

<b>PROPOSAL TITLE:</b>	<b>Drive Through Airport</b>	<b>Short Term</b>	<input type="checkbox"/>
<b>SUBMITTED BY:</b>	<b>Büro für MEHR</b>	<b>Medium/Long Term</b>	<input checked="" type="checkbox"/>

PROPOSAL

The proposal is a concept for a revolutionary view of an airport terminal as opposed to a particular solution to UK airport capacity. As compared to conventional ground operations in which each aircraft is parked at a dedicated stand from arrival to departure, in the Drive Through Airport (DTA) aircraft are sent through a Service Street, which is laid out in the form of a conveyor belt but separated into three process steps associated with Arrival, Servicing and Departure. Each “Pit Stop Station” manages only one activity instead of being blocked for all activities as parking positions are at conventional airports. Pit Stop 1, the first Pit Stop after landing, allows for deplaning and unloading luggage. After completing all arrival activities the aircraft is ready to be pulled to the next station. Pit Stop 2: Ground handling activities are addressed via underground pipelines; meanwhile, the cabin is cleaned and catering prepared. After servicing and final checks, the aircraft is towed to its final Pit Stop Station to be prepared for departure. Pit Stop 3: boarding and loading of luggage. Once all passengers are seated and their luggage is on board, the aircraft is towed out. Just before take-off, the engines are turned on and the aircraft released.



INITIAL ASSESSMENT COMMENT

The proposal is a novel approach to improving airport efficiency but does not itself contribute to runway capacity. Rather than an airport terminal having a large number of gates, it would have a much smaller number of DTA Service Street Lanes, theoretically reducing the footprint of the terminal buildings significantly.

Purported benefits are a reduction in aircraft turnaround times, more efficient passenger processes, and significantly less ground transport activity and aircraft taxiing, with resulting environmental benefits.

Primary weaknesses are that the concept is untested and various nuances of the airline industry – for example the use of various aircraft types, branding and service level differentiation, airline alliances, ground handling, maintenance and catering supplier arrangements – may either need to be revolutionised or accommodated within the concept, potentially weakening its advantages. It may be difficult to retrofit and would appear to be most appropriate in new build situations.

As the proposal is not a standalone solution to the problem of airport capacity, little or no information has been supplied on the feasibility of project delivery, its costs or economic benefits.

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## OVERVIEW

<b>Proposal</b>	An innovative new concept for passenger handling and aircraft turnaround processes, focused on improving terminal rather than runway capacity. The proposal is not aligned to any particular geographical location but assumes construction of additional runway(s).		
<b>Approach</b>	The sponsor proposes the concept as a measure that facilitates efficient airport capacity, and which should be coupled with any new runway wherever it is located.	<b>Stated Capital Cost</b>	<b><u>£2 bn for equivalent of T5</u></b>
<b>Potential Benefits</b>	<ul style="list-style-type: none"> <li>Higher capacity for same plan area compared to conventional terminal.</li> <li>Improves efficiency of ground infrastructure, service resources, and claimed to reduces turnaround times.</li> <li>Reduces fuel consumption of aircraft and ground handling service vehicles.</li> </ul>	<b>Capacity (mppa)</b>	n/a
		<b>Capacity (ATM)</b>	n/a
<b>Key Issues &amp; Risks</b>			
<b>Strategic Fit</b>	<ul style="list-style-type: none"> <li>The proposal is principally concerned with airport terminal and apron capacity rather than runway capacity. The proposal is aligned with the Commission's objectives in terms of reducing the environmental impact of aviation. However, it does not itself contribute to airport capacity and does not obviously have a bearing on the Commission's immediate study.</li> </ul>		
<b>Economy</b>	<ul style="list-style-type: none"> <li>The claimed benefit of greater processing capacity for any given plan area of terminal could, in theory, make better use of available land, however, as the proposal is not related to any particular location, no specific economic benefit can be observed.</li> </ul>		
<b>Cost</b>	<ul style="list-style-type: none"> <li>Little cost information provided. One example claims that the equivalent cost of the capacity of Heathrow Terminal 5 would be c £2bn compared to £4.3 bn, although it is not clear whether this is a like for like comparison including all surface transport infrastructure.</li> </ul>		
<b>Operations</b>	<ul style="list-style-type: none"> <li>Untested, revolutionary approach.</li> <li>It would involve numerous operational challenges, such as: 'just in time' delivery of aircraft supplies; handling different aircraft types; accommodating different levels of service for different carriers and routes; enabling carriers and alliances to retain distinct products, suppliers (ground handling, catering, maintenance) and service levels; and achieving high reliability of operation while having less redundancy and higher-utilised equipment.</li> <li>Robust incident management/exception handling processes required to ensure a disruption does not block the Service Street.</li> <li>Requires multi-handling of the same aircraft. Whilst the proposal may require less area, it is not clear that this does in fact improve turnaround times as claimed.</li> <li>Unlikely to be appropriate to low cost operations where fast and reliable turnarounds are paramount.</li> </ul>		