

28 October 2019

Please note that the following recommendation is subject to consideration and determination by the Committee before taking effect.

RECOMMENDATION

It is recommended that:

- (a) Arrangements continue for the Officer Group / Project Directors to approve the Economic Connectivity Study reports with delegated authority.

1. Introduction

This report provides an update on work being undertaken to develop an Economic Connectivity Study (the Study) for the South West Peninsula to support the future development of a Peninsula Transport Strategy and to help make future cases for sub-regional investment. The work will also be presented to the Board on 28th October.

2. Proposal

The DfT recommends that sub-national transport bodies (STB's) conduct an Economic Connectivity Study as a central part in the evidence base for sub-regional investments and the development of a Strategic Transport Plan.

The Study is an opportunity to step back from day-to-day scheme development and examine the longer-term strategic issues facing transport and connectivity across the Peninsula. It seeks to understand how major trends in technology, climate policy and transport behaviour may play out within the Peninsula, as well as exploring more locally specific factors such as tourism, resilience of key arterial routes, high quality environments, and changes to local demography.

Methodology and progress

The Study is taking a long-term view by looking at how things have changed over the last 30 years and how the world may change in the next 30 years. The view of connectivity is broad to include digital connections. This reflects the fact that transport demand is increasingly being affected by how digital technologies are changing behaviour (e.g. through online shopping and working from home); and transport services are increasingly relying on digital communications for journey planning, app-based services and, in future, for connected vehicles.

The methodological approach to the Study is broadly split into two areas:

- Examining historic and existing patterns of economic activity, transport demand, connectivity and levels of service, including for key inter-regional and intra-regional connections;
- A forward-looking analysis focussing on five key themes that will affect future spatial growth patterns, transport demand and economic performance, supported by transport modelling. These themes have previously been shared and discussed with the Board: Decarbonisation, Digitisation, Urbanisation, The World of Work and Flexible Lifestyles.

There are two key deliverables being developed for the study to cater for the wide range of stakeholders which Peninsula Transport would like to engage and communicate with:

- A graphically designed 'coffee table' style document summarising the work and succinctly stating the key learnings and recommendations of the Study; and
- A technical report providing details of the evidence and analysis undertaken during the study.

The Study has drawn on a wide range of evidence including:

- **Connectivity work produced by some of our key stakeholders/partners and including:** Connecting the Country Planning for the Long Term, Highways England, 2017; Western and Wessex Route Studies, Network Rail, 2015; Transport Infrastructure for our Global Future, A Study of England's Port Connectivity, DfT, 2018; Greater Connected Transforming Strategic Connectivity in South West England, CBI and South West LEPS, 2014; Closing the Gap the South West Peninsula strategic rail blueprint, PRFT, 2016; Regional Airport Connectivity Review, DfT, 2018; UK Digital Strategy, DCMS, 2017;
- **The Peninsula Area Model (PAM):** highway assignment and demand model developed from the South West Regional Traffic Model provided to Peninsula Transport by Highways England;
- **DfT Journey Time Data:** average vehicle journey times for 2018 covering every fifteen-minute interval across the year on all roads in the Peninsula;
- **Inter-Departmental Business Register (IDBR) Data:** business data (activity, size, location) covering the Heart of the South West LEP geographical area.

The analysis work supporting the five themed scenarios is largely complete. For each theme this has included developing a set of model runs for a 2050 horizon using the PAM to help answer 'what if?' questions about the quantum of impact on the transport network of future trends. For each scenario, comparison can be made against the current situation and the 'business as usual' forecast in 2050.

The assumptions for each scenario were as follows:

- **Decarbonisation:** 100% of cars and LGVs operating in the Peninsula in 2050 are electric/zero emission;
- **Digitisation:** the capacity of motorways, dual carriageways and high standard single carriageways is 25% higher in 2050 because of the technologies present in infrastructure and vehicle fleet (connectedness and autonomy);
- **Urbanisation:** development growth in key urban centres in the Peninsula exceeds plan by 25% with corresponding reductions in smaller centres and rural areas;
- **World of Work:** employment growth for the key growth sectors identified by the Local industrial Strategies exceeds plan by 25% with corresponding reductions in other sectors; and
- **Flexible Lifestyles:** commuting rates in 2050 are 10% lower than current forecasts.

The corridor-based analyses are drawing upon transport and economic data to define some key metrics for the key transport corridors in the Peninsula which will help to explain their function; the value of their contribution to the economy; their role in supporting accessibility and resilience/reliability issues.

Emerging results

- **Decarbonisation:** current appraisal assumptions predict high levels of transport carbon emissions in 2050 and even applying the bold assumptions of this scenario test means both the rail and highway networks in the Peninsula will be net emitters of carbon in 2050. Goals for transport carbon reduction in the Peninsula are therefore unlikely to be met unless urgent and significant new action is taken to accelerate carbon reduction.
- **Digitisation:** the additional capacity resulting from technological improvements will provide congestion benefits but is also likely to result in additional and longer trips;
- **Urbanisation:** focussing growth in urban areas has congestion benefits for inter urban routes and means infrastructure investment can be less dispersed. This inevitably means outlying areas are less likely to receive investment;
- **World of Work:** increased growth in key employment sectors changes the pattern of trip making but not to the extent that major changes in connections will be required;

- **Flexible Lifestyles:** a reduction in commuting rates leads to measurable but small-scale reductions in inter urban demand.

The population of the Peninsula is forecast to grow by around 12.5% between 2016 and 2040. The impact of a growing population is likely to be the dominant force driving transport demand over the next thirty years. While the other key trends will shape this demand growth, we have not found evidence that they are likely to mitigate it significantly. Indeed, rising incomes and decreasing private costs of transport could increase trip rates and compound the observed growth in transport demand. The critical challenge will therefore be to ensure that the future social costs of transport demand, including CO2 emissions, are reduced while enabling high productivity and high-quality lifestyles.

Next steps

The following activities are planned to conclude the analysis and finalise the project deliverables:

- Meetings with Highways England and Network Rail to discuss the results of the Peninsula work as they relate to the Strategic Road Network and the Rail Network;
- Completion of the 'coffee table' report draft for the Officer Group / Directors to review in November;
- Completion of the draft Technical Report later in November;
- Update of both documents based on comments received followed by publication.

3. Consultations/Representations/Technical Data

The Strategic Transport Challenges presentation given by AECOM at the inaugural Transport Forum in May 2019 contained discussion of some of the results of the analysis discussed above.

4. Financial Considerations

The project plan covering AECOM's work to produce the Study was submitted and approved by the Officer Group in March 2019.

5. Other Considerations

This Report has no specific equality, sustainability or legal implications that are not already covered by or subsumed within the detailed policies or actions referred to therein.

6. Summary/Conclusions/Reasons for Recommendations

The Economic Connectivity Study is an important component of the Peninsula's case for investment, supporting the evidence presented in the Regional Evidence Base and demonstrating to Government that the Peninsula understands how future policies, technologies and behaviours will influence the way people connect and the impact of this on the sub-regional economy.