



# How to win air travellers to rail

A report by Greengauge 21 Commissioned by High Speed Rail Group

**Executive Summary**

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HIGH SPEED  
RAIL GROUP

# EXECUTIVE SUMMARY

1. Modal shift is essential if the UK is to achieve its 2050 net zero ambitions.

## Across Britain

2. Across mainland Great Britain, there are 16,700 air passengers on an average day (in the most recent pre-COVID year, 2019). These passengers fly over a highly concentrated geography (unlike the pattern of flights across continental Europe) with 57% of GB domestic passengers travelling between London and Scottish airports. Year by year, rail is gradually winning market share as aviation journey times get extended.

3. But could we accelerate this trend towards rail from air? The answer is yes. In Britain, we need to offer high levels of journey comfort at competitive prices. We need to examine more long-distance, non-stop, point to point rail operations similar to those recently launched on the London-Edinburgh route, which is the nation's busiest in terms of daily flight volumes, carrying over 3 million air passengers annually (2019, pre-COVID).

4. But more—and faster—rail services to and from London cannot realistically be accommodated until HS2 is in operation. The existing network is limited to 125 mile/h operation (whereas HS2 trains will run at 225 mile/h) and is, in effect, full. HS2 will cut London-Glasgow/Edinburgh journey times from 4 hours 20 minutes to 3 hours 38 minutes. Further time savings north of Crewe could allow rail to grow its share of the Anglo-Scottish rail plus air market from 30% to 75%.

5. High speed rail, therefore, has an important role ahead. In conjunction with an improved West Coast Main Line, HS2 will speed up journeys like Birmingham-Glasgow from today's 4 hours 45 minutes to 3 hours 20 minutes. And the retained part of HS2's Eastern Leg could also be used to radically accelerate the nation's main cross country route, taking 1½ hours off the journey time from York to Birmingham, at the heart of the key north east-south west axis.

6. If all domestic mainland Great Britain airline passengers transferred to train, they would fill around 20 trains per day each way, and save a huge amount of carbon emissions, and free up scarce runway capacity at London's main airports.

## Between Britain and continental Europe

7. This is where high speed rail has already succeeded, now dominating London-Paris and London-Brussels travel markets.

8. The new London-Amsterdam Eurostar service is already doing just as well. It takes only 3h52 minutes, and there are 10.5 million air passenger journeys from Britain (nearly half of them from London) to go for. HS1 across Kent and the channel tunnels has capacity for mor.

9. Using the continent's high speed network, a train can go from London St Pancras direct to Marseille, 1000km away, and back, in a single operating day, making for efficient fleet utilisation. London rail services can be extended to other cities within the same distance band for single-day travel—Berlin, Vienna, Hamburg, Frankfurt, Zurich, Geneva, Bordeaux, Nice, Barcelona. Services to these additional city destinations could address a market of 26 million airline passengers

annually, providing a sustainable travel alternative for a total of 44 million airline passengers between Great Britain and the area within one day's rail travel of London.

## A four-point plan to win air travellers to rail

### Step 1 Winning today's domestic air travellers to rail

- London-Scotland accounts for 57% of domestic air travellers
- To compete with air, rail needs to offer point-to-point services with competitive prices
- Lumo is now testing this proposition on the nation's busiest single air route: London-Edinburgh. Its secret? No train stops between Newcastle and Stevenage and advance fares from as low as £19.90
- It is not too soon to think of expanding this concept. London-Glasgow is an obvious next step, along with London-Dundee and Aberdeen

• Cross country rail services operate today on a north east-south west axis, but end-to-end journeys are lengthy and slow. Here too a Lumo-style concept could work, connecting, say, Cardiff and Bristol with Darlington, Newcastle and Edinburgh, avoiding intermediate stations on congested parts of the rail network to speed up journey times

• But rail can only go so far operating on today's rail network.

### Step 2 Modal Share transformation with HS2

- To make a deeper impact, rail needs to offer quicker journeys and provide capacity for additional limited-stop services. This is just what HS2 provides
- When HS2 is operational, travel between London and Scotland by train will be nearly an hour faster, with trains running at 225 miles/hour rather than 125 miles/hour
- Government should back the findings of its *Union Connectivity Review* which showed how HS2 plus complementary investment—upgrading today's railways across the border—could allow rail to win 75% of Anglo-Scottish passengers
- And the new plan to extend HS2 from Birmingham to Nottingham should be used to improve connectivity along the north east—south west axis, speeding up journeys by 1 hour 30 minutes, levelling up cities outside the south east.

### Step 3 Maximise HS1 to move international travellers to rail

- While Eurostar services have succeeded in their chosen markets, HS1 across Kent and through the channel tunnel has capacity for more. And Europe's high speed rail network is still expanding with new cities coming into reach all the time. As Eurostar becomes part of Europe's Railteam network, connections and new services will stretch across the Netherlands, Germany and Austria, through Switzerland to Italy and France to Spain. There is huge scope for longer distance rail travel from the UK, and for new entrants to compete strongly on shorter routes too.

#### Step 4 Properly connect Britain's two high speed rail networks

- HS2 can also extend European travel benefits across Britain, providing zero carbon connectivity across the nation.
- There are two ways HS2 can help achieve this:
  - When HS2 is built, fresh capacity will be created on today's busy West Coast Main Line (WCML), meaning new services can be added. For travellers from Manchester and Birmingham, we have identified a way to access cross channel rail services, using a new Javelin-style service that avoids the off-putting gap between Euston and St Pancras stations and instead delivers travellers directly to border controls at HS1 stations. The airline market Manchester/Birmingham-Amsterdam alone is 2.1 million passengers (per annum) or 2,900 each day.
  - By getting travellers faster from the Midlands and North to Euston. The gap to St Pancras is only  $\frac{3}{4}$  mile, and should be provided with a proper passenger transfer facility Euston-St Pancras (HS2-HS1), one that provides a seamless 'between two terminals' connection suitable for all travellers, including those with impaired mobility.

#### Conclusion

10. Our report demonstrates that there is significant scope to attract many more passengers to rail from short haul flights. Expanding and integrating the national high speed rail network, accessing an ever increasing number of international high speed routes, will be key to facilitating this shift. By doing so, we can make major progress on net zero, and help deliver the 'levelling up' aim by strengthening the connectivity of major cities across the regions.