

Initial Appraisal		Intervention 166: Double-deck Trains between Glasgow and Kilmarnock						
Estimated total Public Sector Funding Requirement:		<i>Capital Costs/grant</i>					£100m - £500m	
Summary Impact on Key Strategic Outcomes	Improve Journey Times and Connections Reduce Emissions Improve Quality, Accessibility and Affordability	---	--	-	0	+	++	+++
(Judgement based on available information against a 7pt. scale.)								
Intervention Description:								
Upgrading of rail infrastructure to support double-deck trains operating between Glasgow and Kilmarnock.								
Summary: Rationale for Not Progressing								
This intervention would require significant infrastructure works associated with platform enhancements and bridge clearances. There would be significant operational impacts at Glasgow Central where approaches and platforms are likely to require realignment. There would be inefficiencies due to the lack of interoperability between routes across Glasgow and this could restrict the future-proofing of rail network improvements.								

Table C166.1.1 STPR Objectives

STPR Objectives	
<p><u>STPR Objective 1:</u> To increase rail capacity between Ayrshire and Glasgow including the Kilmarnock line.</p> <p><u>STPR Objective 2:</u> To ensure efficient and effective freight access to the port facilities at Loch Ryan.</p> <p><u>STPR Objective 3:</u> To promote continuing reduction in accident rates and severity rates across the strategic transport network.</p> <p><u>STPR Objective 4:</u> To reduce the conflict between longer distance and local traffic with a focus on identified key constraint points.</p>	<p>1: Positive – Upgrading of rail infrastructure to support double-deck trains operating between Glasgow and Kilmarnock would provide an increase in rail capacity on this route into Glasgow. This intervention, as well as increasing capacity along the route, would help to make public transport more attractive, encouraging a shift from car to public transport for trips to and from Glasgow City Centre.</p> <p>2: Neutral - This intervention is unlikely to have any significant effect on ensuring efficient and effective freight access to the port facilities at Loch Ryan.</p> <p>3: Neutral - this intervention may encourage modal shift from cars to trains and this may help to reduce road accident and severity rates. However, this effect would not be significant.</p> <p>4: Neutral - If more people as a result of this intervention use public transport (i.e. train) instead of their car, this may help to reduce the conflict between longer distance and local traffic, due to less traffic being on the road, however the effect would not be significant.</p>

This intervention also addresses an objective in another urban network.

STPR Objective	Corridor, Urban Network or Strategic Node
To address rail capacity and connectivity issues in central Glasgow.	Glasgow

Table C166.1.2 Key Strategic Outcomes

Key Strategic Outcomes (KSO's)		
Objective:	Assessment Summary:	Supporting Information:
Improve Journey Times and Connections:	Neutral	This intervention would help to provide more rail capacity, however this is unlikely to improve journey times and connections along this route.
Reduce Emissions:	Minor Benefit	The upgrading of rail infrastructure to support double-deck trains promotes modal shift away from car use, potentially reducing the number of cars on the road and thereby slightly reducing emissions.
Improve Quality, Accessibility and Affordability:	Neutral	This intervention would help to provide more rail capacity and in turn reduce overcrowding along the route offering a better quality of journey for rail passengers. However, this intervention would not improve accessibility or affordability.

Table C166.1.3 Implementability Appraisal

Implementability Appraisal	
Technical:	This intervention would require significant infrastructure works associated with platform enhancements and other gauge related works. It would have significant operational impacts at Glasgow Central where approaches and platforms are likely to require realignment. There will also be some technical difficulties involved in increasing the loading gauge e.g. tunnel bores may need to be enlarged or track relayed to lower the track level. There is likely to be disruption when this work is carried out.
Operational:	Increasing the loading gauge and operating double-deck trains would allow for increased capacity on existing routes and services, but would not allow for increased service frequencies, or new routes, without additional infrastructure enhancements. This intervention would have significant operational impacts at Glasgow Central during its projected life where approaches and platforms are likely to require realignment.
Public:	While increasing rail capacity is likely to be supported the construction and operational impacts is like to be met with public opposition by regular rail users and communities in the area.

Table C166.1.4 Comparative Appraisal

Comparative Appraisal	
Intervention Hierarchy:	Upgrading of rail infrastructure to support double-deck trains is classed as a Level 3 intervention as significant infrastructure changes are required to implement the intervention.
Interaction:	This intervention would potentially interact with and complement intervention 91 (Rail Service Frequency Enhancement between Glasgow and Kilmarnock) helping to increase rail capacity on this route into Glasgow.
Mutually Exclusive:	This intervention and Intervention 165 (Double-deck Trains between Glasgow and the Ayrshire Coast) are mutually exclusive.

Table C166.1.5 Environmental Appraisal

Environmental Appraisal	
Assessment Summary	The intervention is likely to benefit local air quality and contribute towards a reduction in CO ₂ e emissions through potential modal shift to rail.