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Director Greengauge 21

The key policy choices for Anglo-Scottish HSR

National HSR Conference, Glasgow
September 2015

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A national HSR network

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Balanced gains in connectivity needed for Scotland

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"Whilst the Committee would not wish to prescribe in this report a specific route for a new high-speed line, it is essential that any new line serves both Edinburgh and Glasgow in order to maximise the benefits for Scotland." §71

"The Committee notes that the Minister seems to agree that the three hour journey time is of significance, and recommends that any new high-speed rail line is developed with the aim of permitting this journey time between Scotland and London." §78

Source: http://www.scottish.parliament.uk/S3_TransportInfrastructureandClimateChangeCommittee/Reports/Report_on_the_potential_benefits_of_high-speed_rail_services.pdf

(AP219, Climate Change Committee, 2009)

Three points and a question

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- Capacity is the key (it always is with HSR)
- Demand growth drives the investment case
- Why hasn't the HS2 Ltd study (so far) found a positive business case?
- We don't need a full 400k/h high-speed line to get a 3 hour journey time

How HS2 Phases 1 and 2 serve Scotland

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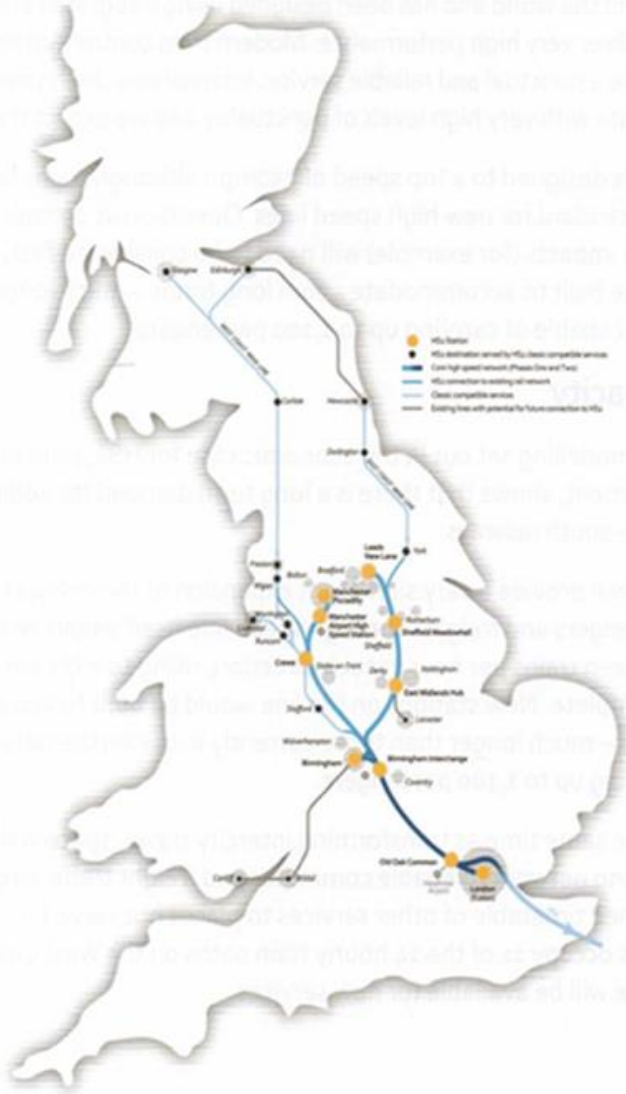
Figure 4.1: Vision for high speed Britain



Carstairs

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Train Graph (*source Steer Davies Gleave analysis of Network Rail data)*

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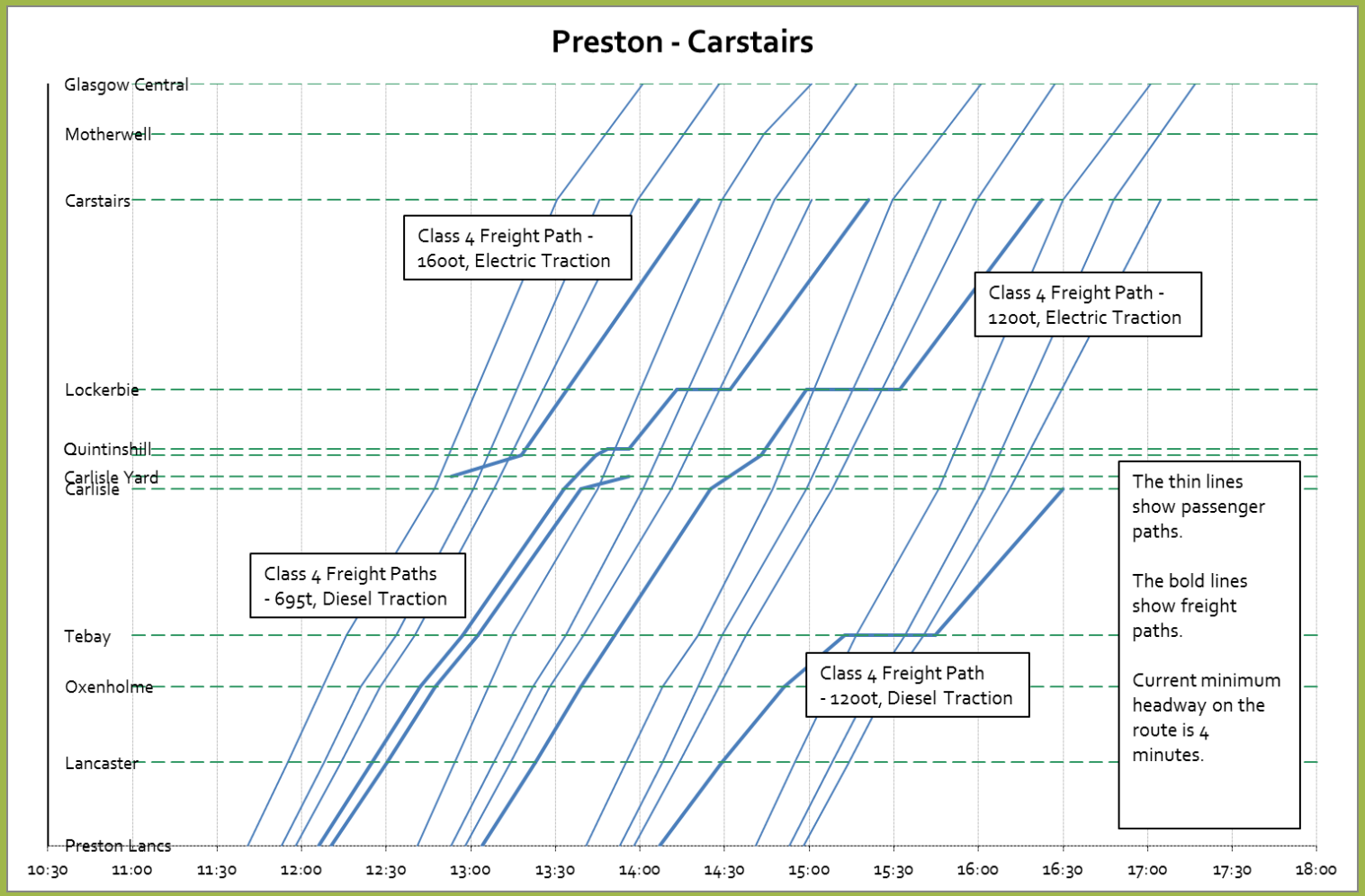

Combination of 125 mile/h and 40-75 mile/h freight makes inefficient use of capacity

Demand growth: a success and a challenge -1

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- Since 2007 alone, rail passenger travel increases:
  - between London and Glasgow +144%
  - between Manchester and Scotland +191%
  - between Birmingham and Scotland +261%
- Year on year growth rates close to 10%:
  - Euston +9.4%
  - Birmingham New Street +8.3%
  - Edinburgh Waverley +6.0%
  - Manchester Piccadilly + 5.7%

Source: latest ORR statistics Q4 2014/5 over the previous year

Demand growth: a success and a challenge -2

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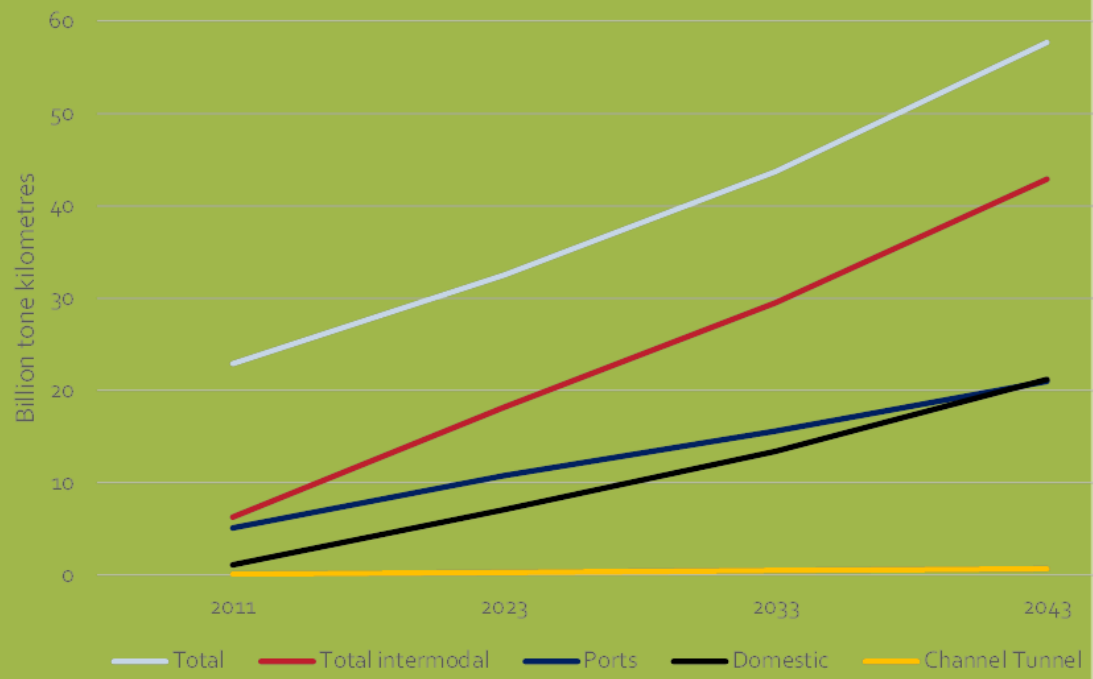
Freight on the WCML: intermodal segment fastest with growth of over 350% anticipated by 2033



By 2030, demand for passenger train paths to double?

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Long distance trains, WCML northern section today and potentially in 15 years' time: numbers of trains per hour (tph)

Route	*2015*	*2030*
Glasgow - Euston	1	1-2
Edinburgh - Euston	-	1
Carlisle - Euston	peak only	1
Glasgow - Birmingham	0.5	1
Edinburgh – Birmingham	0.5	1
Glasgow - Manchester	0.5	1
Edinburgh - Manchester	0.5	1
Glasgow/Edinburgh –Liverpool	-	1
Glasgow – Carlisle - Leeds	-	0.5
Aberdeen – Manchester/Birmingham	-	0.5
Total	3+	8.5

Greengauge 21 Fast Forward report key conclusions on Anglo-Scottish routes (2009)

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Corridor	High Speed North West		High Speed North East	
New HSR infrastructure	London – Birmingham / Manchester	Manchester – Glasgow / Edinburgh	London – Leeds / Newcastle	**Newcastle – Edinburgh**
Benefit:cost ratio	2.9:1	7.6:1	2.0:1	**1:1**
Net Present Value (£ bn, 2002 prices)	**24**	**23**	**15**	**0**

- *"Extending to Edinburgh and Glasgow improves the economic return considerably, as the journey time improvements trigger a large shift from air to rail"*
- *Regional economic benefits to Scotland at £20bn second only to London's (£25bn)*

Network Rail's Conclusion (New Lines study: meeting the capacity challenge)

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"By continuing the high-speed line… to Glasgow (2hrs 16mins) and Edinburgh (2hrs 9mins), a much bigger market could be tapped and a significant modal shift from air to rail realised"

"This transformed the business case generating revenue and benefits worth almost £55bn. The line, over the course of 60years, paid for itself 1.8 times over."

"A new high-speed line to Scotland more than pays for itself"

https://www.networkrail.co.uk/newlinesprogramme/

Cross border study terms of reference

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In October 2012 the Secretary of State for Transport announced that the Department for Transport would take forward "*a study on the way to get fast journeys further north still, with the aim of getting the journey from Scotland to London to under three hours.*"

Since then the Department for Transport has been in discussions with Transport Scotland on Scotland's connectivity needs, discussing rail capacity and connectivity north and south of the border. The Secretary of State would like HS2 Ltd to build on this understanding and carry out the early work that identifies the broad options available to make capacity and journey time improvements on intercity routes between northern England and Scotland. HS2 Ltd will engage Network Rail to work alongside them in developing these options.

The objective of the study is to provide a report to the Secretary of State for Transport that identifies the broad options available and provides the evidence base for any future decisions, with a draft report ready in time for Summer Recess 2014. The work should consider high speed options, upgrades to existing infrastructure, or a combination of the two, looking at both the East and West Coast rail corridors. We would expect the report will be published alongside a decision by the Secretary of State on next steps.

Why standard appraisal methodology will underestimate the benefits of a 2030s project

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1. Assumptions of much lower growth than we are currently experiencing
2. Assumptions that demand will stop growing in the mid 2030s
3. Assumptions that only committed investment is taken into account (i.e. up to 2019) – so no scope to accommodate the extra services for which demand is clearly foreseeable.

Together these assumptions deny the opportunity to make an investment case based on capacity

Corridor infrastructure choices

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Lune Gorge – worth a base tunnel solution?

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Carlisle – modernise or bypass?

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A sensible mix of upgraded and new lines

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National Grid challenge in Cumbria – nearest supply lines 50km away from Moorside

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Conclusion

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- A sensible mix of upgraded and new lines: 3 hours *and* the extra capacity needed
- Must find a sound way to measure capacity benefits
- Make the investment in the northern part of the WCML – both sides of the border – a matter of priority
- Aim for a 3 hour journey time as close to 2026 as possible

Thank you