Our friends in the south

North vs South is a false debate argues **Phil Smart** – The North needs F2N

Transport campaigners in the North often point to a two to one spending disparity per capita between London and the North in the last decade and to the anticipated widening of this gap in the next. But with much talk of 'levelling up' and of diverting investment northwards we should caution against using expenditure envy to determine priorities, as many projects built in the south yield their greatest benefits further north.

HS2 is an obvious example. Phase one between London and Birmingham requires major construction in the south, where the anti HS2 lobby are most vocal. Yet it is the north that enjoys the benefit of improved journey time, which increases as later phases are added. Should its cost therefore count as a southern project or northern? Applying geographic labels to rail investment is misleading, it's called a network for a reason.

> Freight does not complain on social media when it is late or forced to use replacement road transport, yet insufficient network capacity makes these a daily occurrence. A successful economy brings together both people and products and the need to move goods and materials is equally important in generating wealth

Besides any geographical bias, whether actual or perceived, there is also a bias towards passenger focussed projects. This is understandable in an environment where enhancements are approved by the treasury and hence by politicians whose approach to railways is shaped by lobbying from their constituents.

Freight does not complain on social media when it is late or forced to use replacement road transport, yet insufficient network capacity makes these a daily occurrence. A successful economy brings together both people and products and the need to move goods and materials is equally important in generating wealth.

In the 19th century railways were invented to answer the need to move coal and iron ore to feed the industrial revolution which built the great cities in the north. Today, much of this activity happens overseas, particularly in Asia, and both manufacturers and distributors rely on importing components and consumer goods via the southern ports of Felixstowe and Southampton. To many people this may seem counter intuitive, surely the North has ports of its own so why do we need a north/south link for freight?

To understand this paradox, we need to appreciate what is happening at sea, where the Far East dominates international trade.

Economies of scale

Economies of scale have increased the size of deep-sea cargo vessels. The newest ships carry upwards of 20,000 TEU (20-foot Equivalent Units – although most maritime containers are 40-foot long) and call at multiple ports on their route around the North Sea. Think of this as a gigantic milk round, delivering full containers and picking up empties before returning home.

The principal UK ports on this 'Far East to Northern Europe' shipping rotation are Felixstowe, Southampton and DP World on the Thames Estuary. Of these the busiest is Felixstowe which handles 42 per cent of the UKs deep sea container business and of this traffic, 70 per cent is for the Midlands and Northern England. Although ports such as Liverpool and Sunderland lie further north, shipping economics dictate that the deep-sea ports of choice will be in the south as straight lines save both time and fuel.

Felixstowe is steadily increasing the proportion of containers it sends by rail to a growing number of inland distribution centres. Although about 30 per cent of traffic currently goes by rail, this represents around 50 per cent of container miles as rail favours longer distances. The port's ambition is to double this volume, as traffic sent by rail is already three times more fuel-efficient than road and, with electrification could be up to ten times more so. This becomes ever more significant in the light of the climate emergency as up to one million tonnes of CO2 could be removed from the UK road network if we switched this traffic to rail.

Moving the blockage further up the pipe

Progress so far has, however, been slow due to constraints in the rail network. The opening of the Ipswich freight chord in 2014 permitted trains to access the Midlands and north via Ely without reversal at Ipswich thus increasing the number of freight trains from around 20 per day to 34. The recent provision of a loop at Trimley on the single-track line to Felixstowe will see this rise to 45. But of these extra train paths, just four can be taken up until the removal of two major pinch points on the Mid Anglia line, the junctions at Haughley and Ely.

Haughley is a single lead junction with the Great Eastern Main Line (GEML). Doubling therefore is in the interests not only of the Felixstowe to Nuneaton (F2N) freight route, but also the eastern section of East West Rail and the ambition to run regular 'Norwich in 90' services.

But by far the biggest bottleneck in East Anglia is Ely North Junction which was 'rationalised' in 1992 to save maintenance

MSC 'Isabella' (23,656 TEU) and 'Ever Genius' (20,388 TEU) at Felixstowe

costs. There is growing demand on this junction and in future it will need to accommodate hourly passenger services between Oxford and Norwich/Ipswich, Norwich and Cambridge/Stansted, Stansted and Birmingham, Norwich and Nottingham, Cambridge and Wisbech, Ipswich and Peterborough and two per hour between London and Kings Lynn. Up to three freight services an hour in each direction are forecast and these can take longer to clear the junction due to their 700-metre length and the fact they are often starting from a stand at Ely.

The solution is more complex than simply reinstating the former layout. The Prickwillow road runs east-to-west across the Peterborough, Lynn and Norwich lines intersecting all three at level crossings where lowering the barriers at one creates a traffic tailback that can foul the next. Network Rail's 2015 Anglia Route Study even suggested building a new line to the south and west of Ely to link the line from Ipswich to the south-east with the Peterborough line to the north-west. Railfuture believes a grade separated solution must be provided to meet both freight and passenger growth.

Single line to Soham

Besides the considerable problems at North Junction, the line to Ipswich is single track as far as Soham. Various plans to double this section have been mooted since before the second world war and must now be included in the Ely Area Improvements. Along with junctions at Syston and Wigston (near Leicester) and further doubling of the Felixstowe branch, these works all form part of the F2N strategic freight route providing a modern, reliable link between Britain's premier container port and the rest of the country.

Electrification

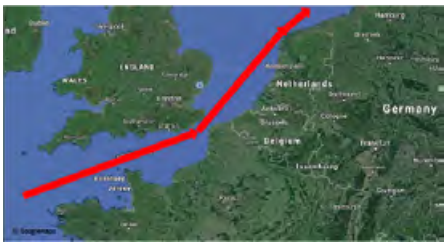
Electrification is usually advanced in response to passenger priorities but its true value lies in the avoided cost of fossil fuel. The lines to Kings Lynn and Norwich were electrified for a passenger market of one or two trains per hour each weighing around 600 tonnes and yet the potential for moving three freight trains per hour, each of about 2,000 tonnes, northwards from Felixstowe must become a national priority if we are serious about decarbonising the UK economy.

There is currently no rolling programme of electrification in the UK as recent schemes have fallen foul of cost over-runs. However, the electrification cause is gaining ground and Railfuture is calling for its return in response to the climate emergency.

What's in a name?

Although F2N has a BCR of around 4:1, both Ely and Haughley junctions are stuck at the 'decision to develop' stage (the first of five in the RNEP process) which hardly reflects their national importance.

Neither Felixstowe or Nuneaton are major population centres and so don't figure in the nation's consciousness. But if F2N stood for 'Far East to Northern Powerhouse' its role and significance becomes clear. Better still why not badge it as 'HV1' (High Volume 1).



Route through the North Sea towards Sweden. The blue spot is Felixstowe

Since 1983 Phil Smart has served on Ipswich Borough Council, joint founders of the East West Rail Consortium. In 2000 he drew up plans for the Ipswich Freight Chord, regarded at the time as 'undeliverable'. It opened for traffic in 2014. Phil is a member of Railfuture.

The Railfuture publication from which this article is drawn can be found at: https://www.railfuture.org.uk/east/docs/Railfuture-East-Anglia-20191030-Mid-Anglia-from-branch-to-main-line-proposals.pdf