

Initial Appraisal		Intervention 165: Double-deck Trains between Glasgow and the Ayrshire Coast						
Estimated total Public Sector Funding Requirement:		Capital Costs/grant					>£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 the Ayrshire Coast.								
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 C165.1.1 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 the rail infrastructure to support double-deck trains operating between Glasgow and Ayrshire Coast would provide an increase in rail capacity on this route into Glasgow. As well as increasing capacity along the route, this intervention would help to make public transport more attractive. It would also provide a more effective public transport link to Glasgow Airport by reducing overcrowding on services used on trips between Ayrshire and the airport.</p> <p>2: Neutral - This intervention would not 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 accidents 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 objectives in another urban network.

STPR Objective	Corridor, Urban Network or Strategic Node
To address rail capacity and connectivity issues in central Glasgow.	Glasgow
To promote efficient and effective transport links to support the development and implementation of the proposed national development at Glasgow Airport identified in the NPF2.	Glasgow

Table C165.1.2 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 would not 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 C165.1.3 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 to be realigned. There would 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 the railways to increase capacity on existing routes and services, but would not allow them to increase service frequencies or serve 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:	This intervention has not been made public.

Table C165.1.4 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 92 (Rail Service Frequency Enhancement between Glasgow and the Ayrshire Coast) helping to increase rail capacity on this route into Glasgow.
Mutually Exclusive:	This intervention and Intervention 166 (Double-deck Trains between Glasgow and Kilmarnock) are mutually exclusive.

Table C165.1.5 Environmental Appraisal

Environmental Appraisal	
Assessment Summary	Potential for slight positive benefits on air quality and CO ₂ e emissions by encouraging modal shift from road to rail and a reduction in road vehicle related emissions.