

Rail network enhancement for the next 10 years and beyond

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Network Rail Infrastructure Ltd

- Private company limited by guarantee
- Owns & operates the rail infrastructure of Great Britain
- All the signalling and electrical equipment needed to operate the track 20,000 miles of track
- 40,000 bridges, tunnels and viaducts
- 6,650 level crossings
- Over 1,100 signal boxes
- Connections to over 1,000 freight terminals
- 2,500 stations and 90 traincare depots mainly leased to train operators
- One of the country's largest property owners
- More SSIs than any other landowner
- A four-track railway has less land take than 3-lane motorway
- Over 30,000 employees

Network Planning

“Shaping the future rail network”

- Strategic planning for the national rail network
- Identification and development of the appropriate network capability and capacity to meet the long term needs of the rail industry, its users, funders and stakeholders.

Infrastructure Investment 2009 - 2014

- Delivered:
 - Southampton to West Coast freight gauge upgrade
 - Cotswold line redoubling

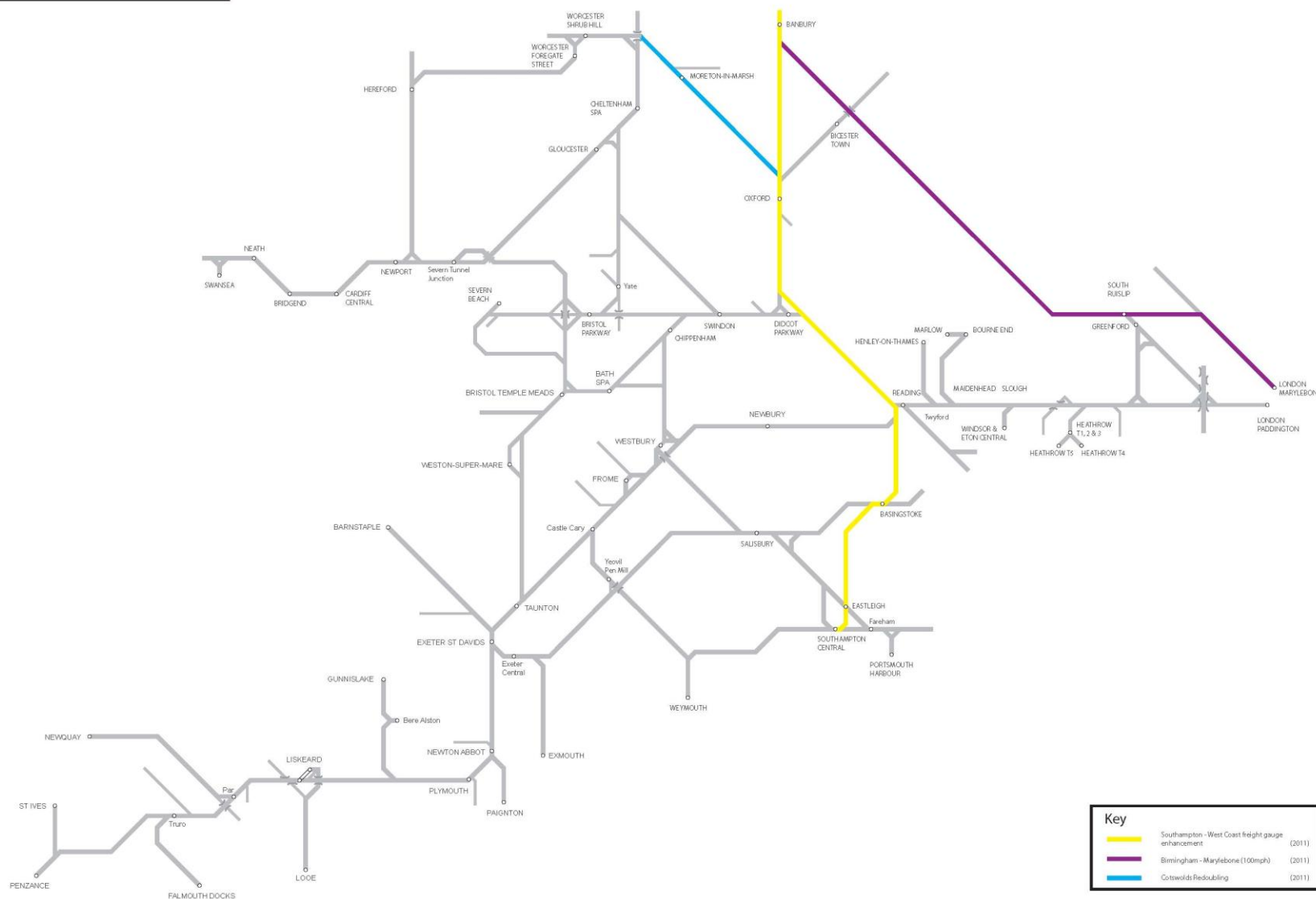
Southampton - West Coast freight gauge upgrade

- Soton –Reading – Oxford – the Midlands/north/Scotland
- Route gauge cleared to enable 9' 6" high containers to be conveyed on conventional flat wagons
- Operational May 2011
 - 6 additional trains per each way since completion
 - Rail market share increased from 29% to 36%
 - Potential to take 15,000 trunk lorry journeys off the roads p.a.

Cotswold line redoubling

- Redoubling of single line sections between:
 - Charlbury and Ascott-under-Wychwood (completed June 2011)
 - Moreton-in-Marsh and Evesham (completion August 2011)
- Delivers:
 - Journey time improvements,
 - Additional capacity and improved reliability
 - Operational August 2011
- Evaluating further line speed increases.

Rail enhancements: 2011



Infrastructure Investment 2009 - 2014

Under development/construction:

- Bicester – Oxford (Bi-Ox)
- GWML Electrification
- Intercity Express Programme
 - Cotswolds/Oxford – London services
 - Electric suburban trains on London commuter services
- Reading station area redevelopment
- Crossrail

Bicester – Oxford (Bi-Ox)

- Chiltern Railways proposal
- New alignment into the north of Oxford
- New north facing bay platform
- Operational 2014

–Delivers:

- Oxford – Marylebone through services



Infrastructure investment 2014 - 2019

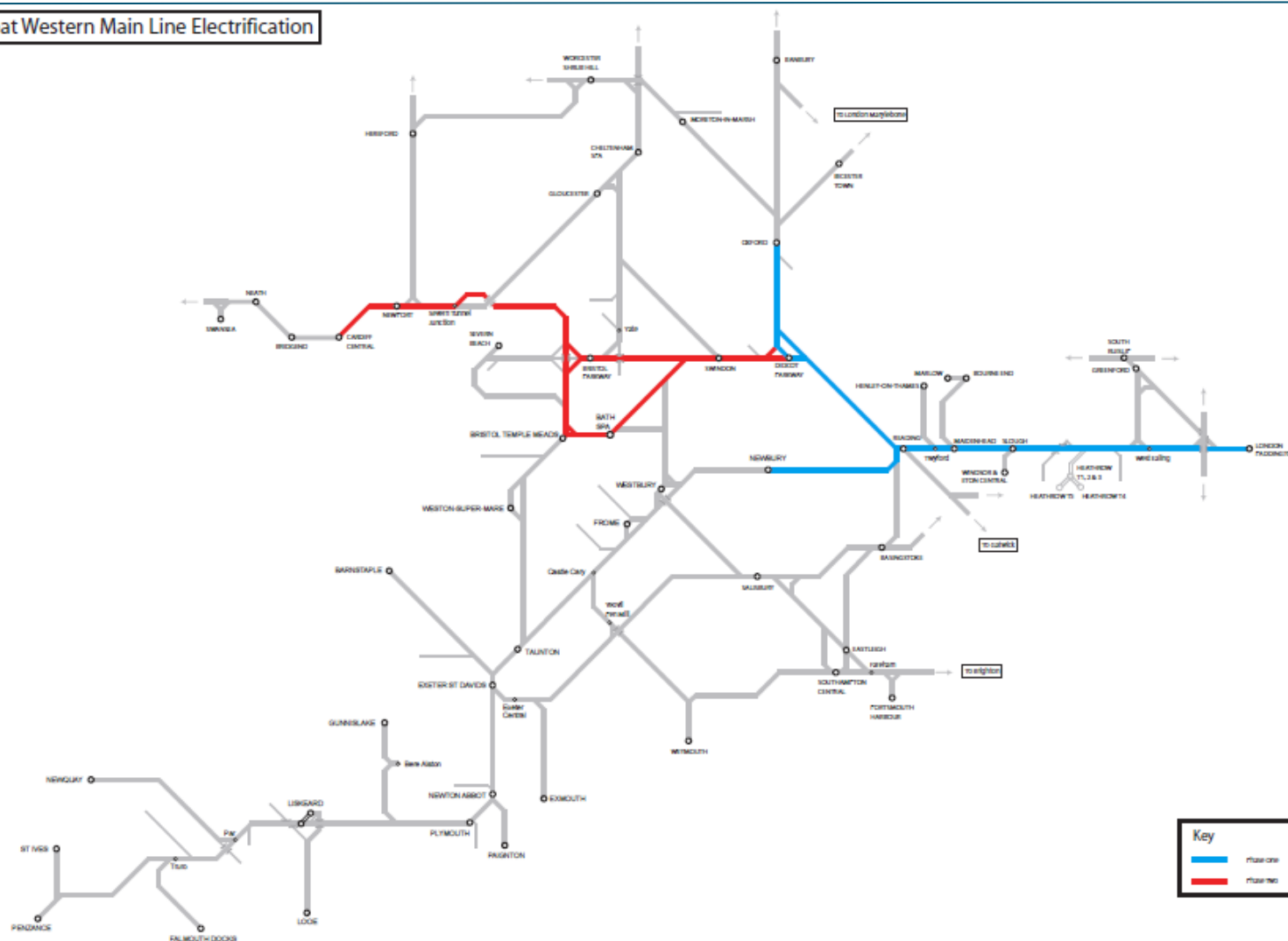
- Reading station area redevelopment
- GWML electrification
- IEP : Super Express Train
- Electric suburban trains
- Crossrail

Reading station area redevelopment

- Four additional platforms for GWML services,
- One new platform and platform extensions for 'Waterloo' line services
- Grade separation with major track reconfiguration to the east and west of the station.
- Complements Southampton – West Coast freight upgrade
- Delivers:
 - Improved reliability and additional capacity for both east – west and north – south flows.
 - Operational 2016

GWML electrification

Great Western Main Line Electrification



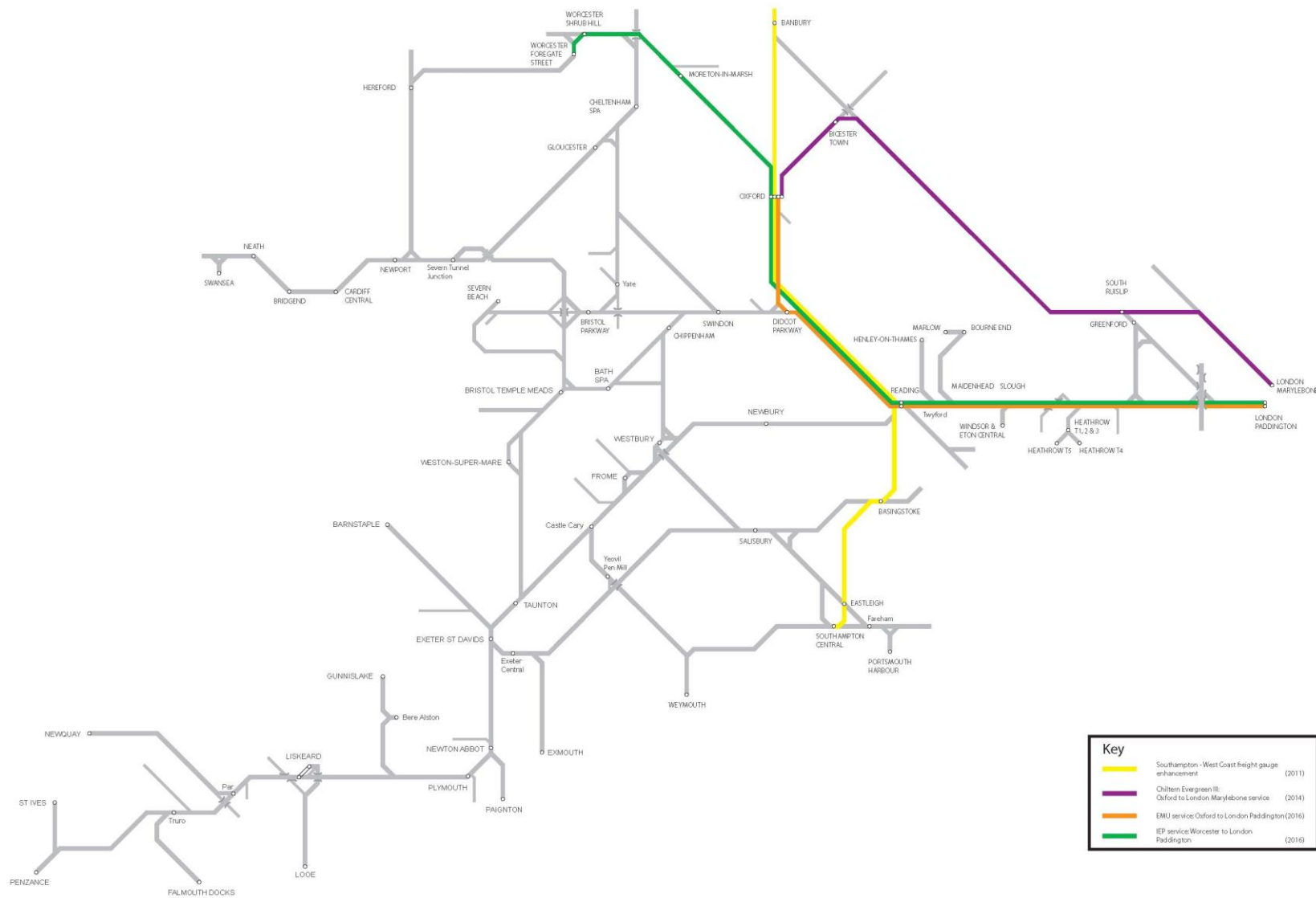
GWML electrification

- Facilitates the introduction of:
 - New fleet of long distance high speed trains (125mph):
 - All-electric train operation on core electrified route (Paddington – Bristol)
 - Bi-mode train operation on core electrified route and “off-the-wires” extensions (Paddington – Oxford - North Cotswolds)
 - Electric suburban trains (100mph)
Oxford – London commuter services
- Delivers: Faster journey times and additional seating capacity
- Operational (Oxford/Newbury/Bristol) 2016, (Cardiff) 2017

IEP : Super Express Train



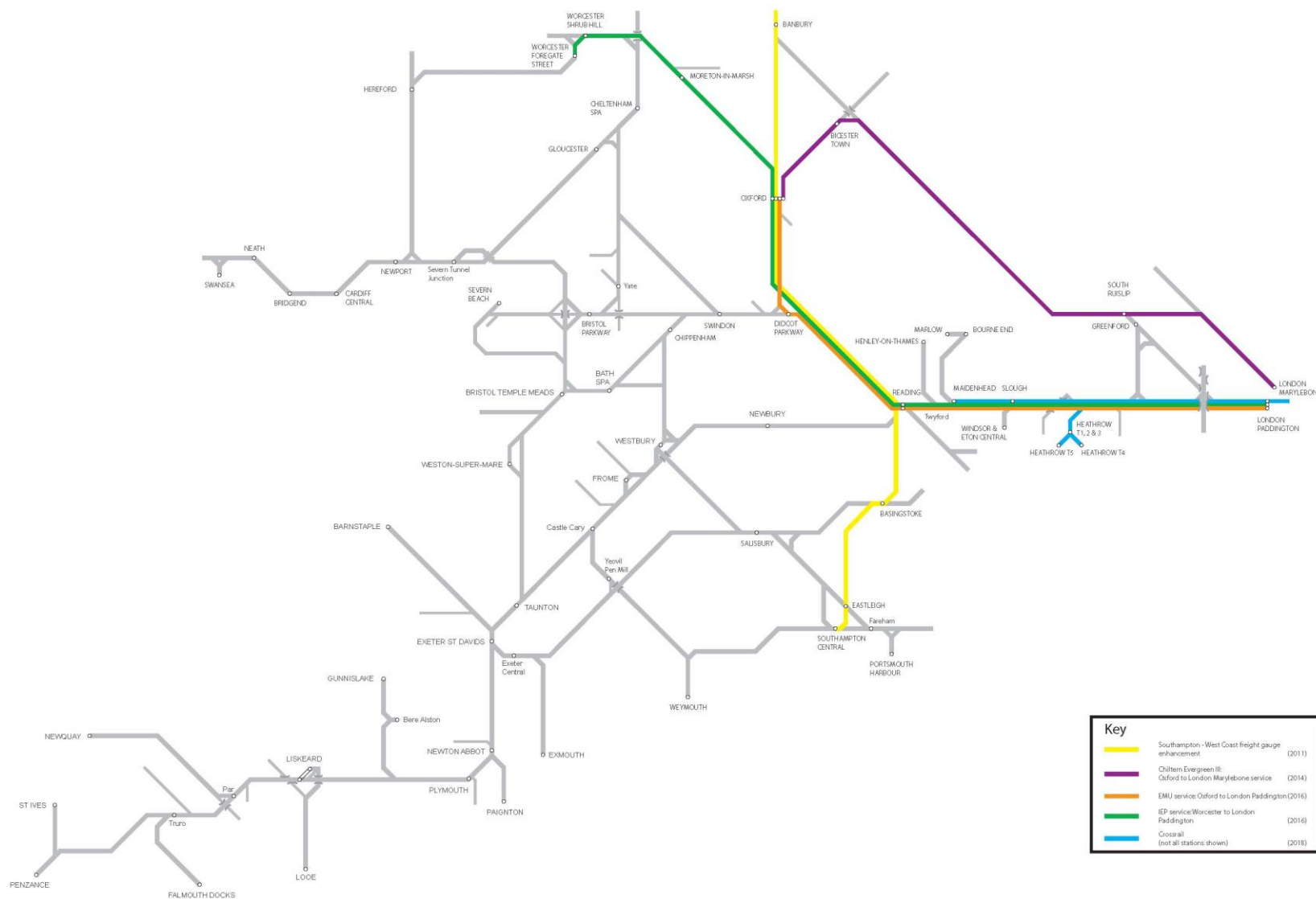
Rail enhancements: 2011 - 2016



Crossrail

- Fast and frequent cross-London train service between Maidenhead and Heathrow in the west and Abbey Wood and Shenfield in the east via central London
 - 24tph through the central tunnel
 - 4tph to Heathrow Airport
 - 4tph to Maidenhead
 - 2tph to West Drayton
- Improved connectivity to the West End and the City
- Additional passenger capacity from the Thames Valley
- Operational 2018

Rail enhancements: 2011 - 2018



Initial Industry Plan

- published September 2011

- CP5 (2014 – 2019) candidate schemes funding bid
- Recommendations from Route Utilisation Strategies
 - Great Western RUS established by Office of Rail Regulation March 2010
 - London & South East RUS established by Office of Rail Regulation March 2010
- Must deliver:
 - Journey Time Improvements (JTIs) and/or additional capacity
- Must achieve:
 - Benefit/Cost Ratio (BCR) 2:1 (High value)

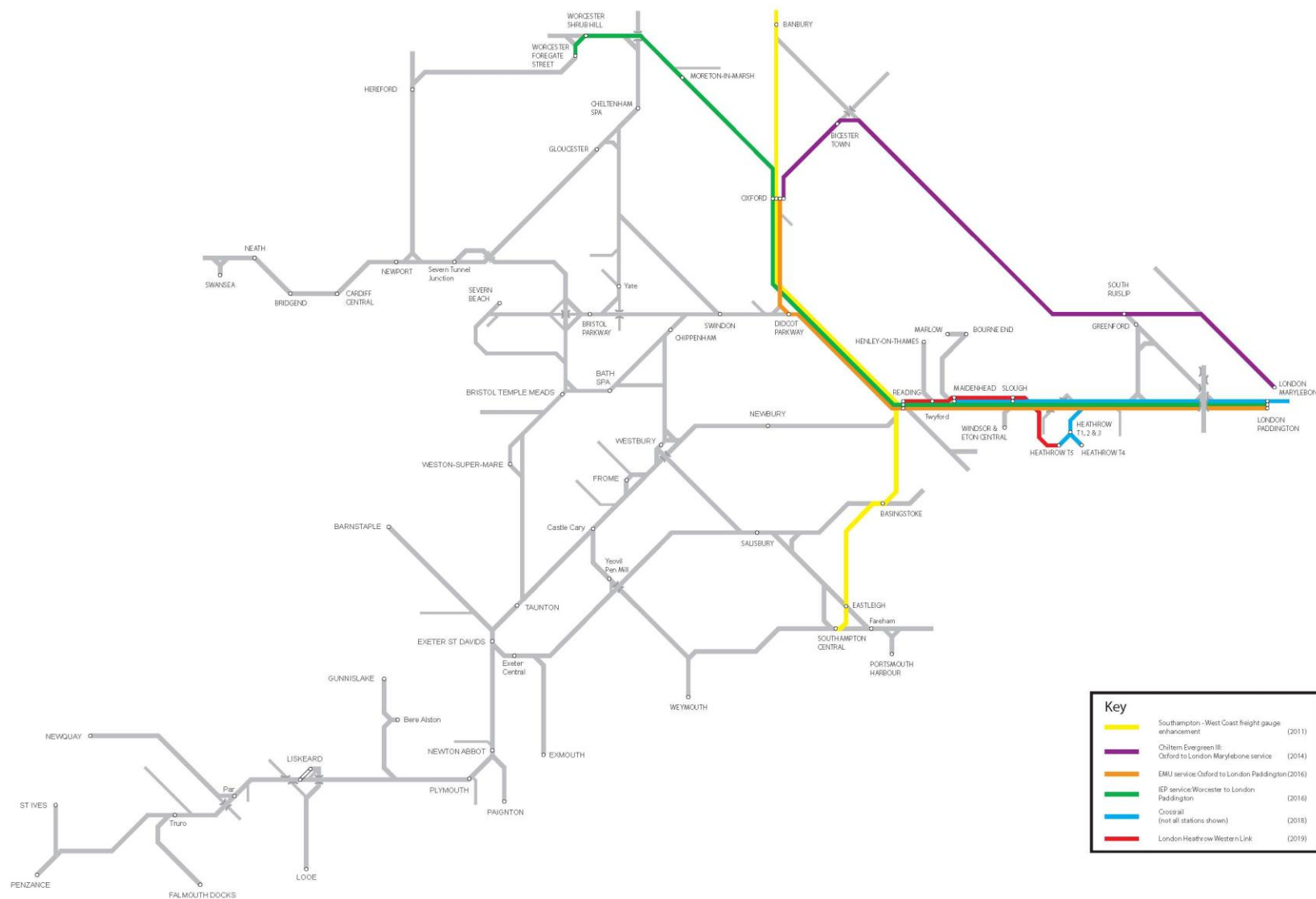
The Oxford corridor capacity

- Didcot – Oxford - Aynho Junction
 - Existing passing loops lengthened and upgraded
 - Oxford station - south-facing bay platform
 - Oxford station - turn-back signals from platform 2
 - Bi-directional signalling in 9-mile long sections
 - Re-signalled and re-controlled to new Thames Valley Signalling Centre by 2015
 - Thames Valley Signalling Centre (TVSC) at Didcot will eventually control the whole of the Western Route

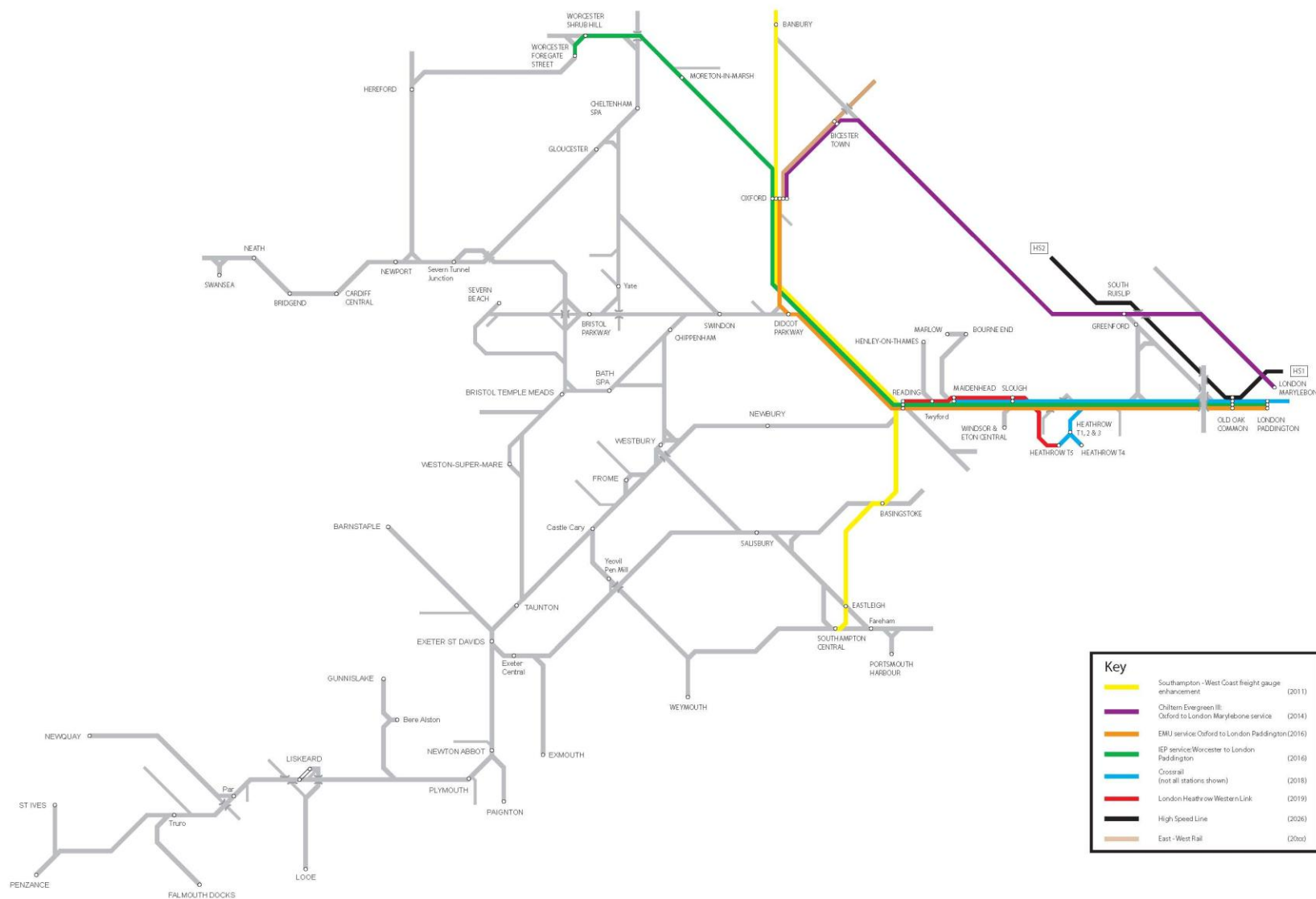
Proposed infrastructure investment

- Western access to London Heathrow Airport
 - Links London Heathrow Airport T5 with GWML Relief Lines
 - (connecting east of Slough)
 - Connectivity with Oxford
 - Operational 2019?
- East West Rail
 - Third party proposal
 - Links Oxford with Milton Keynes
 - Water Eaton Parkway
 - Operational 201x?

Rail enhancements: 2011 - 2019



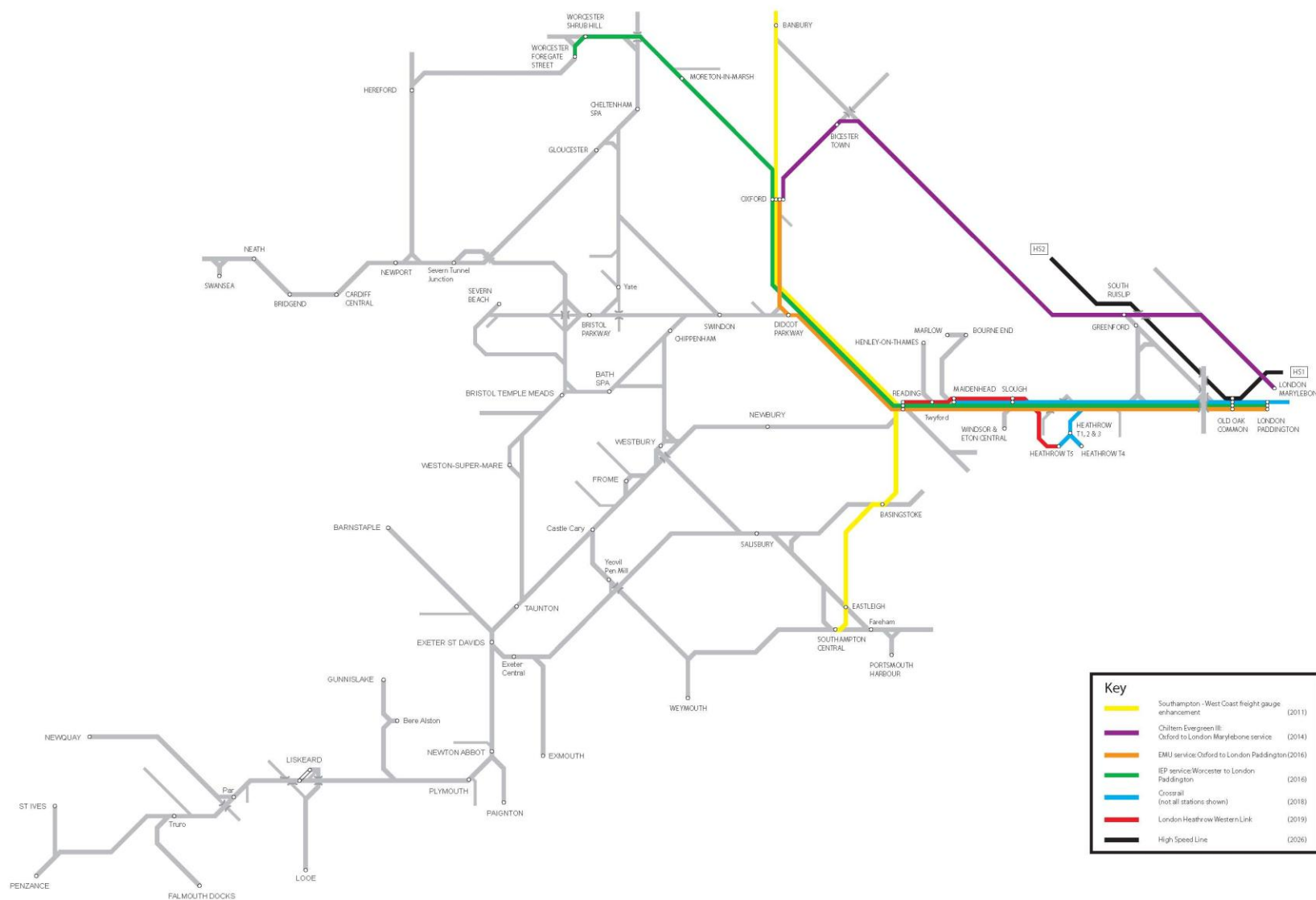
Rail enhancements: 2011 - 20xx



Under evaluation

- HS2 – Euston – Birmingham – Manchester & Leeds
 - Connectivity opportunities on the GWML
 - Shifts the focus from Paddington
 - New 8-platform station on the GWML at Old Oak Common
 - All HS2 and GWML trains call at Old Oak Common
 - Crossrail services for central London and the City
 - European High Speed Network via HS1
- Operational 2026

Rail enhancements: 2011 - 2026



Questions ?