APPENDIX L3

CONNECTIVITY IMPROVEMENTS ACHIEVED BY HS2 AND HIGH SPEED UK FOR:

LIVERPOOL

and Merseyside conurbation

(extract from HS2 - High Speed to Nowhere)

Appendix L3 : Liverpool								
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Liverpool and Merseyside conurbation

Town/City	Liverpool	References: HSUK North-West Rail Strateg HSUK Transpennine Rail Strat			
City Region (including Wirral)	Merseyside				
Population of built-up area (incl Wirral)**	1,180,000	HSUK Regional Map 09 HSUK Liverpool Network			
Ranking amongst UK cities**	6	All available on HSUK we			
Number of cities directly linked by existing rail network (out of 31)	16	www.highspeeduk.co.uk			

** https://en.wikipedia.org/wiki/List_of_urban_areas_in_the_United_Kingdom

Liverpool : Intercity Connectivity with HSUK and HS2

Liverpool	Average journey time reduction	Cities directly linked (out of 29)	Journeys made faster (out of 31)	Journeys made worse (out of 31)	Best performer (out of 31 journeys)	
High Speed UK	43%	26	28	0	27	
HS2	4%	2	2	1	1	

Liverpool's situation as a coastal city means that it is bypassed by trunk routes such as the West Coast Main Line. All routes that do serve Liverpool terminate there, at Lime Street station. As a consequence, Liverpool and the entire Merseyside region are relatively poorly connected, compared with similar-sized but more centrally located conurbations such as South Yorkshire.

HS2 will do little to enhance Liverpool's connectivity. The proposed 2 trains per hour service to London certainly represent an improvement, but HS2 will not offer links to any other city along its route. It is particularly significant that no HS2 service to Birmingham is proposed. It would appear that a 'buffers-to-buffers' link between Liverpool Lime Street and Birmingham Curzon Street, with no major intermediate calling point, and no prospect of onward routeing other major cities, is simply not viable. There is pressure from groups such as '20 Miles More' to extend construction of HS2's new build high speed line closer to Liverpool. However, this will do nothing to resolve the fundamental routeing inefficiencies of the stand-alone HS2 scheme.

HSUK resolves these inefficiencies through full integration with the existing network, and through a radically different routeing strategy. HSUK's primary route to Liverpool via a 'Woodhead' transpennine crossing will enable fast and efficient services from Liverpool to most major UK cities:

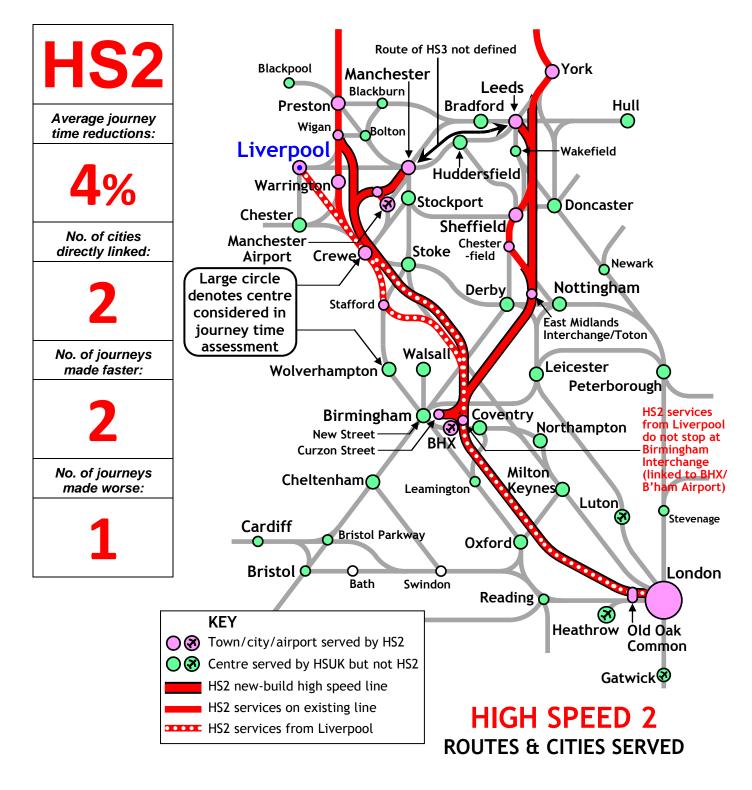
- Liverpool-Manchester-London
- Liverpool-Manchester-Leeds-York-Darlington-Newcastle-Edinburgh-Glasgow
- Liverpool-Manchester-Sheffield-Leicester-Milton Keynes-Oxford-South Coast
- Liverpool-Manchester-Sheffield-Nottingham-Peterborough-Norwich
- Liverpool-Manchester-Sheffield-Heathrow
- Liverpool-Altrincham-Manchester Airport-Stockport-Leeds-Hull

Major developments of the Merseyrail system are proposed, to divert commuter services away from Lime Street station and generate the necessary increased capacity for intercity services.

	SPEED UI 2 LINKS TO	_	IVER	POO	L
L I V	Journey time (mins) - Warrington Manchester M'ch'r Airport Crewe Stockport Chester Sheffield Stoke Leeds Preston	→ 40	80 120	Intercity jour with H with Existing jour Quickest 27 3 1 20 minute increa journey times (w to allow for 'd	SUK in place as existing HS2 in place burney made vorse by HS2 t journey via HSUK no change via HS2 ment applied to vhere relevant) eterrent effect' hange of trains
E R	Wolverhampton Birmingham Nottingham York Leicester Huddersfield Derby Northampton B'ham Airport			#	Average .journey time reduction HSUK 43% HS2 4%
P 0 0 L	Doncaster Doncaster Bradford London Coventry Milton Keynes Peterborough Walsall Cheltenham ^{\$} Hull Heathrow Luton				
	Oxford \$ Cheltenham service onward to Bristol and			For journey times in tabulated forma	•

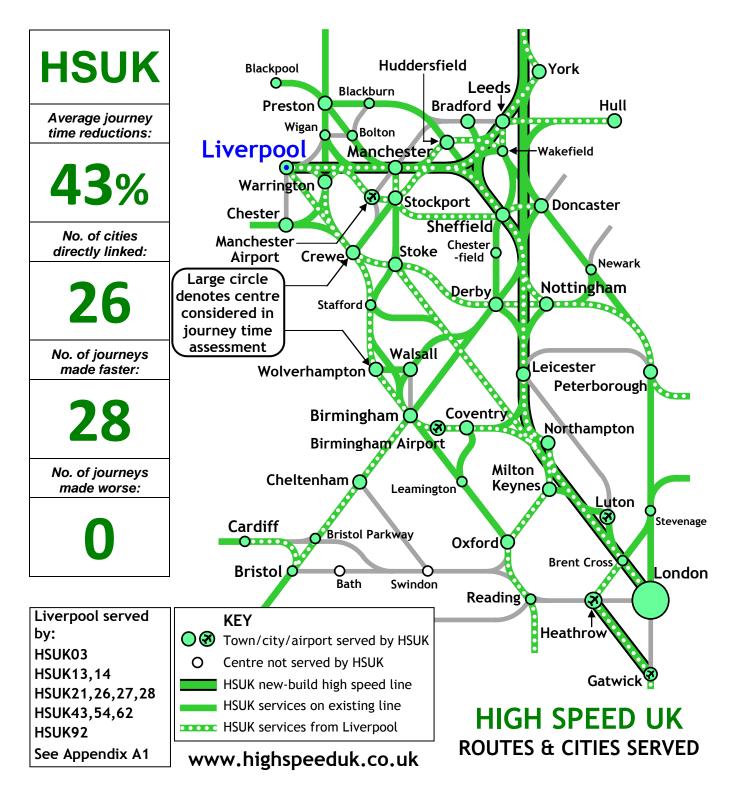
LIVERPOOL

HS2 links only to Crewe & London, no proposals for improved HS3 Northern Powerhouse links



LIVERPOOL

Fully connected to national high speed network, direct high speed links to all principal UK cities



Comparative Journey Times from Liverpool													
Quickest via:		No ange	HS2	Journey time adjusted for number of changes			HSUK		Exis	Existing		HS2	
Origin	Destination		HSUK	Existing	HS2	Journe time			No of changes	Journey time	No of changes	worse by HS2	
	Birmingham		64	99	99	64	0	99	0	99	0	-	
	B'ham Airport		84	145	145	84	0	125	1	125	1		
	Bradford		98	137	137	78	1	117	1	117	1		
	Chelt	enha	m	108	176	176	108	3 0	156	1	156	1	
	Che	ester		43	43	43	43	0	43	0	43	0	
	Cov	entry	/	93	155	155	93	0	135	1	135	1	
	Cre	ewe		31	36	36	31	0	36	0	36	0	
	De	erby		75	166	166	75	0	146	1	146	1	
	Done	caste	er	96	160	160	76	1	140	1	140	1	
\/	Heat	throw	N	124	246	136	124	0	206	2	116	1	
V	Hudde	ersfie	eld	67	67	67	67	0	67	0	67	0	
	н	lull		120	190	190	120) 0	170	1	170	1	
E	Le	eds		46	86	86	46	0	86	0	86	0	
	Leic	este	r	68	189	189	68	0	159	2	159	1	#
	Lor	ndon		98	133	93	98	0	133	0	93	0	
R	Lu	ton		125	244	244	105	5 1	204	2	204	2	
	Manc	chest	er	19	33	33	19	0	33	0	33	0	
	M'ch'r	Airp	ort	26	64	64	26	0	64	0	64	0	
Ρ	Milton	Key	nes	102	139	139	102	2 0	119	1	119	1	
•	Northa	ampt	ton	88	197	197	88	0	157	2	157	2	
	Notti	ngha	m	66	160	160	66	0	160	0	160	0	
U	Ox	ford		130	202	202	130) 0	182	1	182	1	
	Peterb	orou	ıgh	105	212	212	105	6 0	212	0	212	0	
\cap	Pre	ston		58	58	58	58	0	58	0	58	0	
U	She	ffielc	ł	43	107	107	43	0	107	0	107	0	
	Stoc	kpor	ť	34	63	63	34	0	63	0	63	0	
	St	oke		41	99	99	41	0	79	1	79	1	
	Wa	alsall		105	167	167	85	1	147	1	147	1	
	Warr	ingto	on	14	26	26	14	0	26	0	26	0	
	Wolver	ham	pton	60	80	80	60	0	80	0	80	0	
	Ye	ork		64	113	113	64	_	113 ningham I	0	113	0	

A = Change introduced by HS2 B = Change via shuttle between Birmingham International and Interchange # = Journey made worse by intervention of HS2 (no adjustment made to existing journey time)

Generally, journey times adjusted by 20 minutes to allow for each change of trains. 30 minute adjustment applied for the special cases noted above ie A – extra change introduced by HS2 and B – shuttle connection between Birmingham International and Birmingham Interchange.