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High Speed UK

HS2

What's it for?

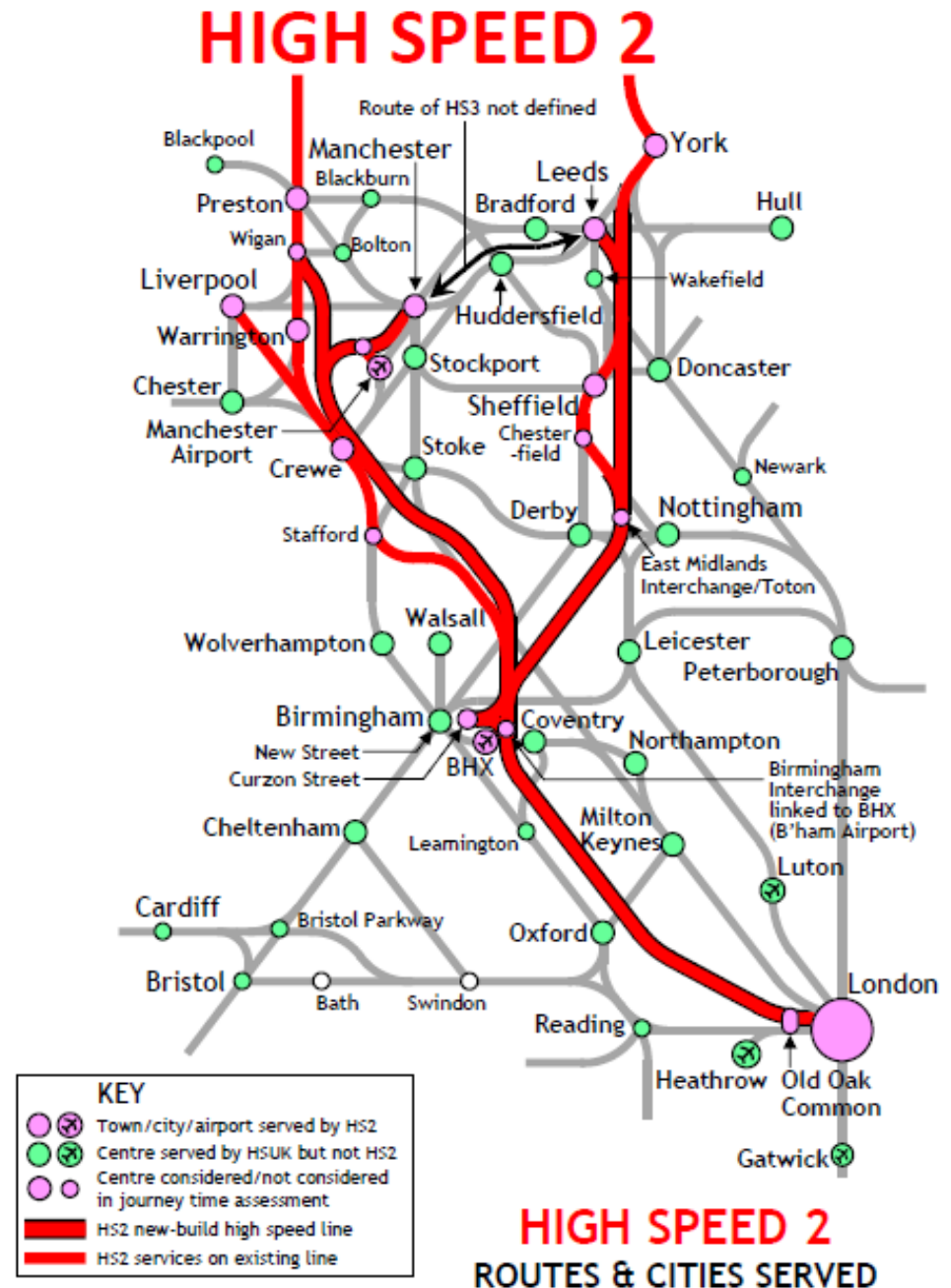
**Does it work for
Yorkshire?**

HS2 Mission Statement

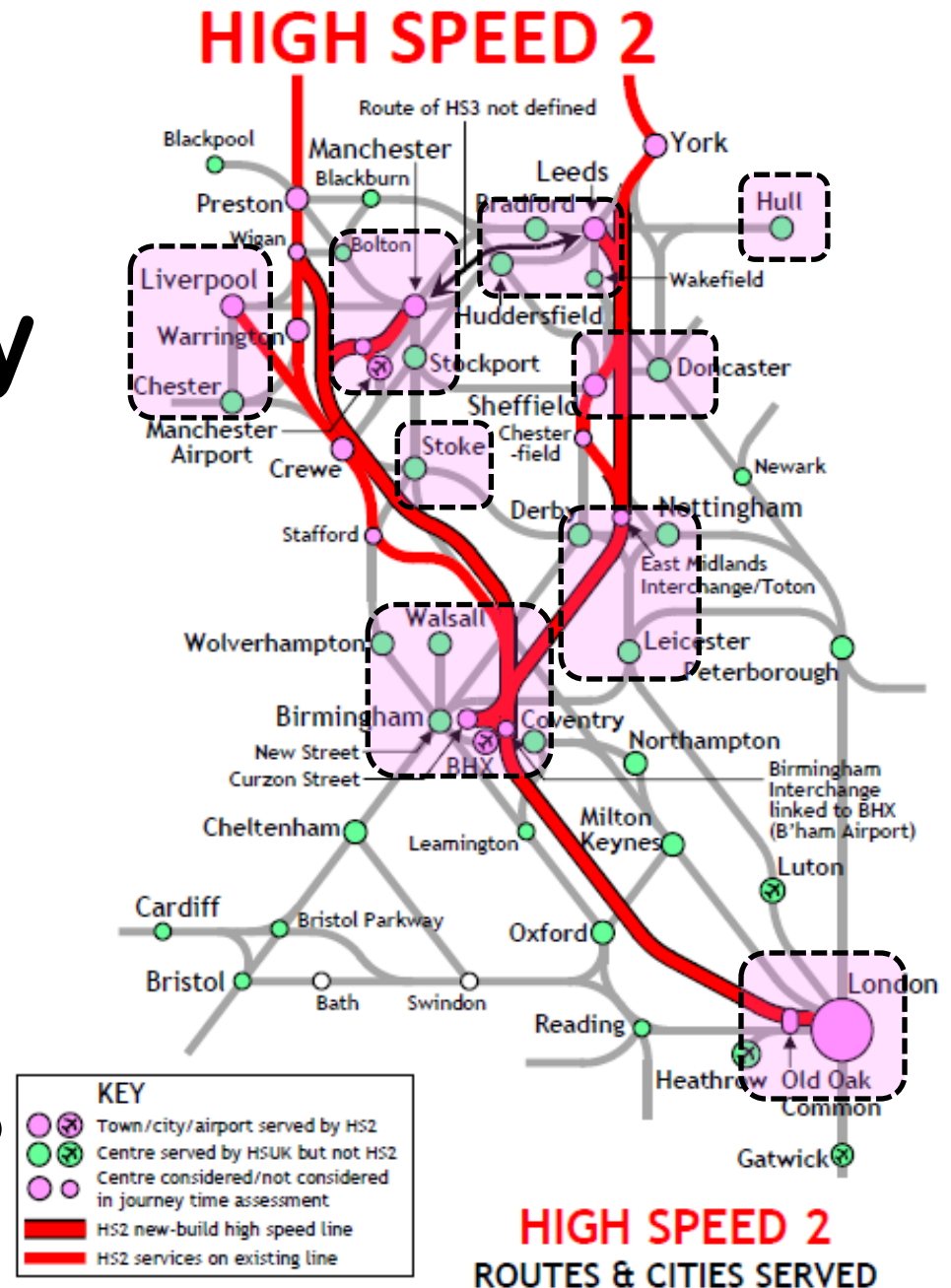
“The aim of the HS2 project is to deliver hugely enhanced capacity and connectivity between our major conurbations.”

Evidence by Andrew McNaughton (HS2 Ltd Technical Director) to House of Commons HS2 Select Committee on 30/11/2015

Does HS2 deliver?

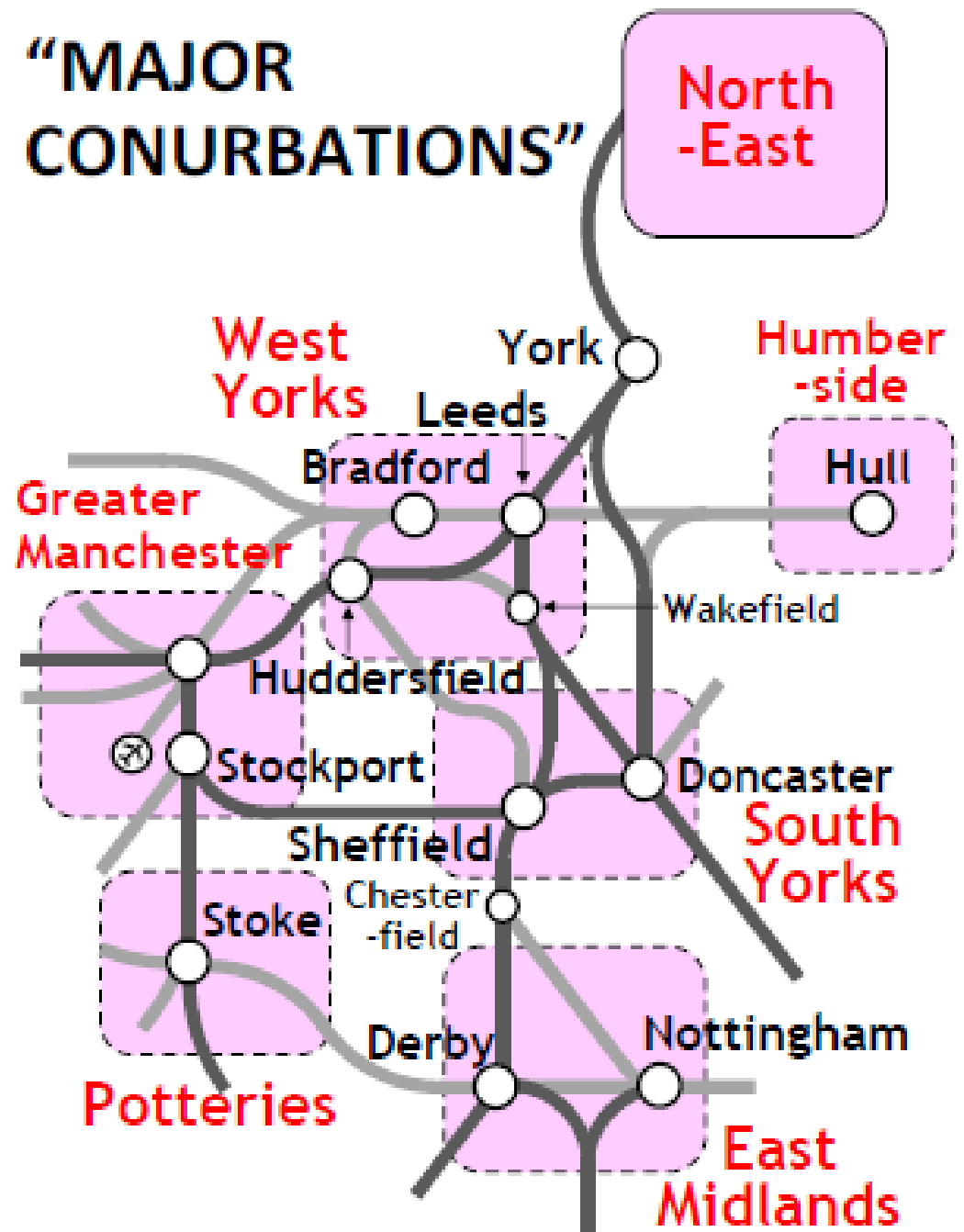


**Does HS2
deliver “hugely
enhanced
capacity &
connectivity”
between the
UK’s major
conurbations?**

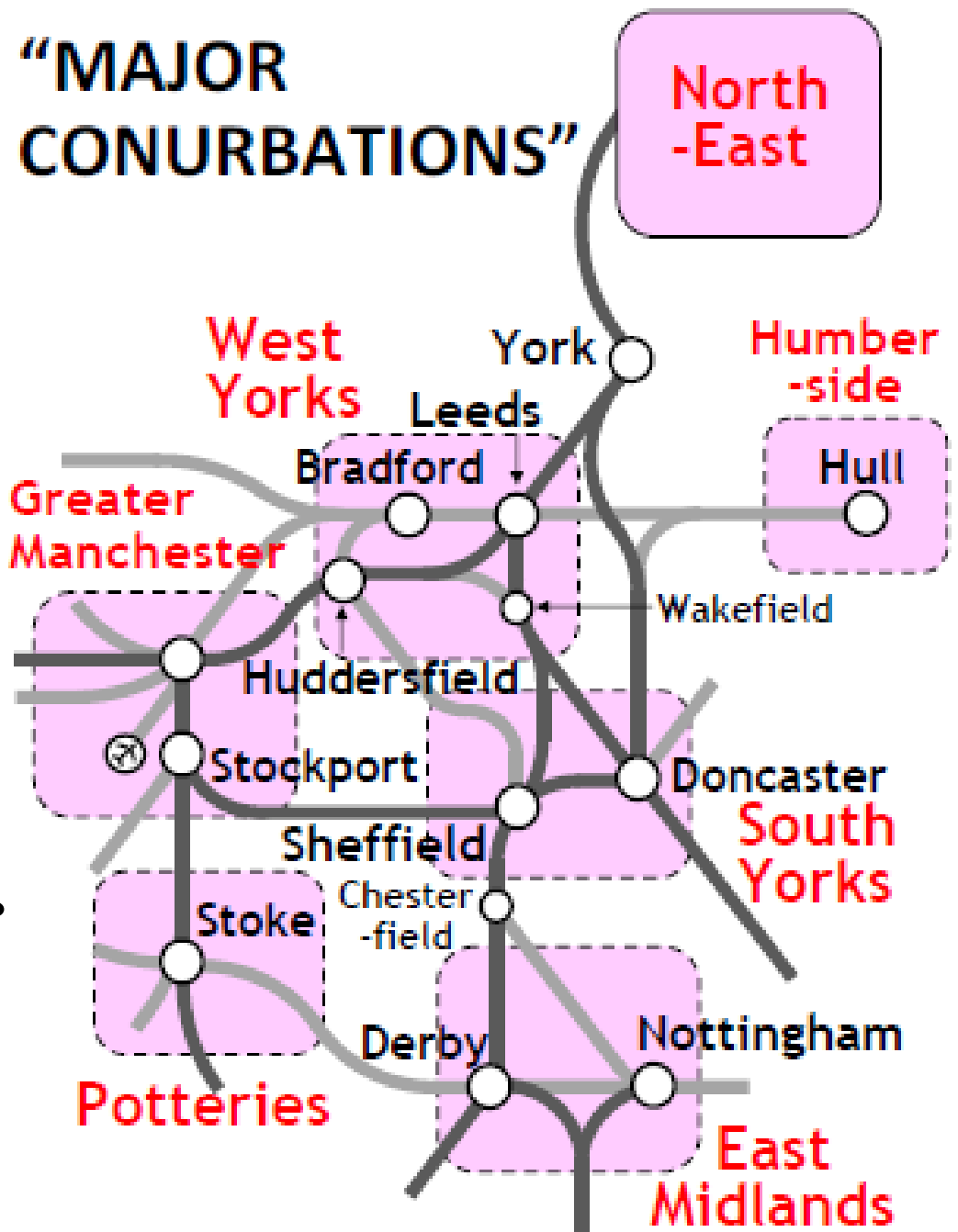


Taking a more Yorkshire- centric view....

“MAJOR CONURBATIONS”

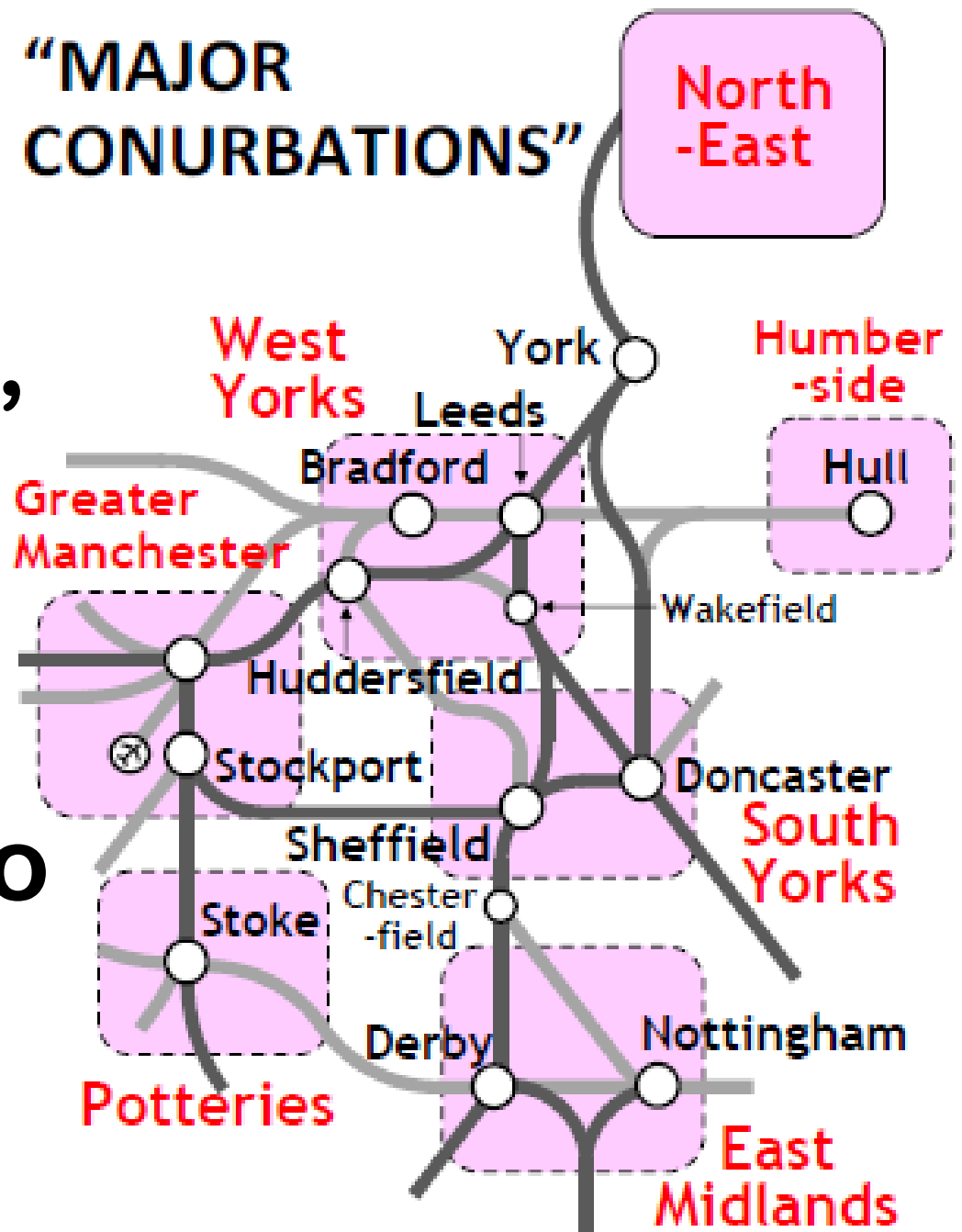


It's not
just about
Leeds &
Sheffield &
Manchester

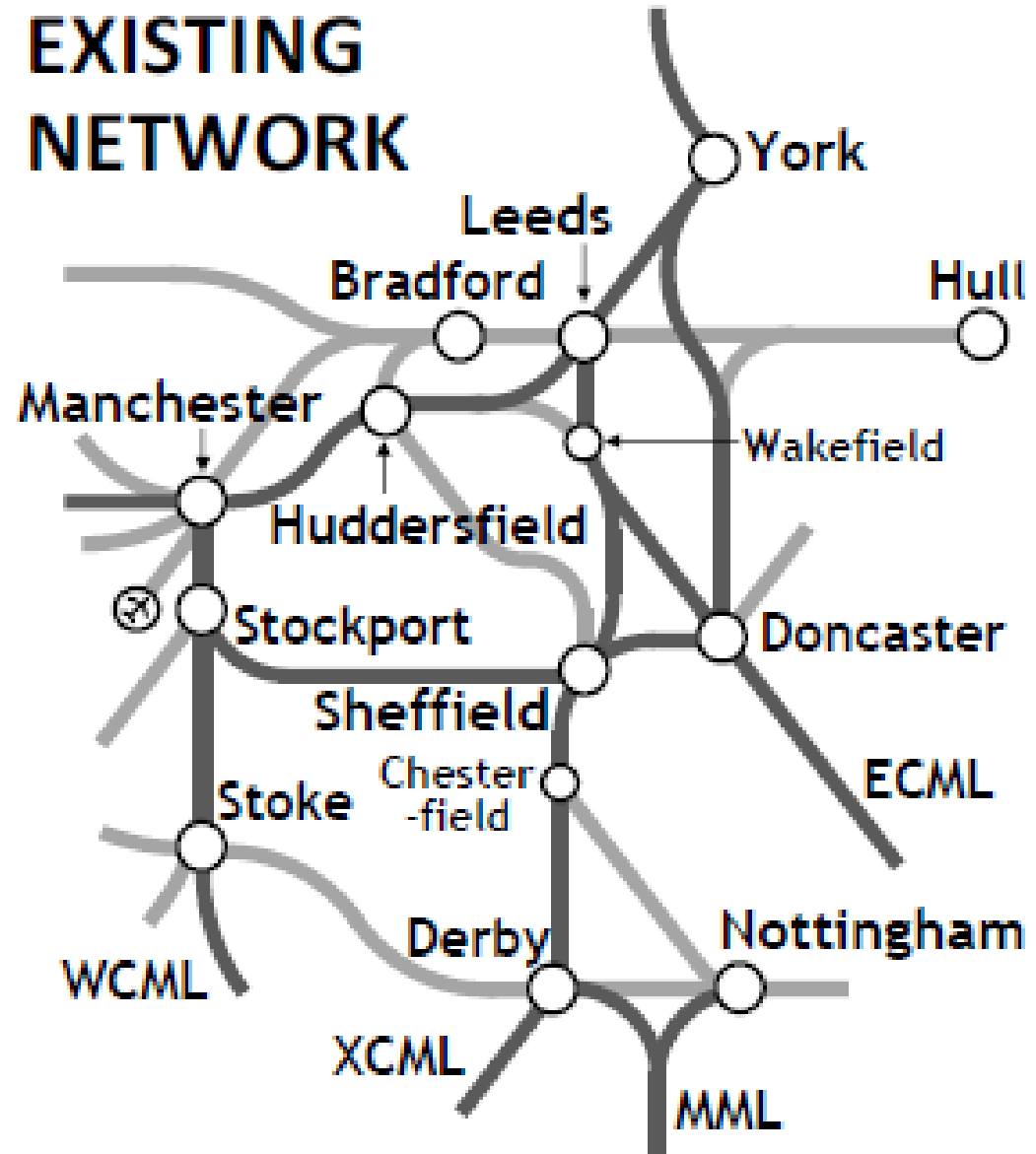


**Huddersfield,
Bradford,
Wakefield,
Doncaster &
Hull must also
be included**

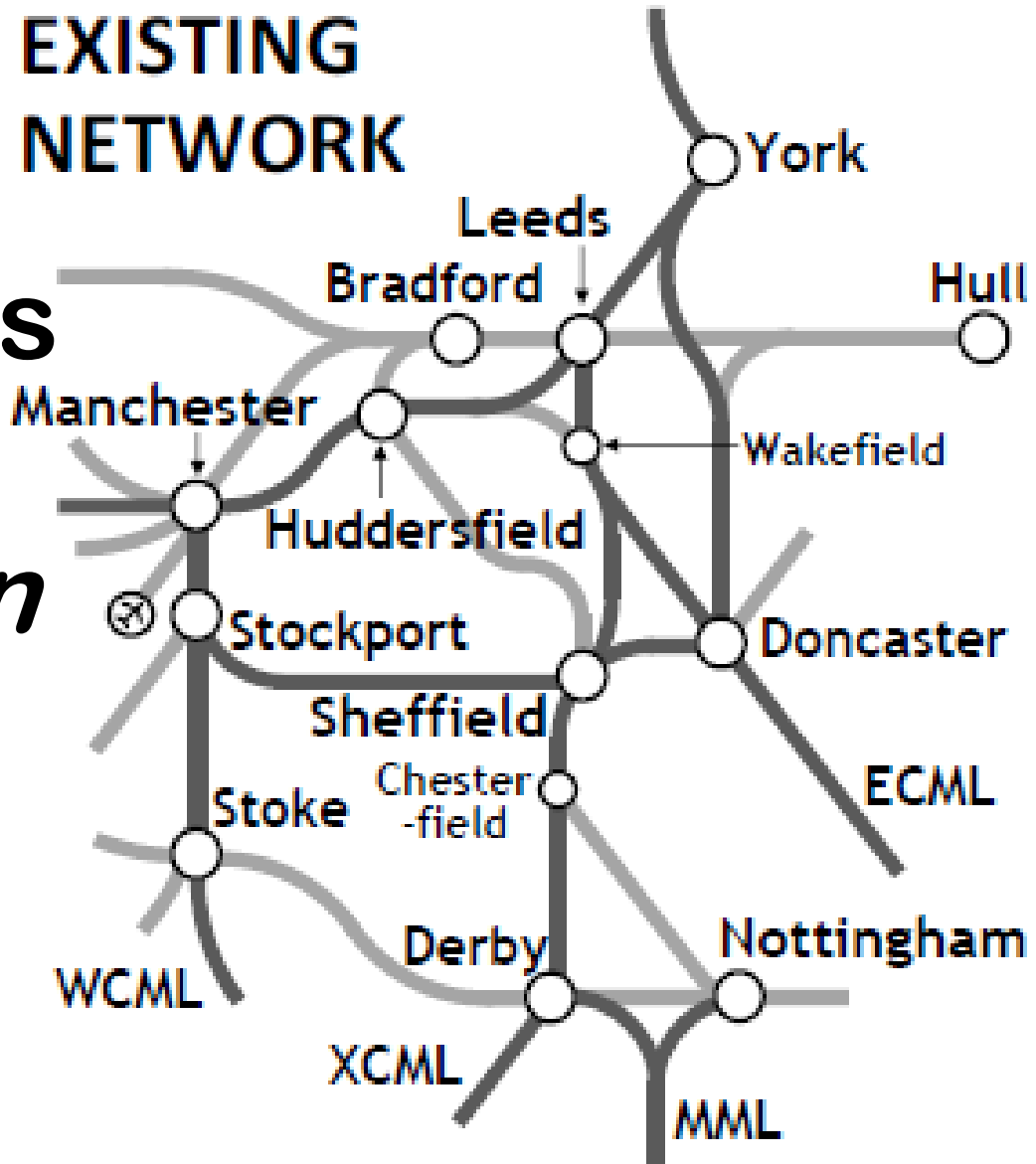
**“MAJOR
CONURBATIONS”**



Every major
population
centre needs
to be better
connected –
*improved
network vital*

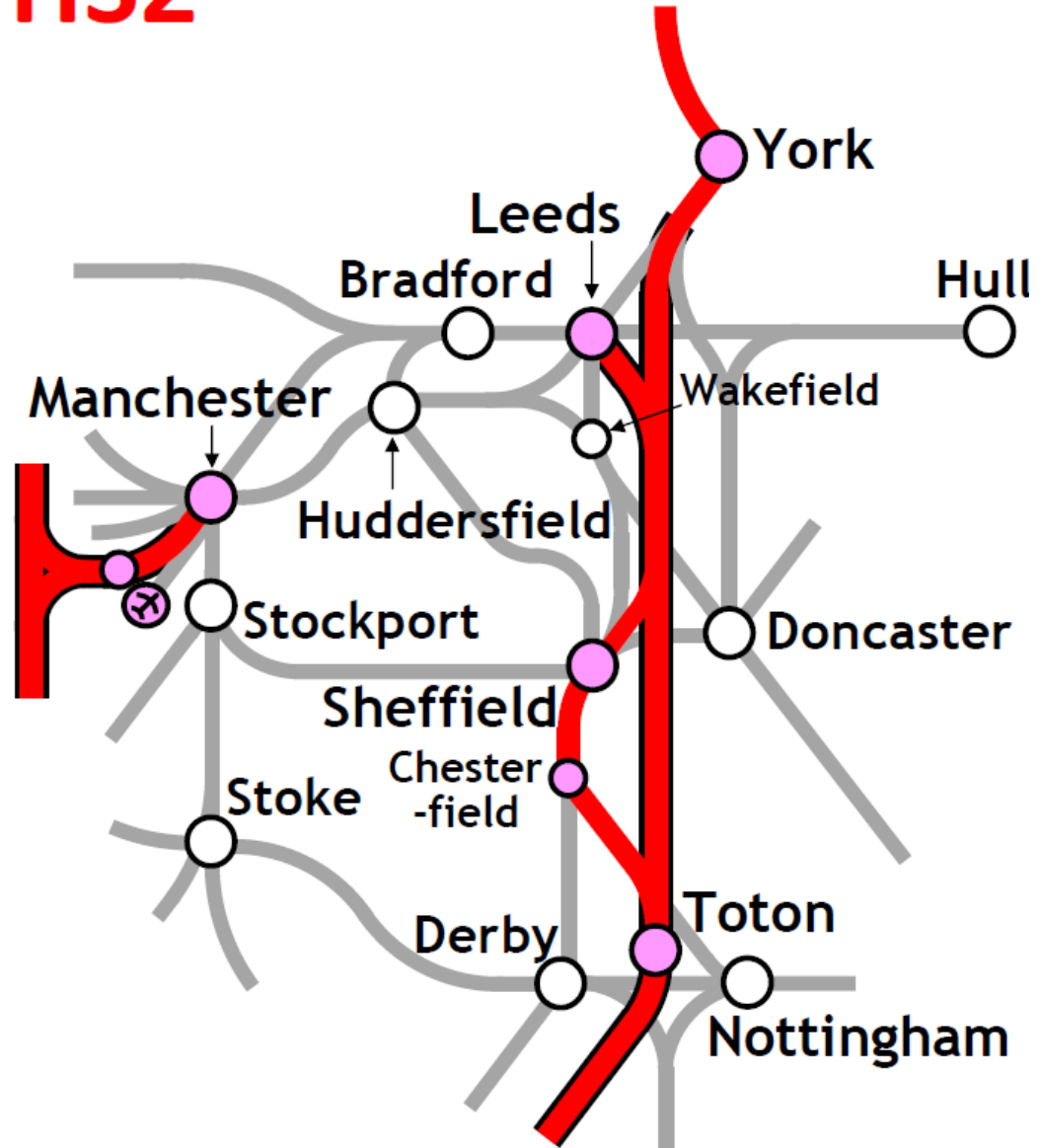


**Impossible to
build new lines
everywhere -
*full integration
with existing
rail system is
essential***



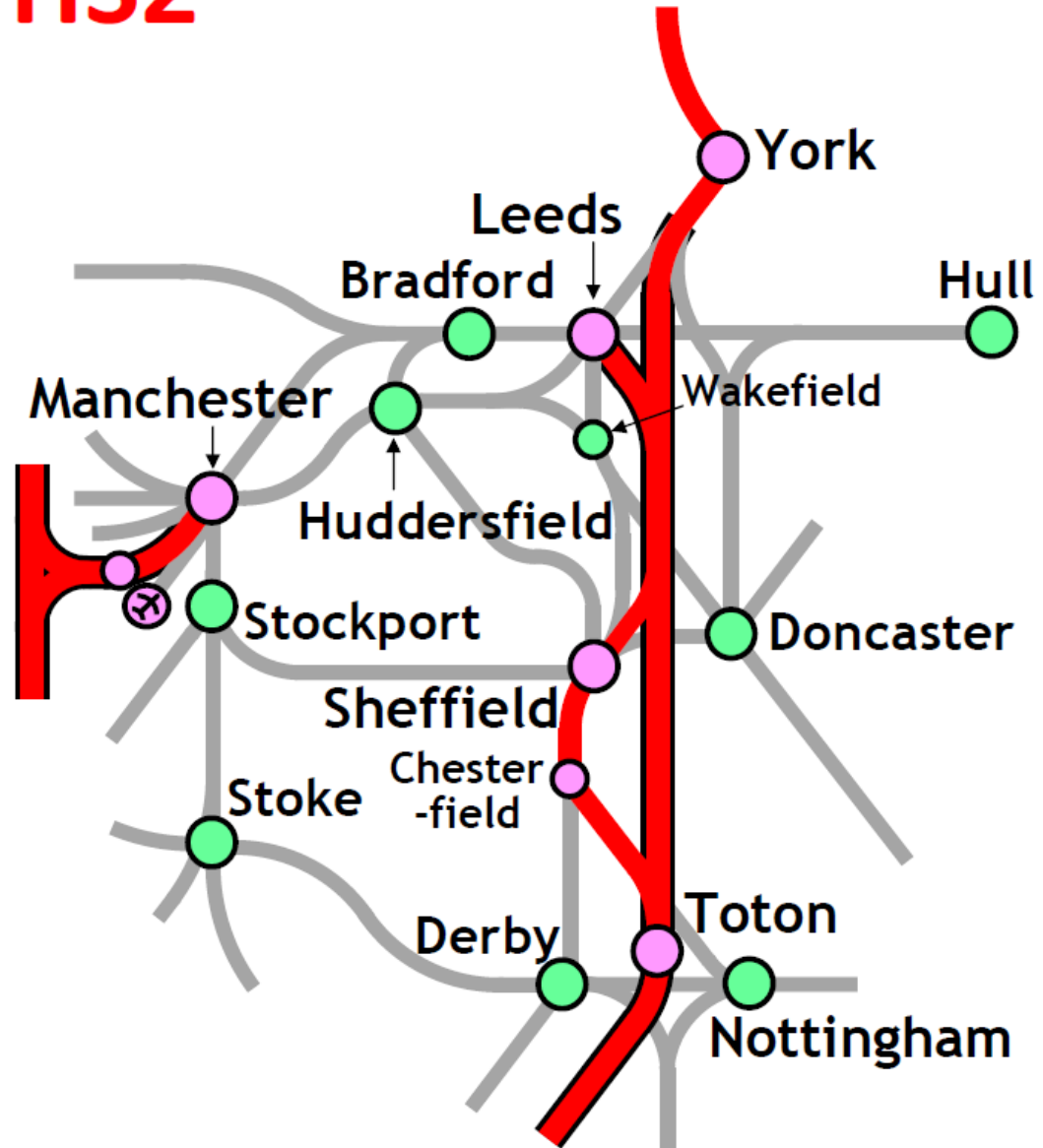
HS2 fails to link most Northern cities

HS2



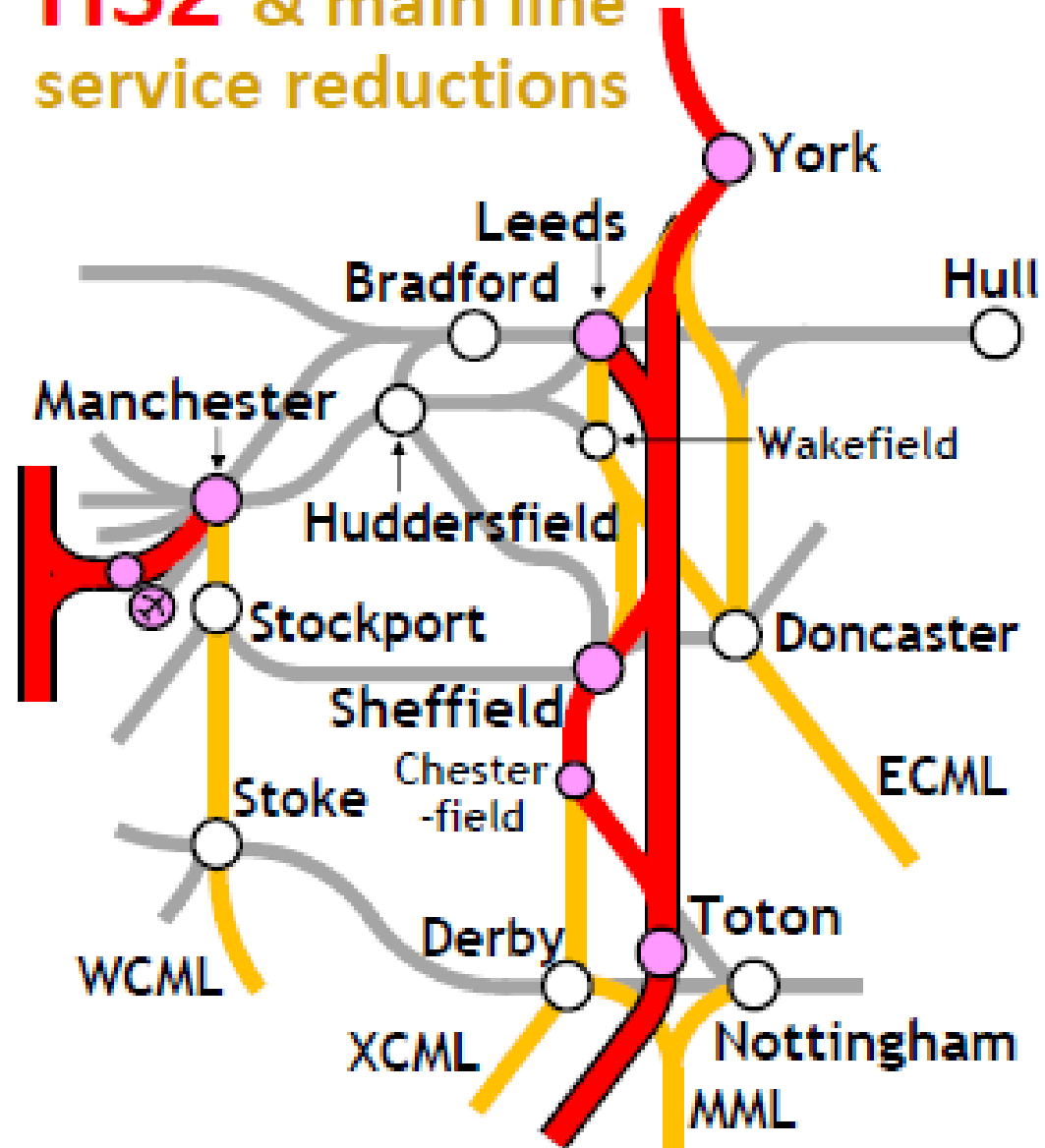
**HS2 lacks
capacity
to serve
most
Northern
cities**

HS2



HS2 damages existing main line services

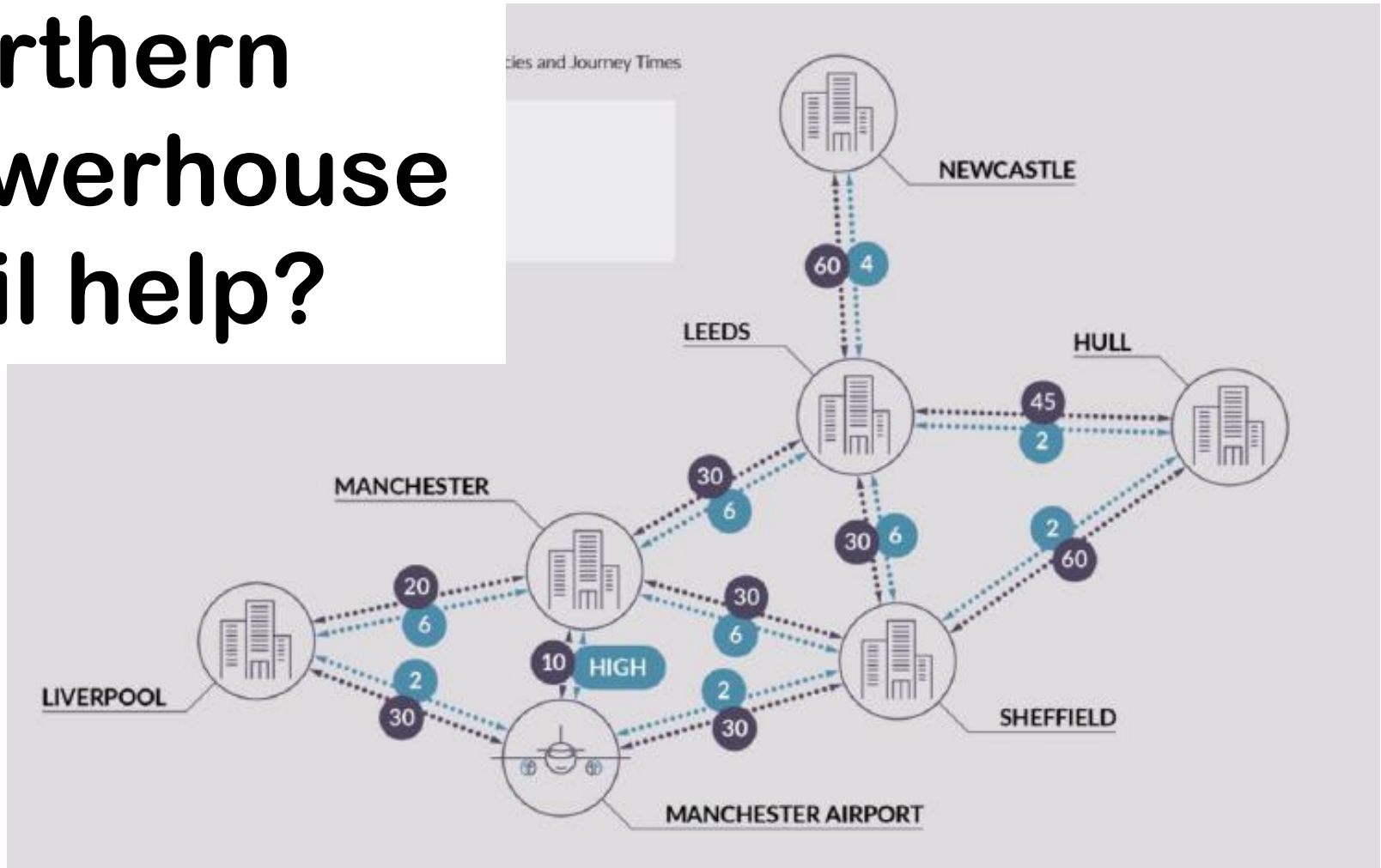
HS2 & main line service reductions



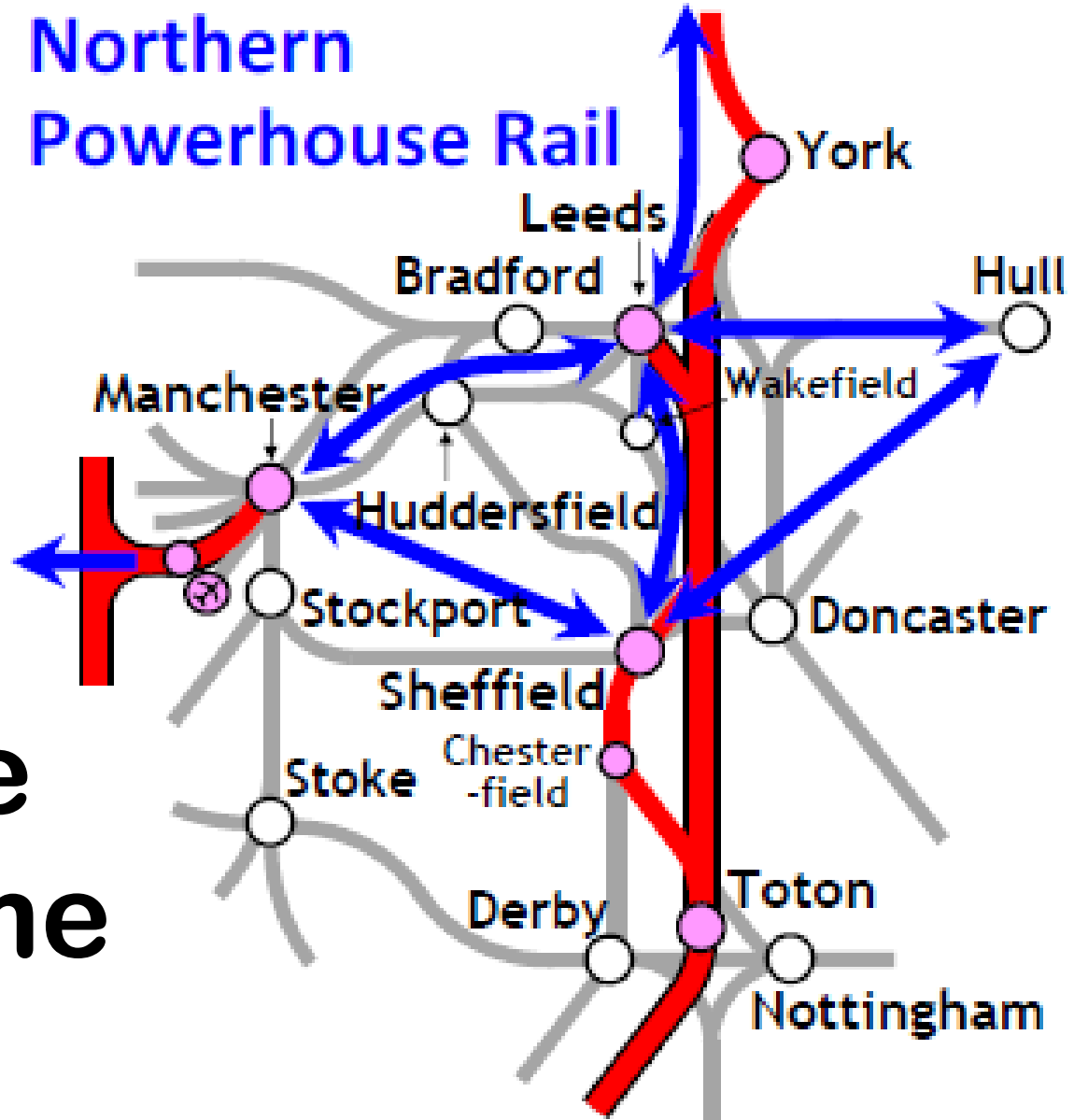
HS2 connectivity ‘gains’

HSUK timetable assessment based on 496 possible journeys between 32 towns, cities & airports				
Candidate scheme : HS2				
	Doncaster	Leeds	Sheffield	Wakefield
Average journey time reductions	1%	20%	8%	3%
Cities directly linked	0	4	3	0
Journeys made faster	1	13	5	5
Journeys made worse	16	5	11	10

Will HS3 / Northern Powerhouse Rail help?



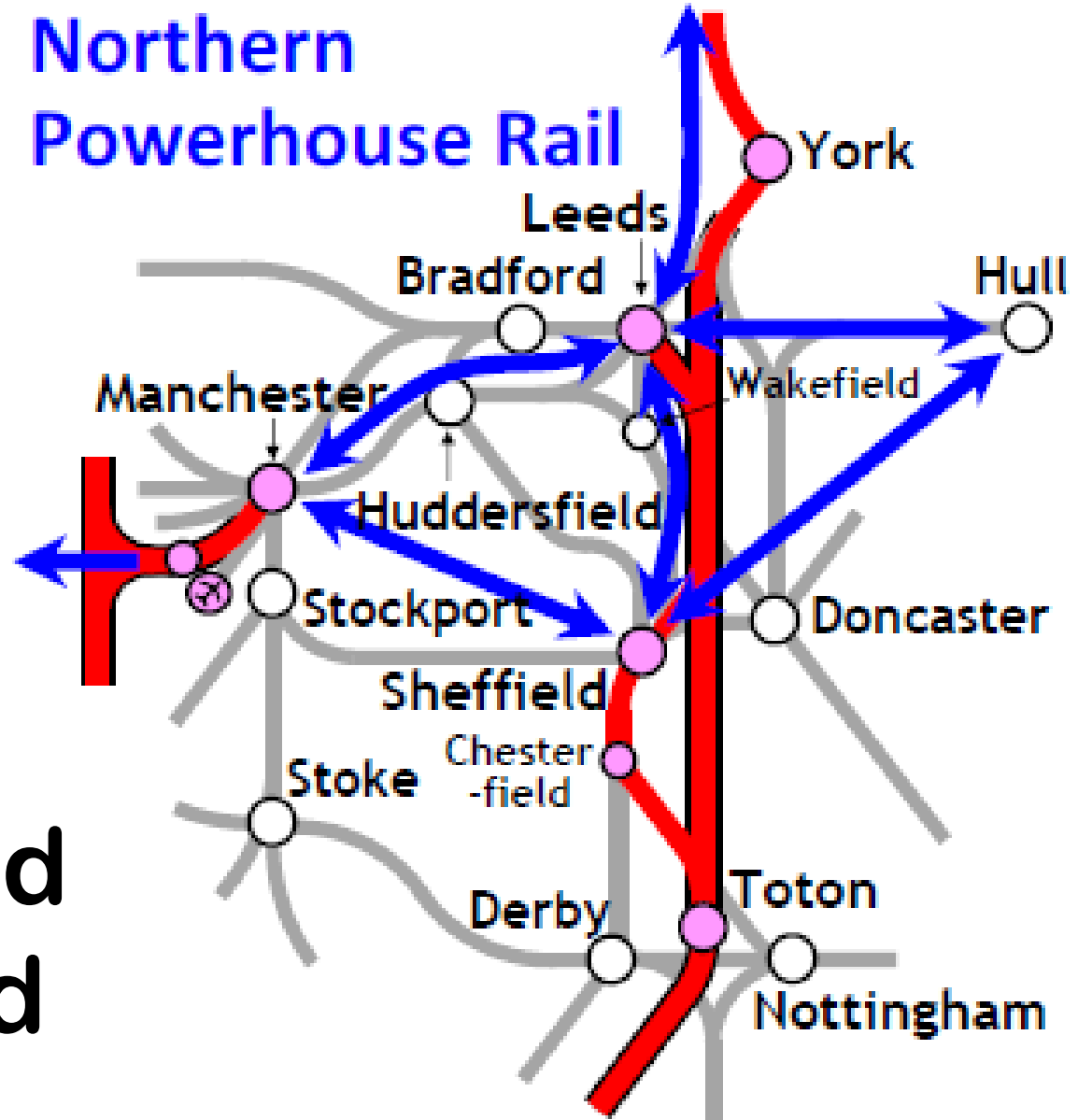
HS2 & HS3/ Northern Powerhouse Rail



Upgrade
or new
build?

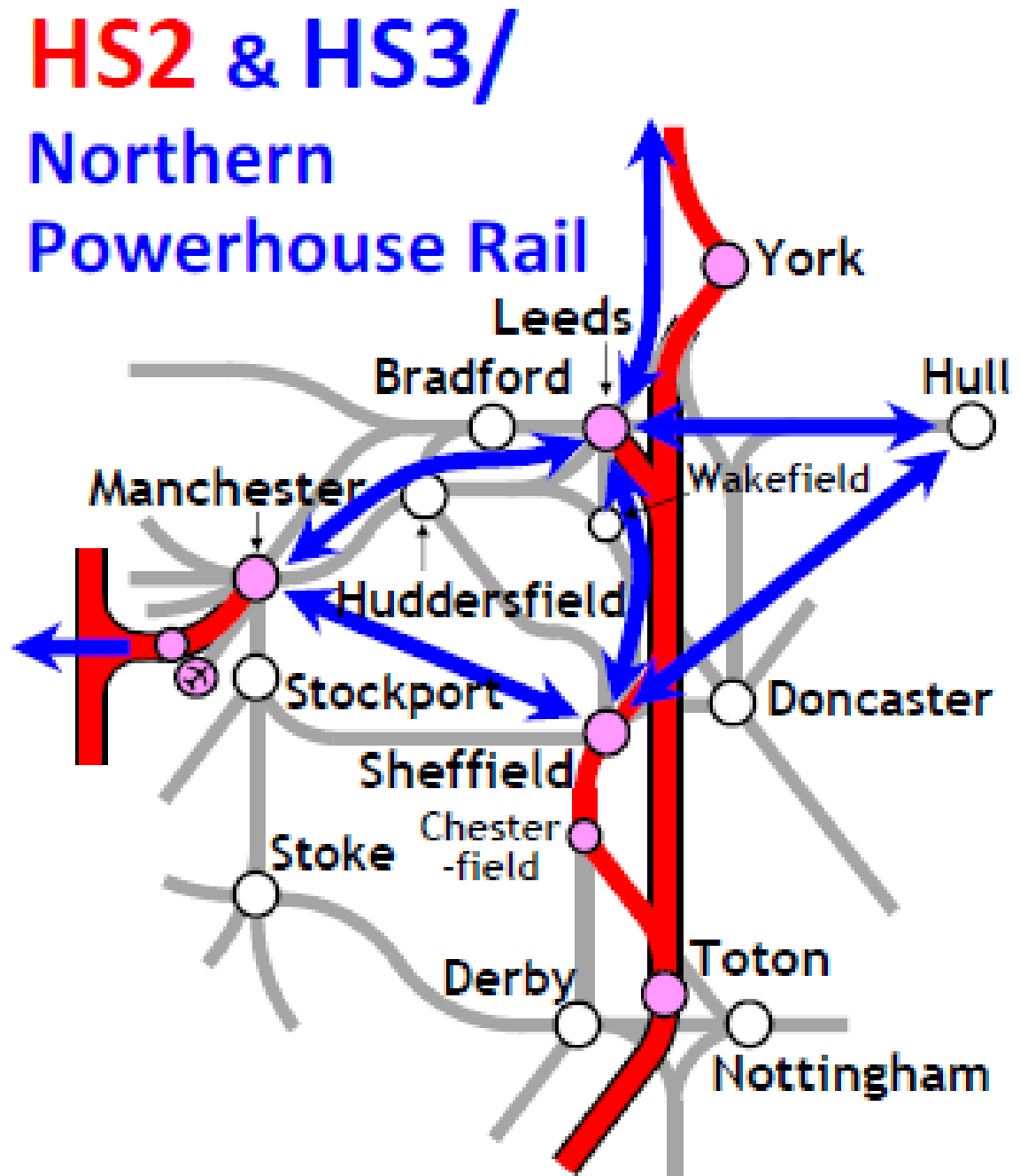
Achievable
journey time
targets?

HS2 & HS3/ Northern Powerhouse Rail



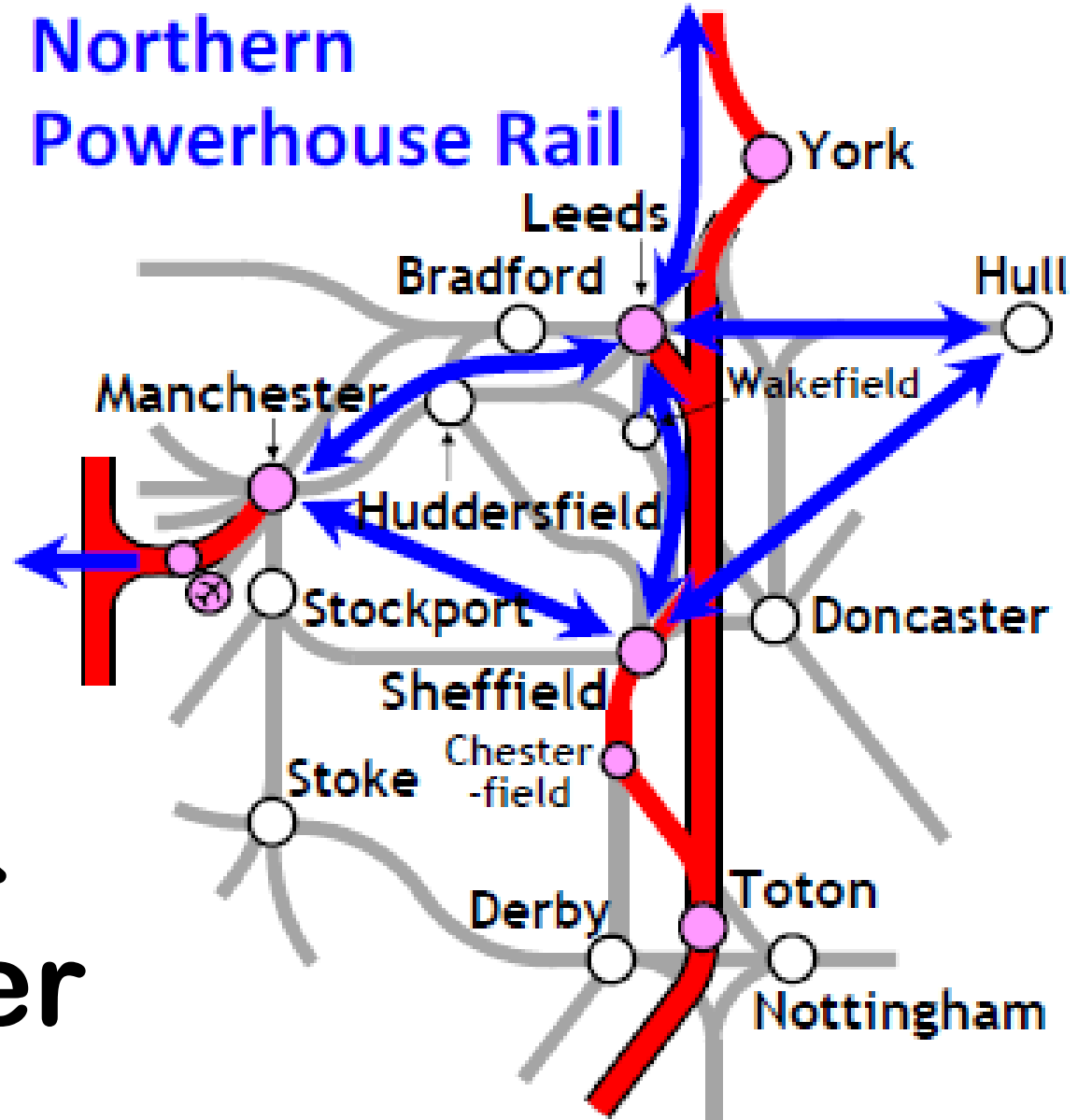
**Wakefield
Doncaster
Bradford
Huddersfield
all bypassed**

No coord-
ination
between
HS2 &
HS3



HS2 & HS3/ Northern Powerhouse Rail

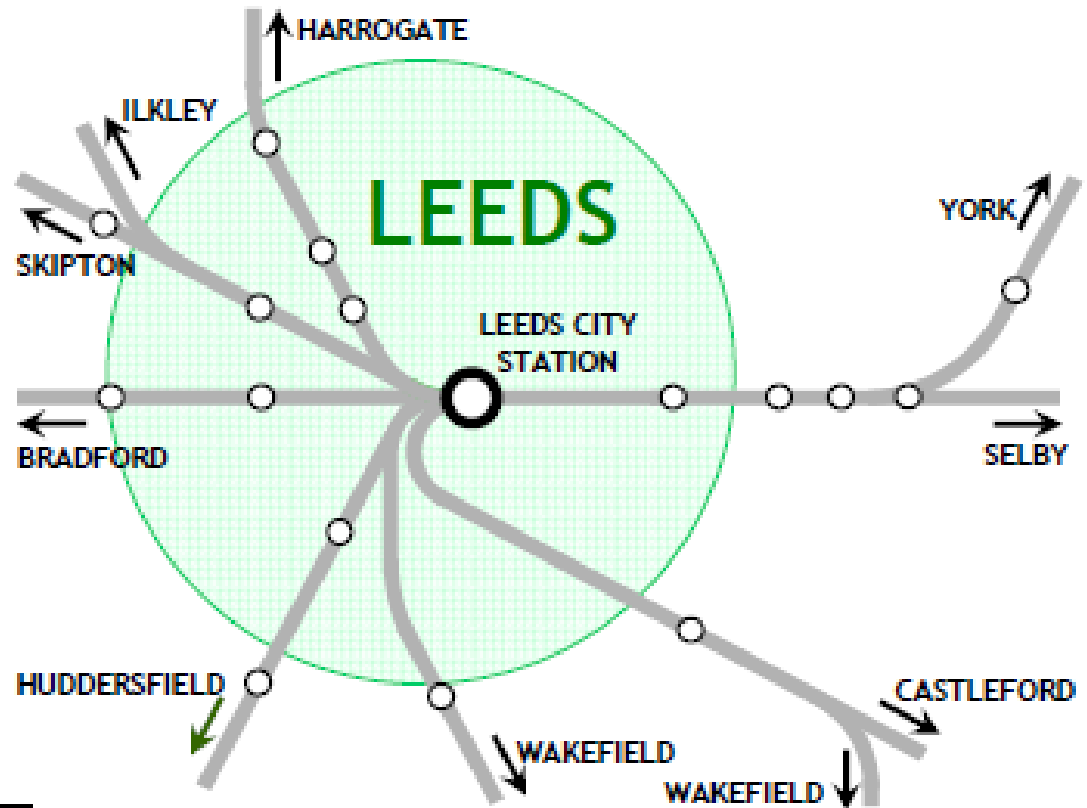
**Massive
problems
in Leeds &
Manchester**



Leeds Problems

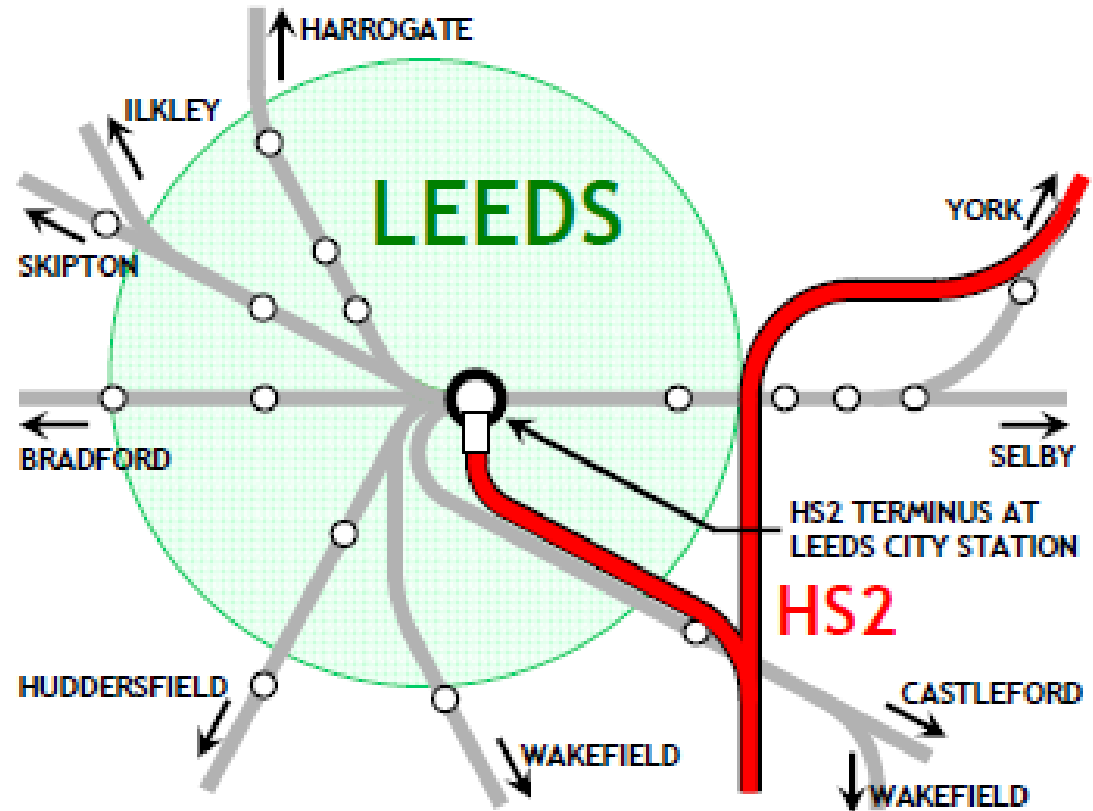
**3rd busiest
UK station
outside
London -**

**17 platforms –
most trains terminate**



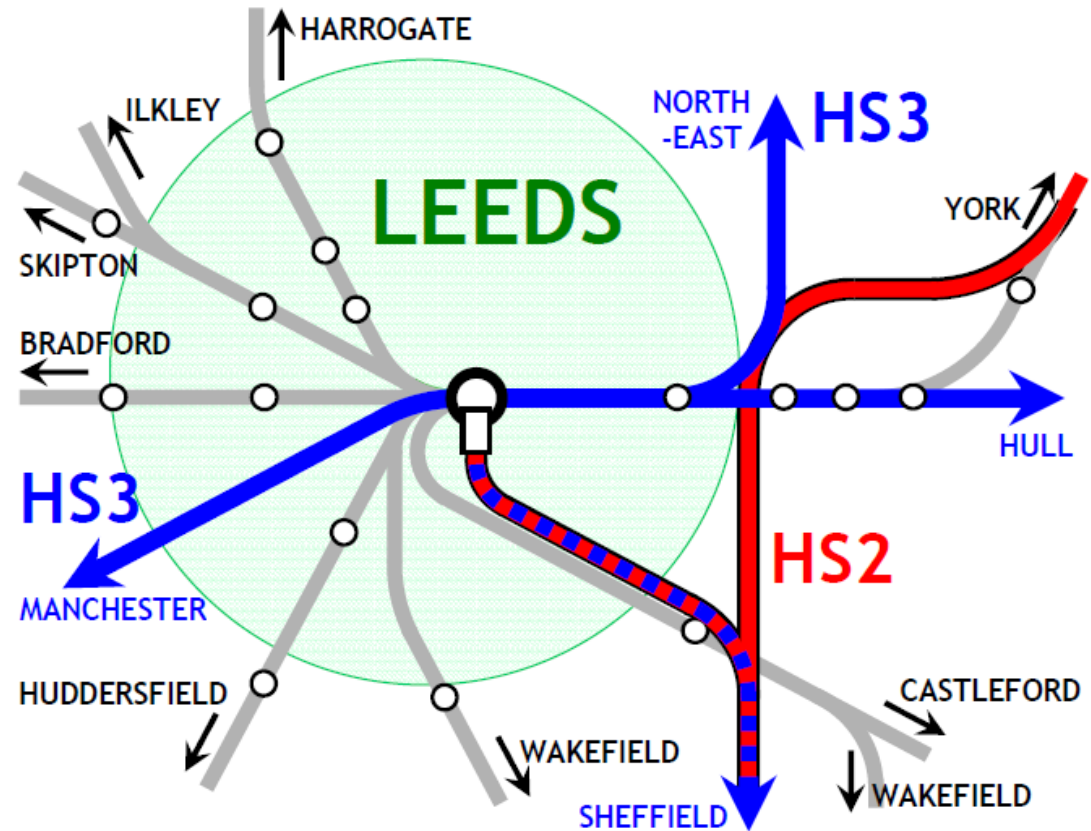
Leeds Problems

**HS2 does
nothing to
relieve
existing
congestion**



Leeds Problems

No capacity
for extra
HS3/
Northern
Powerhouse
traffic



HS2 : Mission Fail

Within Yorkshire and the wider North, HS2 fails utterly to deliver “hugely enhanced capacity and connectivity” between our major conurbations.

The same is true for the rest of the country.

We need something else...

High speed rail needs to be designed differently if it is to provide worthwhile transport benefits for the UK regions.

Any pain from building new railways must be compensated by much greater community gain.

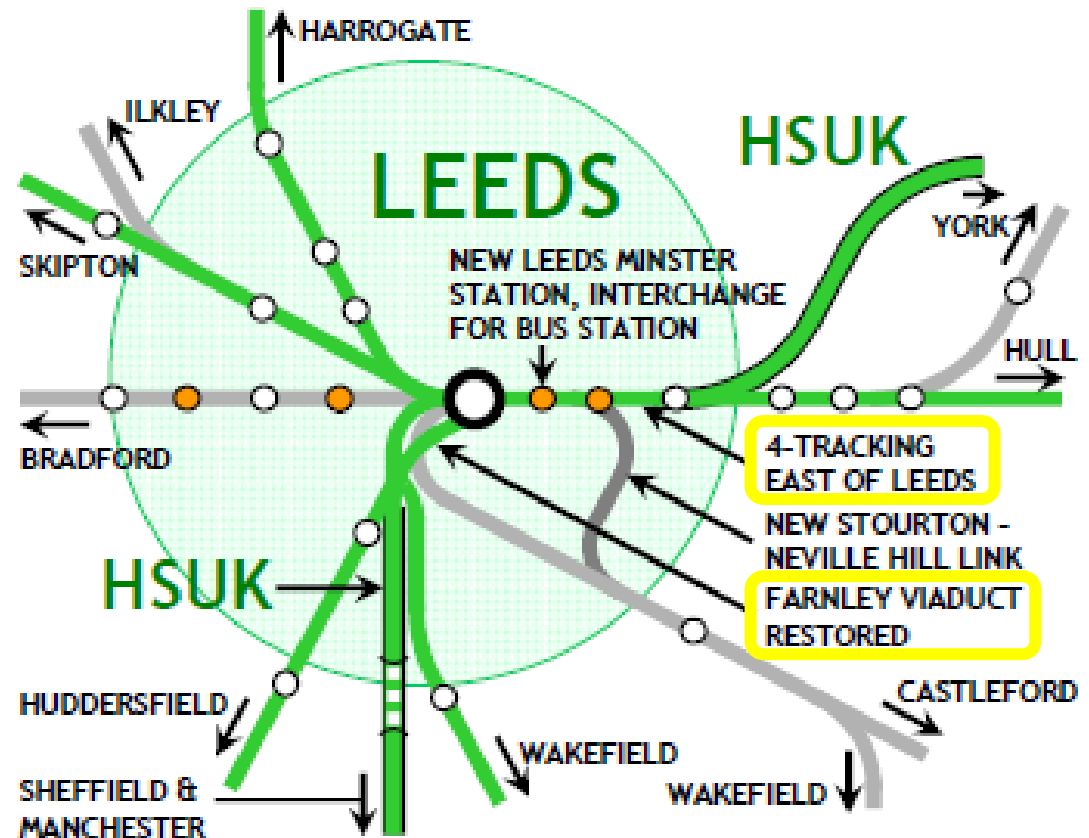
We deserve something better

People in Northern communities are entitled to expect...

- Efficient HS intercity links to all other principal UK cities – *not just London*.**
- Efficient local links to HS services.**
- Greater capacity for improved local services and more local stations.**

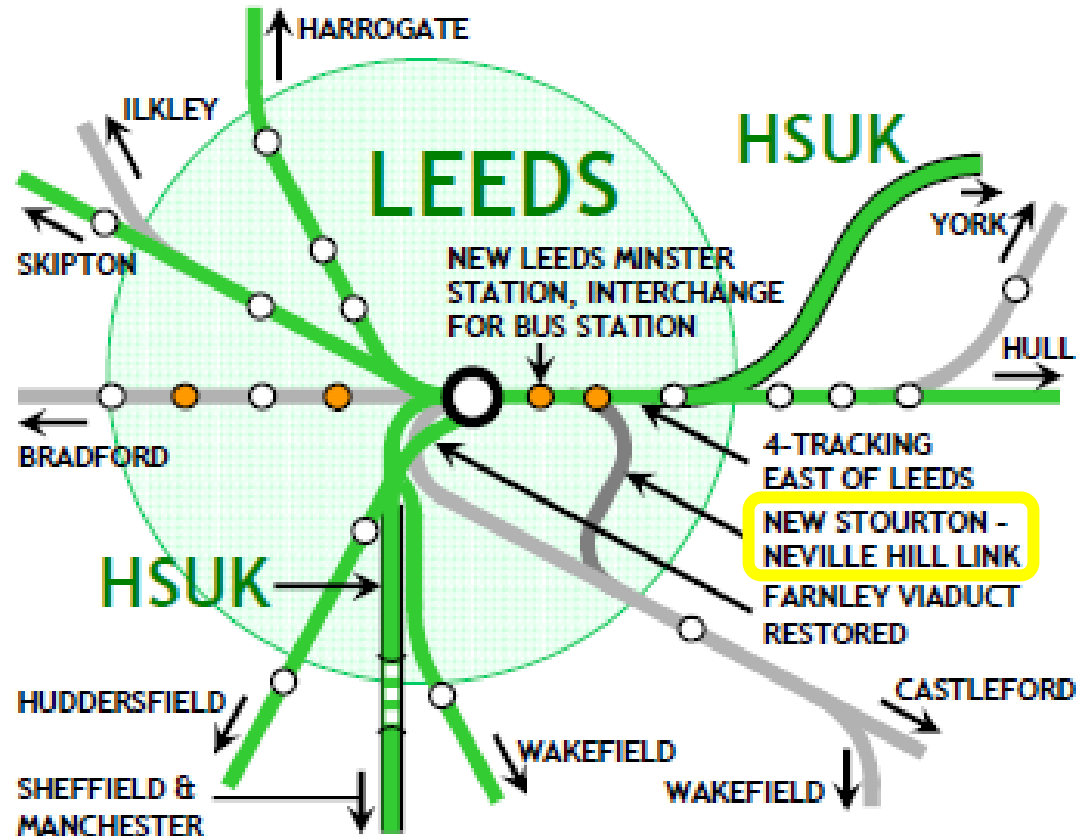
Upgraded
4-track
cross-city
route for
increased
capacity

Leeds Solution



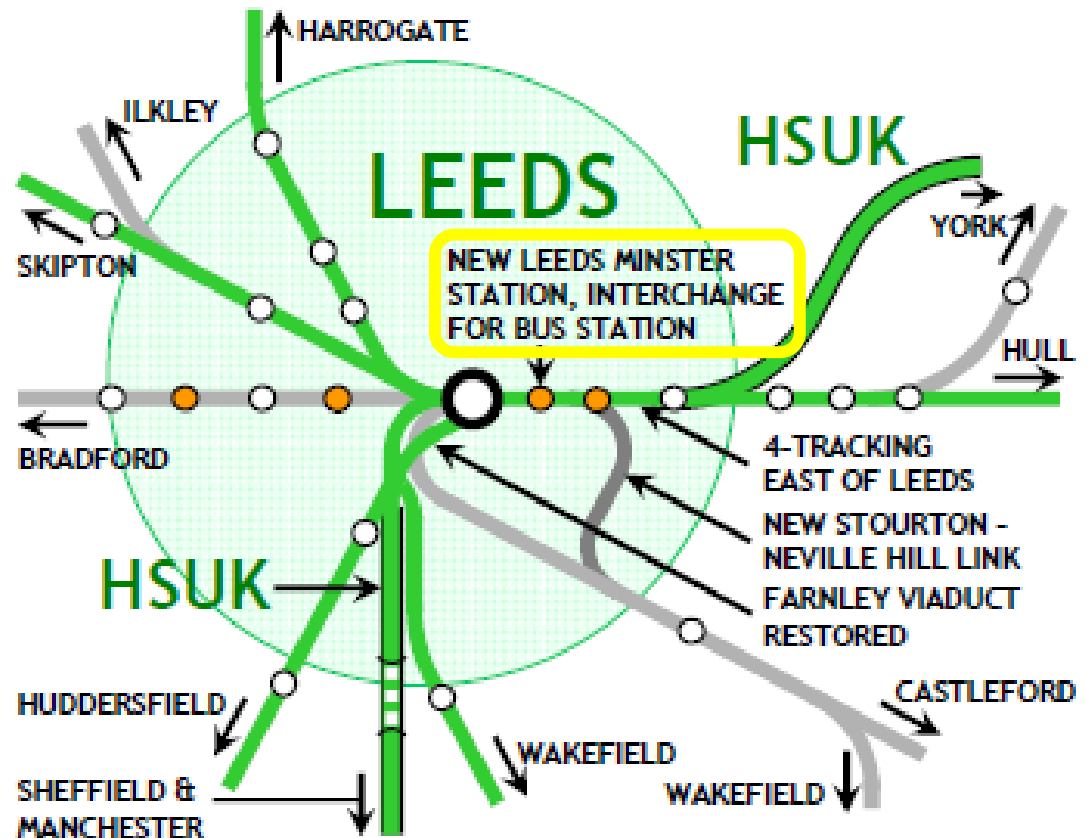
Leeds Solution

Stourton-
Neville Hill
link
rebalances
Leeds City
Station



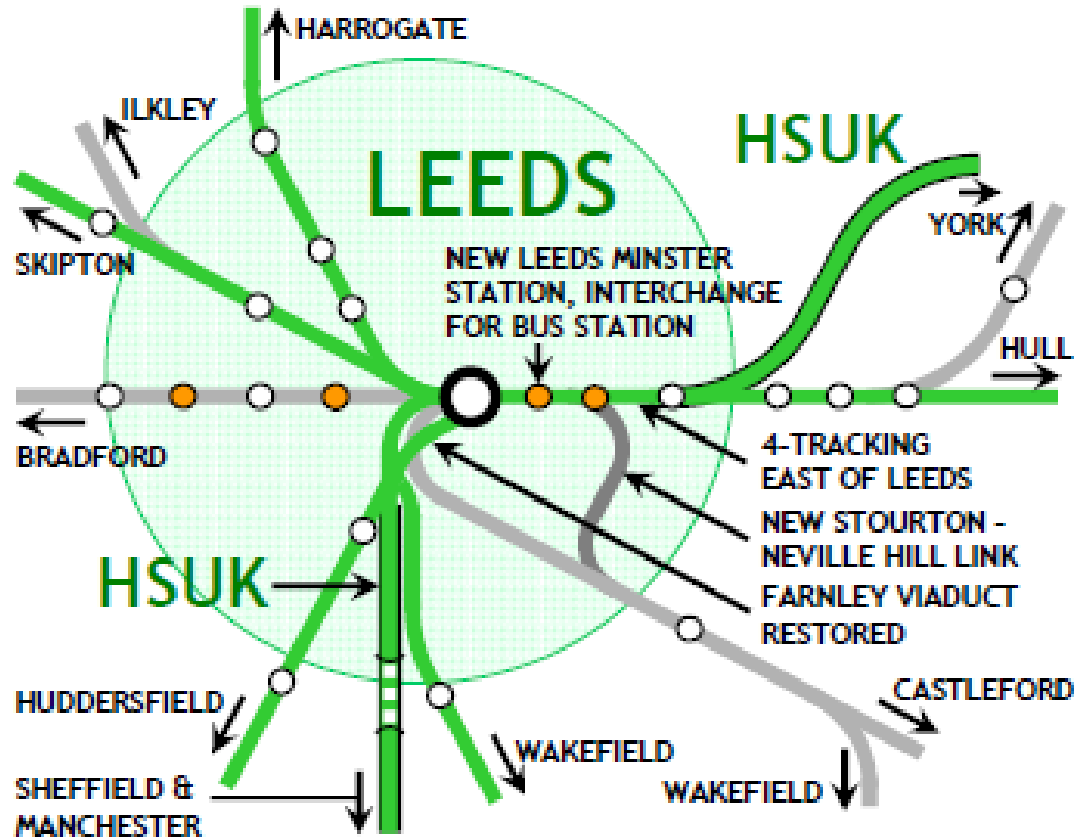
Leeds Solution

**New Leeds
Minster
station
gives link
to Leeds
bus station**



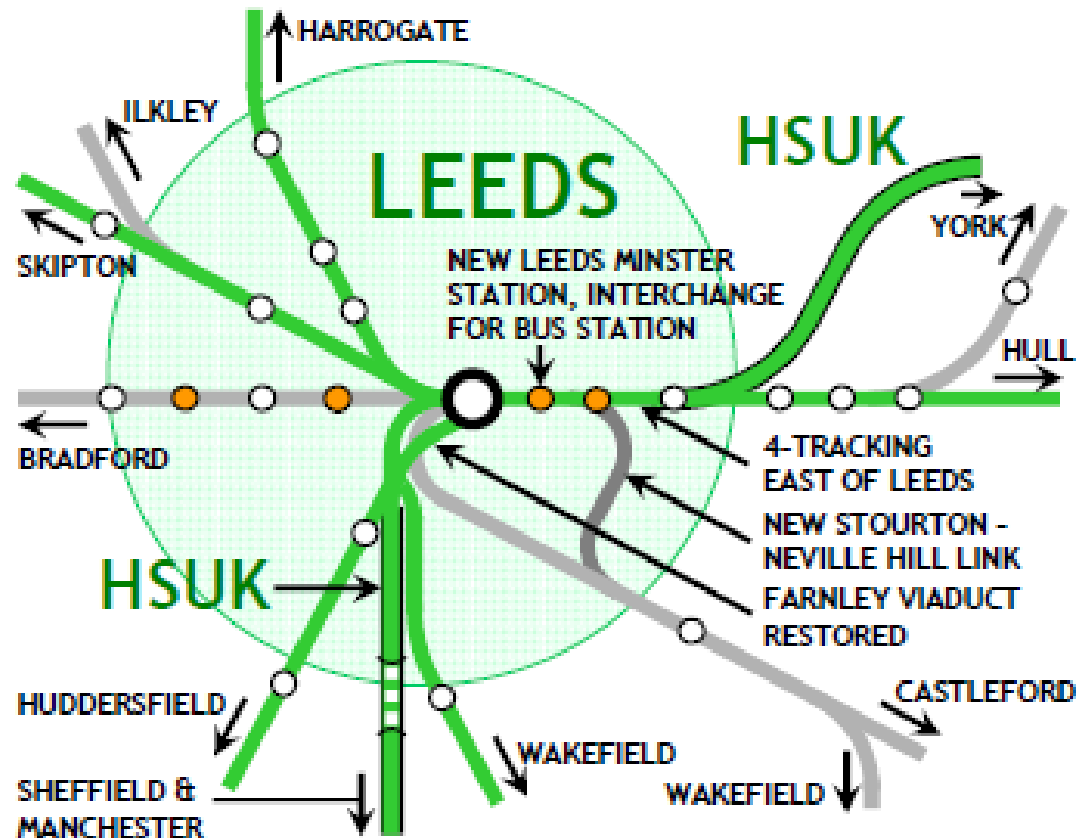
Leads Solution

**Capacity
for local
services
approx
doubled**



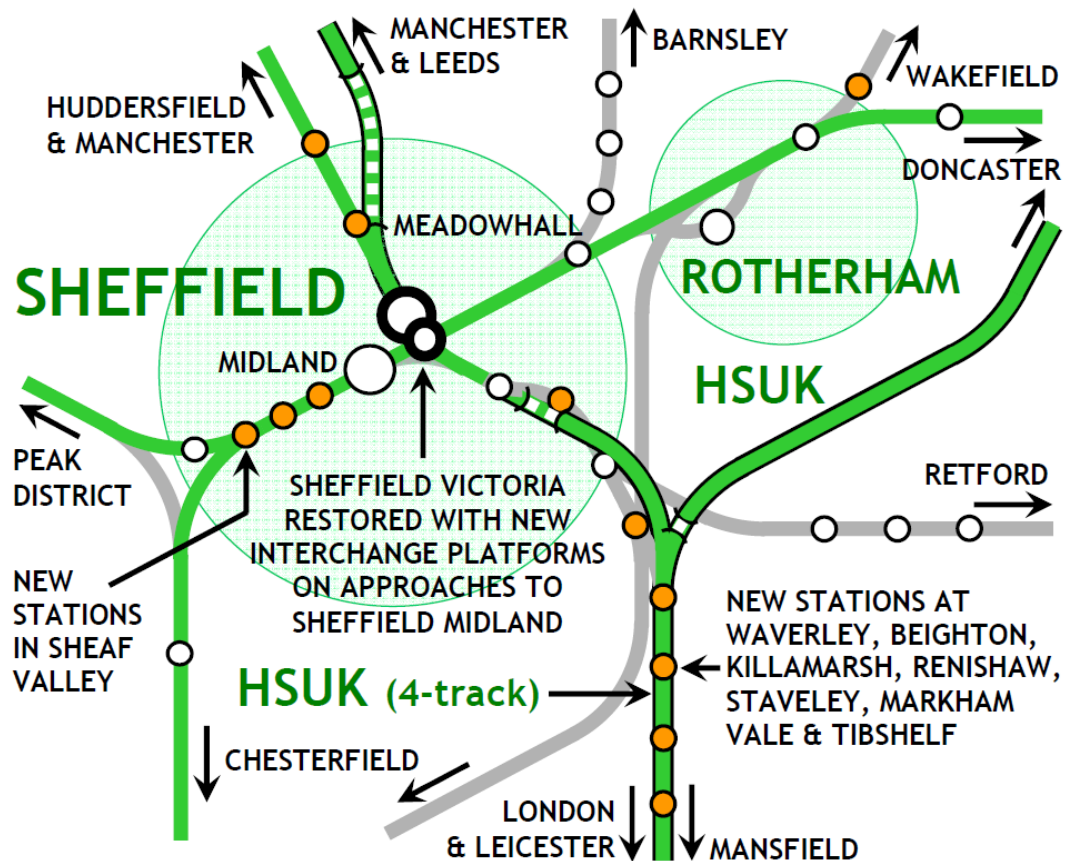
Leeds Solution

Leeds
directly
connected
to all major
UK cities



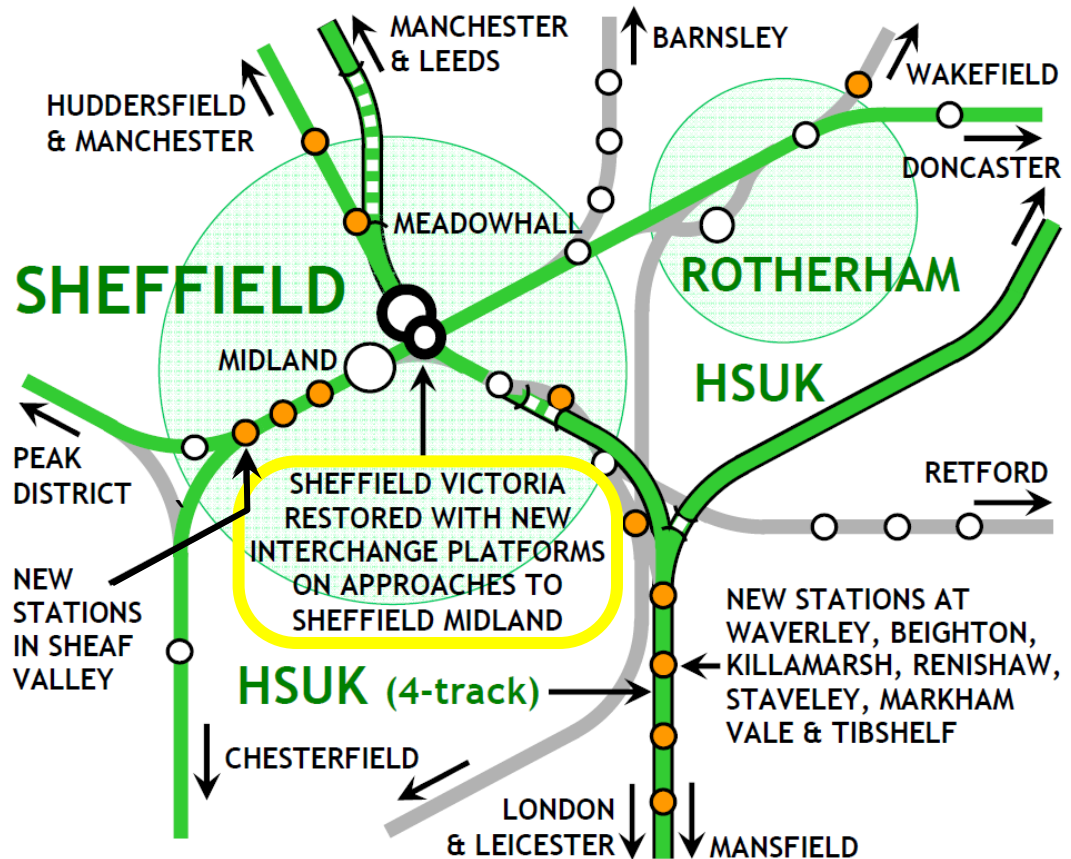
Sheffield Integration

Sheffield
directly
connected
to all major
UK cities



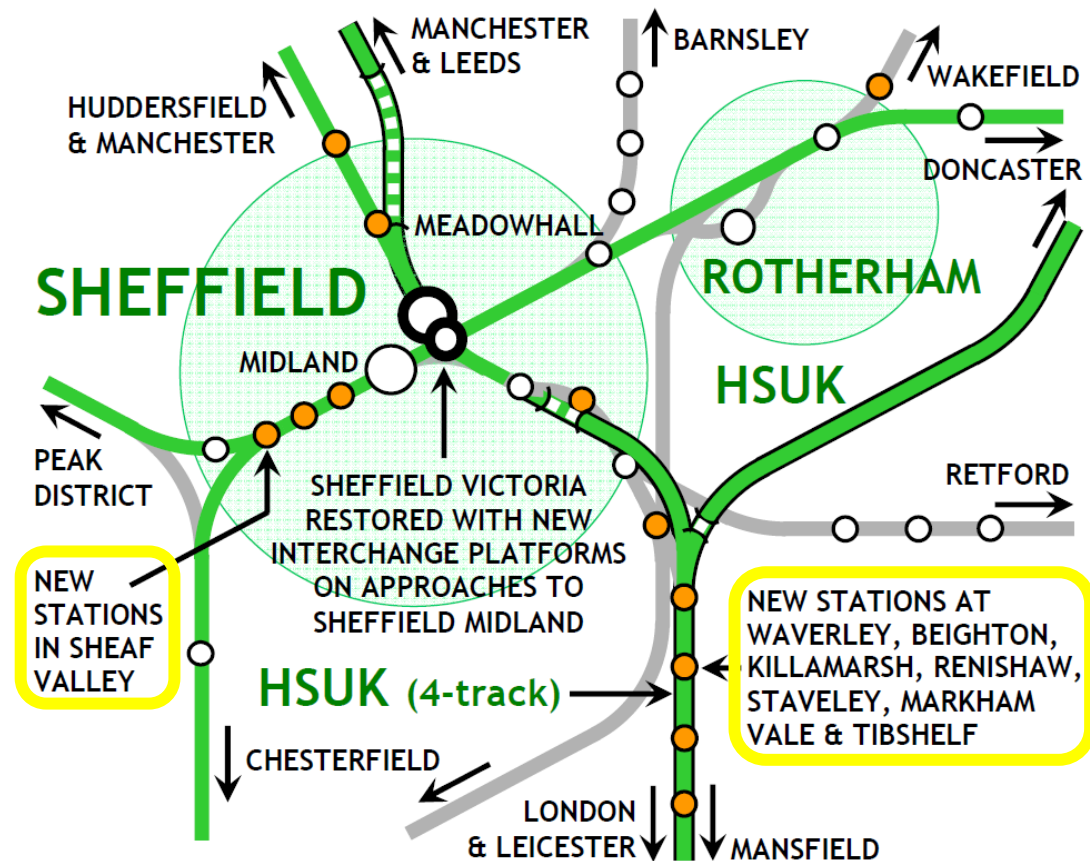
Sheffield Integration

**Sheffield
Victoria
restored –
interchange
platforms on
approaches
to Sheffield
Midland**



Sheffield Integration

Enhanced
local
network for
Sheffield &
South Yorks
region



**Enhanced
regional
network
accessing
all major
towns &
cities**



HSUK

**All Northern
Powerhouse
targets met.
Direct access
to Manchester
Airport from
all major
towns & cities**

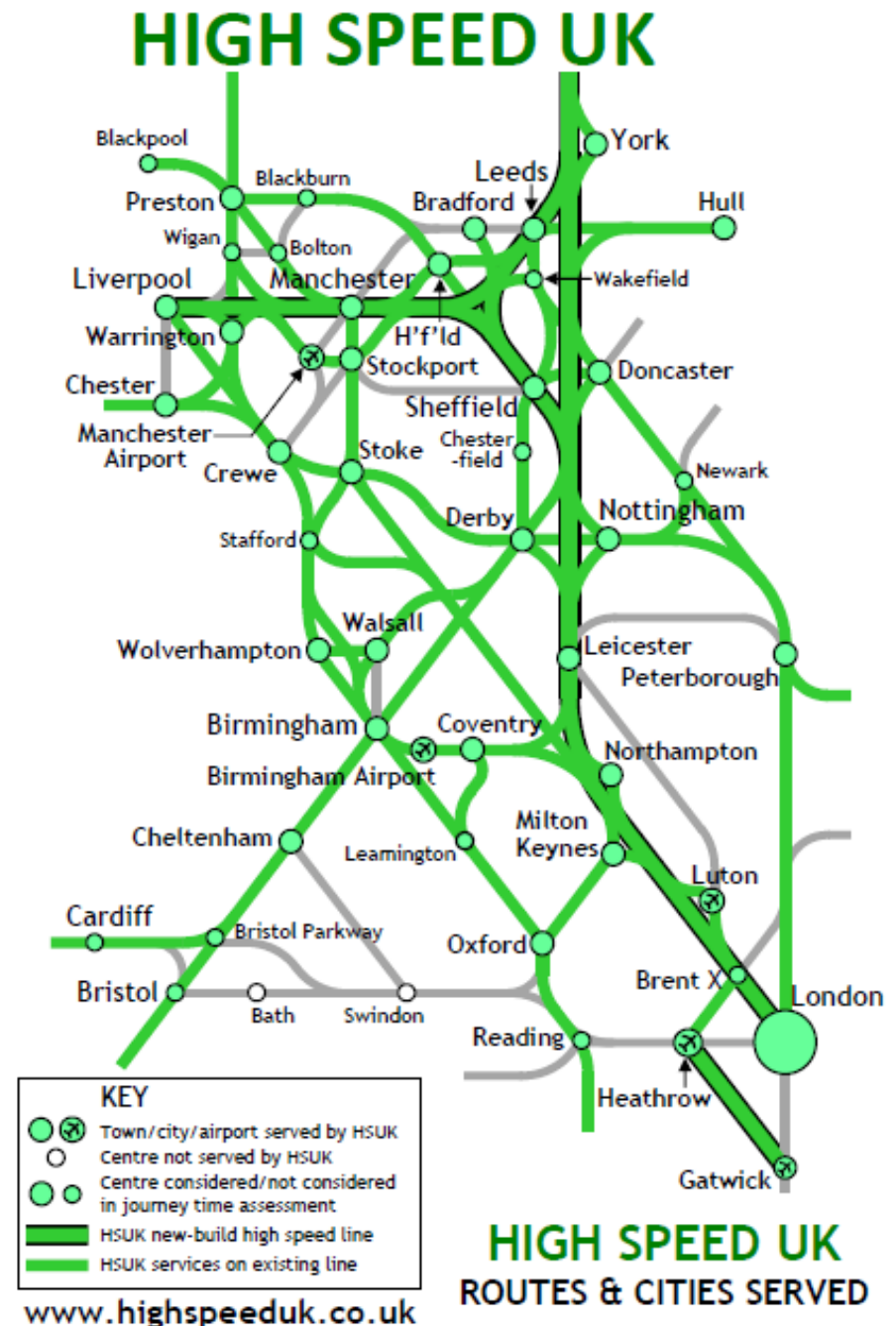


HSUK

**Massive
capacity &
connectivity
gains for all
communities**



Part of HSUK scheme for integrated national high speed network



HSUK connectivity gains

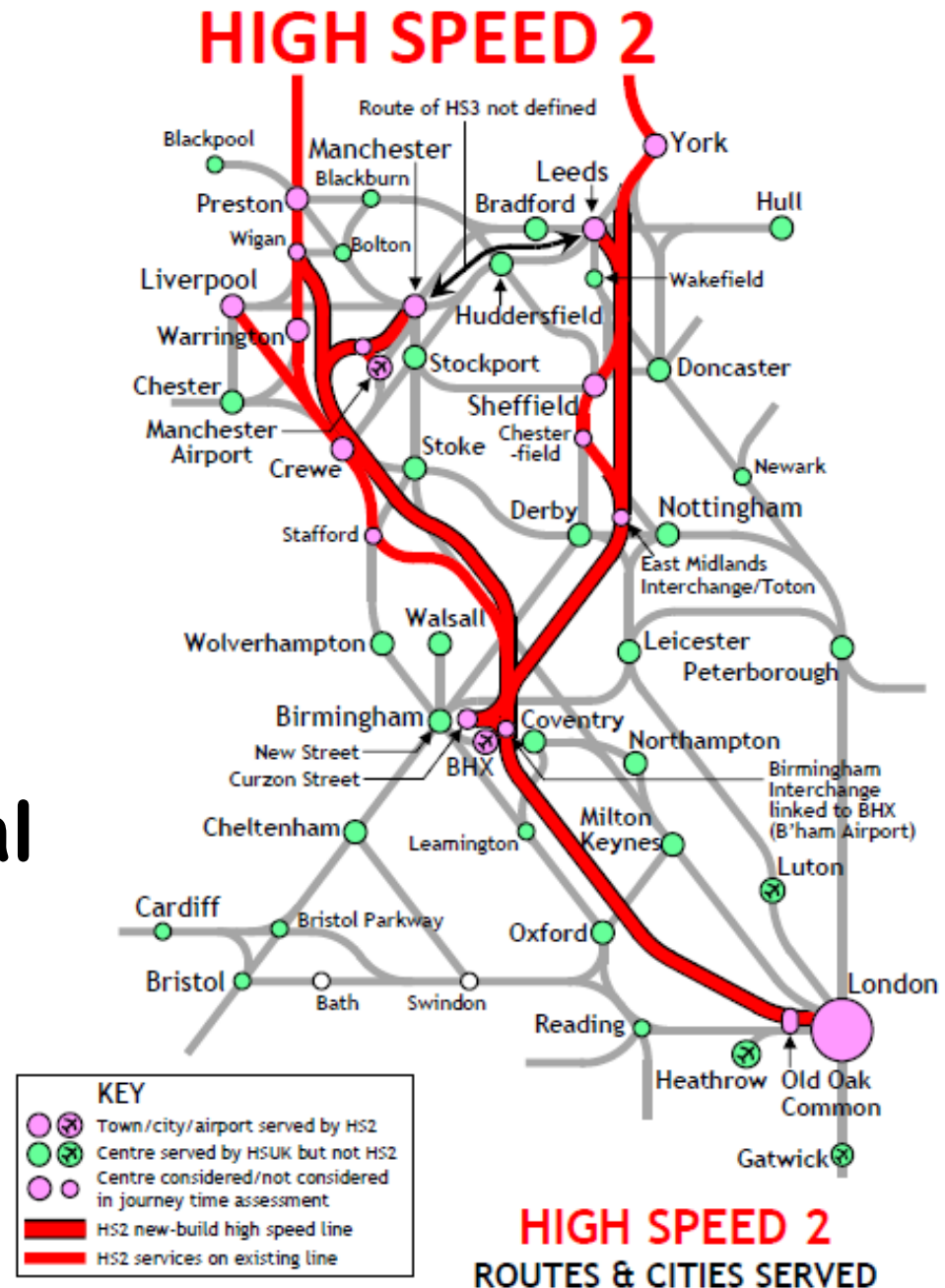
HSUK timetable assessment based on 496 possible journeys between 32 towns, cities & airports				
Candidate scheme : HSUK				
	Doncaster	Leeds	Sheffield	Wakefield
Average journey time reductions	37%	50%	53%	40%
Cities directly linked	16	31	31	17
Journeys made faster	25	28	30	28
Journeys made worse	0	0	0	0

HS2 : failure by numbers

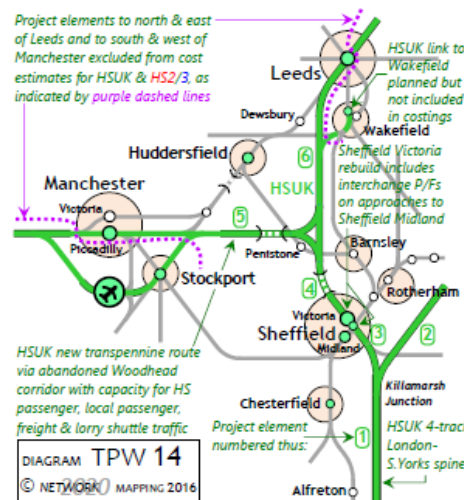
HSUK timetable assessment based on 496 possible journeys between 32 towns, cities & airports				
Candidate scheme : HS2				
	Doncaster	Leeds	Sheffield	Wakefield
Average journey time reductions	1%	20%	8%	3%
Cities directly linked	0	4	3	0
Journeys made faster	1	13	5	5
Journeys made worse	16	5	11	10

Why are we bothering with HS2?

- £21bn greater cost
- No CO₂ reductions
- Huge environmental damage
- Doesn't work as an intercity railway
- Bad for UK regions



HS2 & HS3 in the North – disjointed & inefficient



Our Connectivity Assessment is derived from HSUK timetable based on 32 key cities & Heathrow Airport. This shows Sheffield enjoying 54% average journey time reductions and direct (no change of trains) links to all 32 other cities. Predicted HS2 services are given in Table 23 of HS2 Regional Economic Impacts (Sept 2013). Numbers of cities directly linked via HS2 and HS3 (3 & 2) are tabulated separately.

Project Element (all costs in £ billion)	Cost (£ billion)
1 Alfreton – Killamarsh	1.67
2 Killamarsh – ECML connection	1.04
3 Killamarsh – Sheffield	0.61
4 Sheffield – Penistone	1.94
5 Penistone – Manchester	4.33
6 Penistone – Leeds	2.84
Sheffield Victoria new station	0.45
Manchester Piccadilly upgrade	0.60
Leeds City upgrade	0.23
Total	£13.7bn

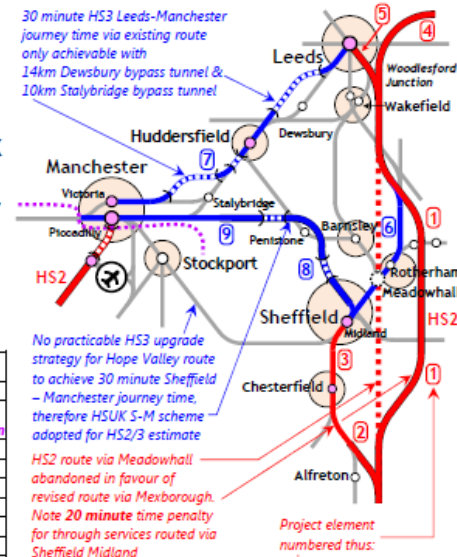
N-S & E-W HIGH SPEED RAIL LINKS TO YORKSHIRE HSUK & HS2/3 PERFORMANCE COMPARED

Existing route	HSUK new build/upgraded route
HS2 new build/existing route	HS2 former route via Meadowhall
HS3 new build/upgraded route	Tunnel (only tunnels > 5km long illustrated)
Station served by HSUK	Station served by HS2/3
NDJP	No direct journey possible

Performance Checklist	HSUK	HS2/3	
No of houses demolished	<10	>100	
Direct journey times (in mins) compared with Northern Powerhouse journey time specification			
Sheffield – Leeds	30	19	25
Sheffield – Manchester	30	23	??
Leeds – Manchester	30	26	??
Sheffield – Man. Airport	30	34	NDJP
Leeds – Man. Airport	40	37	NDJP
Sheffield – London	56	85	
Leeds – London	77	81	
Manchester – London	77	67	
Huddersfield – London	100	NDJP	
Stockport – London	89	118	

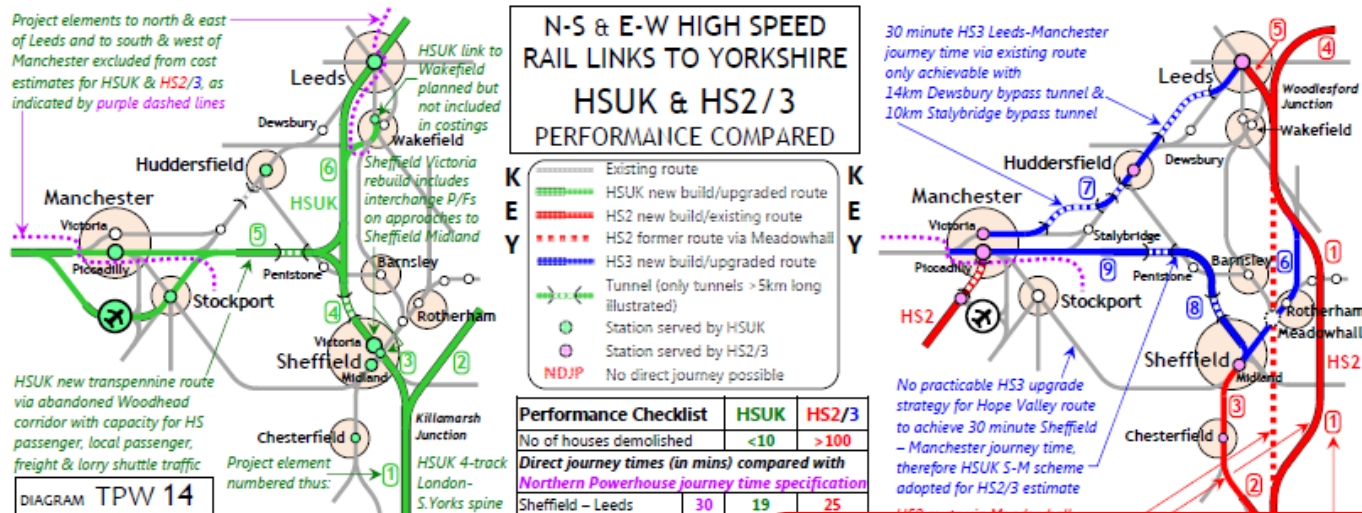
Connectivity Assessment tabulating ave %age journey time reductions & cities directly linked:				
Sheffield	53%	31	8%	3
Leeds	50%	31	20%	4
Manchester	42%	30	13%	3
Manchester Airport	43%	14	17%	3
Huddersfield	40%	17	8%	0
Stockport	45%	28	5%	0

Other project features:		
City centre Sheffield station?	Y	Y
Single Manchester HS station?	Y	N
Transpennine freight strategy?	Y	N
Transpennine lorry shuttle?	Y	N



Project Element (all costs in £ billion)	Cost via Mexboro'	Cost via Meadowhall
1 Alfreton – Woodlesford	3.88	4.37
2 Alfreton spur	0.22	n/a
3 MML upgrade south of Sheffield	0	n/a
4 Woodlesford – ECML connection	1.28	1.28
5 Leeds spur	0.73	0.73
6 Sheffield –Thurnscoe 4-tracking	0.66	n/a
7 Leeds-Manchester upgrade	5.60	5.60
8 Sheffield – Penistone	1.94	1.94
9 Penistone – Manchester	4.33	4.33
Sheffield Midland upgrade	0.30	n/a
Sheffield Meadowhall new station	n/a	0.75
Manchester Piccadilly upgrade	0.90	0.90
Leeds City new terminus	0.45	0.45
Total	£20.3bn	£20.3bn

The cost of failure...



£13.7bn

£20.3bn

Thank you

www.highspeeduk.co.uk