

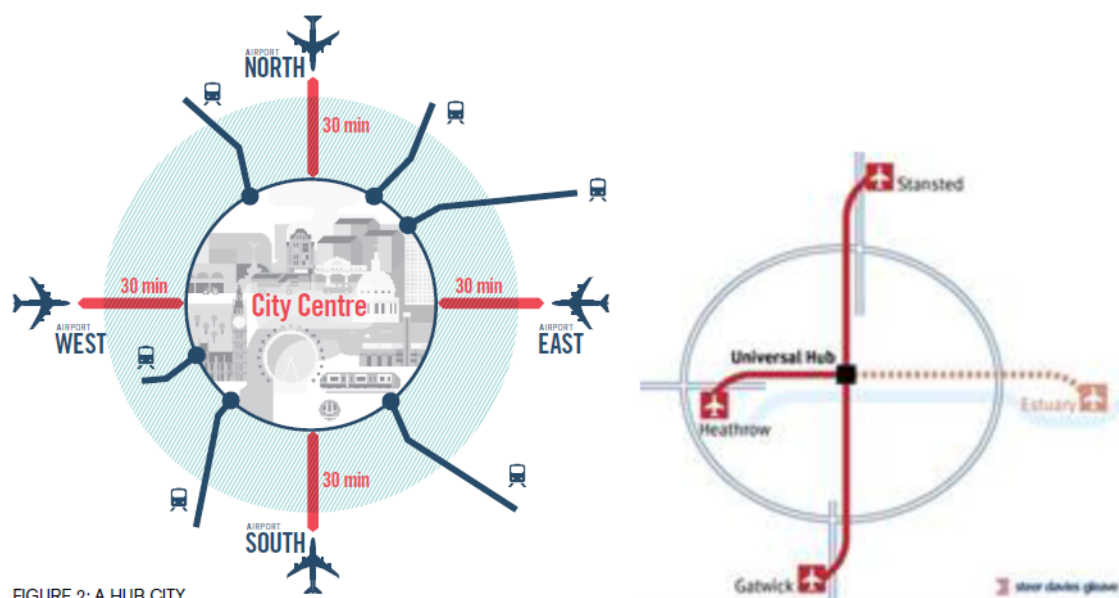
PROPOSAL TITLE:	London Central Access	Group:	Other
SUBMITTED BY:	Airports Commission Secretariat	Reference No.:	61

## PROPOSAL

Enable central London to operate as a ‘virtual’ or actual hub, with a downtown mega-terminal connecting existing London airports and a new Estuary airport, if constructed.

The concept, in which London itself is a hub, with a downtown terminal, is predicated on frequent and high-speed connections to each airport. 30-minute connections are envisaged between the airports and the city centre, facilitated by Crossrail, improvements to Heathrow Express, and a package of new sub-surface infrastructure investments to achieve super-express connections to Gatwick, Stansted and Luton.

While aiming to connect existing capacity and achieve fast transfer times, the scheme is also intended to bring economic benefits by encouraging transfer passengers to spend time and money in the city centre before continuing their journey.



## ASSESSMENT SUMMARY

- The proposal itself does not contribute any additional capacity.
- The main effect of the scheme is to improve surface access from central London to the airports, and some improvement in public transport connections via central London; aviation benefits are very limited.
- Working as intended, the scheme would deliver economic benefits to central London through increasing footfall and expenditure of business and leisure transfer passengers at the central London hub location. However, there is no evidence of likely demand from travellers to follow this model.
- Substantial investment in rail infrastructure would be required to achieve the proposed connection times, with a high level of cost and complexity where sub-surface connections are proposed.
- Even with 30 minute airport-city connections, total transfer time between two airports would be too long for most connecting passengers, and the virtual hub would be weakly competitive with on-site hubs in other countries.
- Baggage handling presents an operational challenge for passengers transferring between airports.
- Not clear the extent to which passengers wishing to stop in London for a day or so whilst transferring are not already doing so, therefore unsure potential for additional traffic/.
- The scheme is likely to require full taxpayer funding.
- Compared with the London orbital virtual hub proposal, this virtual hub is weaker in that some passengers would have to change trains at the “universal hub” in central London, thus increasing connection times.

Overall, the scheme does not appear to result in a viable or attractive hub airport system since total transfer times would greatly exceed passenger’s expectations, while incurring substantial infrastructure investment in surface transport to achieve optimal airport-city journey times. With no increase in runway/airport capacity, some airlines would likely increasingly seek to expand services to other locations in Europe or to raise fares in response to rising demand. The surface transport benefits of this scheme outweigh the aviation benefits and it should be compared with other similar surface transport proposals.

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## OVERVIEW

<b>Approach</b>	Government to invest in new surface transport infrastructure to connect existing airports with either a 'virtual' central London hub or a single physical transport interchange (downtown terminal) in central London.
<b>Connectivity</b>	<ul style="list-style-type: none"> <li>Currently only a small proportion of passengers transfer (interline) outside of airline alliances (typically 10% of transfer traffic), within existing airports. It is unlikely that improved connections between different airports would increase these, as a very small proportion of users currently transfer across airports. There is a significant time penalty, and international travellers would have to clear immigration, collect luggage and clear customs, and then check in luggage to make a connection that is typically seamless within a single airport. Such a system would not be competitive with other hubs.</li> <li>Airlines and alliances are likely to continue to co-locate for efficiency and cost sharing purposes (e.g. alliances are co-located in terminals at Heathrow (T5 for BA and Iberia), new Terminal 2 for Star Alliance and T4 for SkyTeam). It is unlikely, therefore, that airlines will voluntarily split their operations. Overflow would be driven by capacity constraint but would be the exception rather than the rule. For the virtual hub concept to be feasible, minimum connect times would need to be approximately 45 minutes. This would not be achieved by this scheme. It seems unlikely, even with very high speed transfer between airports, that a virtual hub could take the place of single site hub.</li> </ul>
<b>Capacity</b>	<ul style="list-style-type: none"> <li>No additional airport capacity is created directly by the scheme which instead connects existing capacity, encouraging earlier utilisation of that.</li> <li>Any new capacity created separately, for example a Thames Estuary airport, would be connected by surface transport into the central London hub system. Such additional capacity would gain very little benefit from the central London hub scheme.</li> <li>It is unlikely to free much additional capacity by transferring domestic connecting flights to rail. Journey times from Manchester, Leeds and Newcastle would remain high (even with HS2 typically 1.5, 1.75 and 3.0 hours respectively to Heathrow) so that although some connecting domestic air traffic might be substituted, air would remain competitive. As the majority of traffic from those destinations is point-to-point (typically 85% to 90%), better rail connectivity between the airports from the English regions would likely have little impact on slot usage at Heathrow. The proposal is, therefore, not expected to free any material capacity at the London airports.</li> </ul>
<b>Cost</b>	<ul style="list-style-type: none"> <li>To achieve the specified journey times, investment in the rail corridors alone likely to require substantial public funding. The total cost, including extensive tunnelling, termini and with prudent risk and optimism bias may be greater than £100bn.</li> <li>A single downtown rail terminal large enough to accommodate such services from just the four main airports would itself cost anywhere between £5 and 20 bn, depending upon location and scale.</li> <li>Land acquisition costs in central London may be prohibitive.</li> </ul>
<b>Surface Transport</b>	<ul style="list-style-type: none"> <li>New or improved rail connections to Heathrow, Gatwick, Stansted and Luton to connect each airport with the city centre within 30 minutes required.</li> <li>Crossrail journey times may not be adequate, requiring Heathrow Express services at higher speeds and capacity, with a new underground connection to the hub.</li> <li>Gatwick Express services would also require a new underground connection from the Brighton Mainline under central London. Stansted Express services would need the West Anglia Main Line 4 tracking, new rolling stock and a new underground connection from outside Liverpool Street station to the new hub. Luton services may require additional capacity on the Midland Mainline and a new underground connection from outside St. Pancras station to the new underground hub station.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>Benefits arising from the proposal are likely to be mainly those associated with the improvement in surface access to the airports, rather than any material aviation benefit.</li> <li>There will be no additional airport capacity created and very limited increase in connectivity.</li> <li>There might be some benefit in terms of reduced road congestion and associated pollution as surface access to the airports is improved and some incremental modal shift from road to rail should occur.</li> <li>Passengers connecting via the central London hub may spend time and money in the city centre before continuing their journey, benefiting local businesses. However, those not wishing to undertake a lengthy transit may simply choose not to use London as a hub.</li> <li>The majority of the economic benefit would be focused on central London rather than in those parts of London and the SE that are in greater need of regeneration.</li> <li>In the absence of new airport capacity, utilisation of existing capacity will marginally increase where it is available (e.g. Stansted) and where airlines are able to provide economically viable services,</li> </ul>

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	<p>facilitating the growth of new and existing industries around the airports.</p> <ul style="list-style-type: none"> <li>National economic benefits are expected to be very low, given the likelihood of very low additional interlining traffic attracted (and without new airport capacity, it may be offset by a continued deterioration in relative hub status).</li> <li>Some minor regional benefits from improved public transport connectivity between industry clusters around each airport.</li> </ul>		
<b>Environment</b>	<ul style="list-style-type: none"> <li>No net impacts on aircraft noise or air quality are anticipated</li> <li>Surface transport upgrades are not expected to have much impact on noise, wildlife, heritage sites or housing, being confined largely to existing corridors, although some widening may be needed to increase capacity in some areas, and extensive tunnelling will be needed in central London.</li> </ul>		
<b>People</b>	<ul style="list-style-type: none"> <li>Improved connectivity from central London will improve access to each London airport, particularly benefiting those who currently (or would) travel via central London.</li> <li>Improved airport choice may increase surface access connectivity and stimulate price competition.</li> <li>Probable significant community impacts from building the terminal in central London – may require substantial demolition in highly residential / developed areas.</li> </ul>		
<b>Operational Viability</b>	<ul style="list-style-type: none"> <li>With no additional runway capacity planned as part of this scheme, traffic growth may be accommodated where spare capacity exists (i.e. at Stansted and Luton), although it is unlikely that network airlines exclusively operating at Heathrow will split operations to other London terminals if there is insufficient demand to justify the costs of such a split.</li> <li>Airlines and alliances are highly unlikely to split their operations between multiple airports, because of the inherent inefficiencies and undermining of the benefits of airline groupings.</li> <li>The scheme targets airport-city connection times of 30 minutes, thus a minimum airport-airport connection time of 120 minutes can be envisaged, taking into account transport waiting times. Baggage collection, security, terminal transit, orientation, baggage drop, and security processing times can be expected to add a further time penalty of 60-90 minutes at a minimum. Total aircraft-aircraft transfer times are therefore unacceptably high. This time could be reduced were baggage to be through-checked, but this would increase operational and logistical complexity and prevent passengers from packing any items purchased in central London into their checked baggage (diminished economic benefit).</li> </ul>		
<b>Deliverability</b>	<ul style="list-style-type: none"> <li>Funding is assumed to be from government</li> <li>Infrastructure upgrades are expected to be delivered through 2020's, with the concept reliant upon good connections to each airport being achieved</li> </ul>		