

HSUK NATIONAL NETWORK DEVELOPMENT

These diagrams set out the vision of an enhanced national railway network, based around the High Speed UK core network of dedicated high speed lines.

NND1 : EXISTING UK RAIL NETWORK

This identifies the incomplete connectivity offered by the existing intercity rail network. Main lines radiate from London (East Coast, Midland, West Coast, Great Western) with CrossCountry and TransPennine providing interregional connections. These interregional routes comprise multiple city pairs, greatly increasing their viability, whereas the London-centric system comprises single city pairs. Connectivity is assessed against the benchmark requirement of direct services operating at minimum hourly frequency. Many of these services between regional centres comprise short and often ageing multiple units offering cramped passenger accommodation, not of 'intercity' quality.

NND2 : HS2 PROPOSALS SUPERIMPOSED ONTO EXISTING UK RAIL NETWORK

The HS2 proposals are illustrated in 'extended Y' format, extending either side of the Pennines beyond the currently projected terminating points of Leeds and Manchester to all primary regional centres. The resulting system is of limited connectivity, focussed upon London with few viable interregional links; it is also segregated from the existing intercity railway, with high speed stations disconnected from regional 'hubs', and intermediate centres left bypassed. This restricted connectivity will compromise economic (and environmental) performance, with most benefits accruing in London where connectivity is concentrated. It will also create a 2-tier system, compromising the basic integrity of the national rail network, and preventing efficient development of rail links within the Northern Powerhouse.

NND3/4/5 : HIGH SPEED UK SUPERIMPOSED ONTO EXISTING UK RAIL NETWORK

High Speed UK's blend of new build and upgraded routes, and its radically different 'spine and spur' configuration gives comprehensive connectivity between all primary regional centres of the Midlands, the North and Scotland. It is a far more efficient and symmetric system than the HS2 'Y', covering all primary main line corridors with 54 city pairs linked (as against 12 for HS2), yet requiring fewer route kilometres to be constructed and fewer trains to be operated.

NND6 : HIGH SPEED UK FULLY INTEGRATED WITH EXISTING UK RAIL NETWORK

Full integration between high speed and classic networks is essential to optimise connectivity of the national network, and hence achieve optimum economic and environmental benefits. This diagram illustrates the full spread of HSUK services, extending to outlying regions and secondary centres that will inevitably be bypassed by new high speed lines. This will not merely replicate but enhance the functionality and connectivity of the existing intercity network.

NND7 : HIGH SPEED UK ACCESSING HEATHROW VIA COMPASS POINT NETWORK

There is a powerful political imperative for high speed rail links to Heathrow, and this has exerted a massive influence on the development of HS2. It has dictated both the expensive and controversial Chiltern route, and the 'Y' configuration which leaves HS2 unable to perform effectively as a national intercity rail system; yet it is clear that HS2 will do little to enhance Heathrow's links to the UK regions. A far superior strategy is to create a regional 'Compass Point' network focussed upon Heathrow (largely utilising existing infrastructure) and connecting with both the classic and high speed systems. This diagram illustrates the comprehensive regional connectivity to Heathrow that is achievable with High Speed UK, and complementary development of Heathrow's local rail network.

NND8/9 : HIGH SPEED UK PROPOSED INTERCITY SERVICE PATTERN, CORE NETWORK & FREQUENCIES

These diagrams set out a proposed service pattern for High Speed UK's core routes, and show service frequency between 16 fully interconnected cities. This fully replicates and greatly enhances the functionality of the existing intercity network, and is backed up by a comprehensive 'demonstrator timetable'.

NND10 : HIGH SPEED UK PROPOSED HEATHROW SERVICE PATTERN

This diagram illustrates how 5 train diagrams can cover all primary centres of the Midlands, North and Scotland, plus South Wales and the West Country, and effectively eliminate any requirement for domestic flights to Heathrow. This is only achievable with HSUK's basic routing efficiency, with several cities placed on a single line of route.

NND11 : HIGH SPEED UK PROPOSED EUROPEAN SERVICE PATTERN

In the 1990's, the inefficiencies of the existing radial main line network prevented the Regional Eurostars from providing viable services to the UK provinces. The same problems exist with HS2, offering no prospect of frequent direct European services to regional UK destinations. High Speed UK's more efficient configuration allows all UK regional centres to be efficiently served with just 3 train diagrams (including a 'Great Western' link).

NND12 & NND13 : KEY DIAGRAMS ILLUSTRATING EXISTING NETWORK ENHANCEMENTS

The improvement of intercity rail services under the UK high speed rail initiative demands parallel enhancements to existing local networks. Complementary regional development strategies must be established to ensure efficient network function and distribution to local networks. These diagrams, and linked regional diagrams, highlight the key projects that must be undertaken to realise the vision of an enhanced national rail network.

NND14 : PARALLEL DEVELOPMENT OF 'EUROGAUGE UK' RAILFREIGHT NETWORK

High Speed UK's routing, closely aligned with and frequently connected to existing rail corridors, presents the opportunity to create a parallel national network of lines on which freight becomes the prime user. This system, following 'decriticalised' routes generally clear of major tunnels and stations, has the potential for 'gauge enhancement' ie creating the larger clearances necessary to permit the operation of larger 'Eurogauge' Continental wagons and 'piggyback' operation of articulated trailers on rail wagons. This harmonises with other HSUK proposals, for TransPennine lorry shuttle operations and coast-to-coast freight links via the restored Woodhead corridor.

NND15 : HIGH SPEED UK - NORTH & OTHER WINNERS OF 2019 TAXPAYERS ALLIANCE COMPETITION

The HSUK national network extends to all areas of the country, intersecting with all other 27 winners of the 2019 TaxPayers' Alliance 'Great British Transport Competition'.

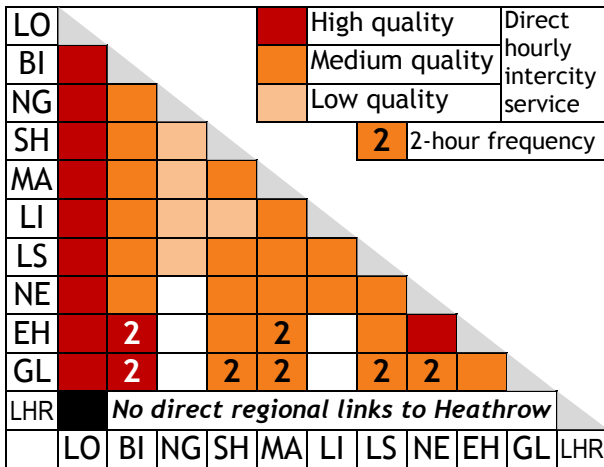
UK RAIL NETWORK: EFFECTIVENESS OF INTERCITY LINKS & CONNECTIONS TO HEATHROW AIRPORT

DIAGRAM **NND 1**
© NETWORK MAPPING 2019

KEY

- Primary/interchange hub/secondary centre/airport
- East Coast Main Line
- Midland Main Line
- West Coast Main Line
- Great Western Main Line
- CrossCountry Main Line
- TransPennine Main Line
- Principal Scottish network

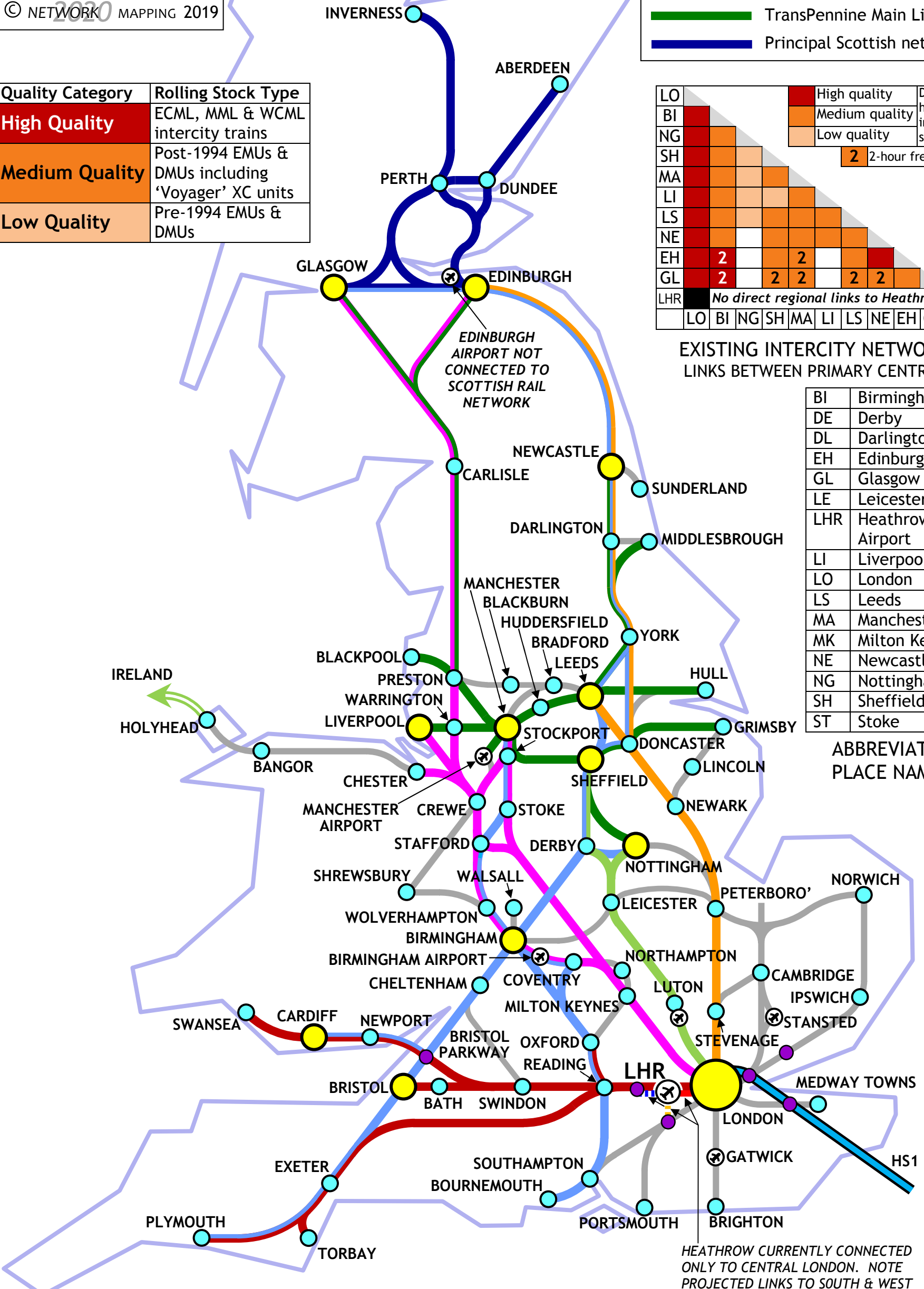
Quality Category	Rolling Stock Type
High Quality	ECML, MML & WCML intercity trains
Medium Quality	Post-1994 EMUs & DMUs including 'Voyager' XC units
Low Quality	Pre-1994 EMUs & DMUs



EXISTING INTERCITY NETWORK
LINKS BETWEEN PRIMARY CENTRES

BI	Birmingham
DE	Derby
DL	Darlington
EH	Edinburgh
GL	Glasgow
LE	Leicester
LHR	Heathrow Airport
LI	Liverpool
LO	London
LS	Leeds
MA	Manchester
MK	Milton Keynes
NE	Newcastle
NG	Nottingham
SH	Sheffield
ST	Stoke

ABBREVIATED PLACE NAMES



HIGH SPEED 2 / NPR COMPLETED SYSTEM - 'Y' EXTENDING BOTH SIDES OF PENNINES & TRANSPENNINE LINK

DIAGRAM **NND 2**
© NETWORK MAPPING 2019

FULL NETWORK COMPARISONS	HSUK	HS2+ NPR
Route length of new HSL (km)	911	956+
Length of restored or upgraded route	307	38+
Primary city pairs connected	54	12+8
Main line corridors enhanced	6	3+1
Integration with secondary centres	Y	N
Direct access to Heathrow?	Y	N

NPR = NORTHERN POWERHOUSE RAIL

KEY

- Principal intercity route
- New high speed line
- Projected extension of HS2 'Y' to link all primary cities
- Primary/interchange hub/secondary centre
- Regional centres not directly connected to high speed 'network'
- Airport connected to high speed network via local interchange

LO	BI	NG	SH	MA	LI	LS	NE	EH	GL	LHR
LO										
BI										
NG										
SH								2		
MA										
LI										
LS										
NE										
EH								2		
GL									2	
LHR										

No direct regional links to Heathrow

NPR: MANCHESTER-LEEDS TRANSPENNINE LINK

HIGH SPEED 2: DEDICATED HIGH SPEED LINE IN 'Y' CONFIGURATION PROJECTED NORTHWARDS TO LINK ALL PRIMARY REGIONAL CENTRES OF MIDLANDS, NORTH & SCOTLAND TO LONDON AND BIRMINGHAM

NPR: VIABLE SCHEME FOR MANCHESTER-SHEFFIELD LINK YET TO EMERGE

2-HOURLY FREQUENCY PROPOSED BY HS2 Ltd

EDINBURGH-GLASGOW HIGH SPEED LINK VIA CARSTAIRS AS PER SCOTTISH GOVERNMENT PROPOSAL (32min E to G)

HIGH SPEED 2 LINKS BETWEEN PRIMARY CENTRES

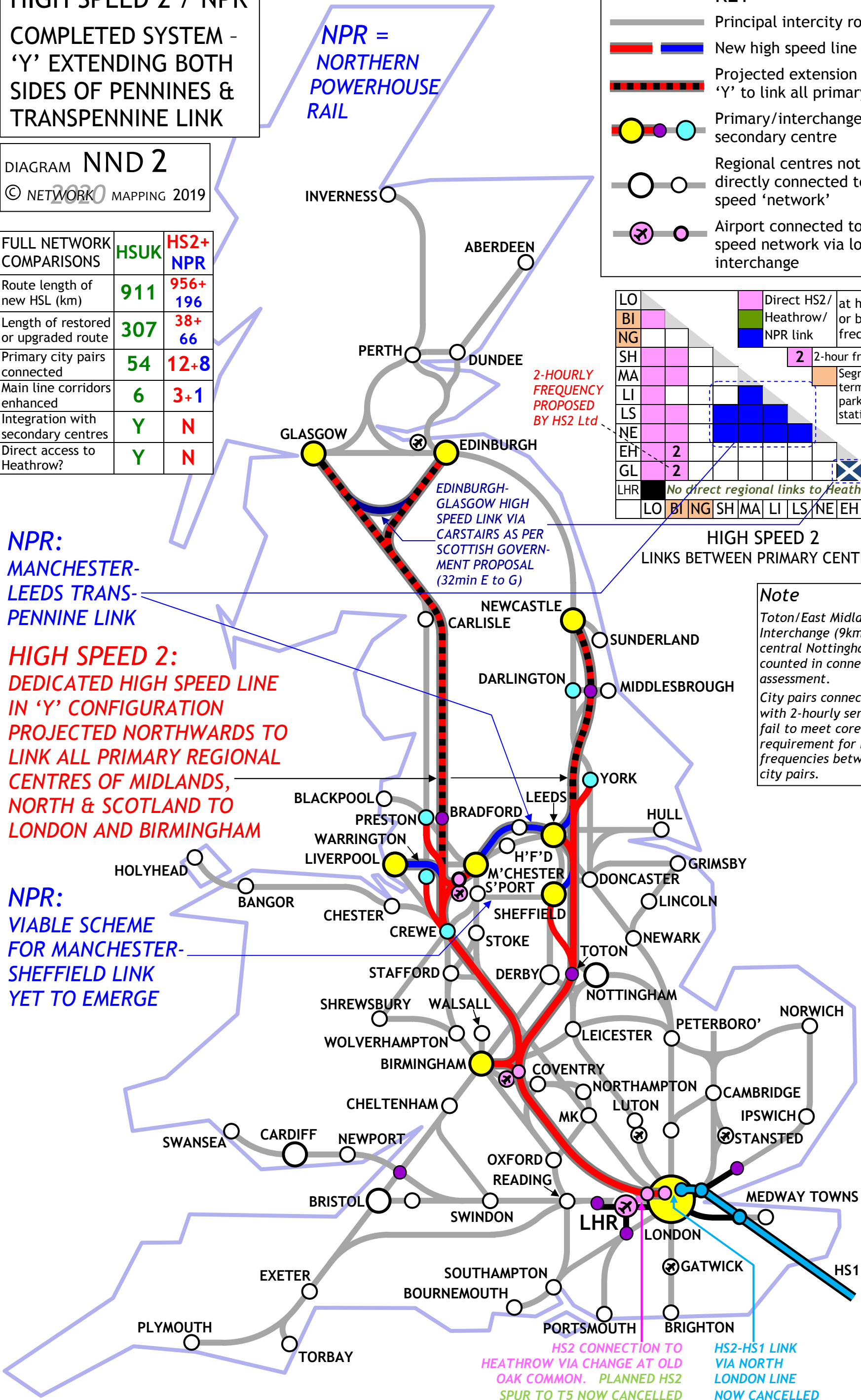
Note

Toton/East Midlands Interchange (9km from central Nottingham) not counted in connectivity assessment.

City pairs connected with 2-hourly services fail to meet core requirement for hourly frequencies between all city pairs.

HS2 CONNECTION TO HEATHROW VIA CHANGE AT OLD OAK COMMON. PLANNED HS2 SPUR TO T5 NOW CANCELLED

HS2-HS1 LINK VIA NORTH LONDON LINE NOW CANCELLED



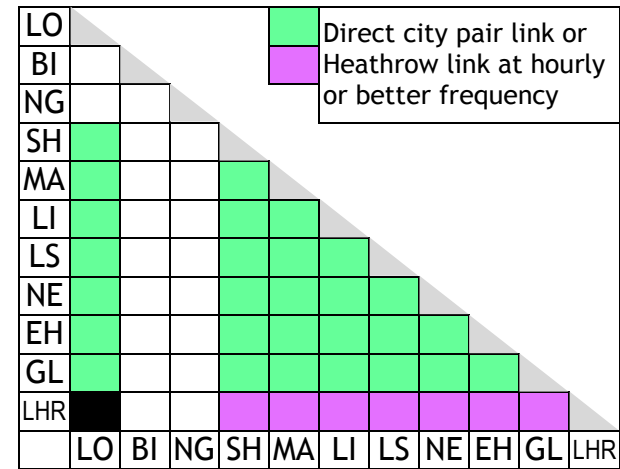
HIGH SPEED UK: SELF-STANDING HIGH SPEED LINE WITH CONNECTIONS TO HEATHROW AIRPORT

DIAGRAM **NND 3**

© NETWORK0 MAPPING 2019

KEY

- Dedicated high speed line
- Principal intercity route
- Primary/secondary centre/airport on High Speed UK core network
- Regional centres not served by HSUK network
- Heathrow Airport & 'Compass Point' links to North, East, South & West extending to main line hub & beyond to wider network



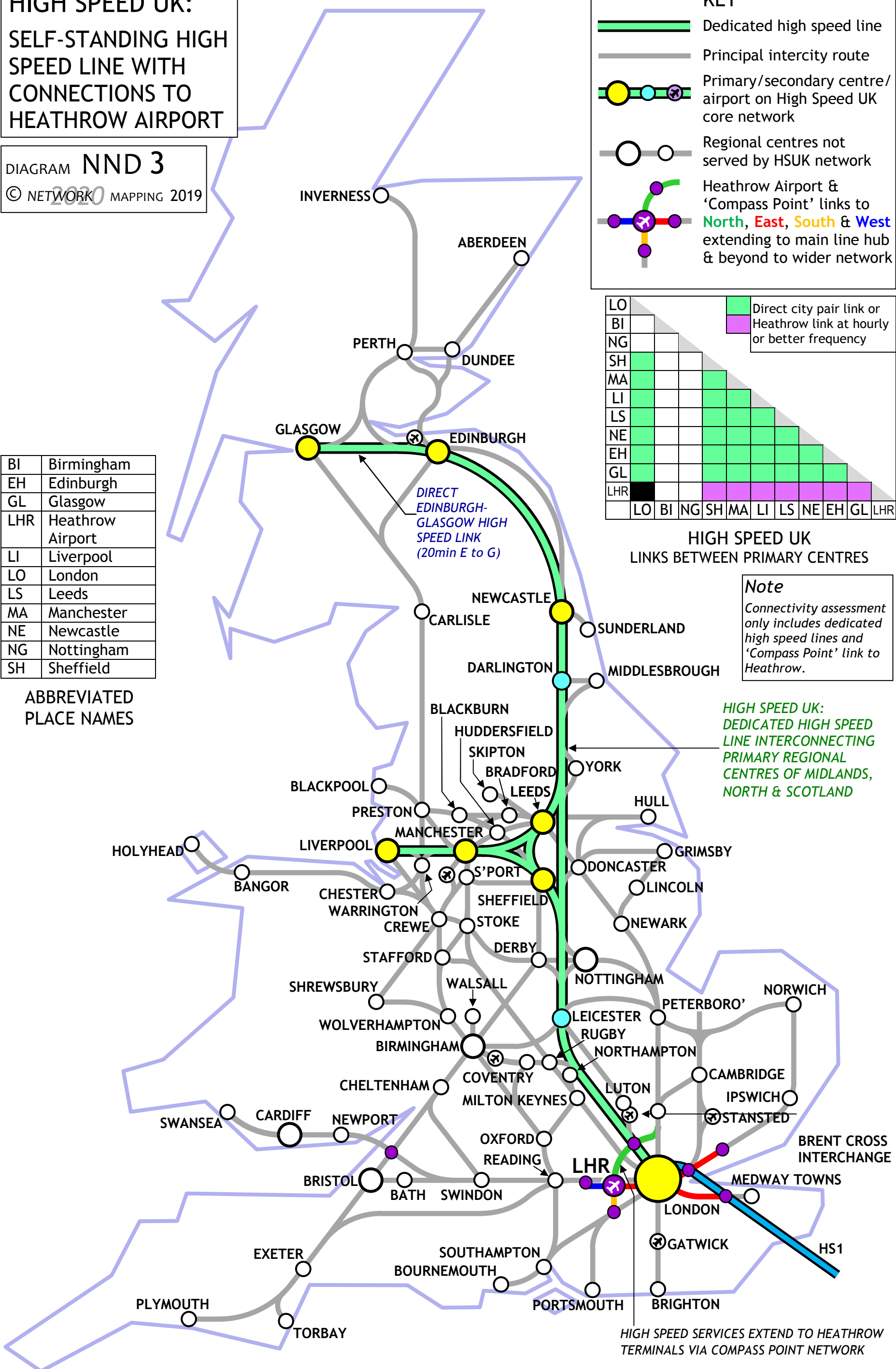
BI	Birmingham
EH	Edinburgh
GL	Glasgow
LHR	Heathrow Airport
LI	Liverpool
LO	London
LS	Leeds
MA	Manchester
NE	Newcastle
NG	Nottingham
SH	Sheffield

ABBREVIATED
PLACE NAMES

HIGH SPEED UK
LINKS BETWEEN PRIMARY CENTRES

Note
Connectivity assessment only includes dedicated high speed lines and 'Compass Point' link to Heathrow.

HIGH SPEED UK:
DEDICATED HIGH SPEED
LINE INTERCONNECTING
PRIMARY REGIONAL
CENTRES OF MIDLANDS,
NORTH & SCOTLAND



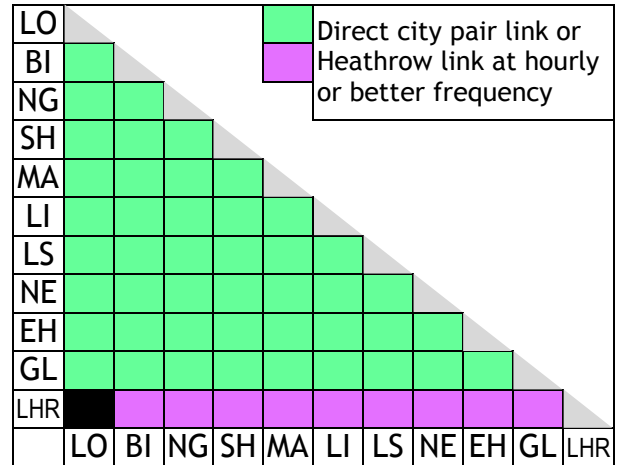
**HIGH SPEED UK:
HSUK BASE NETWORK:
HIGH SPEED LINE C/W
UPGRADED ROUTES TO
ACCESS BIRMINGHAM,
AND HEATHROW LINK**

DIAGRAM **NND 4**

© NETWORK 2020 MAPPING 2019

KEY

- Dedicated high speed line
- Upgraded/restored/local new route
- Primary/secondary centre/airport on High Speed UK core network
- Regional centres not served by HSUK network
- Heathrow Airport & 'Compass Point' links to North, East, South & West extending to main line hub & beyond to wider network

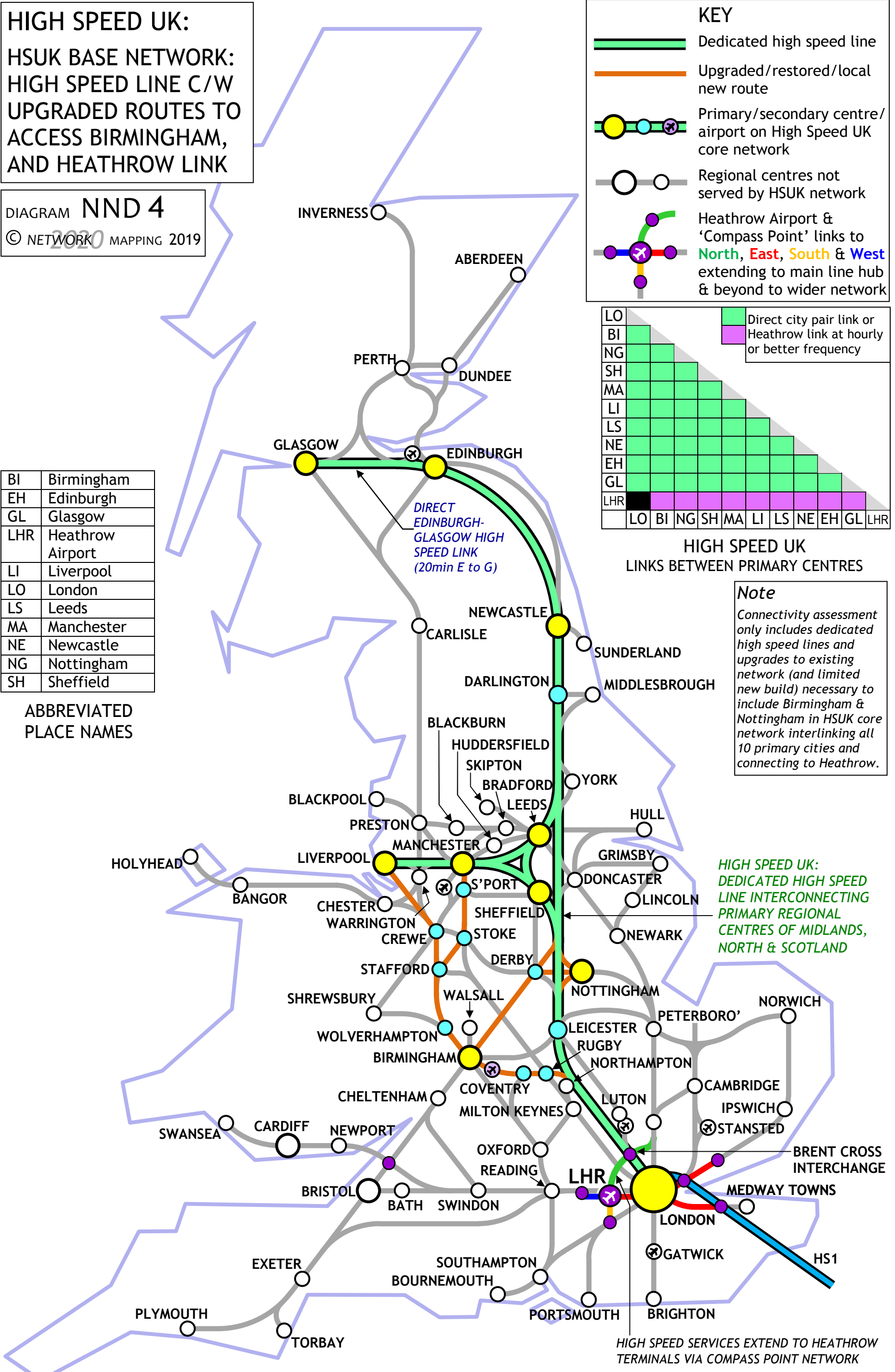


**HIGH SPEED UK
LINKS BETWEEN PRIMARY CENTRES**

Note
Connectivity assessment only includes dedicated high speed lines and upgrades to existing network (and limited new build) necessary to include Birmingham & Nottingham in HSUK core network interlinking all 10 primary cities and connecting to Heathrow.

BI	Birmingham
EH	Edinburgh
GL	Glasgow
LHR	Heathrow Airport
LI	Liverpool
LO	London
LS	Leeds
MA	Manchester
NE	Newcastle
NG	Nottingham
SH	Sheffield

**ABBREVIATED
PLACE NAMES**



**HIGH SPEED UK:
DEDICATED HIGH SPEED
LINE INTERCONNECTING
PRIMARY REGIONAL
CENTRES OF MIDLANDS,
NORTH & SCOTLAND**

HIGH SPEED SERVICES EXTEND TO HEATHROW TERMINALS VIA COMPASS POINT NETWORK

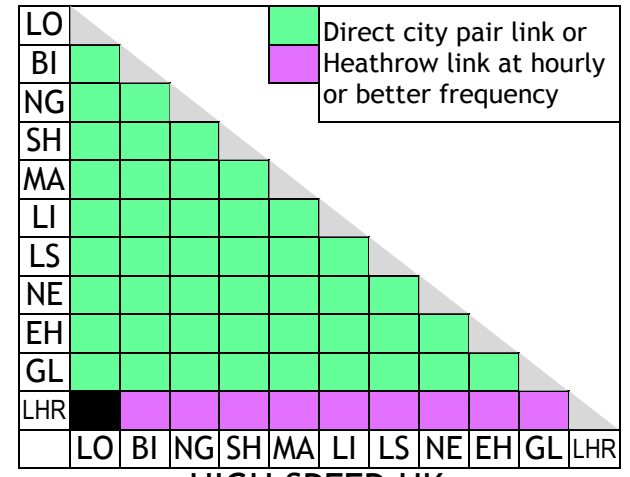
**HIGH SPEED UK:
FULLY INTEGRATED
HIGH SPEED LINE C/W
UPGRADES TO ACCESS
ALL PRIMARY & MOST
SECONDARY CITIES**

DIAGRAM **NND 5**

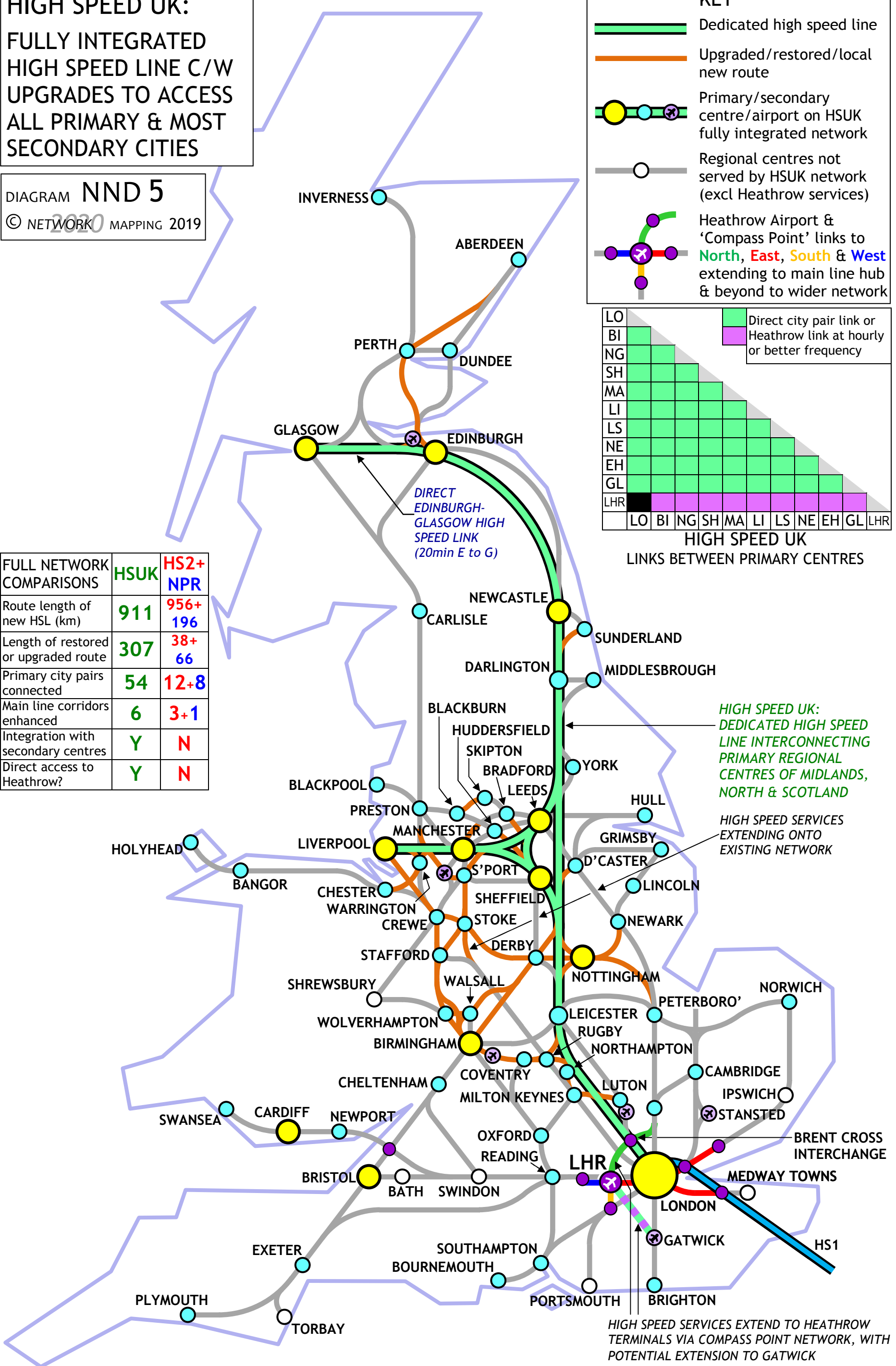
© NETWORK 2020 MAPPING 2019

KEY

- Dedicated high speed line
- Upgraded/restored/local new route
- Primary/secondary centre/airport on HSUK fully integrated network
- Regional centres not served by HSUK network (excl Heathrow services)
- Heathrow Airport & 'Compass Point' links to North, East, South & West extending to main line hub & beyond to wider network



FULL NETWORK COMPARISONS	HSUK	HS2+ NPR
Route length of new HSL (km)	911	956+ 196
Length of restored or upgraded route	307	38+ 66
Primary city pairs connected	54	12+8
Main line corridors enhanced	6	3+1
Integration with secondary centres	Y	N
Direct access to Heathrow?	Y	N



HIGH SPEED UK: DEDICATED HIGH SPEED LINE INTERCONNECTING PRIMARY REGIONAL CENTRES OF MIDLANDS, NORTH & SCOTLAND

HIGH SPEED SERVICES EXTENDING ONTO EXISTING NETWORK

HIGH SPEED SERVICES EXTEND TO HEATHROW TERMINALS VIA COMPASS POINT NETWORK, WITH POTENTIAL EXTENSION TO GATWICK

HIGH SPEED UK: PRIMARY HIGH SPEED INTERCITY ROUTES EXTENDING ONTO CLASSIC NETWORK

DIAGRAM **NND 6**
© NETWORK MAPPING 2019

KEY

- Dedicated high speed line
- High speed routes extending to classic lines
- Principal intercity route
- Primary/secondary centre/airport on High Speed UK integrated network
- Regional centres not served by HSUK network (excl Heathrow services)
- Heathrow Airport & 'Compass Point' links to North, East, South & West extending to main line hub & beyond to wider network

SCOTTISH NETWORK ILLUSTRATED IN ENHANCED 'INVERTED TEE' FORMAT, WITH RESTORED GLENFARG & STRATHMORE ROUTE, EXTENDING DIRECT HEATHROW CONNECTIVITY TO ABERDEEN

LO													
BI													
NG													
SH													
MA													
LI													
LS													
NE													
EH													
GL													
LHR													
	LO	BI	NG	SH	MA	LI	LS	NE	EH	GL	LHR		

Direct city pair link or Heathrow link at hourly or better frequency

FULL NETWORK COMPARISONS	HSUK	HS2+ NPR
Route length of new HSL (km)	911	956+ 196
Length of restored or upgraded route	307	38+ 66
Primary city pairs connected	54	12+8
Main line corridors enhanced	6	3+1
Integration with secondary centres	Y	N
Direct access to Heathrow?	Y	N

HIGH SPEED UK
LINKS BETWEEN PRIMARY CENTRES

HIGH SPEED UK: DEDICATED HIGH SPEED LINE INTERCONNECTING PRIMARY REGIONAL CENTRES OF MIDLANDS, NORTH & SCOTLAND

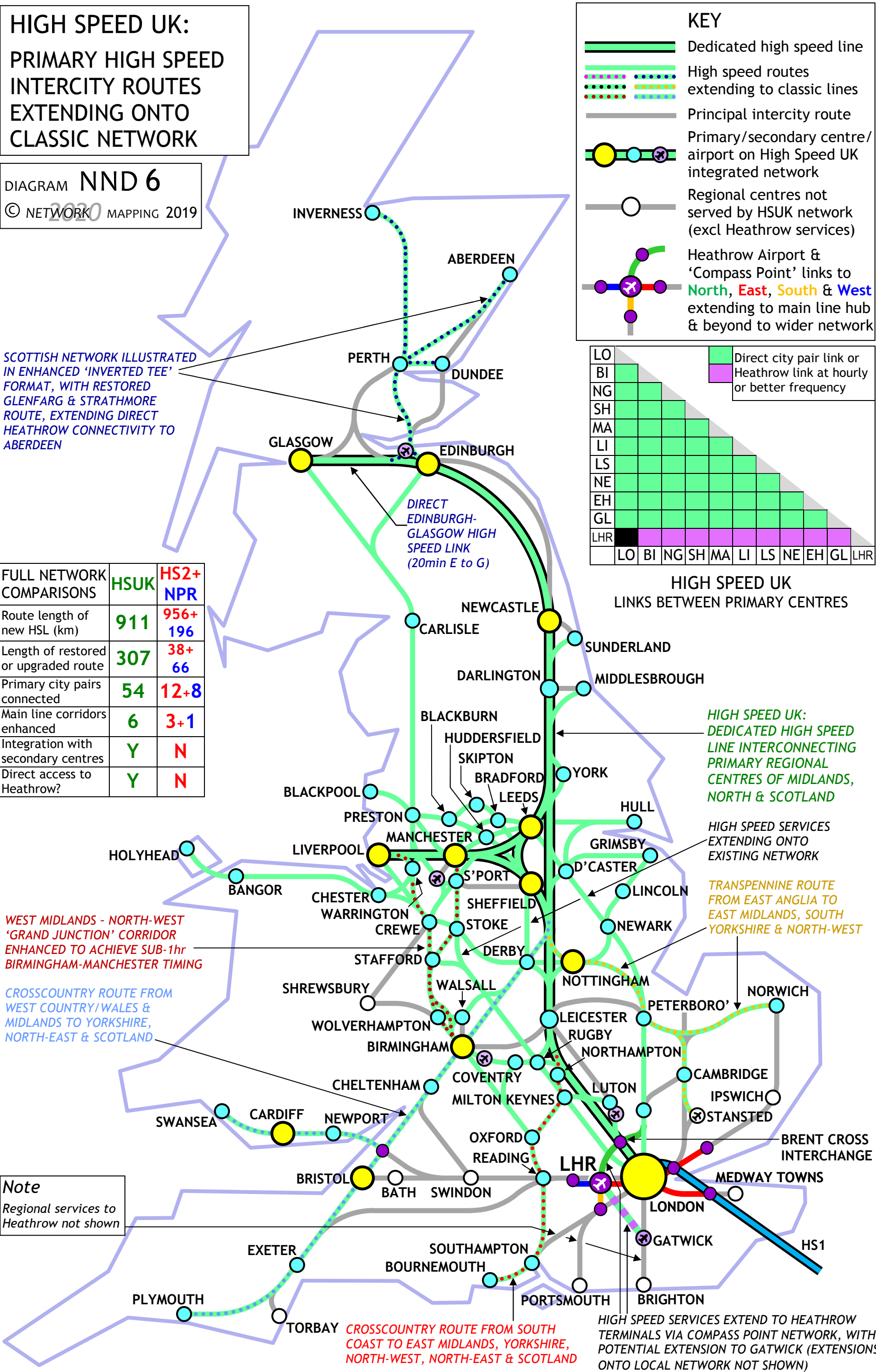
HIGH SPEED SERVICES EXTENDING ONTO EXISTING NETWORK

TRANSPENNINE ROUTE FROM EAST ANGLIA TO EAST MIDLANDS, SOUTH YORKSHIRE & NORTH-WEST

WEST MIDLANDS - NORTH-WEST 'GRAND JUNCTION' CORRIDOR ENHANCED TO ACHIEVE SUB-1hr BIRMINGHAM-MANCHESTER TIMING

CROSSCOUNTRY ROUTE FROM WEST COUNTRY/WALES & MIDLANDS TO YORKSHIRE, NORTH-EAST & SCOTLAND

Note
Regional services to Heathrow not shown



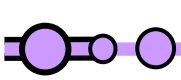



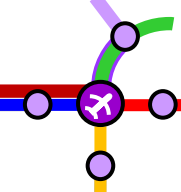
CROSSCOUNTRY ROUTE FROM SOUTH COAST TO EAST MIDLANDS, YORKSHIRE, NORTH-WEST, NORTH-EAST & SCOTLAND

HIGH SPEED SERVICES EXTEND TO HEATHROW TERMINALS VIA COMPASS POINT NETWORK, WITH POTENTIAL EXTENSION TO GATWICK (EXTENSIONS ONTO LOCAL NETWORK NOT SHOWN)

HIGH SPEED UK: DIRECT REGIONAL & 'COMPASS POINT' CONNECTIONS TO HEATHROW AIRPORT

DIAGRAM **NND 7**
© NETWORK MAPPING 2019

KEY

-  Primary/interchange hub/
secondary centre directly
connected to Heathrow
-  Regional centre 1 change
of trains from Heathrow
-  Dedicated high speed link
to Heathrow - from north
-  Dedicated intercity link
to Heathrow - from west
-  Heathrow Airport &
'Compass Point' links to
North, East, South & West
High Speed UK & Great
Western network

*SCOTTISH NETWORK ILLUSTRATED
IN ENHANCED 'INVERTED TEE'
FORMAT, WITH RESTORED
GLENFARG & STRATHMORE
ROUTE, EXTENDING DIRECT
HEATHROW CONNECTIVITY TO
ABERDEEN*

	LO	BI	NG	SH	MA	LI	LS	NE	EH	GL	LHR
LO											
BI											
NG											
SH											
MA											
LI											
LS											
NE											
EH											
GL											
LHR											

Direct city pair link or
Heathrow link at hourly
or better frequency

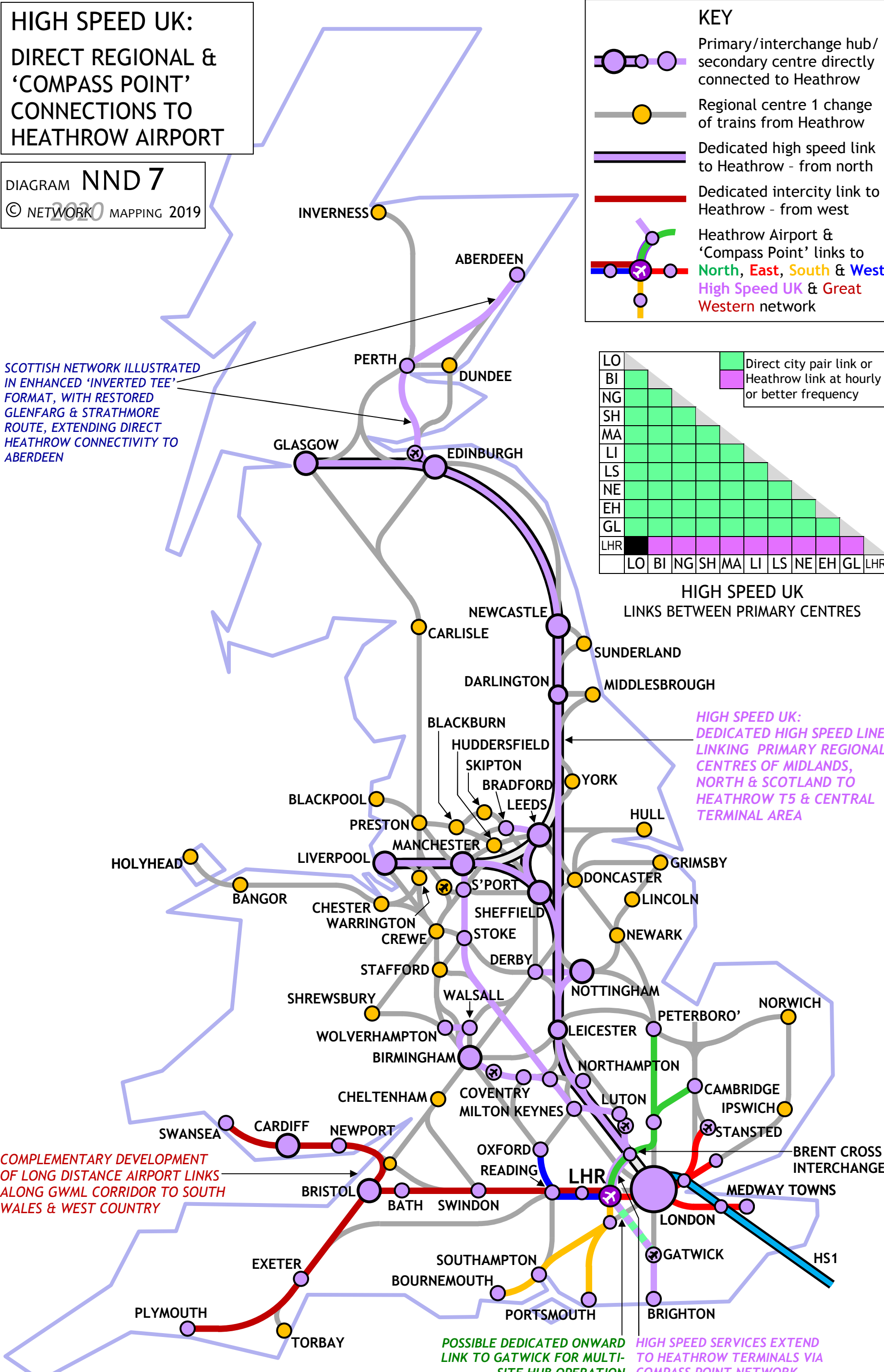
HIGH SPEED UK
LINKS BETWEEN PRIMARY CENTRES

*HIGH SPEED UK:
DEDICATED HIGH SPEED LINE
LINKING PRIMARY REGIONAL
CENTRES OF MIDLANDS,
NORTH & SCOTLAND TO
HEATHROW T5 & CENTRAL
TERMINAL AREA*

*COMPLEMENTARY DEVELOPMENT
OF LONG DISTANCE AIRPORT LINKS
ALONG GWML CORRIDOR TO SOUTH
WALES & WEST COUNTRY*

*POSSIBLE DEDICATED ONWARD
LINK TO GATWICK FOR MULTI-
SITE HUB OPERATION*

*HIGH SPEED SERVICES EXTEND
TO HEATHROW TERMINALS VIA
COMPASS POINT NETWORK*



HIGH SPEED UK: COMPLETED NETWORK ILLUSTRATING FULLY INTEGRATED INTERCITY SERVICE PATTERN

DIAGRAM **NND 8**
© NETWORK MAPPING 2019

Note
Core routes illustrated on diagram are indicative of service corridors, rather than specific timetabled trains. For full details of proposed HSUK intercity services see HSUK train diagrams.

KEY

- HSUK route on high speed line
- Associated extension route on classic line
- Primary regional centre
- Secondary centre
- Airport
- Main Line Hub/Interchange
- Local metro link
- Heathrow Airport & 'Compass Point' links to North, East, South & West extending to high speed hub & beyond to wider network

LO												
BI	■											
NG	■	■										
SH	■	■	■									
MA	■	■	■	■								
LI	■	■	■	■	■							
LS	■	■	■	■	■	■						
NE	■	■	■	■	■	■	■					
EH	■	■	■	■	■	■	■	■				
GL	■	■	■	■	■	■	■	■	■			
LHR	■	■	■	■	■	■	■	■	■	■		
	LO	BI	NG	SH	MA	LI	LS	NE	EH	GL	LHR	

Legend for table:
■ Direct city pair link or
■ Heathrow link at hourly or better frequency

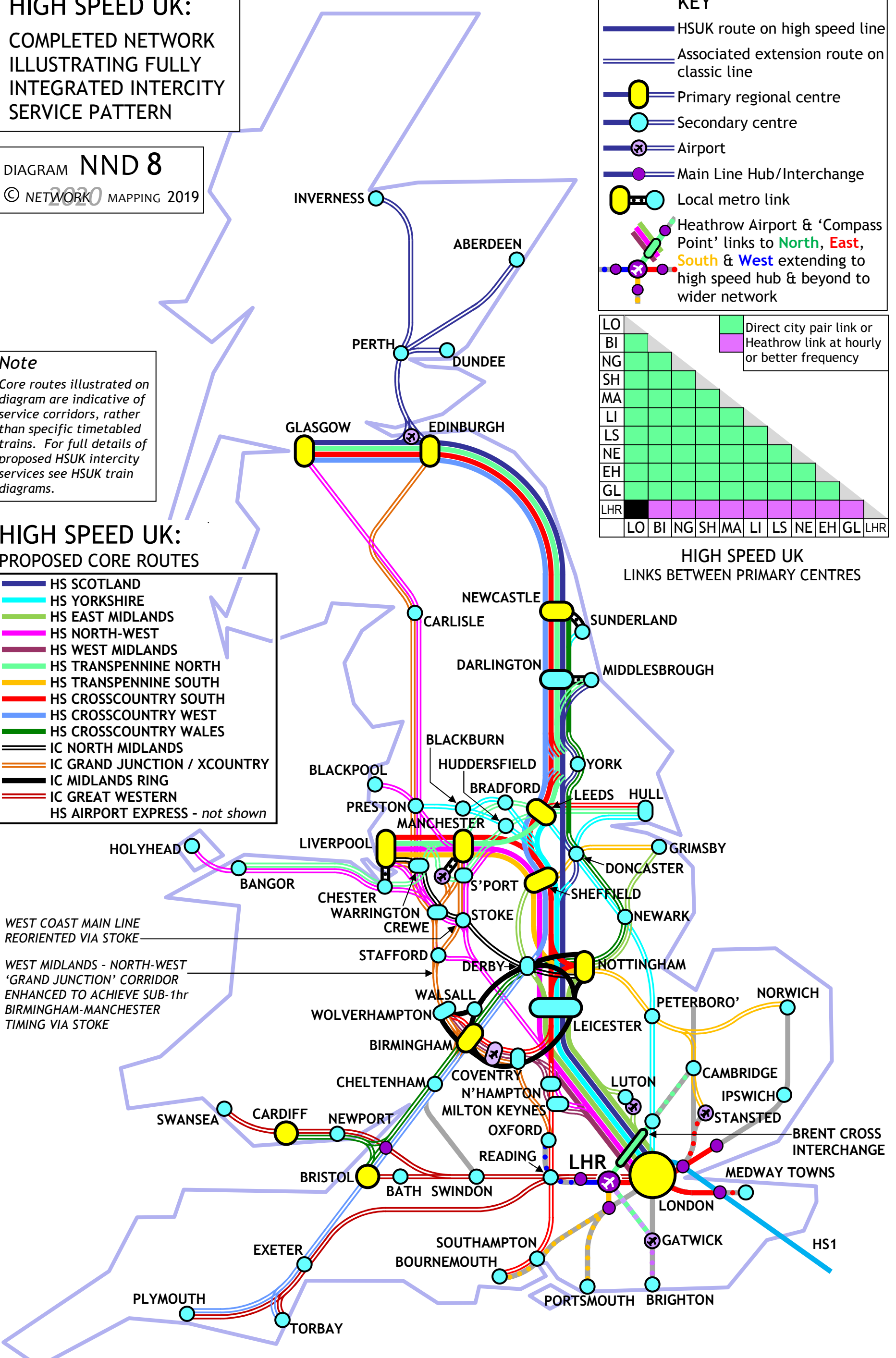
**HIGH SPEED UK
LINKS BETWEEN PRIMARY CENTRES**

HIGH SPEED UK: PROPOSED CORE ROUTES

- HS SCOTLAND
- HS YORKSHIRE
- HS EAST MIDLANDS
- HS NORTH-WEST
- HS WEST MIDLANDS
- HS TRANSPENNINE NORTH
- HS TRANSPENNINE SOUTH
- HS CROSSCOUNTRY SOUTH
- HS CROSSCOUNTRY WEST
- HS CROSSCOUNTRY WALES
- IC NORTH MIDLANDS
- IC GRAND JUNCTION / XCOUNTRY
- IC MIDLANDS RING
- IC GREAT WESTERN
- HS AIRPORT EXPRESS - not shown

WEST COAST MAIN LINE
REORIENTED VIA STOKE

WEST MIDLANDS - NORTH-WEST
'GRAND JUNCTION' CORRIDOR
ENHANCED TO ACHIEVE SUB-1hr
BIRMINGHAM-MANCHESTER
TIMING VIA STOKE



**HIGH SPEED UK:
PROPOSED SERVICE
FREQUENCY BETWEEN
16 KEY CENTRES**

DIAGRAM NND 9
© NETWORK MAPPING 2019

KEY
 High speed line
 HSUK services on existing network linking 16 centres
 Key hubs of HSUK 16-centre network

BI	Birmingham
DE	Derby
DL	Darlington
EH	Edinburgh
GL	Glasgow
LE	Leicester
LHR	Heathrow Airport
LI	Liverpool
LO	London
LS	Leeds
MA	Manchester
MK	Milton Keynes
NE	Newcastle
NG	Nottingham
SH	Sheffield
ST	Stoke

**ABBREVIATED
PLACE NAMES**

LO																					
MK	3																				
BI	4	2																			
LE	8	3	2																		
NG	2	1	2	4																	
DE	2	1	5	4	4																
ST	4	1	3	1	1	2															
SH	7	2	4	8	3	5	1														
MA	4	1	4	1	1	2	4	5													
LI	3	1	2	1	2	1	2	3	6												
LS	4	1	3	3	2	2	1	7	4	3											
DL	4	1	2	2	2	2	1	2	3	1	6										
NE	3	1	2	2	2	2	1	2	3	1	6	10									
EH	3	2	2	2	1	1	1	2	2	1	4	8	8								
GL	3	1	1	2	1	1	2	2	2	1	4	6	6	7							
LHR		1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
	LO	MK	BI	LE	NG	DE	ST	SH	MA	LI	LS	DL	NE	EH	GL	LHR					

Direct city pair link or Heathrow link at hourly or better frequency
 2
 2
 2
 Number of trains per hour

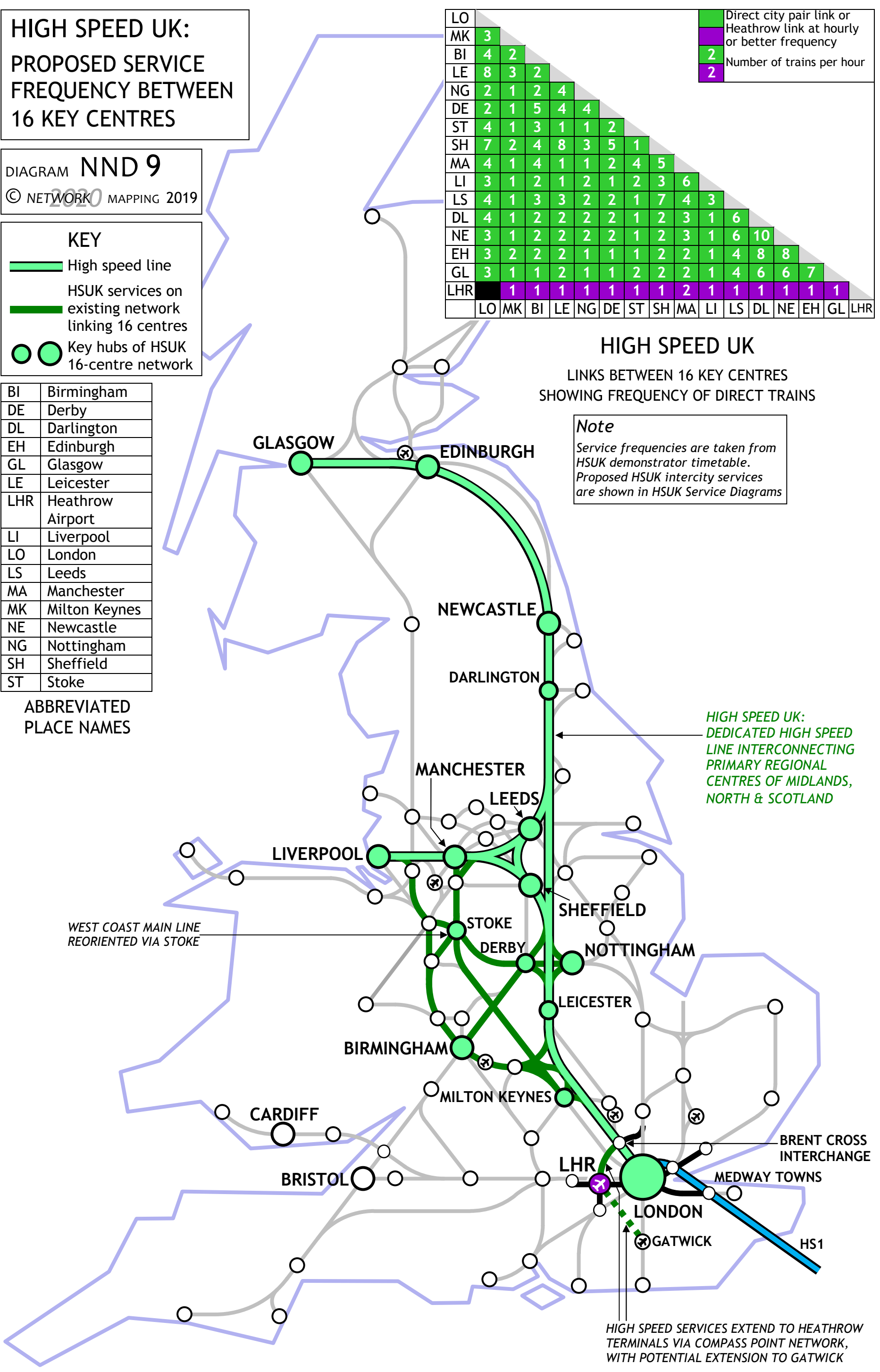
**HIGH SPEED UK
LINKS BETWEEN 16 KEY CENTRES
SHOWING FREQUENCY OF DIRECT TRAINS**

Note
 Service frequencies are taken from HSUK demonstrator timetable. Proposed HSUK intercity services are shown in HSUK Service Diagrams

**HIGH SPEED UK:
DEDICATED HIGH SPEED
LINE INTERCONNECTING
PRIMARY REGIONAL
CENTRES OF MIDLANDS,
NORTH & SCOTLAND**

WEST COAST MAIN LINE
REORIENTED VIA STOKE

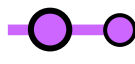
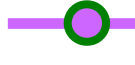


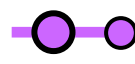


HIGH SPEED SERVICES EXTEND TO HEATHROW
TERMINALS VIA COMPASS POINT NETWORK,
WITH POTENTIAL EXTENSION TO GATWICK



HIGH SPEED UK: PROPOSED SERVICE PATTERN FOR DIRECT CONNECTIONS TO HEATHROW AIRPORT

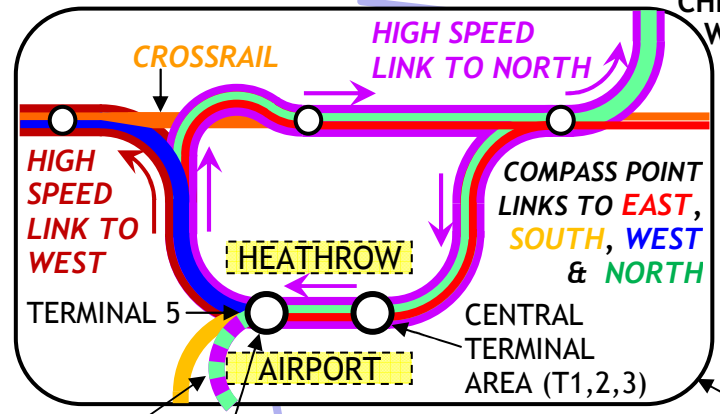
DIAGRAM **NND 10**
© NETWORK MAPPING 2019

KEY

-  Primary/secondary centre directly linked to Heathrow
-  Train splitting point
-  Secondary centre linked via single change of trains
-  Local metro connection
-  Direct HSUK Airport Express service to:
Northern destinations
-  Western destinations
-  Heathrow Airport & 'Compass Point' links to North, East, South & West, and extending via HSUK to Northern & Western cities

	LO	BI	NG	SH	MA	LI	LS	NE	EH	GL	LHR
LO											
BI											
NG											
SH											
MA											
LI											
LS											
NE											
EH											
GL											
LHR											

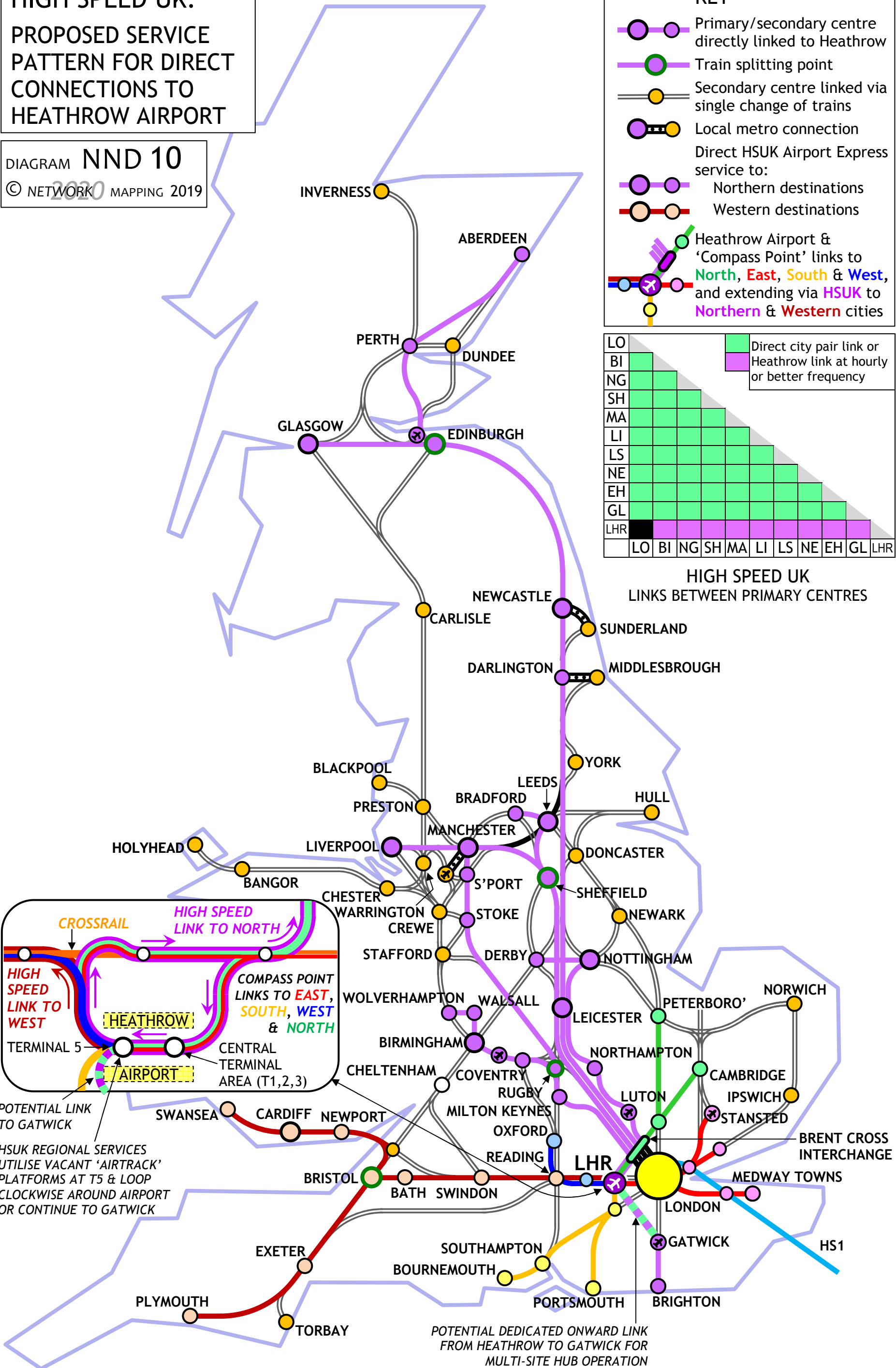
**HIGH SPEED UK
LINKS BETWEEN PRIMARY CENTRES**



POTENTIAL LINK TO GATWICK

HSUK REGIONAL SERVICES UTILISE VACANT 'AIRTRACK' PLATFORMS AT T5 & LOOP CLOCKWISE AROUND AIRPORT OR CONTINUE TO GATWICK

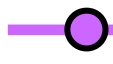
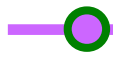






POTENTIAL DEDICATED ONWARD LINK FROM HEATHROW TO GATWICK FOR MULTI-SITE HUB OPERATION

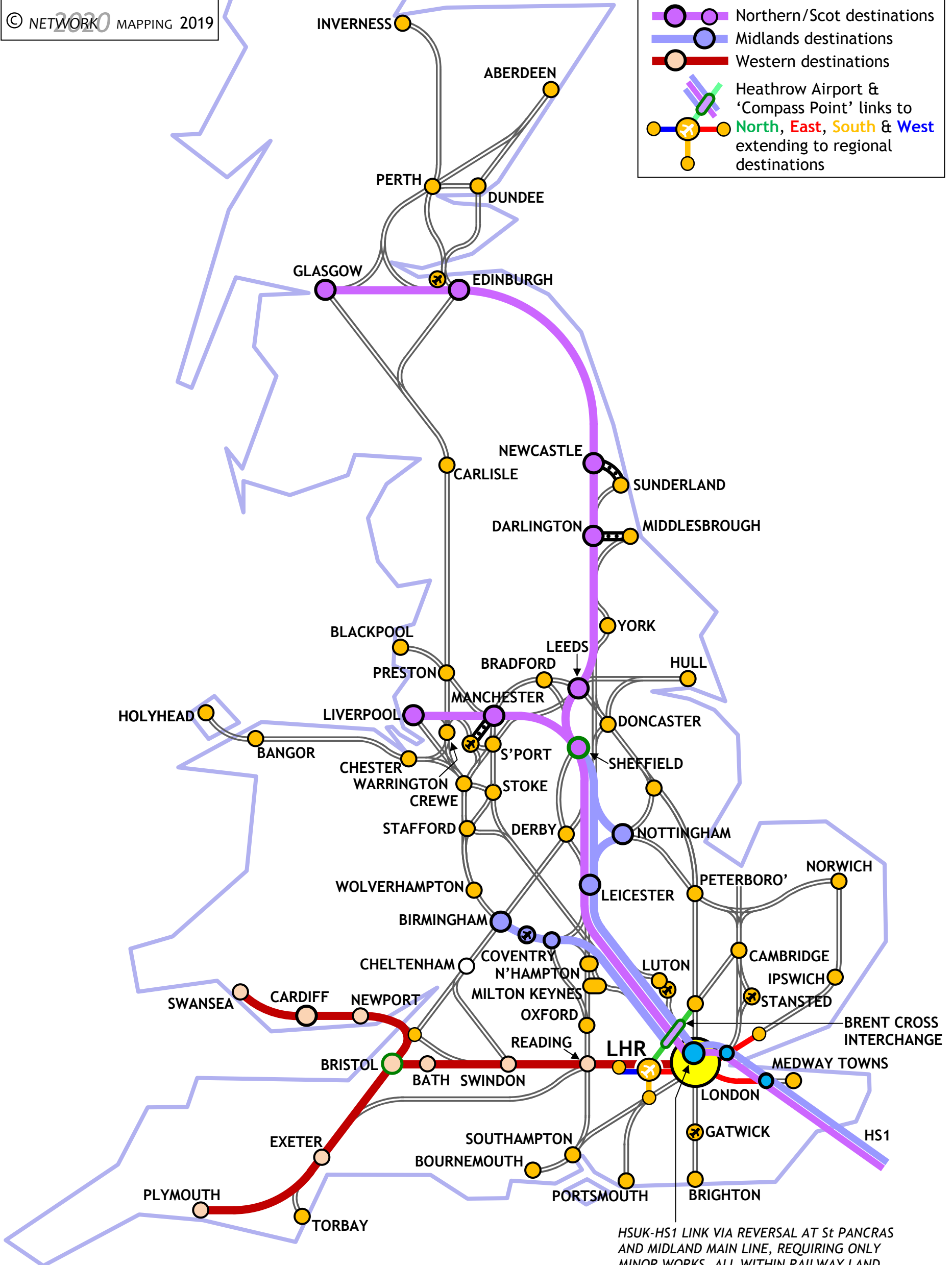


HIGH SPEED UK: PROPOSED SERVICE PATTERN FOR DIRECT CONTINENTAL SERVICES VIA HS1

DIAGRAM **NND 11**
© NETWORK MAPPING 2019

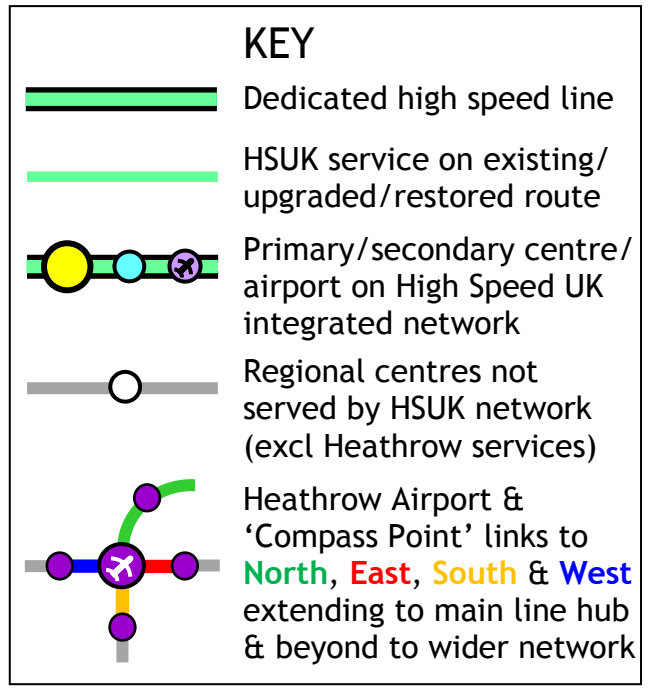
KEY

-  Primary regional centre directly linked to Europe
-  Train splitting point
-  Secondary centre linked via single change of trains
-  Local metro connection
- Direct Euro service to:
 -  Northern/Scot destinations
 -  Midlands destinations
 -  Western destinations
-  Heathrow Airport & 'Compass Point' links to North, East, South & West extending to regional destinations



HIGH SPEED UK: COVERAGE OF HSUK REGIONAL RAIL STRATEGIES

DIAGRAM NND 12
© NETWORK MAPPING 2019



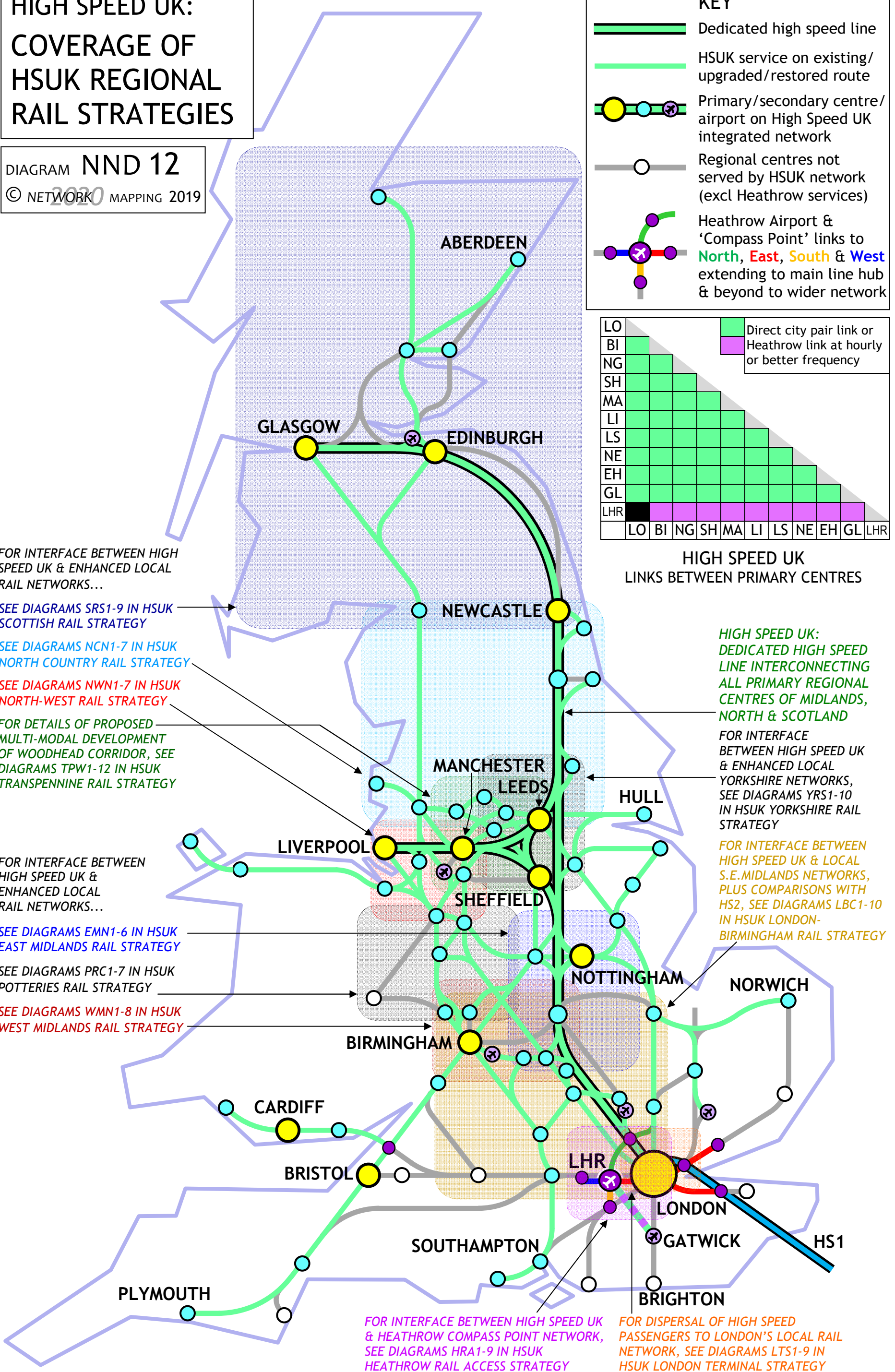
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HIGH SPEED UK LINKS BETWEEN PRIMARY CENTRES

FOR INTERFACE BETWEEN HIGH SPEED UK & ENHANCED LOCAL RAIL NETWORKS...
SEE DIAGRAMS SRS1-9 IN HSUK SCOTTISH RAIL STRATEGY
SEE DIAGRAMS NCN1-7 IN HSUK NORTH COUNTRY RAIL STRATEGY
SEE DIAGRAMS NWN1-7 IN HSUK NORTH-WEST RAIL STRATEGY
FOR DETAILS OF PROPOSED MULTI-MODAL DEVELOPMENT OF WOODHEAD CORRIDOR, SEE DIAGRAMS TPW1-12 IN HSUK TRANSPENNINE RAIL STRATEGY
FOR INTERFACE BETWEEN HIGH SPEED UK & ENHANCED LOCAL RAIL NETWORKS...
SEE DIAGRAMS EMN1-6 IN HSUK EAST MIDLANDS RAIL STRATEGY
SEE DIAGRAMS PRC1-7 IN HSUK POTTERIES RAIL STRATEGY
SEE DIAGRAMS WMN1-8 IN HSUK WEST MIDLANDS RAIL STRATEGY

HIGH SPEED UK: DEDICATED HIGH SPEED LINE INTERCONNECTING ALL PRIMARY REGIONAL CENTRES OF MIDLANDS, NORTH & SCOTLAND
FOR INTERFACE BETWEEN HIGH SPEED UK & ENHANCED LOCAL YORKSHIRE NETWORKS, SEE DIAGRAMS YRS1-10 IN HSUK YORKSHIRE RAIL STRATEGY
FOR INTERFACE BETWEEN HIGH SPEED UK & LOCAL S.E. MIDLANDS NETWORKS, PLUS COMPARISONS WITH HS2, SEE DIAGRAMS LBC1-10 IN HSUK LONDON-BIRMINGHAM RAIL STRATEGY

FOR INTERFACE BETWEEN HIGH SPEED UK & HEATHROW COMPASS POINT NETWORK, SEE DIAGRAMS HRA1-9 IN HSUK HEATHROW RAIL ACCESS STRATEGY
FOR DISPERSAL OF HIGH SPEED PASSENGERS TO LONDON'S LOCAL RAIL NETWORK, SEE DIAGRAMS LTS1-9 IN HSUK LONDON TERMINAL STRATEGY



HIGH SPEED UK: INTERVENTIONS TO EXISTING NETWORK TO HARMONISE WITH HIGH SPEED UK

DIAGRAM **NND 13**

© NETWORK MAPPING 2019

KEY

- Dedicated high speed line
- Principal intercity route
- Major proposed enhancements
- Green shading indicates works req^d for core HSUK network.
- White & blue shading indicates works req^d for wider network.
- Major station/local network reconfigurations
- Existing 2-station situation resolved into single I/C station

NATIONAL HIGH SPEED LINE DEVELOPMENT

A HIGH SPEED NORTH - NORTHERN COMPONENT OF HIGH SPEED UK. DEDICATED HIGH SPEED LINE INTERCONNECTING PRIMARY REGIONAL CENTRES OF MIDLANDS, NORTH & SCOTLAND

SCOTTISH ENHANCEMENTS

- B** STRATHMORE ROUTE RESTORED
- C** GLENFARG ROUTE RESTORED
- D** EDINBURGH AIRPORT 'WEST TO NORTH' INTERCITY LINK

YORKSHIRE & N.E. ENHANCEMENTS

- E** TEES VALLEY METRO
- F** BRADFORD CROSSRAIL LINK, SPEN VALLEY RESTORATION, SKIPTON-COLNE RESTORATION & UPGRADED CALDER VALLEY ROUTE c/w 14km TUNNEL
- G** LEEDS EAST 4-TRACKING & STOURTON - NEVILLE HILL LINK
- H** SHEFFIELD HIGH SPEED TERMINAL AT RESTORED VICTORIA STATION

EAST MIDLANDS ENHANCEMENTS

- N** NEW DIRECT NOTTINGHAM-HSUK LINK
- O** DERBY - EREWASH VALLEY LINK ALONG RESTORED GREAT NORTHERN ROUTE & DERBY TEARDROP LOOP RESTORED FOR THROUGH NOTTINGHAM-BIRMINGHAM OPERATION
- P** GRANTHAM-NOTTINGHAM ROUTE UPGRADED TO 200kph OPERATION & BOTTESFORD-NEWARK LINK RESTORED
- R** FREIGHT ROUTES THROUGH LEICESTER DIVERTED VIA CORBY, c/w NEW CHORDS AT GLENDON & MANTON JNS

NORTH WEST ENHANCEMENTS

- I** WOODHEAD CORRIDOR RESTORATION AS INTEGRATED MULTIUSER RAILWAY
- J** NEW CROSS-MANCHESTER TUNNEL
- K** NEW STOCKPORT - MANCHESTER AIRPORT - ALTRINCHAM - HSUK LINK
- L** UPGRADE OF NORTH STAFFS ROUTES STONE - STOKE - CHEADLE HULME
- M** WCML REORIENTATION VIA STOKE & DERBY-STOKE UPGRADE

M1 CORRIDOR ENHANCEMENTS

- X** MAIN LINE LINKS TO HIGH SPEED UK CREATE LINKS BETWEEN MML & WCML CORRIDORS
- Y** EAST-WEST RAIL RESTORATION AS PER CURRENT PLANS

WEST MIDLANDS ENHANCEMENTS

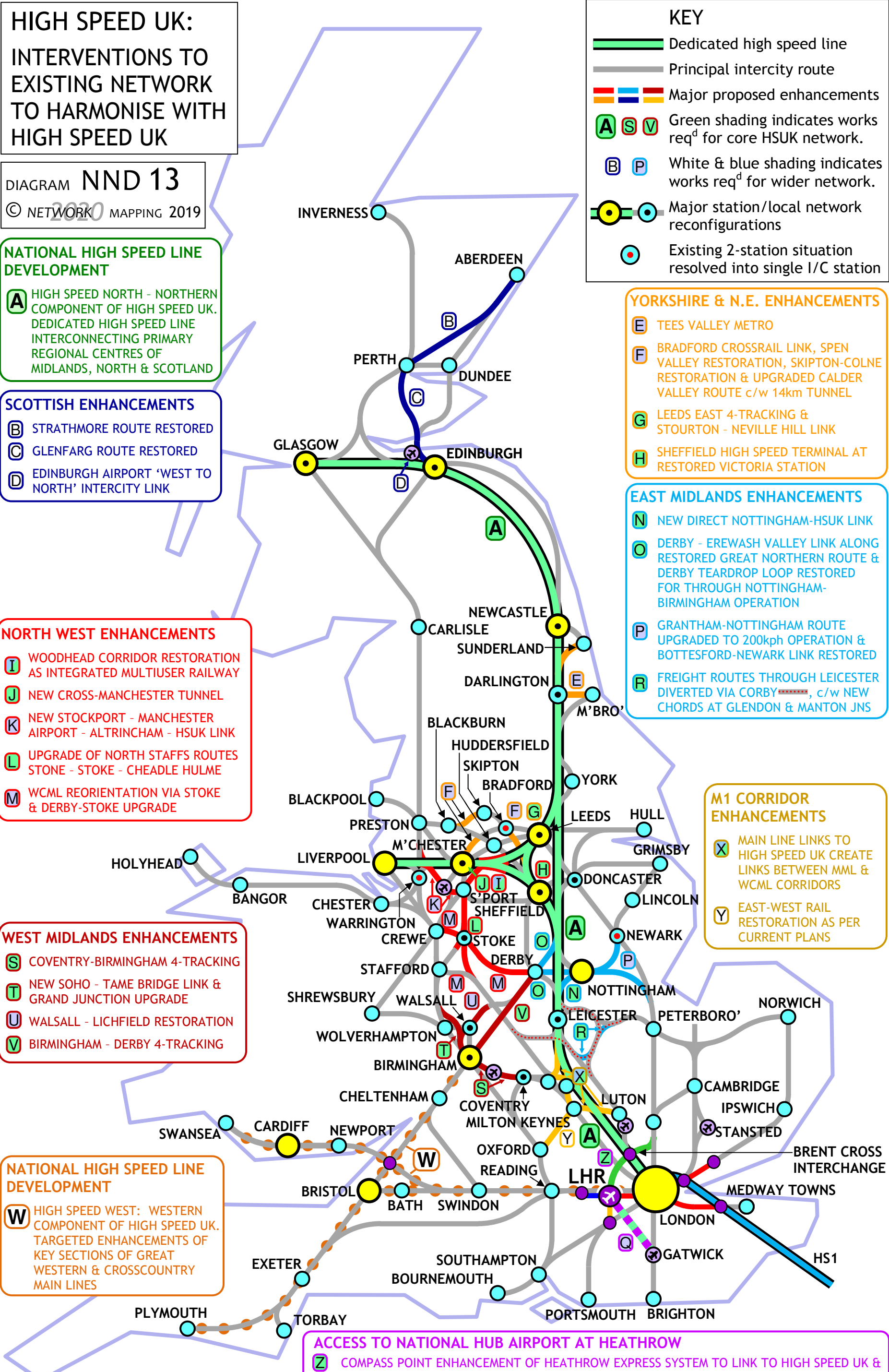
- S** COVENTRY-BIRMINGHAM 4-TRACKING
- T** NEW SOHO - TAME BRIDGE LINK & GRAND JUNCTION UPGRADE
- U** WALSALL - LICHFIELD RESTORATION
- V** BIRMINGHAM - DERBY 4-TRACKING

NATIONAL HIGH SPEED LINE DEVELOPMENT

W HIGH SPEED WEST: WESTERN COMPONENT OF HIGH SPEED UK. TARGETED ENHANCEMENTS OF KEY SECTIONS OF GREAT WESTERN & CROSSCOUNTRY MAIN LINES

ACCESS TO NATIONAL HUB AIRPORT AT HEATHROW

- Z** COMPASS POINT ENHANCEMENT OF HEATHROW EXPRESS SYSTEM TO LINK TO HIGH SPEED UK & ALSO TO GATWICK. PLANNED LINKS TO OTHER PRIMARY MAIN LINES ASSUMED TO BE IN PLACE.
- Q**



HIGH SPEED UK:

PARALLEL DEVELOPMENT OF CONTINENTAL GAUGE RAILFREIGHT NETWORK : 'EUROGAUGE UK'

DIAGRAM **NND 14**

© NETWORK MAPPING 2019

KEY

- Eurogauge-cleared freight network & terminal
- Lorry shuttle route
- Dedicated high speed line
- Principal intercity route

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Enhanced city pair link created by intervention of new freight network

EUROGAUGE UK
LINKS BETWEEN PRIMARY CITIES

FOR DETAILS OF TRANSPENNINE FREIGHT ROUTES, SEE HSUK TRANSPENNINE RAIL STRATEGY DIAGRAMS TPW8, 9 & 10

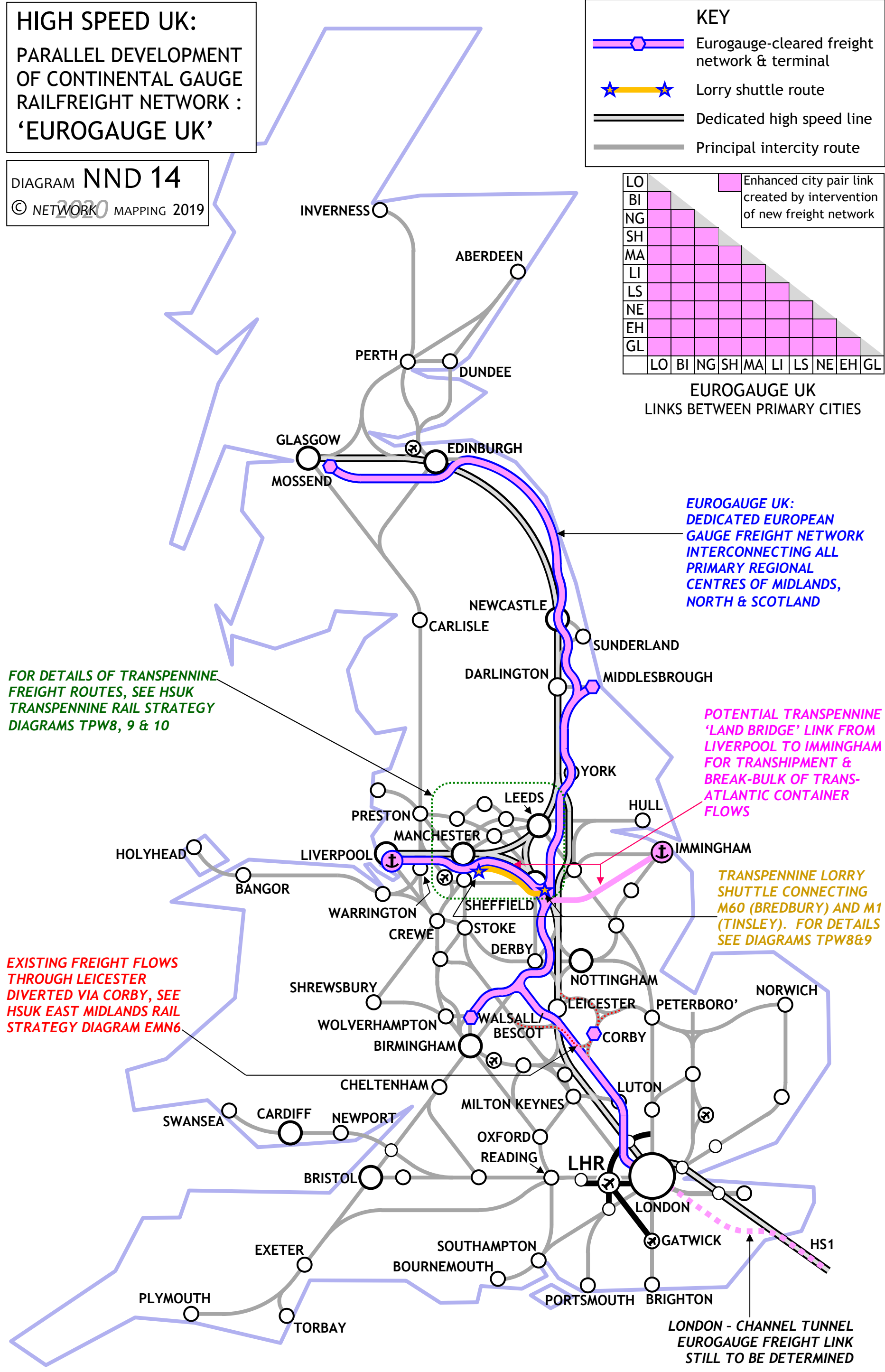
EUROGAUGE UK: DEDICATED EUROPEAN GAUGE FREIGHT NETWORK INTERCONNECTING ALL PRIMARY REGIONAL CENTRES OF MIDLANDS, NORTH & SCOTLAND

POTENTIAL TRANSPENNINE 'LAND BRIDGE' LINK FROM LIVERPOOL TO IMMINGHAM FOR TRANSHIPMENT & BREAK-BULK OF TRANS-ATLANTIC CONTAINER FLOWS

TRANSPENNINE LORRY SHUTTLE CONNECTING M60 (BREDBURY) AND M1 (TINSLEY). FOR DETAILS SEE DIAGRAMS TPW8&9

EXISTING FREIGHT FLOWS THROUGH LEICESTER DIVERTED VIA CORBY, SEE HSUK EAST MIDLANDS RAIL STRATEGY DIAGRAM EMN6

LONDON - CHANNEL TUNNEL EUROGAUGE FREIGHT LINK STILL TO BE DETERMINED



HIGH SPEED UK: RELATIONSHIP OF HSUK TO OTHER ENTRIES IN TPA COMPETITION

High Speed UK - North was submitted as an entry to the 2019 TaxPayers' Alliance (TPA) 'Great British Transport Competition'. This diagram shows all the winning entries (including HSUK-N) against the background of the wider HSUK national network, with HSUK accessing all the other more local schemes. All numbered references relate to the TPA results booklet, available on www.taxpayersalliance.com.

KEY

HSUK HSUK-N

HSUK HSUK-N

Primary/secondary centre/airport on High Speed UK integrated network

Heathrow Airport & 'Compass Point' links to North, East, South & West extending to main line hub & beyond to wider network

8 TPA competition winner

17 TPA competition winner included in HSUK network

DIAGRAM NND 15
© NETWORK 2020 MAPPING 2019

KEY TO SCHEMES CONSIDERED BY TPA

- 7 Skipton-Colne reopening
- 8 York-Beverley reopening
- 9 Ashington Blyth & Tyne
- 10 Leeds Supertram
- 11 Penrith-Keswick reopening
- 12 Settle-Carlisle upgrade
- 13 Blackburn-Hellifield
- 14 High Speed UK - North (HSUK-N)
- 15 Whitacre link
- 16 Stourbridge-Lichfield reopening
- 17 Rugby-Birmingham 4-tracking
- 19 Sutton Park passenger reopening
- 20 Chiltern line electrification
- 21 MML electrification
- 22 Felixstowe-Nuneaton upgrade
- 23 March-Wisbech reopening
- 24 Soham Station reopening
- 25 Crossrail extension to Stansted
- 27 Brighton Main Line 2 via Uckfield
- 28 Portishead-Bristol reopening
- 29 Cullompton Station reopening
- 30 Exeter-Plymouth via Okehampton
- 31 Bodmin-Wadebridge reopening
- 32 Cornish coast-to-coast link

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Legend: Direct city pair link or Heathrow link at hourly or better frequency

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