

# HS2 fails the Connectivity Challenge

HS2's primary objective is to deliver "hugely enhanced capacity and connectivity" between the UK's major conurbations, and this improved connectivity is crucial to HS2 Ltd's claims of multi-billion pound economic benefits.

To test this claim, we have assessed the performance of HS2 and Northern Powerhouse Rail (NPR) in interconnecting 20 major UK cities plus Heathrow Airport, and we have compared this with our own High Speed UK (HSUK) proposals.

The cities that we have considered are:

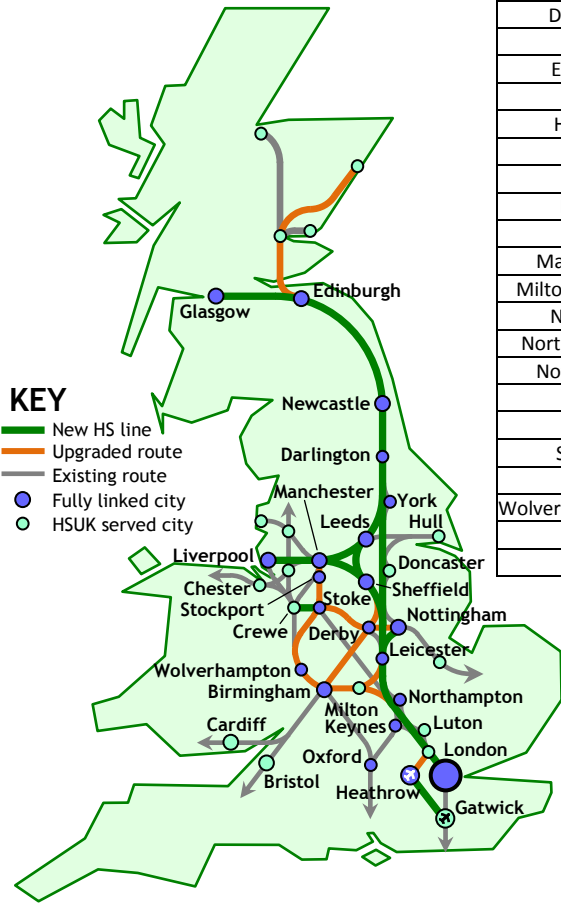
- London, Oxford, Milton Keynes, Northampton, Birmingham, Wolverhampton, Leicester, Nottingham, Derby, Stoke, Stockport, Sheffield, Manchester, Liverpool, Leeds, York, Darlington, Newcastle, Edinburgh, Glasgow, plus Heathrow Airport.

For HS2, predicted services are taken from Table 23 of *HS2 Regional Economic Impacts* (report by KPMG for HS2 Ltd, 2013). These predictions cover both high speed services on the new HS2 lines, and also reduced intercity services on the existing main line network. Predicted Northern Powerhouse Rail services are taken from the HS3 Journey Time Specification, with the assumption made that these services can be delivered.

HSUK's predicted services are taken from the HSUK 'Demonstrator Timetable', itself based on detailed route design of over 1,000km of new railway and more than 50 connections to the existing network.

The comparisons on the opposite page show that HSUK achieves full interconnectivity between all 21 centres, and improves frequency or journey time (or both) on 208 of the 210 journeys between these 21 centres.

By contrast HS2 only improves 42 journeys, makes 60 worse, and leaves 10 of the 21 centres entirely bypassed. This is clearly not the "hugely enhanced connectivity" that has been claimed for HS2.



	BI	DL	DE	EH	GL	HR	LS	LE	LI	LO	MA	MK	NE	NN	NG	OX	SH	SK	ST	WV	YO	
Birmingham																						
Darlington																						
Derby																						
Edinburgh																						
Glasgow																						
Heathrow																						
Leeds																						
Leicester																						
Liverpool																						
London																						
Manchester																						
Milton Keynes																						
Newcastle																						
Northampton																						
Nottingham																						
Oxford																						
Sheffield																						
Stockport																						
Stoke																						
Wolverhampton																						
York																						

**High Speed UK**  
 208 possible links  
 208 direct links created  
 100% network efficiency

	BI	DL	DE	EH	GL	HR	LS	LE	LI	LO	MA	MK	NE	NN	NG	OX	SH	SK	ST	WV	YO	
Birmingham																						
Darlington																						
Derby																						
Edinburgh																						
Glasgow																						
Heathrow																						
Leeds																						
Leicester																						
Liverpool																						
London																						
Manchester																						
Milton Keynes																						
Newcastle																						
Northampton																						
Nottingham																						
Oxford																						
Sheffield																						
Stockport																						
Stoke																						
Wolverhampton																						
York																						

42 links improved  
 60 made worse

Source info: Table 23, HS2 Regional Economic Impacts (2013) & Northern Powerhouse Rail route & journey time specification

**HS2 + NPR**  
 208 possible links  
 42 direct links created  
 20% network efficiency

