Appendix 1 Strategic Transport Appraisal STAG Pre Appraisal – Interim Findings

# Aberdeen City Region Strategic Transport Appraisal

Transport Scotland, DfT, NESTRANS, Aberdeen City and Shire Strategic Development Planning Authority, Aberdeen City Council, Aberdeenshire Council

## Problems, Opportunities and Objectives – Draft Interim Findings

06 June 2018

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# 1. Introduction

## 1.1 Background

**Aberdeen City Region Deal**

1.1.1 In November 2016 Aberdeenshire Council, Aberdeen City Council and Opportunity North East successfully agreed a City Region Deal with the UK and Scottish Governments. This deal, worth £826.2 million over a 10-year period, now provides a significant delivery mechanism for initiatives to support sustainable economic growth in the region. The allocation of the funds is split between a variety of projects, one of which is a Strategic Transport Appraisal that will take a 20-year strategic view of the transport implications of the investment unlocked by the Aberdeen City Region Deal across all modes, including road and rail.

1.1.2 The Project Working Group[1] jointly commissioned a Pre-Appraisal Study to be undertaken in accordance with Scottish Transport Appraisal Guidance (STAG) in September 2017. This study forms one of the first stages of the Strategic Transport Appraisal component of the Deal.

1.1.3 This document summarises the draft interim findings from the Pre-Appraisal stage.

## 1.2 Study Context

1.2.1 The North East of Scotland is one of the most prosperous regions in the UK and retains a high performing economy, despite having faced some challenging times in recent years, primarily due to fluctuating global oil prices. In addition to the opportunities in the oil and gas sector there has been significant investment by the private sector in other strong performing industries. The Aberdeen City Region Deal recognises the opportunity for investment in transport and digital infrastructure to support the planned economic and population growth such that the region can fully realise its economic potential.

1.2.2 Infrastructure is considered critical to the region's ambition to remain an internationally competitive business environment. The Regional Economic Strategy, upon which much of the City Region Deal agreement is based, emphasises the desire for the region to retain its overall competitiveness whilst securing a long-term economic future, and that infrastructure is essential to this. A key element for the Strategy is to "invest in an infrastructure that caters for the needs of a high performing international city region economy and a growing hinterland – roads with capacity to cope with the demands of business; extensive air and sea links, digital connectivity to develop competitive business, and a competitive and accessible public transport system".

1.2.3 Four key programmes were established through the Strategy to assist in achieving the vision, including:

- Investment in Infrastructure;
- Innovation;
- Inclusive Economic Growth; and
- Internationalism.

[1] Consisting of representatives from Transport Scotland, Department for Transport, NESTRANS, Aberdeen City and Shire Strategic Development Planning Authority, Aberdeen City Council and Aberdeenshire Council

1.2.4 To act in part as a delivery mechanism for the Regional Economic Strategy, the Aberdeen City Region Deal has been designed with six key project areas at its core, towards which funding will be directed to enable the economy of the region to continue to develop and grow. These projects are:

- The Oil and Gas Technology Centre;
- Bio-Therapeutic Hub for Innovation;
- Agri-Food & Nutrition Hub for Innovation;
- Digital Infrastructure;
- Aberdeen Harbour Expansion; and
- Strategic Transport Appraisal

## 1.3 Strategic Transport Appraisal

1.3.1 The **Strategic Transport Appraisal** part of the City Region Deal will take a long-term view of the key transport requirements of the region. This will assist with the delivery of the key aims of the City Region Deal and in part, identify the key areas of infrastructure investment necessary to facilitate the aims and vision of the Regional Economic Strategy. It will take a 20-year strategic view (up to year 2040) across all modes including road and rail and will be based on Scottish Transport Appraisal Guidance (STAG).

**Pre-Appraisal**

1.3.2 This study forms part of the Pre-Appraisal stage of the Aberdeen City Region Deal Strategic Transport Appraisal. As such it is a multi-modal, objective-led, study that identifies key themes to drive the future direction of action, and develop interim Transport Planning Objectives upon which to appraise the likely effectiveness of future interventions in supporting the aspirations of the Regional Transport Strategy.

1.3.3 The specific aims of this study are to:

- Identify evidence based cross modal problems and opportunities with strategic transport provision in the Aberdeen City Region;
- Identify key themes around which further appraisal effort should be structured; and
- Develop draft interim Transport Planning Objectives informed by the review of problems and opportunities, and existing and emerging transport, land-use and economic development policy position for the Aberdeen City Region.

**Methodology**

1.3.4 The study is being overseen by a Project Working Group with monthly progress meetings held to discuss progress, key issues, agree decisions and to guide the overall direction and programme of the study.

1.3.5 By following STAG principles, this study has used an evidence-based approach to identify transport problems and opportunities and from this has derived draft interim objectives. Participation and consultation with the public and stakeholders has been vital to the process and has provided valuable and informative input to the Pre-Appraisal process.

1.3.6 The context and evidence base that underpins this Pre-Appraisal has been established through undertaking:

- Extensive stakeholder engagement via structured interviews, workshops and surveys;
- Reviews of relevant policies, strategies and previous appraisals; and
- Comprehensive data analysis.

1.3.7 The data analysis is facilitated by a multi-layered geospatial GIS tool comprising a range of demographic, economic, and traffic and transport datasets that was developed to assist in the identification, definition, verification and understanding of the transport related problems and opportunities across the Aberdeen City Region. The transport data included outputs from the Aberdeen Sub Area Model (ASAM), which is the strategic multi-modal transport model covering the Aberdeen City and Aberdeenshire region and includes cross boundary movements into the Highland, Perth and Kinross and Angus local authority areas. Model outputs representing 2017 traffic conditions, with the Aberdeen Western Peripheral Route (AWPR) operational, and a 2037 future year were analysed to identify the likely future year problems and opportunities associated with the road and public transport networks.

## 1.4 Regional Context

1.4.1 The Aberdeen City Region consists of a mix of urban and rural areas in the north-east of Scotland comprising of the local authority areas of Aberdeen City (186 $km^2$) and Aberdeenshire (6,313 $km^2$). The landscape of the region is a varied one; at the core is the urban centre of Aberdeen City, Scotland's third largest city which provides the bulk of employment within the region. This is surrounded by the rugged coastline along the North Sea in the east, the agricultural lowlands in the heart of the region, to the mountains of the Cairngorms National Park in the west. Several larger towns located within Aberdeenshire, such as Peterhead, Fraserburgh, Inverurie, Westhill, Stonehaven and Ellon perform key roles in housing much of the region's population as well as supporting its prosperity with a wide range of businesses.

1.4.2 Historically, the physical environment of the region shaped the focus of the economy on the traditional sectors of agriculture, forestry, fishing and mining of granite. However, in the mid-1970s the discovery of significant oil reserves in the North Sea fundamentally shifted the focus of the economy to exploration and extraction of oil. This gave new impetus to the labour market, with a high number of highly-skilled and highly-paid jobs leading to a rapid increase in population. This led to the expansion of the urban footprint of Aberdeen City and the increased growth of several of the aforementioned larger towns in Aberdeenshire, a trend that continued over the following 40 years through increased housing development in and around the City and likewise growth in employment in the heart of the City and other areas, such as the airport. Investment in transport infrastructure in the Aberdeen City Region has historically struggled to keep pace with the more rapid growth in households and key employment sectors, and one of the consequences of this is a region that is more car dependent than other areas of Scotland.

1.4.3 The global nature of the oil industry has proven to be susceptible to volatile fluctuations that has impacted the region. For example, in the two-year period between 2014 and 2016, the significant decrease in oil prices to a low of $26.01, resulted in the oil industry taking action to reduce costs, which saw 150,000 oil related jobs in the UK being lost. However, through this economic turbulence, the region has demonstrated its' resilience and looks to be recovering to a stronger position through the recent efficiencies and technological advances in the oil industry, positive gains in the price of a barrel of oil to an approximate of $76.00 (May 2018 average), and support from further diversification of the economy, particularly in the food and drink, renewables and tourism sectors. If sustained, this will establish a solid foundation on which to build the future aspirations and aims of the Regional Economic Strategy.

1.4.4 The recent significant public sector investment into large scale transport infrastructure improvements are of course key components to unlock further growth. It will be important going forward that the transport system continues to match the demands of the accelerating economic growth in the region.

## 1.5 Socio-Economic Context

1.5.1 The socio-economic profile of the Aberdeen City Region is one that reflects the rapid pace of growth in the oil and gas industry in the region.

1.5.2 The population of the region has grown significantly in the last five decades, particularly when compared to the rest of Scotland. Since 2001, the growth in two authority areas differs slightly, with Aberdeen City demonstrating a slower population growth rate at 8.5%, but more favourable economically active age characteristics of that population, while Aberdeenshire has experienced a higher population growth rate, albeit with a larger proportion of the population over 65 who are less likely to be economically active. Both local authority areas also demonstrate a high level of academic attainment and subsequent high skill level, providing the valuable employment market for businesses in the region.

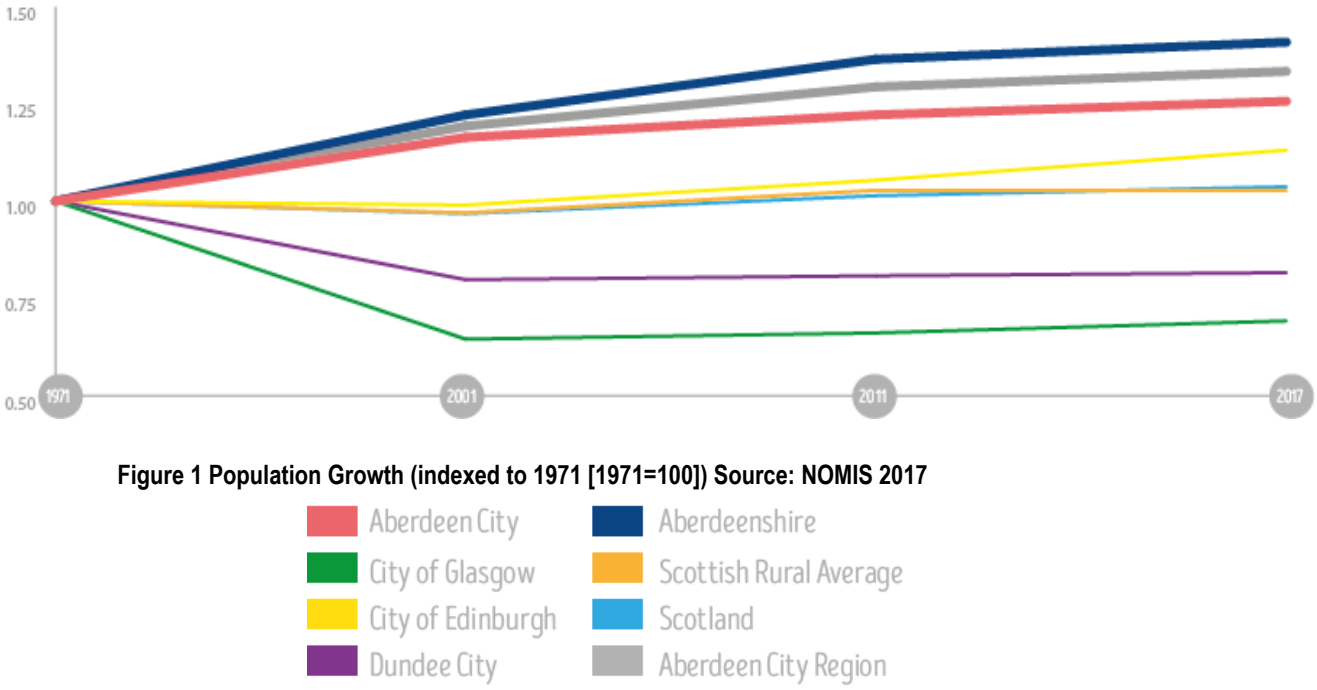



**Figure 1 Population Growth (indexed to 1971 [1971=100]) Source: NOMIS 2017**

**Population growth rate (2001-2017);** Aberdeen City 8%, Aberdeenshire 15.4%, Scotland 7.1%, City of Edinburgh 14.3%, Glasgow City 7.3%, Dundee City 2.2% and SRA 5.9%;

**Working Age Population (Nomis, 2017);** Aberdeen City 69%, Aberdeenshire 63%, Scotland 65%, City of Edinburgh 71%, Glasgow City 71%, Dundee City 67% and SRA 60%;

**Qualifications – level 4 and above (Census, 2011)**; Aberdeen City 43%, Aberdeenshire 37%,

1.5.3 The high quality of life within the region is evident in the lower levels of deprivation, higher house prices and proportions of homes in the highest council tax bands compared to other cities within Scotland. Both local authorities also demonstrate a significantly higher proportion of homes with access to two of more cars, and equally a lower proportion of homes with no cars available. These statistics highlight the dominance of the private car, which is covered in more detail later. Nevertheless, it is clear that within Aberdeen City that public transport and active travel networks play a key role for the 32% of households without access to a car.

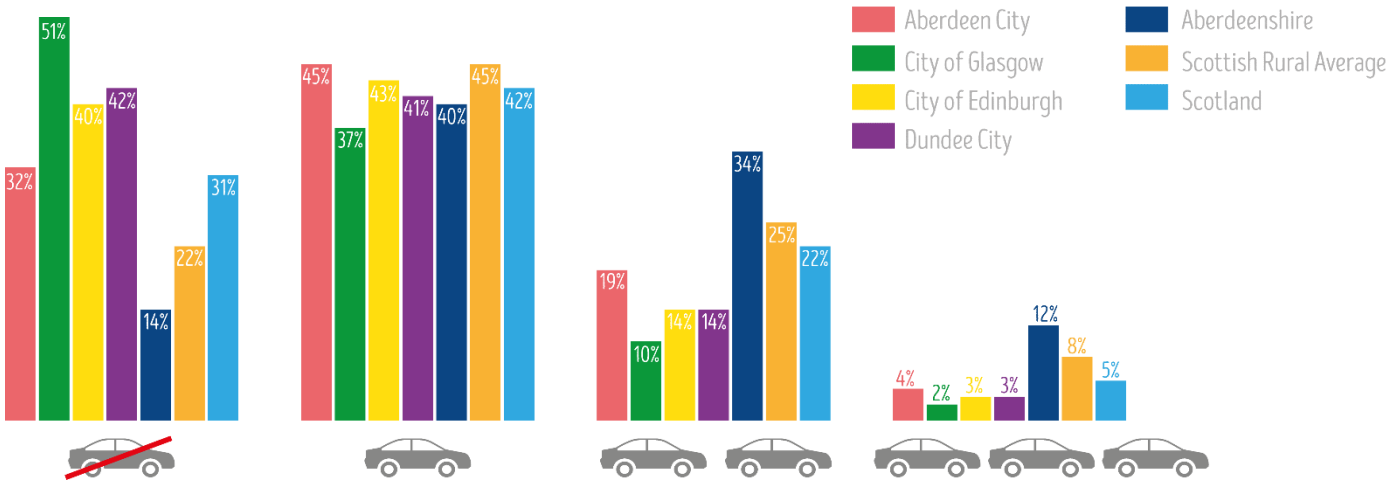
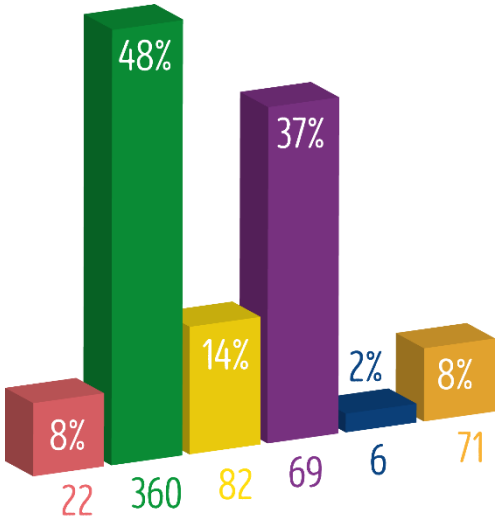



**Figure 2 Car Availability Source: Census 2011**




**Number of locations within 20% most deprived in Scotland (SIMD, 2016);** Aberdeen City 22, Aberdeenshire 6, City of Edinburgh 82, Glasgow City 360, Dundee City 69 and SRA 71;

**Average House Price 2017 (Scottish Government, 2017);** Aberdeen City £210,428, Aberdeenshire £216,351, Scotland £180,663, City of Edinburgh £262,868, Glasgow City £170,625, Dundee City £144,436 and SRA £164,734;

**Council Tax Bands F-H Ranges (Scottish Government, 2016);** Aberdeen City 15%, Aberdeenshire 23%, Scotland 13%, City of Edinburgh 21%, Glasgow City 7%, Dundee City 5% and SRA

**Figure 3 Number of locations in 20% most deprived Source: SIMD 2016**

1.5.4 Economic activity is high in the region, with the employment market highlighting the high-skill level and higher salary levels that have become synonymous with the oil and gas industry. In the Aberdeen City and Aberdeenshire local authority areas average weekly incomes are significantly higher than the other comparator areas within Scotland.

1.5.5 In recent years there has been evidence of the growth in other sectors particularly in tourism and renewables within the Aberdeen City Region, and this has been further substantiated through the increasing uptake in new sites by businesses in these two sectors.

1.5.6 Since 1997 the Aberdeen City Region has also witnessed significant growth in Gross Value Added (GVA), despite a slower growth rate experienced in recent years coinciding with the drop in oil price. In 2015 the Aberdeen City Region contributed a similar amount to the Scottish economy as that of both Glasgow and Edinburgh Cities. Considering the GVA per head it is clear that Aberdeen City delivers a significantly higher contribution compared to both Glasgow and Edinburgh, demonstrating the success of the local economy.

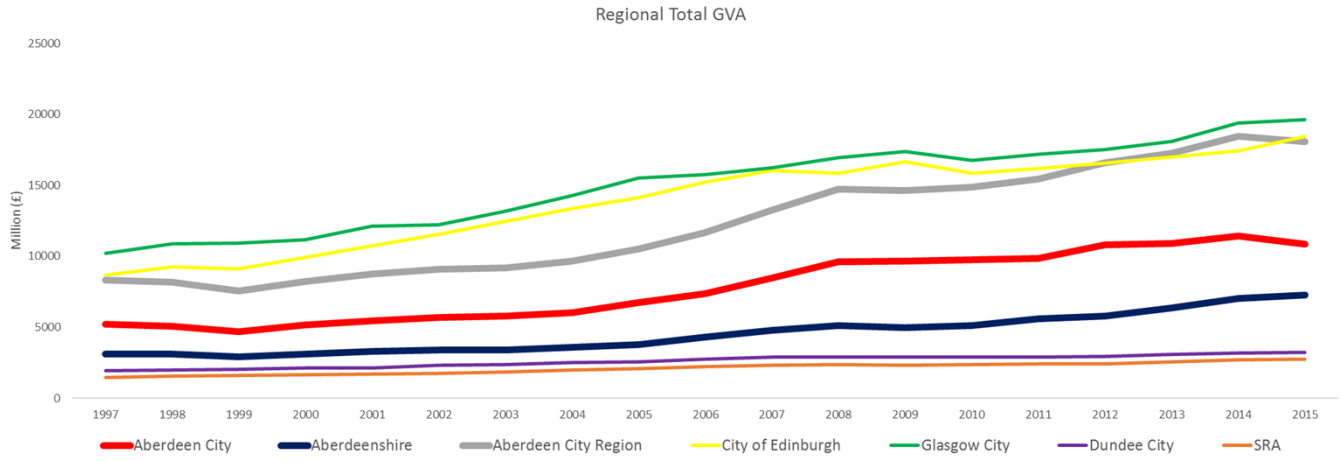



**Figure 4 Regional GVA (Total (£)) Source:ONS 2016**

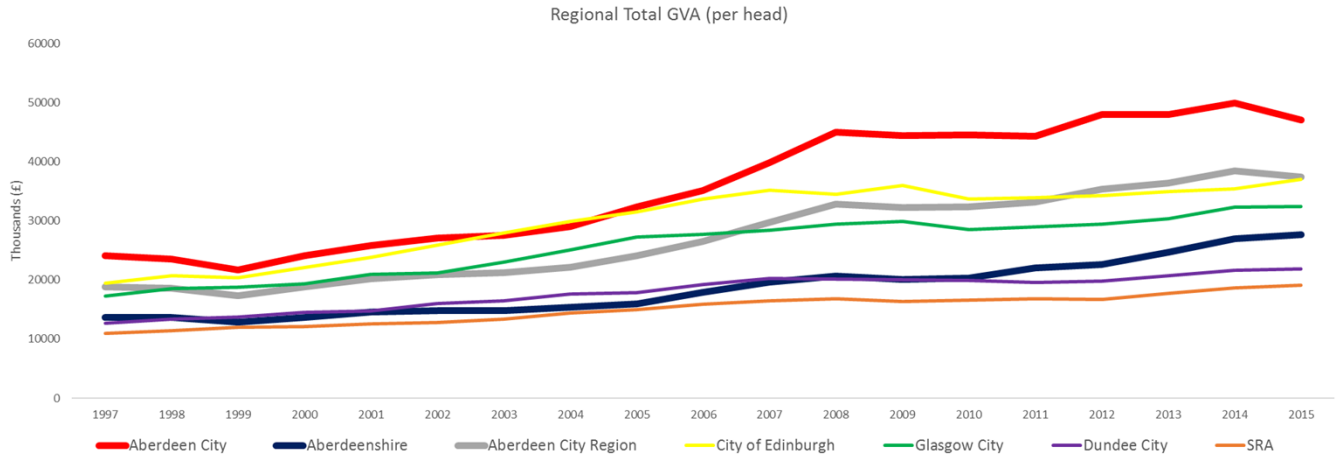



**Figure 5 Regional GVA (Per Head (£)) Source: ONS 2016**

**Economic Activity Rates (Census, 2011**); Aberdeen City 73%, Aberdeenshire 64%, Scotland 69%, City of Edinburgh 69%, Glasgow City 64%, Dundee City 64% and SRA 70%;

**Regional GVA Growth 1997-2015 (ONS, 2015);** Aberdeen City 107%, Aberdeenshire 135%, City of Edinburgh 112%, Glasgow City 92%, Dundee City 68% and SRA 87%;

**Regional GVA Growth per Head 1997-2015 (ONS, 2015);** Aberdeen City 95%, Aberdeenshire 103%, City of Edinburgh 90%, Glasgow City 87%, Dundee City 71% and SRA 74%.

**New Enterprise 2 Year Survival Rate (ONS, 2015);** Aberdeen City 81%, Aberdeenshire 84%, Scotland

## 1.6 Transport Context

1.6.1 Investment in transport infrastructure, historically, in the Aberdeen City Region has struggled to keep pace with the more rapid growth in population and key employment sectors. In recent years, however, this gap has been narrowed as key high-profile infrastructure projects are completed or are due for completion in the very near future. Examples of significant infrastructure investment include the Aberdeen Western Peripheral Route, Diamond Bridge, Haudagain junction improvements, the City Centre Masterplan and revised Roads Hierarchy, the new Aberdeen South Harbour and the Programme of Rail Revolution. Each of these initiatives is aimed at providing mechanisms for unlocking further growth, demographically and economically.

1.6.2 Key to the Regional Economic Strategy is the ability of the transport infrastructure in the region to enable future growth and opportunity within the region. Transport in the region plays two crucial roles, enabling the movement of people to and from jobs, leisure and residential locations; and linking businesses located within the Aberdeen City Region to their key local and external markets. Key to facilitating these movements are the main transport corridors and hubs, such as the forthcoming AWPR, radial bus routes, the rail network, Aberdeen International Airport and the ports and harbours of Aberdeen, Peterhead and Fraserburgh.

1.6.3 Within the region, travel by private car is dominant over all other methods of travel. This has significant impacts on the road network, which is further constrained by natural barriers such as the crossings at the Rivers Don and Dee. During peak periods, the heavy reliance on the private car has a detrimental impact on journey time reliability, emission levels and safety concerns with other road users and active travel conflicts.

1.6.4 Public transport suffers from a lack of competitiveness compared with private car, with evidence that journey times are long throughout the region and often there is a lack of direct services to non-Aberdeen city centre locations, due to the radial routing of most services. This often results in the need to undertake multiple interchanges to travel to key locations. The Census 2011 data illustrates that the Aberdeen City Region has a lower public transport and active travel mode share compared to other cities and rural and Scottish averages.

1.6.5 Aberdeen International Airport is the third largest airport within Scotland, providing direct and frequent flights to the rest of the UK and key European locations such as Amsterdam and Scandinavia. Additionally, the airport is the best-connected airport for UK to UK flights, which is a crucial aspect due to the propensity of the airport to be used for business flights. In 2013, 61% of all passengers from Aberdeen City Airport were business travellers, compared to 30% at Edinburgh Airport and 27% at Glasgow Airport. Passenger numbers have fluctuated in the last 10 years, although 2017 witnessed a growth of 4.6% from the previous year, after two preceding years of passenger reductions The importance of the airport to the region is highlighted by the fact that the number of passengers is similar in scale to those traveling through Aberdeen Rail Station, whereas in Edinburgh and Glasgow the number of people travelling through the rail stations in the cities far exceeds those using the respective airports.

1.6.6 Due to the geographical proximity of Aberdeen to the North Sea oil fields and fishing waters, marine transport plays an important role in the growth in the region's economy. Aberdeen Harbour plays a crucial role in the supply and maintenance of vessels related to the oil and gas industry and handles over 6,500 shipping movements annually. Both Peterhead and Fraserburgh ports have also demonstrated growth in tonnage passing through the ports and play key roles in the fishing industry, with Peterhead also being the premier supply harbour for the larger subsea support vessels.


**Figure 6 Mode Share Source: Census 2011**

**Change in Vehicle KMs 2011-2015 (Scottish Transport Statistics, 2016);** Aberdeen City 3%, Aberdeenshire 8%, Scotland 5%, City of Edinburgh 4%, Glasgow City 6%, Dundee City 0% and SRA 5%;

**Growth in Airport Terminal Passengers 2011-2017 (CAA, 2018);** Aberdeen Airport 0.2% , Edinburgh Airport 42.9%, Glasgow Airport 44.3%;

**Propensity to Fly 2017 (ratio of annual passengers to population of City Deal areas);** Aberdeen Airport 6.3%, Edinburgh Airport 9.8%, Glasgow Airport 5.4%
*The ratio of passenger/population includes both arriving and departing at the airports*

**Rail Passenger Growth 2010-2015 (ORR, 2016);** Aberdeen 17% (+495,642); Inverurie 54% (+188,182), Dyce 15% (+84,736), Stonehaven 11% (+52,976), Portlethen 206% (+37,942), Insch 36% (31,524), Laurencekirk 42% (+30,942), Huntly 18% (+15,836);

**Road Accidents 2011-2016 (STATS 19, 2016), 2017 [Provisional] (Police Scotland Accident File**

# 2. Problems & Opportunities

## 2.1 Deriving Problem & Opportunities

2.1.1 The identification and definition of Problems and Opportunities has been the fundamental basis for the derivation of the Key Themes and subsequent Objectives for this study. A two phased approach was undertaken as part of this process during Autumn and Winter 2017. The first phase consisted of:

- **Stakeholder Engagement:** key stakeholders chosen because they represent a diverse range of organisations with a vested interest in the region's transport system. Extensive engagement was undertaken with these stakeholders through a variety of means:
  - **Structured Interviews -** with transport bodies, business and youth representatives
  - **Stakeholder Workshops** - with local authorities, transport operators & organisations, business organisations, universities, disability organisations and the north east Scotland freight forum
  - **Elected Member Workshops -** was held specifically for the region's Elected Members
- **Surveys** – online surveys with Aberdeen City and Aberdeenshire community councils and the public
- **ASAM Transport Model:** analysis covering current and future year forecasts of transport conditions.

2.1.2 **Phase two** involved using the two sources listed below to undertake gap analysis and validation of the identified problems and opportunities from phase one.

- **Data analysis:** covering socio-economic data, and transport and traffic data collated from a number of sources.
- **Policy Review and Previous Studies:** including:
  - National Transport Strategy Refresh
  - Strategic Transport Projects Review
  - Nestrans Regional Transport Strategy Refresh
  - Aberdeen City Local Transport Strategy
  - Aberdeenshire Local Transport Strategy
  - Regional Economic Strategy
  - Aberdeen City Region Deal
  - Aberdeen City and Shire Strategic Development Plan
  - Aberdeen City Local Development Plan
  - Aberdeenshire Local Development Plan
  - Aberdeen City Centre Masterplan and Delivery Programme
  - Wide range of up to date Appraisals, which have included Aberdeen Roads Hierarchy, Aberdeen Cross City Connections, A90 Fraserburgh Peterhead Ellon – Aberdeen Corridor Study, A947 Route Improvement Strategy, Access from the South - Bridge of Dee Study and Wellington Road Multi-Modal Corridor Study.

2.1.3 This process generated large numbers of individual problems and opportunities that were analysed and distilled to more aggregate 'categories'.

## 2.2 Problems & Opportunities Categories

2.2.1 Having identified a range of problems and opportunities, these were further grouped to develop a number of categories as outlined below.

**Table 1: Identified Problems Categories**

**ACCESSIBILITY**

- Long journey times to key destinations
- Local geography constrains ability to create efficient transport system
- Poor access to the airport from Dyce Rail Station

**ACTIVE TRAVEL**

- Lack of high quality connected active travel provision
- Road safety concerns hinders active travel uptake

**CONNECTIVITY**

- Relative isolation of the Aberdeen City Region to Central Belt and poor inter-town connectivity
- AWPR alone will not necessarily solve all problems of connectivity
- Lack of quality, accessible multi-modal interchanges
- Lack of high speed internet access

**PUBLIC TRANSPORT**

- Public transport options not being competitive when compared to the private car
- Lack of public transport accessibility
- Unreliable public transport journey times during peak times and in built up areas
- Lack of public transport capacity on key corridors
- High cost of travelling
- Difficult for vulnerable users to access public transport, i.e. connections to Aberdeen Rail Station from the city centre
- Limited scope for public sector funding for improved bus provision

**ROAD**

- Key corridors in region suffer journey time reliability issues during peak times
- Lack of high capacity road network provision
- Road infrastructure for freight movements is not always suitable
- Low cost and relative ease of parking in the city
- Safety issues on road network
- Poor perception of road maintenance
- Constrained road capacity on key corridors into city centre
- Constrained road capacity in the city centre
- Lack of alternative vehicular routes
- Vehicle dominant mode in city centre
- Unsafe driver behaviour
- City centre journey time reliability issues during peak times
- High traffic volumes into city during peak times

**SOCIO-ECONOMIC**

- Over-reliance on car as main mode of travel
- Limited integration between land use & transport network
- Limited funding opportunities
- Negative health impact from vehicle emissions
- Growing & ageing population
- Oil and gas dominated economy
- Skills shortage for key industries
- Poor tourism infrastructure and difficult to access attractions

**Table 2: Identified Opportunities Categories**

**ACCESSIBILITY**

- Better connect the region as a whole
- City Centre Masterplan
- Economic benefit of an airport well integrated with the city region
- Improved regional accessibility will facilitate change towards more sustainable movements
- Travel planning can result in behaviour change
- Maximise access to new harbours

**ECONOMY AND DEVELOPMENT**

- Continued economic growth
- Develop the tourism offering
- Increase collaboration between government and business
- Move towards higher density and well located developments to reduce the need to travel by car
- Growth (economic, employment and tourism) generated by new harbour
- Local existing high skills base
- High quality of life in the Aberdeen City Region

**CONNECTIVITY**

- Recent digital connectivity improvements can reduce the need to travel
- Improved regional connectivity will facilitate change towards more sustainable movements

**ENVIRONMENT**

- Technology as a way of improving transport network efficiency
- Reduced emissions will improve air quality

**PUBLIC TRANSPORT**

- Committed rail developments including Kintore Station and Programme of Rail Revolution
- Increased positive growth in rail patronage
- Make bus more competitive with car
- Change perception of public transport
- Build on identified successes of park & ride sites

**ROAD**

- Lock in AWPR benefits
- Move towards a less car dependent region
- Freight efficiency benefits from AWPR
- Continuing improvements to road safety

**ACTIVE TRAVEL**

- Quality sustainable travel provision shown to increase uptake of these modes
- Health benefits associated with an increase in walking and cycling
- Incorporation of high quality active travel provision as part of City Centre Masterplan

## 2.3 Key Problem & Opportunities

2.3.1 A further review of the wide range of problems and opportunities was carried out to determine the **Key** Problems and Opportunities, within the context of this study. These describe the specific regional context with which the transport network functions, or is expected to function in future, and views on how these may broadly be addressed:

**Table 3: Key Problems & Opportunities**

| KEY PROBLEMS | KEY OPPORTUNITIES |
|---|---|
| • High car usage in the Aberdeen City Region<br>• A large volume of private car movements combined with the constrained road network - linked to long / unreliable journey times, particularly in the peak periods.<br>• Infrastructure and services need to keep a pace with development growth – where it doesn't that can lead to oversaturation of the network in constrained areas.<br>• Poor perception of public transport provision in the Aberdeen City Region – uncompetitive option as a result of long / unreliability of journey times, relatively high ticket prices and lack of quality interchanges;<br>• The rail network is currently limited to two main corridors, which suffer from overcrowding in the peak period; further land use development could add to the pressure on the routes.<br>• Lack of a wide-spread high quality and fully integrated active travel network, in particular linked cycle routes – leads to a requirement to often cycle on roads, which hampers active travel uptake;<br>• Relative remoteness of Aberdeen city centre in relation to key markets in the Central Belt and beyond | • A programme of Rail Revolution and the opening of Kintore Rail Station.<br>• AWPR - combines a bypass for long distance traffic with peripheral, shorter journeys, with aim of removing traffic from city centre.<br>• City Centre Masterplan - potential to improve the public realm for the benefit of all users and provide quality active travel routes.<br>• Continued sustainable economic growth - stimulated through both traditional sectors and diversification.<br>• Aberdeen South harbour - has the potential to stimulate further growth in the economy, employment and tourism.<br>• High quality of life in the Aberdeen City Region, has the ability to retain and attract high skilled individuals. |

# 3. Key Themes

3.1.1 From the process of identifying both problem and opportunity categories, key themes have been derived that directly reflect each of these elements. A similar process was undertaken from analysis of other relevant policies and strategies. The initial themes developed from the two phase process were then filtered through the identified themes from the other policies to generate a final set of key themes.

3.1.2 This process ensures that the key themes derived as part of the Pre-Appraisal directly reflect the outcomes from the four workstreams, and the development of each theme can be mapped back through each stage to the original set of individual problems and/or opportunities in a clear and transparent manner. The themes are aimed at driving the future direction of objectives by expressing desired outcomes and following the SMART principles:

- **Specific:** it will say in precise terms what is sought.
- **Measurable:** there will exist means to establish to stakeholders' and decision makers' satisfaction whether or not the objective has been achieved.
- **Attainable:** there is general agreement that the objective set can be reached.
- **Relevant:** the objective is a sensible indicator or proxy for the change which is sought.
- **Timed:** the objective will be associated with an agreed future point by which it will have been met.

3.1.3 The key themes that have been derived are:

**Connections to and integration of core growth areas** Seeks to demonstrate that core growth areas are well connected to and integrated with existing land-uses and the transport network. The aim of this is to reduce dependence on the private car.

**Maintaining and enhancing the natural & built environment so that the region remains a desirable place to live, work and visit** Seeks to demonstrate that the current and future transport system does not negatively impact on the region's environment, and enhances it where possible.

**Increasing travel choices for all** Seeks to demonstrate that there are a number of travel choices available for key journeys with a particular focus on making the alternatives to private car more attractive.

**Reducing the need to travel** Seeks to demonstrate that alternative means are available to provide the region's residents the ability to fulfil more of their needs / responsibilities without having to travel to do so.

**Supporting key sectors and facilitating increased diversification of the region's economy** Seeks to demonstrate that the transport system provides efficient access to key markets.

**Creating a safe, resilient and affordable transport system** Seeks to demonstrate that the transport system reduces accidents, is able to accommodate unexpected changes and is cost effective to use.

**Improving strategic connectivity** Seeks to demonstrate that the region is connected to key markets so that it is not relatively disadvantaged compared with other regions.

# 4. Transport Planning Objectives

4.1.1 The draft interim Transport Planning Objectives (TPOs) derived for this study are focussed on reflecting the identified problems and opportunities, link significantly with the Key Themes and express the outcomes sought for the study. The draft interim TPOs can therefore be traced back through each step of the adopted methodology in a clear and transparent way. This allows their areas of coverage to be demonstrated, and the source of each, to ensure that a robust, evidence based audit trail is demonstrated.

4.1.2 The process followed to derive these draft interim Objectives was as follows:

**The draft interim TPOs derived for this study are:**

- **TPO 1: Increase access to a sustainable transport system for all, recognising specific needs of disadvantaged and vulnerable users** Focus is on alleviating the problems and addressing the opportunities related to access to and the sustainability of the Aberdeen City Region transport system as a whole. The transport system includes the road, rail, and active travel networks and the various services (including bus, rail, taxi and freight) that operate on them. All users are included with particular recognition given to disadvantaged and vulnerable users to both improve access to potential employment and key services, and ultimately their quality of life.
- **TPO 2: Reduce the business costs of transport for all sectors of the economy to realise the aspirations of the Regional Economic Strategy** Focus is on improving the competitiveness of businesses in the region, which is a key aspiration of the Regional Economic Strategy. The objective should be one that promotes the local economy by improving connectivity to the transport network for businesses to efficiently and effectively access key markets. Additionally, a focus will be on addressing key problems such as transport related costs, long journey times and journey time reliability.
- **TPO 3: Reduce the adverse impacts of transport on public health and the natural and built environment.** Focus is on alleviating transport related problems that adversely impact upon the quality of life in the region, including vehicle emissions and accidents, whilst maintaining and enhancing the high quality of the natural and built environment, which is a key factor attracting a skilled workforce and tourism to the region. This will encompass opportunities linked to new technologies and initiatives, such as electric/hydrogen vehicles and Mobility as a Service.
- **TPO 4: Improve the integration of transport and land use to reduce the need to travel by private car** Focus is on addressing problems that act as barriers to linking employment, retail / leisure and residential areas with a sustainable, connected public transport and active travel network, to reduce the need to travel by private car. Additionally, a focus will be on creating a high quality digital network to reduce the need for travel.
- **TPO 5: Improve the relative competitiveness of public transport compared to the private car** Focus is on addressing problems and opportunities in relation to the perception that public transport is not currently a desirable alternative to the private car due to factors including limited public transport network coverage within the region and cross-boundary, unreliable journey times and the low cost of parking availability within the city centre.
- **TPO 6: Maintain and enhance a safe, resilient and reliable transport network** Focus is on addressing problems associated with road safety, particularly vehicle / active travel conflicts, and a lack of alternative routes should incidents occur. It is linked to opportunities concerning continuing road safety initiatives, freight movements and benefits that may be realised by capitalising on future major infrastructure commitments, such as Aberdeen Western Peripheral Route.

# 5. Next Steps

## 5.1 Developing the Strategies

5.1.1 The Aberdeen City Region Strategic Transport Appraisal – Pre-Appraisal Study sets the context for deriving draft interim objectives. This will be finalised and is against which the future appraisal of all potential interventions to support economic growth in the Aberdeen City Region will be assessed.

5.1.2 In line with Scottish Transport Appraisal Guidance, the study identifies the key transport problems and opportunities within the study area, and these have directly informed the basis for theme identification and draft interim objective setting upon which future options might be appraised.

5.1.3 In looking forward, the key findings of this study will inform:

- The next **National Transport Strategy** –application of national objectives at the regional level
- The next **Strategic Transport Projects Review** –identifying the Scottish Government's transport investment priorities
- The next **Nestrans Regional Transport Strategy** – providing an evidence base and informing the overall focus and Objectives formation for this strategy
- The next **Aberdeen City and Shire Strategic Development Plan** – informing the direction of future development in the area with associated transport requirements and providing context for the local development plans
- The next **Aberdeen City and Aberdeenshire Local Transport Strategies** – providing an evidence base and general themes for these strategies

5.1.4 The study also provides the evidence base and draft interim Transport Planning Objectives which will be finalised and against which future interventions will be assessed through the STAG process to include:

- The likely impacts of the options against the Transport Planning Objectives;
- The likely impacts of the options against STAG criteria [i.e. Environment, Safety, Economy, Integration, and Accessibility and Social Inclusion];
- Options against established policy directives; and
- Feasibility, affordability and public acceptability of the options.

Appendix 2 – Draft Interim Transport Planning Objectives

| TPO | TPO 1: Increase access to a sustainable transport system for all, recognising specific needs of disadvantaged and vulnerable users | |
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| **Definition** | Focus is on alleviating the problems and addressing the opportunities related to access to and the sustainability of the Aberdeen City Region transport system as a whole. The transport system includes the road, rail, and active travel networks and the various services (including bus, rail, taxi and freight) that operate on them. All users are included with particular recognition given to disadvantaged and vulnerable users to both improve access to potential employment and key services, and ultimately their quality of life. | |
| **Relevant Themes** | • Maintaining and enhancing the natural & built environment so that the region remains a desirable place to live, work and visit;<br>• Increasing travel choices for all;<br>• Creating a safe, resilient and socially inclusive transport system. | |
| **What's the North East Problem /Opportunity?** | **Key Problems & Opportunities**<br><br>Much of the road network in the Region is currently dominated by car movements, particularly on key routes into Aberdeen (such as A90, A96, A944 and Anderson Drive) and within the City Centre. Car ownership in the region is high, particularly so for the proportion of households with access to two or more vehicles, and combined with the wide geographic area and hence longer average travel distances means car usage remains high.<br><br>Access to and the provision of alternative travel options can be limited, particularly in the rural areas and away from the main radial travel corridors into Aberdeen City Centre, and can make public transport often uncompetitive with private car. As a result, those without access to a car may be more restricted in their potential to access employment and services. This particularly impacts the more disadvantaged and vulnerable users.<br><br>The duration and unreliability of journey times for bus services in the region (as a result of long travel distances and heavy traffic volumes on key routes during peak periods), relatively high ticket prices and frequent requirement to travel into the city centre to interchange with other services serve to constrain public transport mode share.<br><br>Bus services generally operate on a commercial basis which means that routes that do not make money may be withdrawn. In some cases, Aberdeenshire or Aberdeen City Councils have had to provide funding to support vital services but significant budget pressures can make this particularly challenging.<br><br>Key transport nodes within the Region are also not all fully mobility compliant, for example Aberdeen Rail Station – whilst access within and immediately around the station are mostly compliant, links from the wider area are often stepped access. This disproportionately impacts particular groups, such as the mobility impaired, further restricting their access to services, employment and leisure facilities.<br><br>Additionally, perceived and real safety concerns as a result of direct conflict between vehicles and active modes of travel may serve to limit the uptake of active travel modes on key corridors and within the city centre.<br><br>There are a number of opportunities around access to sustainable travel however; initiatives such as the City Centre Masterplan, Revolution in Rail, Kintore Station, growing active travel networks and increased government funding for active travel are likely to assist with this Objective. | **Evidence Context**<br><br>At 58% Aberdeen City has a significantly higher car mode share than Edinburgh (32%), Glasgow (36%) and Dundee (45%), at 70% Aberdeenshire car mode share is higher than all cities and both the Scottish national average (62%) and Scottish Rural Average (63%);<br><br>Car availability is significantly higher in Aberdeenshire than all other areas for households with two or more cars available, at 34% which is 12% higher than the national average and 9% higher than the Scottish Rural Average. Aberdeen City, at 19% also has a high level of car availability which is 5% higher than Edinburgh and Dundee and 9% higher than Glasgow.<br><br>Since 2011, total vehicle kilometres in both Aberdeen City and Aberdeenshire has increased by 3% and 8% respectively, compared to 5% nationally.<br><br>Mode share for travel to work by bus is lower than the comparator cities for Aberdeen, which at 12% is 13% lower than Edinburgh, 6% lower than Glasgow and 2% lower than Dundee. The picture is more mixed for Aberdeenshire which, at 4% mode share, is on a par with the Scottish Rural Average but 6% lower than the national average.<br><br>On average around 50% of postcodes in the region cannot reach any of the top 13 employment attractors within the 90-minute period by public transport.<br><br>Whilst cycle mode shares across the comparator areas are very similar, walk mode share for Aberdeen City (15%) is 12% lower than Dundee, 10% lower than Edinburgh and 7% lower than Glasgow. Equally the walk mode share for Aberdeenshire (8%) is 4% lower than the Scottish Rural Average and 2% lower than the national average.<br><br>27% of all accidents in 2016 involved a pedestrian or cyclist in the Aberdeen Region. Whilst over one in four accidents, this is lower than Edinburgh (47%), Glasgow (38%) and across Scotland in general (29%). |
| **Outcomes** | Successful interventions would be expected to:<br><br>• Reduce the impact from the transport system on the region's environment, and enhances it where possible. The Aberdeen City Centre Masterplan is an example of a mechanism that will set the framework to prioritise bus access, relocate vehicle movements and improve the quality of urban space within the city centre.<br><br>• Increase the number of travel choices available for key journeys with a particular focus on making the alternatives to private car more attractive. For example, the Regional and Local policies i.e. the Nestrans Regional Transport Strategy, the Aberdeen City and Shire Strategic Development Plan and the Aberdeen City & Aberdeenshire Local Transport Strategies will promote initiatives around improving accessibility and inclusion, i.e. public transport improvement schemes.<br><br>• Increase the number of people using active travel modes, which are either free or low cost and beneficial to health. For example, the Grampian Health and Transport Action Plan which aims to reduce the adverse impacts of transport choices on public health | |

| TPO | TPO 2: Reduce the business costs of transport for all sectors of the economy to realise the aspirations of the Regional Economic Strategy | |
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| **Definition** | Focus is on improving the competitiveness of businesses in the region, which is a key aspiration of the City Region Deal. The objective should be one that promotes the local economy by improving connectivity to the transport network for businesses to efficiently and effectively access key markets. Additionally, a focus will be on addressing key problems such as transport related costs, long journey times and journey time reliability. As part of improving effective partnerships across bodies, participation and discussions should involve other key transport links including both air and maritime transport to improve strategic access to both domestic and international markets, and increase the competitiveness of the Aberdeen Region. | |
| **Relevant Themes** | • Connections to and integration of core growth areas;<br>• Supporting key sectors and facilitating increased diversification of the region's economy;<br>• Improving strategic connectivity | |
| **What's the North East Problem/ Opportunity?** | **Problems & Opportunities**<br><br>Many of the Region's businesses rely heavily on the movement of materials, manufacturing of goods, provision of services and movement of people and goods. The oil industry in particular is reliant on the timely movement of oilfield equipment around the region and to key bases including harbours. Additionally, food processors often need to get their finished goods to market quickly; the area has long supply chains due to distance from the central belt, and geographic spread of settlements. Efficient access to clients, to labour and to suppliers internally within the Region and to Scotland and the rest of the UK, is therefore critical to business efficiency and to economic growth in the Region.<br><br>However, a number of routes on the Region's road network experience high traffic volumes and additional delay, particularly key routes in and around Aberdeen (such as A90, A96, A944, A956 Wellington Road / Market Street and Anderson Drive). Connections to the north (in particular the A90, A947 and A96) are constrained by large sections of single carriageway. This results in extended and unreliable journey times, driver frustration and potential safety issues that impact on business performance. Access to key markets by rail (for the movement of goods and people) is also constrained by a lack of capacity and relatively long journey times.<br><br>The current lack of a high quality orbital route around Aberdeen means that business movements can be impacted significantly by deteriorating journey time reliability, particularly for movements between areas to the north and south of Aberdeen. Although at different stages of delivery, the Aberdeen Western Peripheral Route along with Diamond Bridge, Bridge of Dee improvements and Haudagain junction improvements are significant interventions that will contribute to addressing this specific issue.<br><br>Much of the Region's land use planning is focussed on locating transport reliant sectors (i.e. off-shore supply) close to each other to reduce the amount of travel needed (to benefit from symbiotic relationships), and in proximity to key transport interchanges such as the harbour (including the new South Aberdeen Harbour) and the airport. The presence of an international airport opens up opportunities to access key markets, indeed the airport has significant business patronage.<br><br>There are significant opportunities around technology (improved digital connectivity, freight planning and | **Context**<br><br>The Region has a high performing economy - regional GVA Growth (1997-2015) shows Aberdeen City growth at 107% and Aberdeenshire at 135% compared to City of Edinburgh at 112%, Glasgow City at 92%, Dundee City at 68% and SRA 87%.<br><br>Traffic modelling data (ASAM 2017) highlights several links over 75% capacity including on Wellington Road, Bridge of Dee, A956 south of Bridge of Don, A90 south of Ellon and A96 through Inverurie. Additionally, modelling highlights several junctions over 85% capacity including Wellington Road, A90 both north and south approaches to city centre, and A947 both north and south of Dyce Future scenario runs show this situation to deteriorate approximately in line with development, highlighting a requirement for future infrastructure investment. Outputs highlight an average 41% increase in travel time from 2017 to 2037 across all three time periods<br><br>Traffic counts on key corridors into the city centre highlight that approximately 38% of all traffic enters/leaves the city during the combined AM/PM peak periods<br><br>There was an Increase in vehicle KMs in both City and Shire between 2011-2016 of 3% and 8% compared to Scottish national increase of 5%<br><br>Less major cities, towns and local rail stations can be reached within a three-hour travel window by rail from the region than Glasgow and Edinburgh; Aberdeen in 3hr window in AM 77 rail stations can be reached directly or indirectly compared to 382 from Edinburgh and 329 from Glasgow<br><br>Aberdeen International Airport is the third largest airport within Scotland, providing direct and frequent flights to the rest of the UK and key European locations such as Amsterdam and Scandinavia. Additionally, the airport is the best-connected airport for UK to UK flights, which is a crucial aspect due to the propensity of the airport to be used for business flights. In 2013, 61% of all passengers from Aberdeen City Airport were business travellers, compared to 30% at Edinburgh Airport and 27% at Glasgow Airport. The growth in passenger numbers has remained fairly static overall since 2011, although 2017 has now seen a return to increased passenger numbers. |
| **Expected Outcomes** | Successful interventions would be expected to:<br><br>• Contribute to core growth areas being well connected to and integrated with existing land-uses and the transport network. The Regional and Local planning and transport policies i.e. the Nestrans Regional Transport Strategy, the Aberdeen City and Shire Strategic Development Plan and the Aberdeen City & Aberdeenshire Local Development Plans and Transport Strategies, will govern and promote effective land-use and transport integrations over the next 15 years.<br><br>• Improve the efficiency of the transport system's access to key markets, i.e. reduce journey times and improve journey time reliability. For example, the Aberdeen Western Peripheral Route will contribute significantly to this as will the Wellington Road Multi-Modal Corridor Study.<br><br>• Improve the Region's competitiveness such that it is not relatively disadvantaged by the transport system compared with other regions due to its peripheral location. For example, the Programme of Rail Revolution and proposals to Dual the A96 by aiming to improve connections to external areas. | |

| TPO | TPO 3: Reduce the adverse impacts of transport on public health and the natural and built environment. | |
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| **Definition** | Focus is on alleviating transport related problems that adversely impact upon the quality of life in the region, including vehicle emissions and accidents, whilst maintaining and enhancing the high quality of the natural and built environment, which is a key factors in attracting and retaining a skilled workforce and tourism to the region. This will encompass opportunities linked to new technologies and initiatives, such as electric/hydrogen vehicles and Mobility as a Service. | |
| **Relevant Themes** | • Maintaining and enhancing the natural & built environment so that the region remains a desirable place to live, work and visit;<br>• Increasing travel choices for all;<br>• Reducing the need to travel | |
| **What's the North East Problem/Opportunity?** | **Problems & Opportunities**<br><br>The Region is well known for its outstanding natural and built environment and this is one of the reasons people choose to live and visit. However, although it is recognised that if the wider transport network is not performing well this can have a negative impact on the attractiveness of the region.<br><br>Key areas of the road network, particularly around Aberdeen City Centre (i.e. Market Street, Union Street and King Street) are physically constrained, experience high peak period traffic volumes and have relatively high proportions of slow moving heavy duty vehicles (such as HGVs and buses). These factors combine to contribute to high concentrations of vehicle emissions (Nitrogen Dioxide and Particulate Matter) which have necessitated the designation of an Air Quality Management Area around the City Centre. Poor air quality impacts negatively on health and wellbeing, and can result in undesirable consequences such as creating barriers to increasing active travel modes (such as walking and cycling) within the urban environment.<br><br>High traffic volumes within a city centre context can also be detrimental to the retail and service sector performance; the resulting emissions and potential safety concerns can reduce the attractiveness of the urban centres, and discourage people from spending time in these areas.<br><br>With higher vehicle numbers across many parts of the Region's road network, and distances travelled increasing above the national average, Carbon Dioxide emissions from the Region are likely to be contributing negatively towards global climate change.<br><br>The declining bus offering (through service withdrawal/reduction through insufficient levels of demand) is limiting the opportunities to travel by bus throughout the Region and it is often seen as uncompetitive when compared to the private car.<br><br>There are however a number of opportunities to reduce the environmental impact of vehicles including the uptake of lower or zero emission (e.g. electric and hydrogen) vehicles, the introduction of targeted demand management in selected areas (i.e. AQMAs) and land use planning with a focus on reducing the need to travel, improving the coverage and quality of the sustainable travel network, using technology to more efficiently plan travel (e.g. MaaS) and digital connectivity to reduce the need to travel. The investment in rail (e.g. Revolution in Rail, and Kintore Station) presents an opportunity for increase share of more sustainable transport modes. | **Context**<br><br>Tourism numbers for the Region have grown year on year and the region is one of the most visited in the UK. Aberdeen ranked 7th of all places in the UK as a location to have a weekend break (Laterooms 2017). The Region boasts Europe's largest whisky trail, over 300 castles / country houses and historic ruins, 55 golf courses, one National Park, five snow sports centres, one Royal Home and over 165 miles of coastline containing some of the best locations for dolphin spotting.<br><br>At 58% Aberdeen City has a significantly higher car mode share than Edinburgh (32%), Glasgow (36%) and Dundee (45%), at 70% Aberdeenshire car mode share is higher than both the Scottish national average (62%) and Scottish Rural Average (63%).<br><br>Since 2011, total vehicle kilometres in both Aberdeen City and Aberdeenshire has increased by 3% and 8% respectively, compared to 5% nationally.<br><br>There is an Air Quality Management Area for Nitrogen Dioxide and Particulate Matter (which has a detrimental impact on people and the environment) covering parts of Market Street, Union Street, King Street, Virginia Street, Commerce Street, Guild Street, Bridge Street, Holdburn Street, Victoria Road, Torry, West North Street, Wellington Road and Anderson Drive/Auchmill Road.<br><br>A number of new housing allocations located in the south are located along the A90 corridor that could increase north/south travel on this route, which the ASAM 2017 model outputs indicate has several links above 85% capacity. Analysis of proposed Local Development Plan land-use allocations over time compared with the current public transport network shows a number of these areas are likely to have a relatively sparse route coverage and service frequency. |
| **Expected Outcomes** | Successful interventions would be expected to:<br>• Reduce the impact from the transport system on the Region's environment, and enhance it where possible. For example, the Aberdeen Air Quality Action Plan aims to improve local air quality through a range of targeted interventions.<br>• Increase the number of travel choices available for key journeys with a particular focus on making the alternatives to private car more attractive. For example, Regional and Local policies i.e. the Nestrans Regional Transport Strategy, the Aberdeen City and Shire Strategic Development Plan and the Aberdeen City & Aberdeenshire Local Transport Strategies, will promote initiatives around improving accessibility, i.e. public transport improvement schemes, over the next 15 years.<br>• Reduce the need to travel such that alternative means are available to provide the region's residents the ability to fulfil more of their needs / responsibilities. For example, one of the six key project areas for the Aberdeen City Region Deal is improving Digital Infrastructure which will make home working easier. | |

| TPO | TPO 4: Improve the integration of transport and land use to reduce the need to travel by private car | |
|---|---|---|
| **Definition** | Focus is on addressing problems that act as barriers to linking employment, retail / leisure and residential areas with a sustainable, connected public transport and active travel network to reduce the need to travel by private car. Additionally, a focus will be on creating a high quality digital network to reduce the need for travel. | |
| **Relevant Themes** | • Connections to and integration of core growth areas;<br>• Maintaining and enhancing the natural & built environment so that the region remains a desirable place to live, work and visit;<br>• Reducing the need to travel;<br>• Supporting key sectors and facilitating increased diversification of the region's economy | |
| **What's the North East Problem/ Opportunity?** | **Problems & Opportunities**<br><br>Whilst Aberdeen is the third largest city in Scotland, the Region is predominately rural in nature (covering an area in excess of 6,300km$^2$). With Aberdeenshire's largest town, Peterhead, being less than 1/10th the population of Aberdeen, the city provides the majority of employment and services in the Region. Subsequently there is a significant draw to the eastern part of the region, and higher than average travel distances to work for Aberdeenshire residents (almost half travel further than 10km to work).<br><br>Car ownership across the Region is high, particularly the proportion of households with access to two or more vehicles in Aberdeenshire. With travel distances in Aberdeenshire also being relatively long, and public transport often being seen as an uncompetitive mode of travel, this results in high levels of car use. Car usage within Aberdeen City is also high, despite the fact that journey to work distances are generally lower than the national average (the majority of journeys (80%) are under 10km in length).<br><br>The longer travel distances and the geographic spread of the population make it more difficult to provide economically sustainable public transport to all areas of the Region. This also presents a challenge in encouraging greater use of active travel models. Current levels of access to digital networks, i.e. mobile or broadband, vary significantly throughout the Region. Where levels of access are poor, this limits individual's ability to work from home.<br><br>However, there is a clear link to increasing the level of integration of transport and land-use to facilitate reductions in the need to travel and increased modal choice / change. Locating multi-modal (bus, rail and active travel) interchanges at key catchments nodes to allow travel for at least part of a journey by modes other than car, and removing the need to travel completely through increased digital connectivity represent further opportunities | **Context**<br><br>At 58% Aberdeen City has a significantly higher car mode share than Edinburgh (32%), Glasgow (36%) and Dundee (45%), at 70% Aberdeenshire car mode share is higher than both the Scottish national average (62%) and Scottish Rural Average (63%).<br><br>Car availability is significantly higher in Aberdeenshire at 34% than all other areas for households with two or more cars available, which is 12% higher than the national average and 9% higher than the Scottish Rural Average. Aberdeen City, at 19% also has a relatively high level of car availability and is 5% higher than Edinburgh and Dundee and 9% higher than Glasgow.<br><br>The increase in vehicle KMs travelled in Aberdeen City and Aberdeenshire is 3% and 8% respectively between 2011 and 2016, compared to Scottish national increase of 5%.<br><br>On average around 50% of postcodes in the region cannot reach any of the top 13 employment attractors within the 90-minute period by public transport. Aberdeenshire areas which are identified as SIMD 20% most deprived currently have no direct bus to Aberdeen City Centre.<br><br>Local Development Plan allocations compared with the existing public transport network shows that there would continue to be a lack of provision to provide alternatives to the private car. Additionally, a number of new housing allocations located in the south are located along the A90 corridor that could increase north/south travel on this route, which ASAM 2017 model outputs indicate has several links above 85% capacity.<br><br>Lower levels of existing access to Ultrafast Broadband (speeds in excess of 100 mbps) within Aberdeen City representing 0.4% of the population and Aberdeenshire at 0.3% of the population, compared to Scottish national average of 43%, with only 63.5% of the Aberdeenshire population having access to 4G services. |
| **Expected Outcomes** | Successful interventions would be expected to:<br>• Contribute to core growth areas being well connected to and integrated with existing land-uses and the transport network. For example, the Regional and Local policies i.e. the Nestrans Regional Transpo Strategy, the Aberdeen City and Shire Strategic Development Plan and the Aberdeen City & Aberdeenshire Local Transport Strategies will govern and promote measures to maximise integration, connecti and accessibility.<br>• Reduce the impact from the transport system on the region's environment, and enhance it where possible. For example, the Aberdeen Air Quality Action Plan aims to improve local air quality through a range of targeted interventions such as traffic management (e.g. Intelligent Traffic Systems) and modal shift initiatives (e.g. active travel infrastructure and education programmes).<br>• Increase the number of travel choices available for key journeys with a particular focus on making the alternatives to private car more attractive. For example, the Nestrans Bus Action plan which outlines a series of measures to improve bus services across the region.<br>• Improve the efficiency of the transport system's access to key markets, i.e. reduce journey times and improve journey time reliability. For example, the Aberdeen City and Shire Strategic Development Plan and the Aberdeen City & Aberdeenshire Local Development Plans which aim to promote mixed use and linked development where possible to reduce travel or travel distances. | |

| TPO | TPO 5: Improve the relative competitiveness of public transport compared to the private car | |
|---|---|---|
| **Definition** | Focus is on addressing problems and opportunities with regards to the perception that public transport is not currently a desirable alternative to the private car due to factors such as limited public transport network coverage within the region and cross-boundary, unreliable journey times and the low cost of parking availability within the city centre. | |
| **Relevant Themes** | • Connections to and integration of core growth areas;<br>• Maintaining and enhancing the natural & built environment so that the region remains a desirable place to live, work and visit;<br>• Increasing travel choices for all;<br>• Creating a safe, resilient and socially inclusive transport system | |
| **What's the North East Problem/ Opportunity?** | **Problems & Opportunities**<br><br>Due to the rural nature of the Region and the geographic spread of the population, it is challenging to provide an extensive and inclusive public transport network. Bus service provision operates within a deregulated market such that most services require to operate at a profit. Whilst socially necessary services are supported by Aberdeen City and Aberdeenshire Councils, funding for these services continues to come under severe pressure.<br><br>Bus service provision in the Region is therefore typically focused on the radial corridors that link the other main population centres with Aberdeen City (i.e. A90 (north and south of Aberdeen), A96, A944 and A93). Out with these corridors, and further from the outskirts of Aberdeen, bus service provision reduces markedly along with population density. Even along strategic corridors and within the City, services have seen a gradual reduction particularly the late night and weekend services, and results in impacts on improving social inclusion.<br><br>Journeys to destinations out with Aberdeen and peripheral areas of the City often must first travel into the city centre to interchange and then travel back to the intended destination, which is a disincentive to many potential bus users. Bus mode share is relatively low, with season ticket prices generally high and journey time reliability impacted during the peak periods. This can result in a perception that the service provision and quality is low, reducing the attractiveness of public transport as an alternative to the private car. This is exacerbated by the prevalence of low cost daily parking within Aberdeen City Centre.<br><br>The rail network coverage is focused on two corridors to the north west and south of Aberdeen. Patronage along these two corridors however exhibits strong growth and services suffer overcrowding particularly during the peak periods.<br><br>There are proposals to reopen Kintore Station, studies ongoing to investigate extending the rail network north to Ellon, and the Programme of<br><br>Rail Revolution to introduce new and extended service provision will allow further opportunities for growth.<br><br>There is significant potential for collaboration between the public sector and bus operators to successfully drive an improved perception of public transport and an increase in overall public transport mode share across the Region. Use of technology to efficiently manage on demand bus service provision, infrastructure investment to provide bus priority on congested corridors, high quality and mobility compliant park and choose schemes and city centre parking restraint will all contribute to increasing public transport competitiveness. | **Context**<br><br>Aberdeen City Bus mode share at 12%, is relatively low compared to Edinburgh (25%), Glasgow (18%) and Dundee (14%). Aberdeenshire at 4%, is 6% lower than the Scottish national average, although this is at a similar level to the Scottish Rural average.<br><br>Bus passengers are often required to complete one or more interchanges in order to reach their destinations. In some cases, a journey that could be completed by car in 15 minutes can take over 70 minutes by bus.<br><br>On average around 50% of postcodes in the region cannot reach any of the top 13 employment attractors within a 90-minute period by public transport. Aberdeenshire areas which are identified in the SIMD 20% most deprived currently have no direct bus to Aberdeen City Centre.<br><br>A season pass on the bus network in Aberdeen City is £160 more expensive than a season pass for Dundee City, and £130 more expensive than a season pass in Glasgow. A season ticket for Edinburgh is £5 more expensive.<br><br>Cost of all day parking in city is often cheaper than return rail travel, with the average price of a 9-hour stay being approximately £11. This compares with an average for Edinburgh of £19.30 and for Glasgow of £21.04.<br><br>The eight rail stations in the region show significant levels of growth in boardings between 2010 and 2016; Aberdeen 17% (+495,642); Inverurie 54% (+188,182), Dyce 15% (+84,736), Stonehaven 11% (+52,976), Portlethen 206% (+37,942), Insch 36% (31,524), Laurencekirk 42% (+30,942), Huntly 18% (+15,836) |
| **Expected Outcomes** | Successful interventions would be expected to:<br><br>• Contribute to core growth areas being well connected to and integrated with existing land-uses and the transport network. The Regional and Local planning and transport policies i.e. the Nestrans Regional Transport Strategy, the Aberdeen City and Shire Strategic Development Plan and the Aberdeen City & Aberdeenshire Local Development Plans and Transport Strategies, will govern and promote effective land-use and transport integration over the next 15 years.<br><br>• Reduce the impact from the transport system on the Region's environment, and enhance it where possible. The Aberdeen City Centre Masterplan is an example of a mechanism that will set the framework to prioritise bus access, relocate vehicle movements and improve the quality of urban space within the city centre.<br><br>• Increase the number of travel choices available for key journeys with a particular focus on making the alternatives to private car more attractive. For example, the Regional and Local policies i.e. the Nestrans Regional Transport Strategy, the Aberdeen City and Shire Strategic Development Plan and the Aberdeen City & Aberdeenshire Local Transport Strategies will promote initiatives around improving accessibility and inclusion, i.e. public transport improvement schemes.<br><br>• Reduce the number of accidents, enable the transport system to better accommodate unexpected changes and be cost effective to use. For example, the Fraserburgh – Peterhead to Aberdeen Transport Corridor Study which proposes a variety of road safety improvements along with Bus Priority Infrastructure which would reduce bus / vehicle conflicts. | |

| TPO | TPO 6: Maintain and enhance a safe, resilient and reliable transport network | |
|---|---|---|
| **Definition** | Focus is on addressing problems associated with road safety, particularly vehicle / active travel conflicts, and a lack of alternative routes should incidents occur. It is linked to opportunities concerning continuing road safety initiatives, freight movements and benefits that may be realised by capitalising on future major infrastructure commitments, such as Aberdeen Western Peripheral Route. | |
| **Relevant Themes** | • Supporting key sectors and facilitating increased diversification of the region's economy;<br>• Creating a safe, resilient and socially inclusive transport system;<br>• Improving strategic connectivity | |
| **What's the North East Problem/Opportunity?** | **Problems & Opportunities**<br><br>The Region has a diverse road network with a combination of lightly trafficked rural routes, heavily trafficked semi-urban routes, particularly key routes into and around Aberdeen (such as A90, A96, A944 and Anderson Drive) and heavily trafficked urban routes. North / south traffic currently requires to route either through the city centre or in close proximity to it. This causes issues with longer journey times that are impacted by reduced journey time reliability, which is further exacerbated when incidents occur with the subsequent disruption of the network's operation. Accidents can have disproportionate impact on road network, due to many routes operating beyond capacity at peak times.<br><br>With many of the routes connecting Aberdeen to the rest of the Region being of single carriageway standard, and reliant on a limited number of river crossings particularly in Aberdeen, the network is less resilient in terms of coping with accidents or planned maintenance. Many of the Region's businesses rely heavily on the efficient, reliable distribution of materials and equipment around the Region, to the rest of Scotland and the UK, some of which are time dependant. In addition, a safe and resilient transport network is essential to business efficiency and economic growth in the Region, with the Aberdeen Western Peripheral Route and other recently or near completed infrastructure making significant contributions to improving the operational efficiency and resilience of the road network.<br><br>As a trend, road safety continues to improve across the Region although there are areas that continue to account for a disproportionate number of accidents, particularly fatal accidents in rural parts and on high speed routes.<br><br>In terms of rail, there are also issues with overcrowding on peak rail services. This is due to strong growth in patronage in the Region, partly due to growth in housing particularly in Inverurie and Insch. This is likely to be exacerbated by further development on / near rail corridors.<br><br>The Rail Revolution proposals will help mitigate against further capacity issues and encourage increased rail mode share, although the network will still have sections of single track that may affect network resilience. | **Context**<br><br>Model outputs from ASAM 2017 highlights several links over 75% capacity including on Wellington Road, Bridge of Dee, A956 south of Bridge of Don, A90 south of Ellon and A96 through Inverurie. Several junctions over 85% capacity including Wellington Road, A90 both north and south approaches to city centre, A947 both north and south of Dyce<br><br>Increases in vehicle KMs in both City and Shire between 2011-2016 of 3% and 8% respectively, Scottish national increase is 5%. Traffic modelling has shown this trend to continue through future years.<br><br>The A90 accounted for 9% of all accidents in the region between 2011-2016, and the A96 from Anderson Drive to the north LA boundary accounts for 4% of all accidents. 76% of fatal accidents between 2011-2016 happened in rural locations, compared to 58% nationally. 51% of all accidents took place on roads where the speed limit is greater than 50mph, compared to 19% nationally.<br><br>Approximately a quarter of all accidents in the region (2016) involved a pedestrian or cyclist - concerns about vehicle and pedestrian / cyclist accidents are a potential contributing factor in the limited uptake of active travel in particular.<br><br>There are only 2 recognised Lorry parking facilities/service stations in the area, A96 at Cairnie and A90 at Fordoun which makes rest stops difficult to undertake without prior planning.<br><br>The AWPR is expected to improve freight links, reduce the time to market for goods and to reduce accidents due to the high quality route and modern design standards.<br><br>The eight rail stations in the region show significant levels of growth in boardings between 2010 and 2016; Aberdeen 17% (+495,642); Inverurie 54% (+188,182), Dyce 15% (+84,736), Stonehaven 11% (+52,976), Portlethen 206% (+37,942), Insch 36% (31,524), Laurencekirk 42% |
| **Expected Outcomes** | Successful interventions would be expected to:<br>• Improve the efficiency of the transport system's access to key markets, i.e. reduce journey times and improve journey time reliability. For example, the Aberdeen Western Peripheral Route is an intervention that seeks to reduce journey times and improve reliability.<br>• Reduce the number of accidents, enable the transport system to better accommodate unexpected changes and be cost effective to use. For example, the North East Scotland Road Casualty Reduction Strategy is a specifically targeted strategy that will contribute to the continuing drive to reduce the number of fatal and serious accidents in the Region.<br>• Improve the Region's competitiveness such that it is not relatively disadvantaged by the transport system compared with other regions due to its peripheral location. For example, the Programme of Rail Revolution and proposals to Dual the A96 by aiming to improve connections to external areas. | |

Appendix 3 – Findings from Elected Members Workshop – 1 June 2018

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|---|---|---|---|
| **Subject** | **Notes from Elected Members Workshop on 1 June 2018** | | |
| **Client** | Various | **Date** | 4 June 2018 |
| **Project** | Aberdeen City Region - Strategic Transport Appraisal | | |
| **Project No.** | B2289FAT | **File** | Notes from Members Workshop_010618 |
| **Prepared by** | Stuart Turnbull | **Phone No.** | 0131 659 1603 |

| Notes | Action |
|---|---|
| 1 **Problems and Opportunities** | |
| General consensus that problems and opportunities have been captured. Specific comments/points to consider are: | |
| 1. Highlight problems and importance of connectivity between the region and the rest of Scotland and the UK. | Undertake a general review of the A3 Objective Sheets to strengthen the points raised below. Amend the description of the key problems and opportunities as follows: |
| 2. Emphasise that a key issue for public transport is that it is very often uncompetitive when compared to the car | Add a new key problem related with the need to ensure that the region's connections to the Central Belt and rest of the UK are enhanced |
| 3. Interchange is a blocker, particular given the radial nature of the services to and from Aberdeen City Centre | Under the problem related to perception of public transport, highlight specific issues around competitiveness/interchange |
| 4. Highlight the lack of existing quality active travel routes and emphasise the future opportunities associated with this. | In the opportunities, make reference to opportunities for improving active travel routes linked to the City Centre masterplan |
| 5. Highlight the importance of public transport in relation to providing access to jobs | Review key problems and opportunities and identify if this would aid the table without losing a key problem or opportunity. |
| 6. Consider a "read-across" between the top key problems and equivalent or related opportunities. | |
| 2 **Objectives** | |
| Members were keen to understand the next steps and how the objectives will be used to develop the future transport strategy for the region. | |

| Notes | | Action |
|---|---|---|
| | General consensus that the overall themes of the objectives cover the pertinent issues. Some specific comments on the wording and the rationale behind the objectives was suggested: | Undertake a general review of the A3 Objective Sheets to strengthen the points raised below. Amend the wording of the draft objectives as follows: |
| | 1. Consider including reference to the need for improved connectivity within one of the objectives. | Add reference to improving connectivity within TPO2 |
| | 2. Be more specific around TPO2, to clarify which "costs" are referred to | Reinstate the word "business" before costs in TPO2. Consider whether "costs" is the correct wording, or whether this should relate to Journey Times |
| | 3. Emphasise the need for competitive public transport within one of the objectives | Already covered in TPO5 but highlight need for improved interchange, and addressing non-radial movements in the TPO description |
| | 4. Review the language in TPO1 in relation to "disadvantaged" and "vulnerable" | Add reference "for all" in the first part of TPO1 |
| | 5. Need to recognise the links to public health | Review TPO3 and consider if "Public Health" should be specifically worded in the objective. |
| | 6. Opportunities for recognising the potential for future technologies could be reflected in the objectives | No change to objectives but reflect opportunities for technology in the text explaining the context for various TPOs (eg digital connectivity, EVs and Hydrogen Vehicles, MaaS) |
| | 7. Clarify where freight issues and opportunities relate to the objectives, and strengthen links in the analysis process. | No change to objectives but reflect opportunities for freight initiatives in the text explaining the context for various TPOs |
| 3 | **Other Issues** | |
| | Consider engaging with young women/families to understand particular needs of this demographic group. | No action for this commission. To be considered further by the Project Group |
| 4 | **Next Steps** | |
| | Jacobs to update the Interim Report for 7 June. Report will be finalised after the round of Committee Meetings being held in during w/c 18 June. | Aim to circulate updated draft for comments by noon on Wed 6th June. |
| | In the meantime, Jacobs to update the full report to take account of the feedback from the Client Group and the Members workshop | Aim to have updated full report available for initial review by 22nd June. |

| Notes | Action |
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