

About 2M

The 2M Group is an all-party alliance of local authorities concerned at the environmental impact of Heathrow expansion on their communities. The group, which took its name from the 2 million residents of the original 12 authorities, now represents 21 councils with a combined population of around 4.5 million people.

The full membership comprises the London Boroughs of Brent, Camden, Ealing, Greenwich, Hammersmith and Fulham, Harrow, Hillingdon, Hounslow, Islington, Kensington and Chelsea, Kingston, Lambeth, Lewisham, Merton, Richmond, Sutton, Southwark and Wandsworth, the boroughs of Slough, Windsor and Maidenhead and South Bucks District Council.

For more information visit
www.2MGroup.org.uk





High Speed North

JOINING UP BRITAIN

Joining up Britain

“The 2M Group has been a passionate, and we hope, constructive, contributor to the debate on Heathrow expansion. Our concern throughout has not been simply to knock Heathrow but to speak up on behalf of our residents and protect their quality of life.

As part of this process we have inevitably come to consider where aviation fits in the broader context of national transport policy.

This pamphlet will, we hope, raise questions as to why alternatives to airport expansion are not being more vigorously pursued.

The study and its conclusions are all the work of Colin Elliff who came to us with his ideas. It is not necessary to agree with all of Colin's prescriptions to recognise the inherent logic of his message.

The airlines and airport operators have long been powerful advocates for their industry. Yet the need for equally influential rail 'champions' has never been greater.

Whatever the future holds for Heathrow can we really continue to ignore the potential of high speed rail to transform the way we travel both in the UK and in Europe?"

*Foreword by Edward Lister,
Leader of Wandsworth Council on behalf of the 2M Group*

About the author

This pamphlet has been researched, compiled and written by Colin Elliff BSc CEng MICE. Colin Elliff is a chartered civil engineer with over 25 years' experience, working in the rail industry.

It is published by the 2M Group of local authorities as a contribution to the national debate on transportation policy in the context of Heathrow expansion.

Colin Elliff's detailed proposals were contained in his submission to the Department for Transport's 'Adding Capacity at Heathrow' consultation and are available together with supporting diagrams at www.2MGroup.org.uk

Tomorrow's high speed map of Europe



A one sided debate

The debate over the UK Government's plans for expanding Heathrow has been conducted in a vacuum.

While the Department for Transport rushes to meet the aviation industry's demands for extra capacity, little priority is given to investment in other sectors.

This pamphlet looks at how a new high speed rail network, allied with radical improvements to Heathrow's own rail links, might offer a competitive alternative to domestic and European short-haul flights and contribute to a significant easing of congestion on our increasingly crowded roads.

The North - South divide

Adding new runway capacity in the South East seems to be the main focus of Government transportation policies.

But this only encourages more people to fly to Heathrow from other parts of the country.

It also concentrates investment in an area where the economy is already overheated and adds to local road and rail congestion.

Meanwhile the north of England and Scotland miss out on the regenerative effects of new transport infrastructure development.

Train or plane?

The more UK cities that can be brought within a three-hour rail journey of London, the more likely it is that people will choose the train over the plane.

Experience in Europe confirms that flying loses its appeal when the same journey can be made by rail within this three-hour threshold.

With check-in delays at airports only likely to get worse and growing concerns about the environmental impact of air travel, it is likely that the 'tipping point' for many travellers could extend to four hours. This brings major cities such as Edinburgh and Glasgow, Amsterdam, Frankfurt and Lyon within high speed rail range of London.

With an integrated UK and European high-speed rail network this would open up many more attractive alternatives such as Manchester to Milan and Sheffield to Frankfurt.

High Speed North - a new route to the North

The main building block for any new UK high speed rail network must be a north-south route.

Most high speed proposals have centred on London - offering few connections between other cities.

These constraints could be overcome by building High Speed North - a single Anglo-Scottish spine route, with spur connections to outlying cities.

The spine would initially follow the MI from London and serve Leicester, Nottingham, Sheffield, Leeds, Newcastle, Edinburgh en route to Glasgow.

Spurs would reach out to major cities in the Midlands and the North including Birmingham, Manchester and Liverpool.

It would be a companion to High Speed One – the former Channel Tunnel rail link – which runs for just 108 kilometres between St Pancras International and Folkestone and remains the only stretch of high-speed track in the UK.

High Speed North - step-by-step

The M1 offers a direct corridor for the new line. The topography allows a straight and level alignment while the existing noise and pollution from the motorway has discouraged residential development alongside the route. This makes the M1 suitable for the parallel construction of a high speed line.

The full north-south line would be built in phases. The first section would run from London to Leicester with a branch to Birmingham; it would connect to both West Coast and Midland Main Lines.

The second phase would extend from Leicester along the M1/M18 corridor and connect to the East Coast Main Line in Yorkshire.

The third phase could extend from Sheffield to Leeds, and follow the disused Woodhead corridor to Manchester. This would require the former rail tunnel here to be re-opened for high speed track.

The final stages would extend to Liverpool along the M62 corridor and shadow the East Coast Main Line and M8 corridors to Edinburgh and Glasgow.

The end result - a UK high speed network bringing vast benefits in improved connectivity and capacity.



Heathrow, the heart of the network

The new rail infrastructure would not turn its back on Heathrow. On the contrary, with relatively modest development, the existing Heathrow Express system could be transformed into a regional network focused on the airport. Trains would radiate in all directions and would provide frequent connections to the new high speed line.

Heathrow would become a truly integrated transport hub. People in all parts of the country needing to fly from the airport would be able to reach it by main line train.

Currently Heathrow's only rail connection to the national network is the Heathrow Express to Paddington. Otherwise it's a bus to Woking or Reading or a Piccadilly Line tube to central London.

The current airport expansion plans offer only a hotch-potch of disparate terminating branch lines operating on different power systems - for example the proposed Airtrack link to Staines will use 'third rail' power and trains will not continue onto the overhead-electrified Heathrow Express.

This is far from the model of a modern transport hub that would improve local and regional services for people in west London and national services for air travellers flying from Heathrow.



The 'compass point' network

The proposed 'compass point' network would make the airport instantly more accessible on all sides. Indeed if, as the Department for Transport claims, seven out of ten foreign companies want to locate within one hour of Heathrow, the economic benefits accruing from this investment would reach many more centres of population as far afield as the Thames-side communities, the South Coast and Milton Keynes.

Up to 40 trains an hour could disperse Heathrow's incoming travellers in all directions to a wide range of Home Counties destinations and outer-suburban hubs for connection to main line services.

It would also allow new cross-London routes such as Reading to Cambridge or Luton to Portsmouth.

The Heathrow compass points

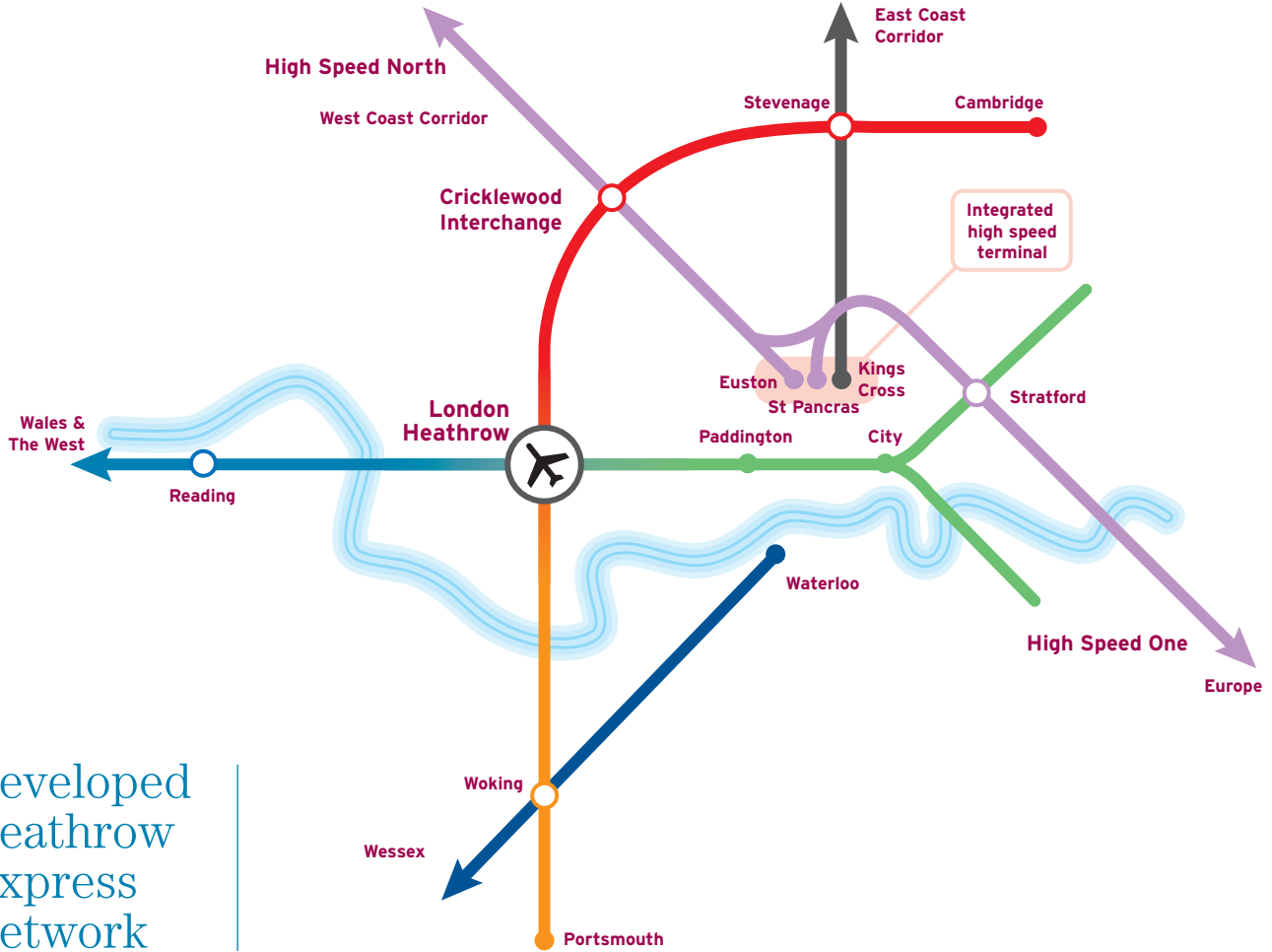
North The northern arm would comprise an orbital route through Wembley, Cricklewood and Stevenage linking to all radial main lines to the North.

The key north London hub would be a new Cricklewood Interchange. This would provide an international connection to Europe via High Speed One avoiding the need for a stop at St Pancras International. It would also link to services on the new High Speed North, Midland Main Line and Thameslink.

South The southern arm would comprise the currently proposed Airtrack link to Staines and Woking. This would radically improve links to outer suburban areas.

East The current Heathrow Express line to the east would extend with Crossrail to the City and beyond, and link more effectively to the suburban rail network.

West The western arm would connect to Slough and Reading and provide onward connections to Wales and the West Country.



Developed
Heathrow
Express
Network

Birmingham to Barcelona?

The opening of St Pancras International at last provides a fitting gateway to Europe for UK rail travellers. The high speed connections advanced in this study would bring St Pancras and Europe within easy reach of many parts of the UK.

The continued expansion of high speed lines in countries such as France, Germany and Spain will create the opportunity for many new European rail services. This would bring cities such as Cologne, Frankfurt and Lyon within easy reach of the UK by rail.

The current Railteam initiative aims to make European rail travel simpler and more competitive by integrating the different countries' high speed systems.

With an extended cross-European high speed network it would be possible to buy a single ticket for a journey from Birmingham to Barcelona.

Possible new routes to Europe:

Glasgow/Edinburgh - Paris • Liverpool/Manchester - Milan • Leeds/Sheffield - Amsterdam

Leeds/Sheffield - Frankfurt • Liverpool/Manchester - Amsterdam • Glasgow/Edinburgh - Frankfurt

Glasgow/Edinburgh - Geneva • Birmingham - Amsterdam • Birmingham - Barcelona • Liverpool/Manchester - Berlin

Leeds/Sheffield - Paris • Birmingham - Nice (& Côte d'Azur)

A sustainable solution

For basic energy use high speed rail is several times more efficient than aviation.

In terms of carbon footprint, the comparison is even more compelling since electricity can be generated from renewable sources. Eurostar puts its carbon emissions at just 10 per cent of those from an aircraft.

With aviation reliant on increasingly expensive and scarce oil supplies, rail's basic energy demand makes this form of transportation sustainable well into the 22nd century.

The new lines proposed in this study in most cases follow existing transportation corridors such as motorways or railways, with very little effect on residential property. This contrasts with the wholesale destruction of communities envisaged by the third runway proposal at Heathrow.

The costs

The UK Government favours airport expansion over rail investment not least because the development and construction costs fall to the private sector.

But the current consultation on Heathrow has highlighted concerns that the true economic and environmental costs of expansion have not been assessed.

The rail infrastructure investment outlined in this study has been estimated at around £30bn for the full programme which would last until 2030.

Whether we are building a new runway at Heathrow or not, the question is whether as a nation we can afford not to invest in an expanded rail network that will relieve the growing congestion on existing roads and public transport that makes it harder for people to move around, and for business to distribute materials and products.

In weighing those costs we should at the same time count the regenerative impact of rail investment in the regions and the benefits to the economy in the South East from a better connected, more accessible Heathrow.