

Date: 12 February 2015

Item 9 : Crossrail – Moving to the Operating Railway

This paper will be considered in public

1 Purpose

- 1.1 The accompanying presentation provides an overview of the transition of Crossrail into an operating railway.
- 1.2 The presentation covers the following areas:
- (a) the Crossrail project highlighting the phases of the project and the progress made to date;
 - (b) forthcoming stages;
 - (c) the Crossrail Train Operating Concession;
 - (d) the takeover of services in May 2015 and the planned improvements to be undertaken;
 - (e) the rolling stock – interim and the introduction of new rolling stock in 2017;
 - (f) the services to be introduced under stages 2 and 3;
 - (g) the handover from a project to an operational railway highlighting the deliverables, scope and responsibilities pre and post transfer; and
 - (h) the services to be operated under stages 4 and 5, including the service frequencies once stage 5 is fully operational in December 2019.

2 Recommendation

- 2.1 The Panel is asked to note this paper and presentation

List of Background Papers:

None

List of appendices to this report:

Appendix 1 – Crossrail presentation

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◀ **Crossrail – Moving to the
Operating
Railway
Rail and Underground Panel 12
February 2015**

◀ **Howard Smith, Operations Director
Crossrail**

Areas To Cover



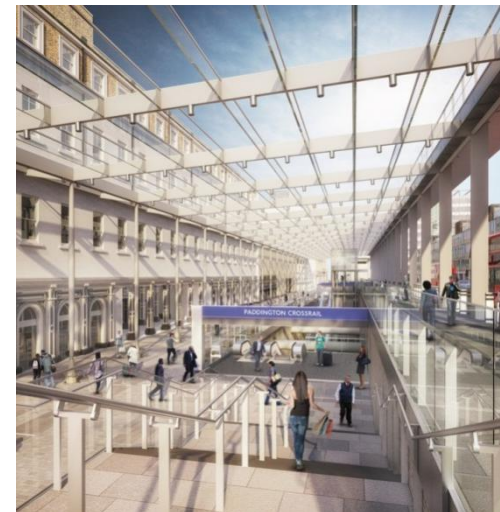
▶ Crossrail the Project

- ◆ Progress
- ◆ Next Steps



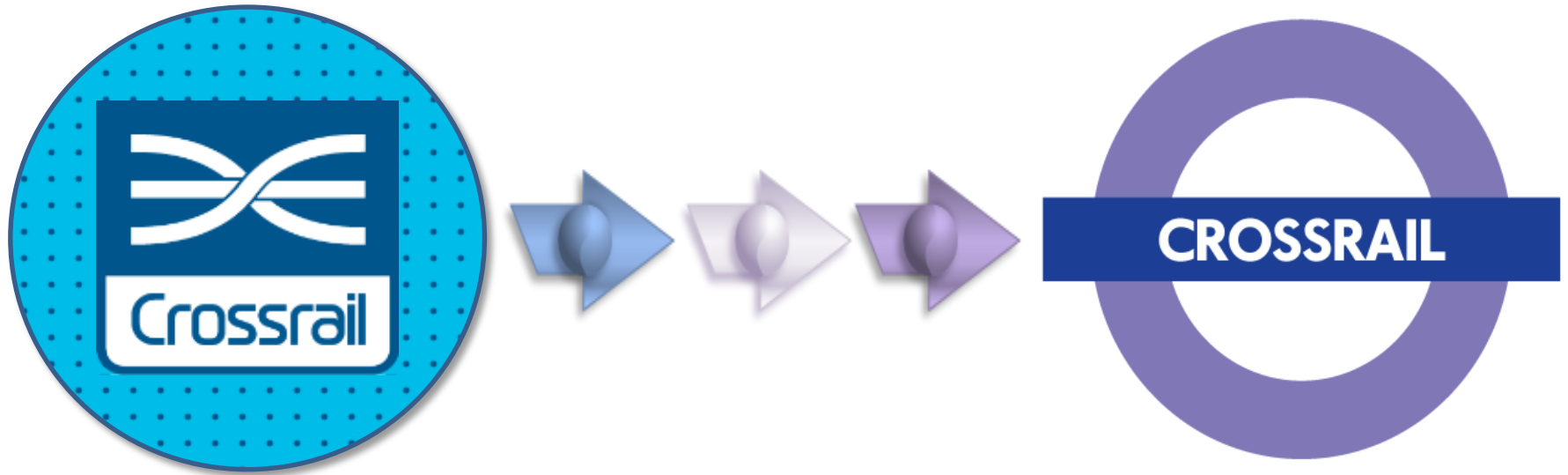
▶ The Operating Railway

- ◆ Objectives
- ◆ Staged Opening 2015-19
- ◆ Handover

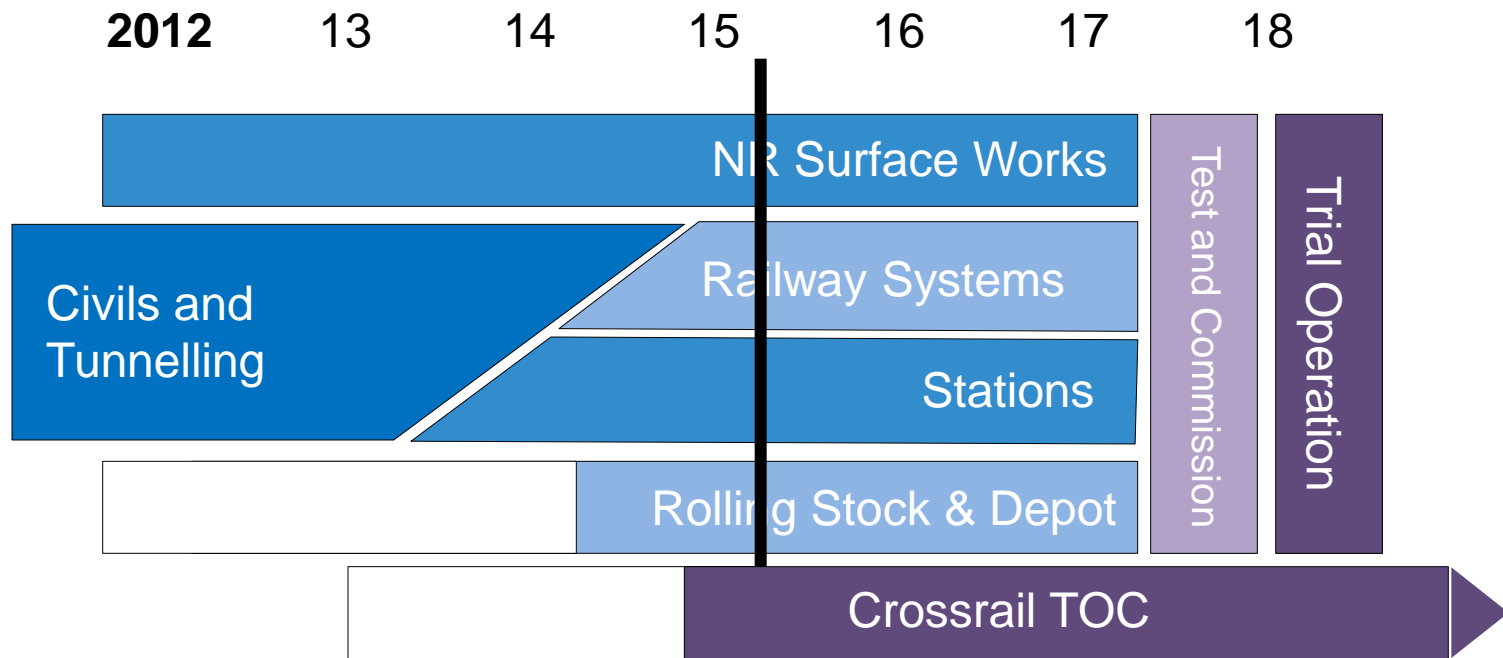




The Crossrail journey

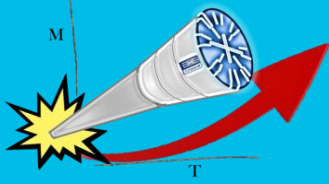


Project Phasing

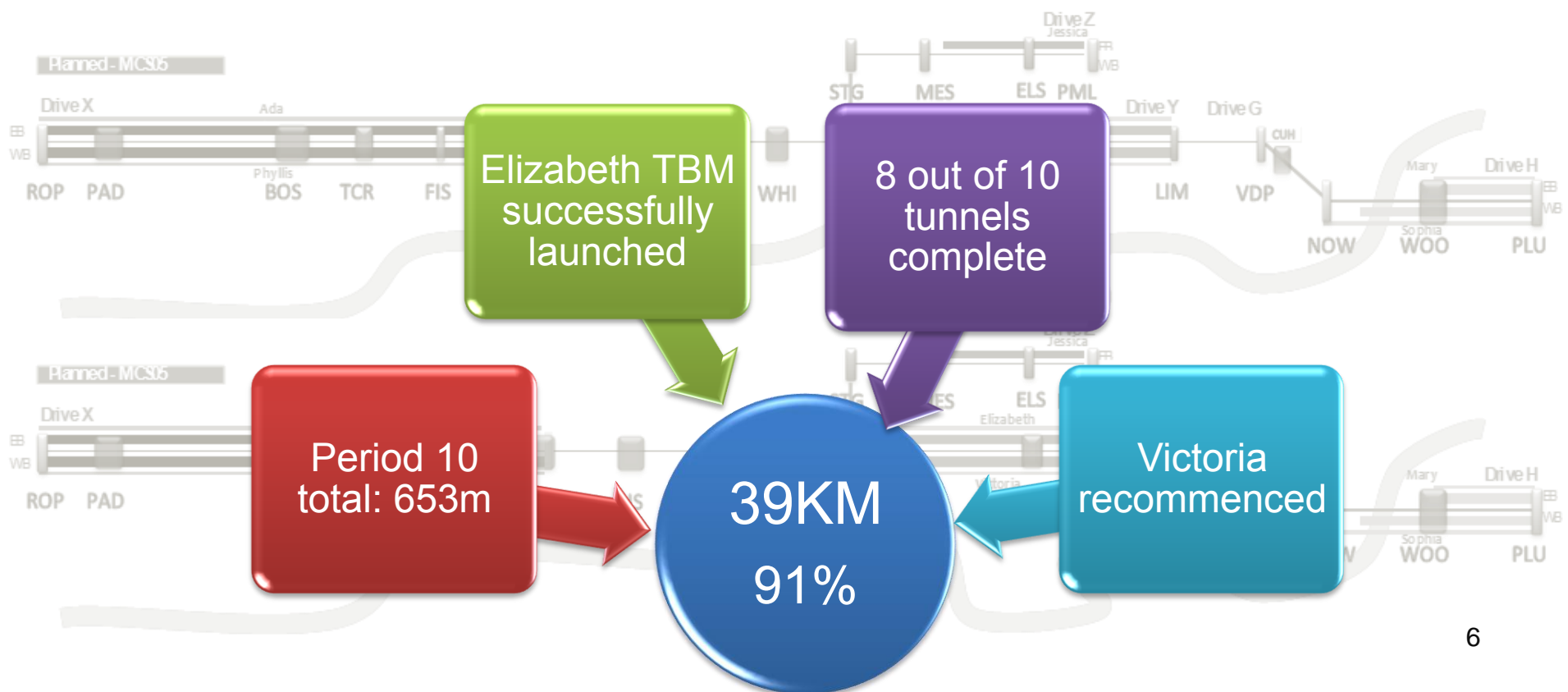
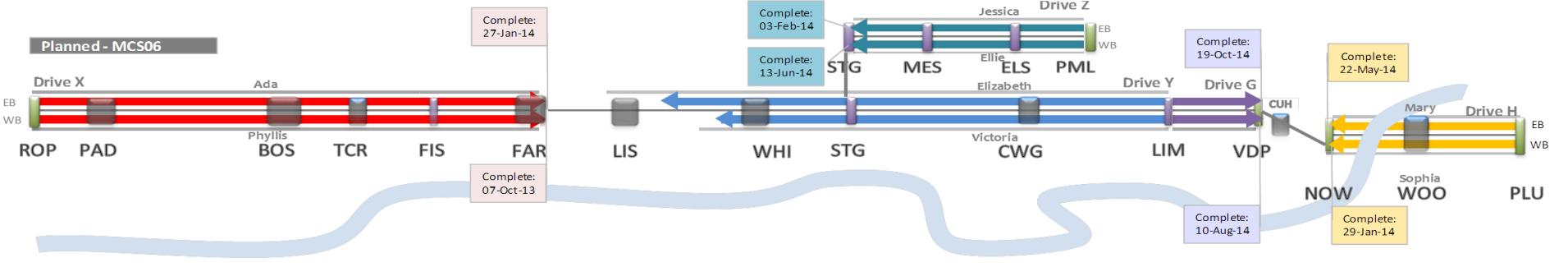


2014





2015 Progress



Current Delivery - West



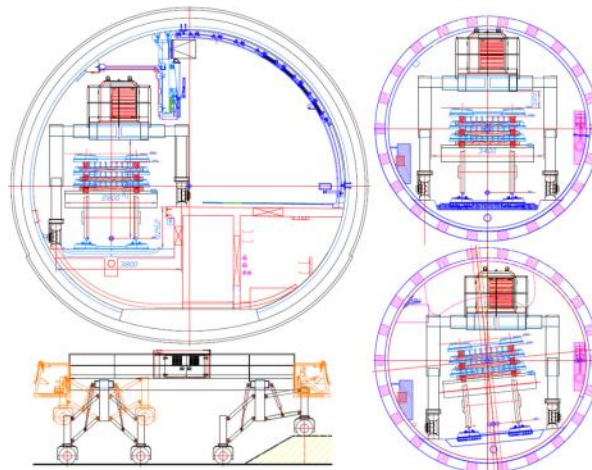
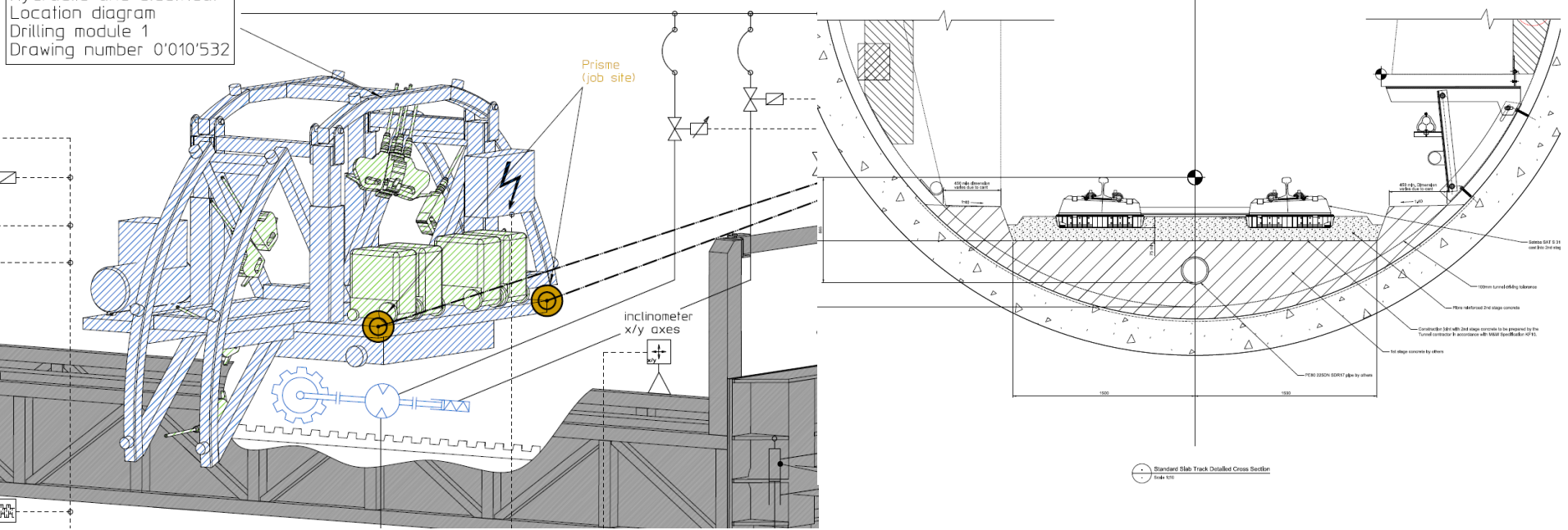
Current Delivery - East



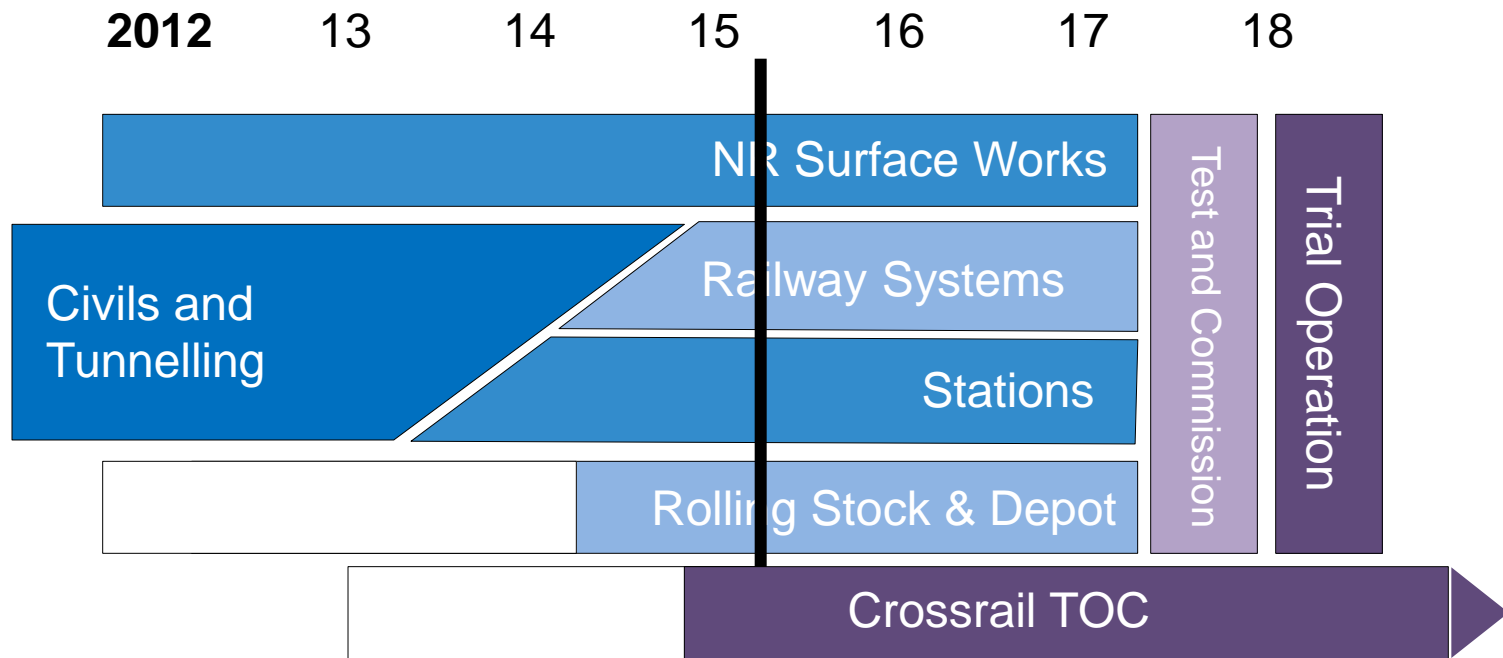
Next Steps - Systems



Hydraulic and electrical
Location diagram
Drilling module 1
Drawing number 0'010'532



Project Phasing



- ◆ Won by MTR, who run railways in Hong Kong, Melbourne, Stockholm and are 50% of LOROL (London Overground)
- ◆ Starts operations 31 May 2015 taking over existing Shenfield-Liverpool Street services
- ◆ Based upon highly successful London Overground structure
 - ◇ Paid by performance, no revenue risk transfer
 - ◇ Partnership between the Operator and TfL



Timing of Concession



- ▶ Establish the operating business
- ▶ Early interface with Crossrail Project
- ▶ Prepare and implement their Staged Opening Plan
- ▶ Start recruiting new drivers and station staff
- ▶ Engage in new Rolling Stock design and delivery
- ▶ Support on network and stations works

- ◆ Take over 'metro' services
Liverpool Street - Shenfield
- ◆ 12 stations Stratford to
Brentwood
- ◆ Existing timetable
- ◆ Stations and trains branded TfL
Rail



Immediate Improvements 2015-16



◆ All stations staffed first to last

◆ Stations

- ◇ Deep cleaned
- ◇ New ticket machines 2015-16
- ◇ Secure Stations accredited
- ◇ New gatelines by December 2016
- ◇ Cleaned twice daily and maintained to improve standards

◆ Turn up and go for all

◆ Better security

◆ Trains

- ◇ Deep cleaned and refreshed (seating, signage, panels)
- ◇ Turn round cleans and exterior washing



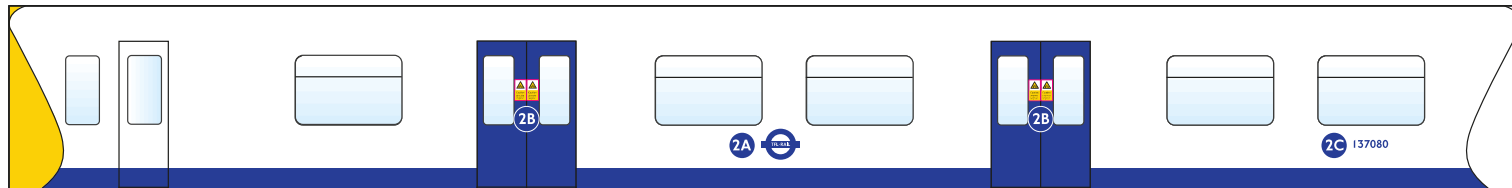
Immediate Improvements 2015-16



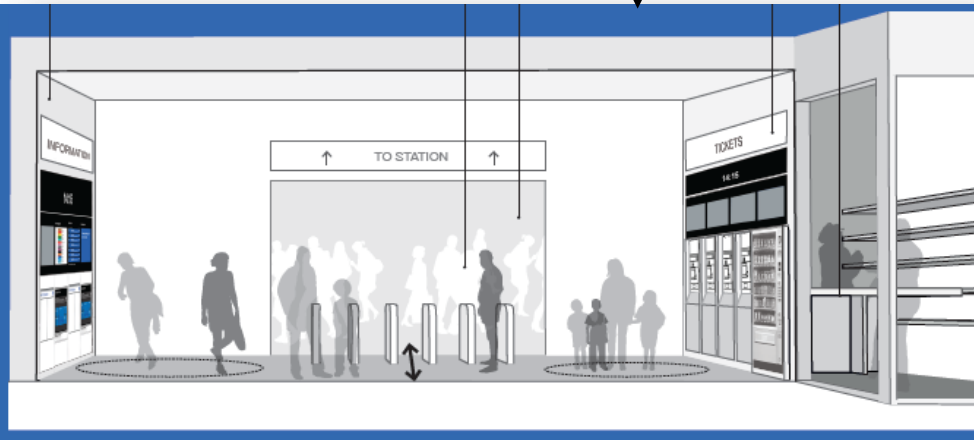
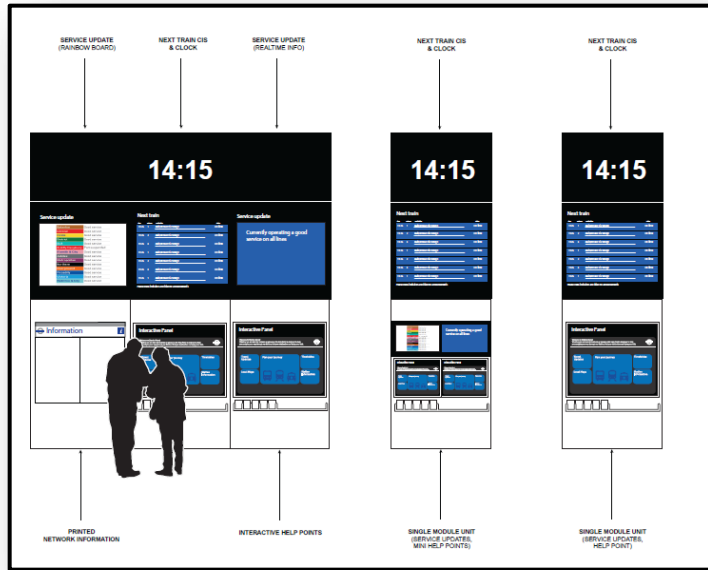
- ◆ Included on TfL's maps and journey planner
- ◆ TfL fares and ticketing including 'Contactless'
- ◆ Pre and post journey customer contact via TfL's Customer Contact Centre
- ◆ TfL Twitter and other media for information and service updates



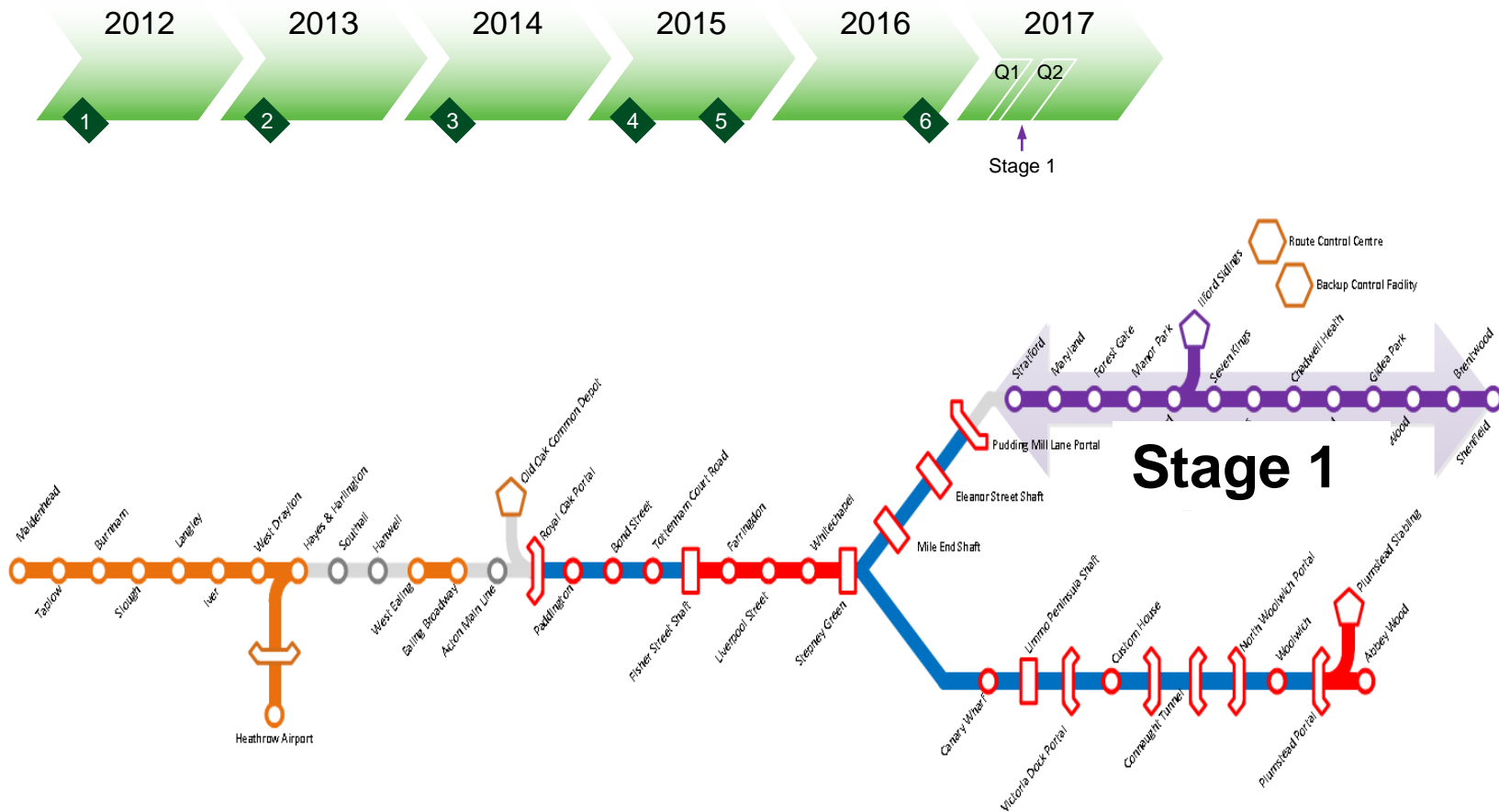
Interim Rolling Stock



Stations Refurbishment and Access for All



May 2017 New Rolling Stock



► **Stage 1: May 2017** - Introduction of new rolling stock on Great Eastern – start of ‘Crossrail’

The Class 345



Rolling Stock - Manufacture

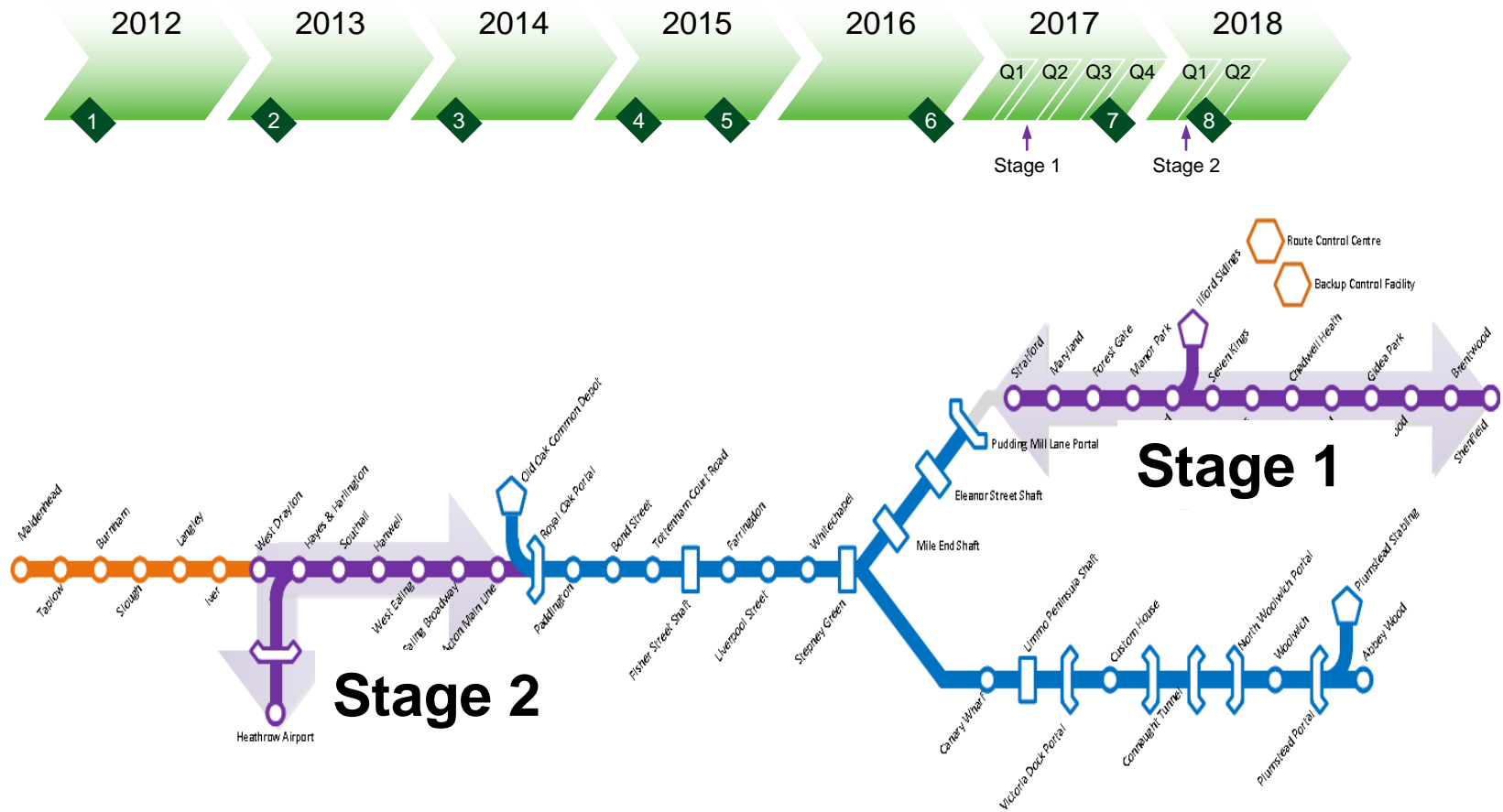


BOMBARDIER
the evolution of mobility

- ▶ 65 x 205m long, 9 car, air-conditioned, walk-through trains
- ▶ Procurement completed February 2014 - 2 months ahead of programme
- ▶ Construction underway in Derby, trains enter service 2017
- ▶ Maintenance at Old Oak Common, Ilford and stabling at Plumstead and Maidenhead

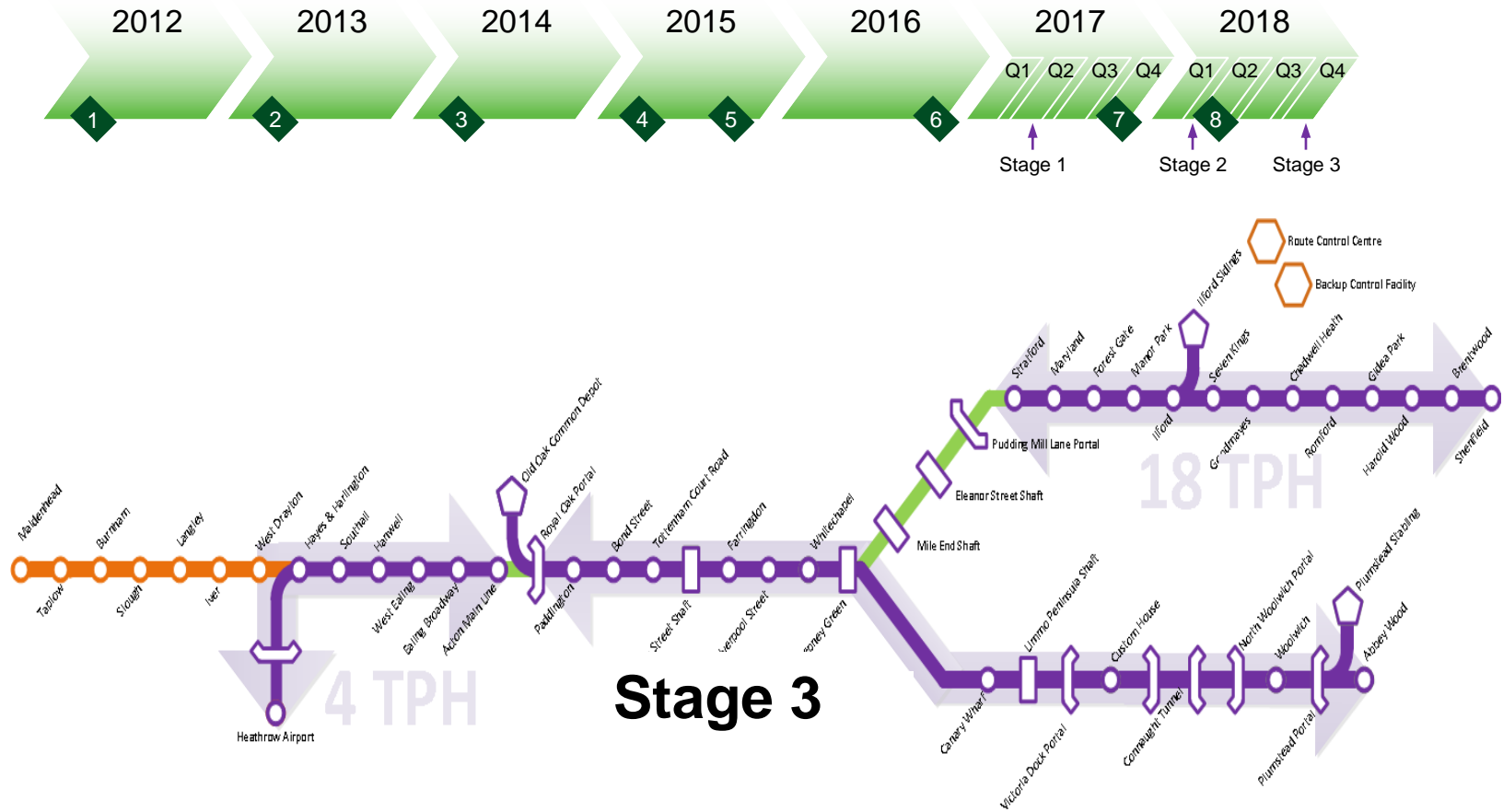
- ▶ 74% of the value of the contract will be spent in the UK
- ▶ Support 840 UK manufacturing jobs building the trains in Derby

May 2018 Great Western Surface Services



► **Stage 2: May 2018 - Heathrow to Paddington - surface**

December 2018 Central Section On Line



► **Stage 3: December 2018 – Trains run through Central Section**

What do we mean by “handover”?



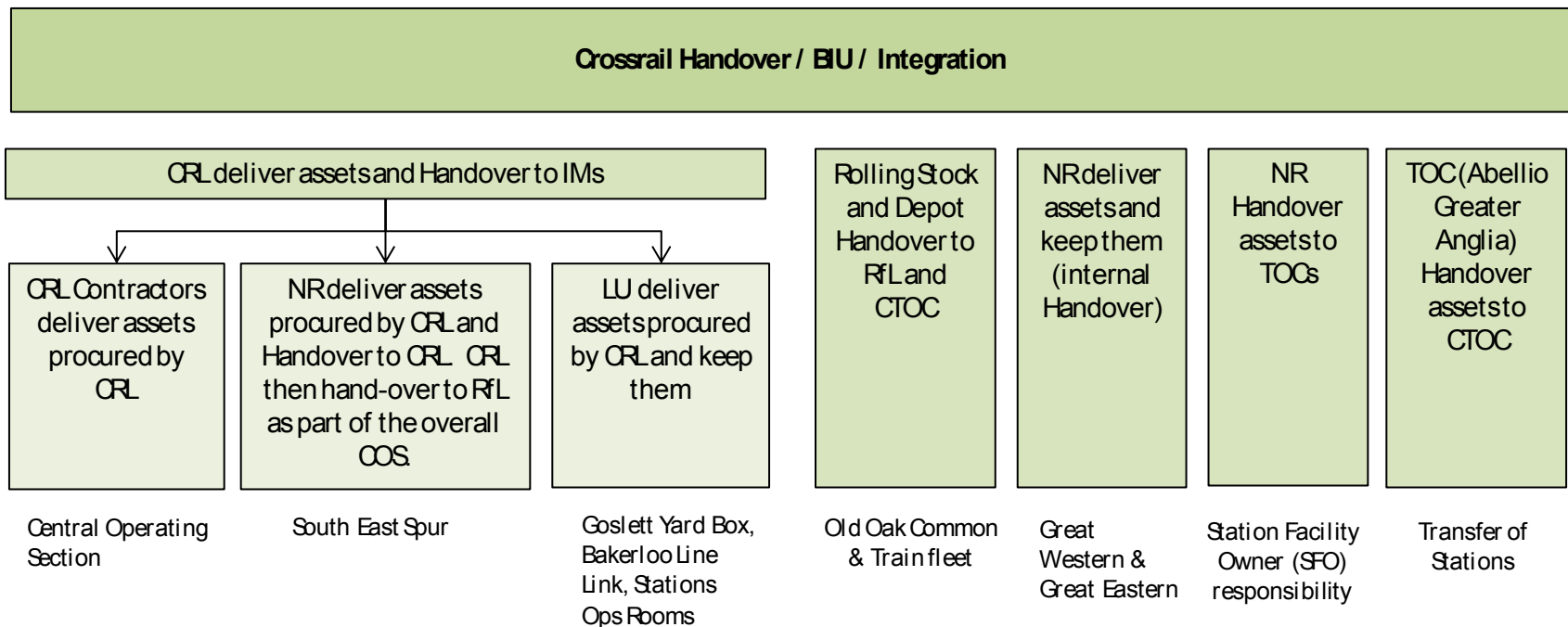
A comprehensive and complete Handover consists of seven key deliverables and activities

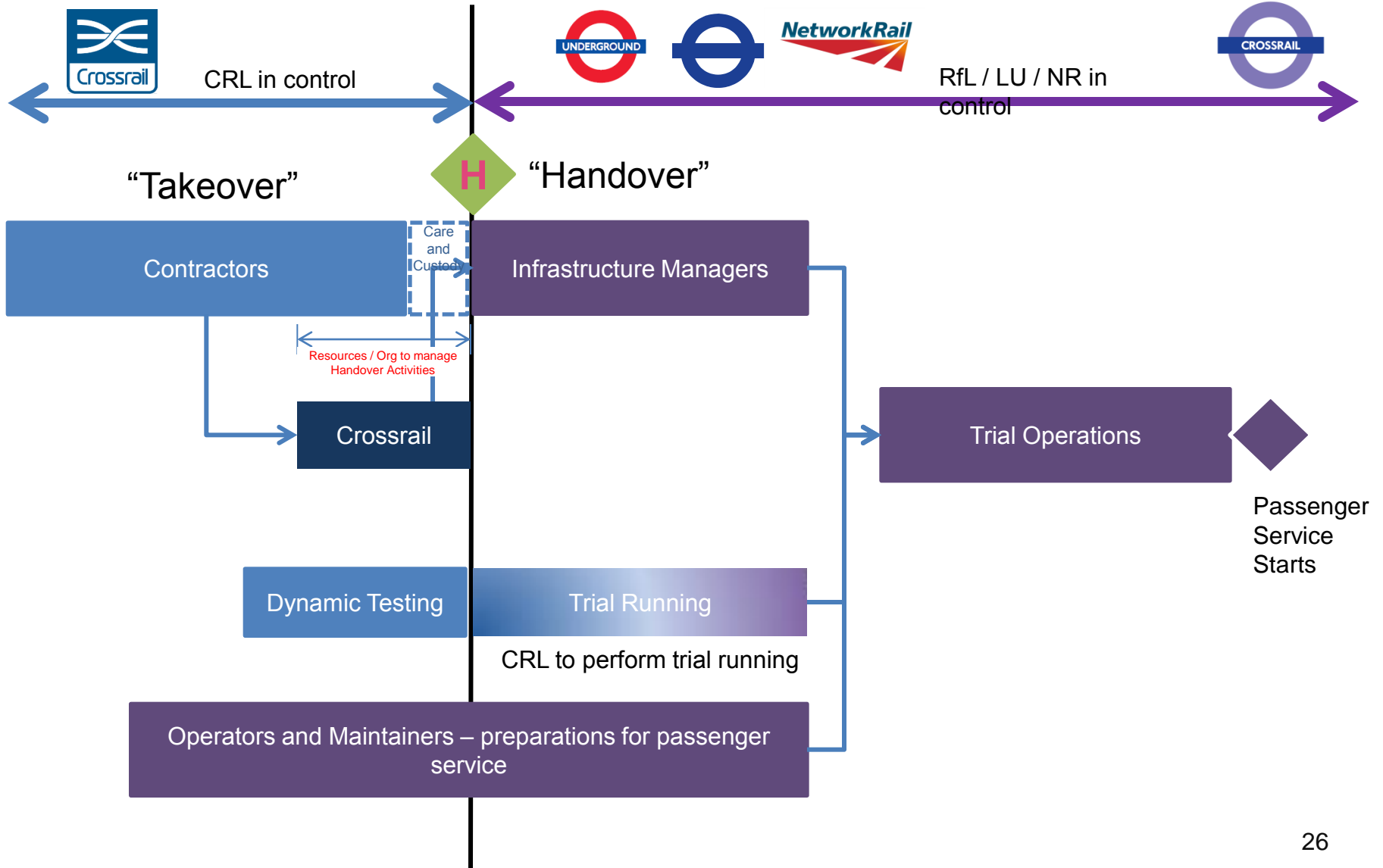
1. Accountabilities change:	<ul style="list-style-type: none">• IMs accept the transfer of accountability for the management and maintenance
2. Works are complete:	<ul style="list-style-type: none">• The works are completed as per the contracts• IM inspections completed• Any remaining snags are documented with agreed close-out plan.• All required spares and specialist plant and equipment by the responsible party and are available.
3. Handover documentation:	<ul style="list-style-type: none">• Documentation transferred to the IM to support the assurance evidence, operations & maintenance activities.• IM's asset databases are populated and ready to use
4. Agreements in place:	<ul style="list-style-type: none">• Commercial, Land & Property, Undertakings & Assurances, Regulatory Approvals, Licences.
5. Warranties and liabilities:	<ul style="list-style-type: none">• Relevant defects rectification and/or warranty provisions are transferred to the relevant IM
6. Complete Training:	<ul style="list-style-type: none">• CRL has delivered all necessary training to the IM.
7. IM readiness:	<ul style="list-style-type: none">• The IM demonstrates readiness to accept the assets (both maintenance and operational readiness)

Handover Strategy - Scope

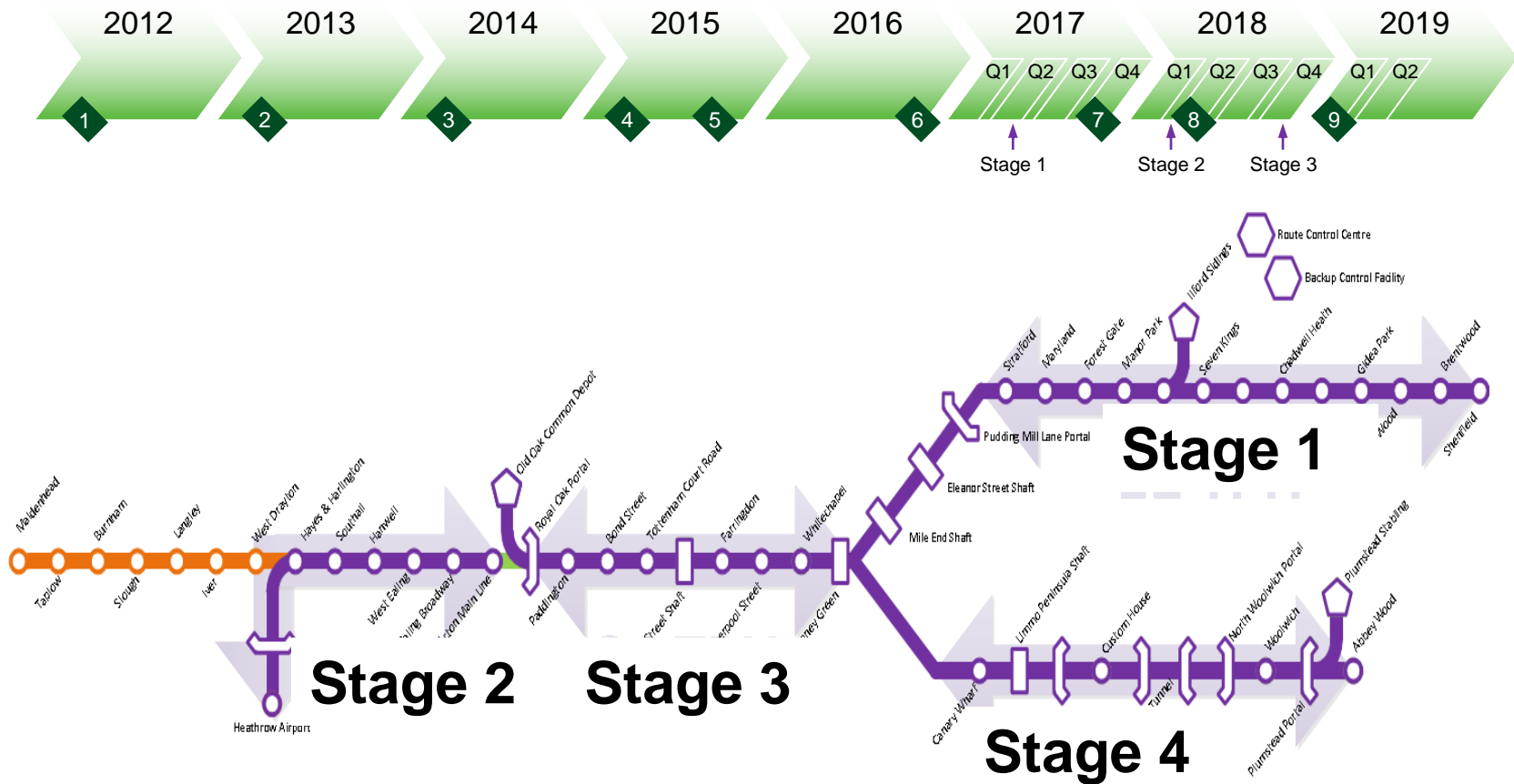


- ▶ Handover Strategy defines our approach for the whole of Crossrail, with various types of handover for different assets:



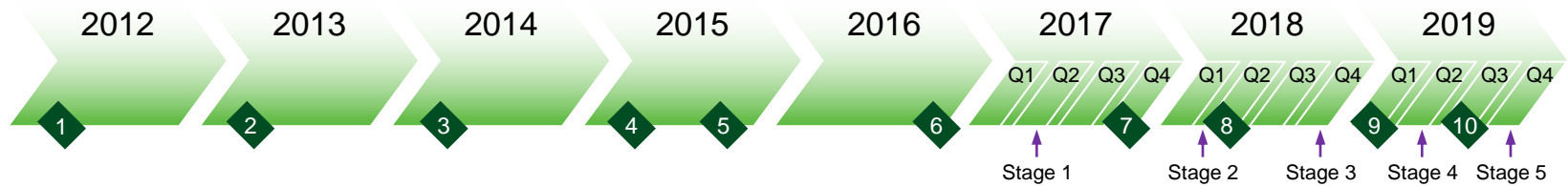


May 2019 NE Leg joins the tunnel

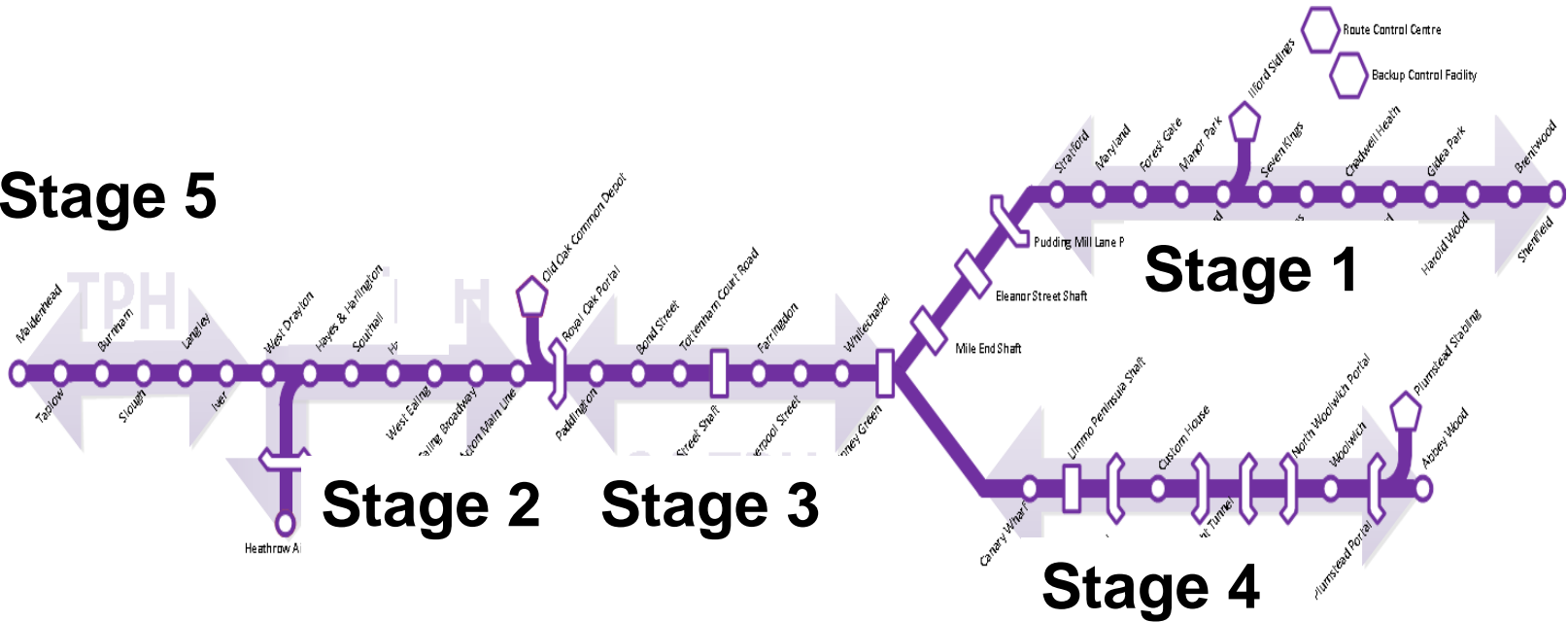


► **Stage 4: May 2019** - Central Section passenger service connected to Great Eastern Surface Section

December 2019 GW Services Integrated



Stage 5



- ▶ **Stage 5: December 2019** – Full service operating including Reading

Peak Frequencies

