

# Demand Forecasting



## Background

More people travel on the railway today than ever before. Demand for passenger and freight services is high and is expected to rise significantly in the future.

Our Long Term Planning Process (LTPP) exists to plan the long-term capability of the network up to 30 years into the future to promote the efficient use of network capability and capacity. It is intended to look further ahead to enable the industry to develop potential infrastructure interventions over the long term, and allow the industry to explore strategic issues.

Our demand forecasting capability is designed to facilitate the strategic planning of the rail network in a way which is flexible enough to take into account the views of the rail industry, funders, specifiers and customers on the requirements to develop the network to meet future demand through market studies, cross-boundary analysis and route studies.

## The Challenge

Network Rail and the industry need to respond flexibly to the challenges posed by the expected growth in demand for passenger and freight services, whilst assessing the long-term capability of the rail network up to 30 years ahead.

This reflects the need to gain a better understanding about how plans for the railway impact on the economy and make sure that strategic change, such as the implementation of the Northern Hub programme, the development and implementation of the electrification programme and the development of High Speed 2, can be effectively considered in rail industry planning.

Our previous route utilisation strategy (RUS) process identified capacity gaps on existing services and proposed interventions to meet them. However, aspirations for train services that support economic growth, for example connecting residential areas to labour markets, might require entirely new services and a new approach to creating capacity.

## How We Can Help

We have a strong in-house demand forecasting team with significant knowledge in the practical application of a variety of forecasting tools to develop demand and revenue projections. Our strength in forecasting is based on highly developed technical skills combined with an excellent understanding of the economic and demographic developments which drive the long term growth of traffic across rail corridors. As owners of the UK rail infrastructure we understand the real world drivers of rail demand and any behavioural responses underlying choices on the decision to use or not to use rail. Our experienced consultants provide advice on:

- ▶ demand modelling and forecasting
- ▶ market research and data collection
- ▶ macro and micro economic analysis
- ▶ benchmarking & cost benefit analysis
- ▶ business case development.



## *The Long Term Planning Process (LTPP)*

The LTPP comprises a series of studies that will support the industry, its funders and stakeholders to understand the capability of the network as a whole and what future interventions may be needed:

- ▶ Market studies will forecast demand over a 10 and 30 year period for freight and for passenger 'markets' - long distance, regional urban and London & South East. A series of conditional outputs are set - such as a minimum service frequency between cities - which will take into account stakeholder aspirations
- ▶ Route studies: will develop options for all future train services, local as well as long distance, based on the demand forecasts and priorities set by the market studies.
- ▶ Cross-boundary analyses: will consider options for services crossing multiple routes and provide consistent assumptions for the route studies.

## *London and South East passenger market study*

The London and South East study considers how the market in the area within a broadly 80-mile radius of London has developed in recent years and considers the benefits to the economy, the environment and the quality of life for communities and individuals within the study area that can be achieved by further improving and developing the rail network.

## *Regional urban passenger market study*

The regional urban market relates primarily to travel by large numbers of people for commuting or leisure purposes in an area less than 50 miles from a regional centre and this study seeks to understand where rail can exploit its competitive advantages in best serving this market. Despite the recession commuting demand into regional centres continues to grow as a result of modal shift from road to rail and it is anticipated that this growth will continue in the future.

## *Freight market study*

The freight market study provides information on how the rail freight market has changed in recent years, evidence on how the rail freight market is expected to continue to grow in Great Britain. It is based around key market sectors including intermodal (Deep Sea and Domestic), coal and the new market of Biomass.

## *Long distance passenger market study*

The long distance passenger market study provides evidence for the benefits to the economy, the environment and the quality of life for communities and individuals that the rail industry can produce by improving long distance services.

Key deliverables of the study are 'conditional outputs' for the long distance market sector in terms of frequency, journey time and/or passenger capacity on key flows.