick,
Edinburgh,
Glasgow,
Aberdeen
Ashington
Morpeth
A696
A68
Port of Blyth
A189
Newcastle
Airport
Cramlington
Whitley Bay
To Carlisle,
Manchester
North Shields
Port of Tyne
South Shields
A1
NEWCASTLE
UPON TYNE
A69
Hexham
Blaydon
Gateshead
SUNDERLAND
Port of
Sunderland
A194(M)
A692
A68
Washington
Consett
A693
South
Airport
ıe Tyne
Chester-le-
Street
A690
Seaham
Harbour
A1(M)
A691
A19
DURHAM
A68
Spennymoor
Bishop
Auckland
Newton
Aycliffe
To Hartlepool
and Middlesbrough
A688
Barnard
Castle
To York, Leeds,
London, Midlands
Principal rail links
Tyne &Wear Metro
Motorway
Key routes
Ports
Airports

Annex G: Enterprise Zone map


North East LEP Enterprise Zone sites
Round one sites
1 Blyth Estuary, Northumberland
East Sleekburn ECA
Bates/Wimbourne Quays ECA
Commissioner's Quay BRD
Dun Cow Quay BRD
2 North Bank of Tyne, Newcastle and North Tyneside
Neptune ECA
Swans BRD
Port of Tyne BRD
3 A19 Corridor, Sunderland
Corridor 1 ECA
Corridor 2 BRD
Corridor 3 ECA
Round two sites
1 Ramparts Business Park, Berwick BRD
2 Fairmoor, Morpeth BRD
3 Follingsby South, Gateshead BRD
4 North Bank of the Tyne Extension, Newcastle ECA
5 Holborn Riverside, South Tyneside
Sites 1 BRD
Sites 2 (Tyne Dock Enterprise Park) ECA
6 Newcastle International Airport Business Park, Newcastle ECA
7 Ashwood Business Park, Ashington ECA
8 Port of Sunderland, Sunderland and South Tyneside ECA
9 International Advanced Manufacturing Park, South Tyneside and Sunderland ECA
10 Jade Business Park, Seaham BRD
Railway
Motorway
Key road
Enterprise Zone
Port
Airport
BRD Business Rate Discount
ECA Enhanced Capital Allowance
Port of Berwick
Berwick-upon-Tweed
A1
Alnwick
Ashington
Morpeth
Port of Blyth
Blyth
A68
Newcastle Airport
North Shields
Port of Tyne
South Shields
NEWCASTLE UPON TYNE
A69
Hexham
GATESHEAD
Sunderland
SUNDERLAND
Consett
Seaham Harbour
A68
DURHAM
BISHOP AUCKLAND
A19
A1 (M)
Durham Tees Valley Airport
Teesport

Annex H: Spatial map of four key corridors

Spatial Map


A1
To Berwick, Edinburgh, Glasgow, Aberdeen
Ashington
Morpeth
A696
A68
Port of Blyth
A189
Newcastle Airport
Cramlington
Whitley Bay
To Carlisle, Manchester
North Shields
Port of Tyne
South Shields
A1
NEWCASTLE
UPON TYNE
A69
Hexham
Blaydon
Gateshead
SUNDERLAND
194M
Port of Sunderland
A692
A68
Washington
Consett
A693
Chester-le-Street
A690
Seaham Harbour
A1(M)
A691
A19
DURHAM
A68
Spennymoor
Bishop Auckland
Newton Aycliffe
To Hartlepool and Middlesbrough
A688
Barnard Castle
To York, Leeds, London, Midlands
North and South
Cities and Airport
Banks of the Tyne
River Wear
Principal rail links
Tyne & Wear Metro
Motorway
Key routes
Ports
Airports