



**TRANSPORT
FOR LONDON**
EVERY JOURNEY MATTERS




DELIVERING THE ELIZABETH LINE

Critical Insights from 20 Years and £20 Billion on One of the Most Complex Major Projects in the World



Mark Wild, Former CEO
Crossrail Ltd.

Crossrail Ltd. (NKA “The Elizabeth Line”) was established in 2001 to transform life and travel in and around London with

-  A new east to west underground railway with state of the art trains to move 200m passengers across London every year at up to 145kph every 2 ½ minutes
-  Regeneration along the length of the route, including an estimated 90,000+ new homes
-  A 10% increase in capacity for central London’s rail network, bringing an extra 1.5 million people to within 45 minutes of central London

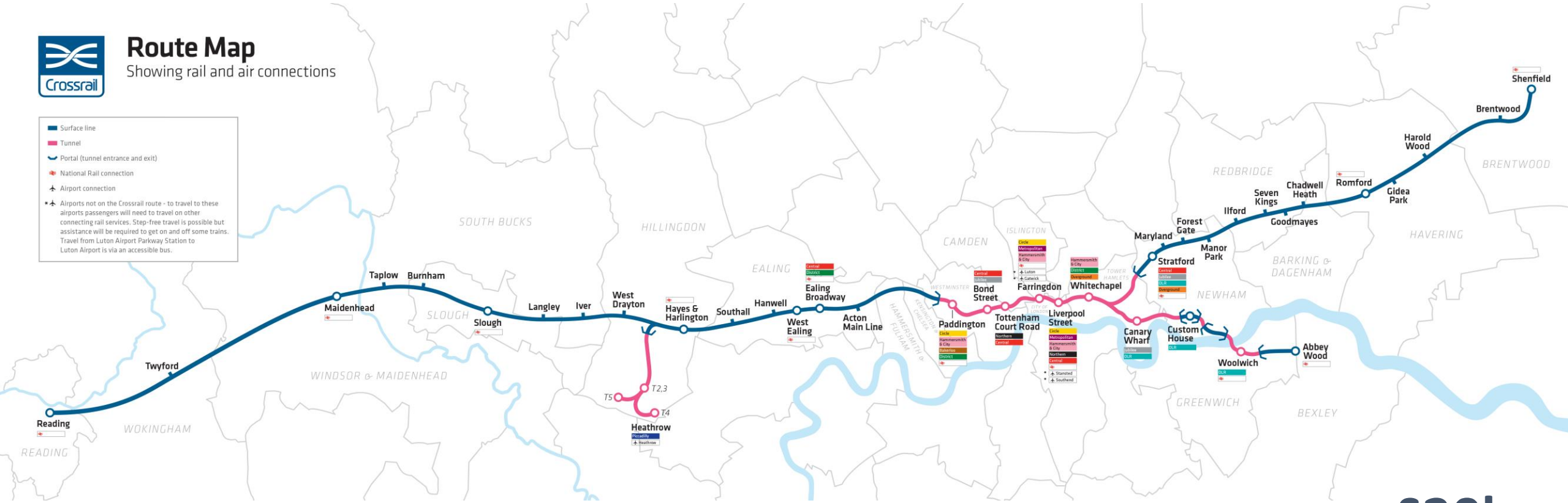
3 INDEPENDENT RAILWAYS IN TO 1 “ELIZABETH LINE”



Route Map

Showing rail and air connections

- Surface line
- Tunnel
- ⤵ Portal (tunnel entrance and exit)
- ⚡ National Rail connection
- ✈ Airport connection
- ✈ * Airports not on the Crossrail route - to travel to these airports passengers will need to travel on other connecting rail services. Step-free travel is possible but assistance will be required to get on and off some trains. Travel from Luton Airport Parkway Station to Luton Airport is via an accessible bus.



£12.5bn tunnels + £2.3bn surface + £1.1bn trains = £15.9bn £20bn

AFTER 20 YEARS & £20bn



The E
May 2
the ne



on
ed

2009 - START OF CONSTRUCTION



“Crossrail was the greatest programme in the world, until it wasn’t....” Tony Meggs



YOU
CRO
TRA
BE
... B

» BIG EMBARR

Jonathan Pryn Consumer Bu

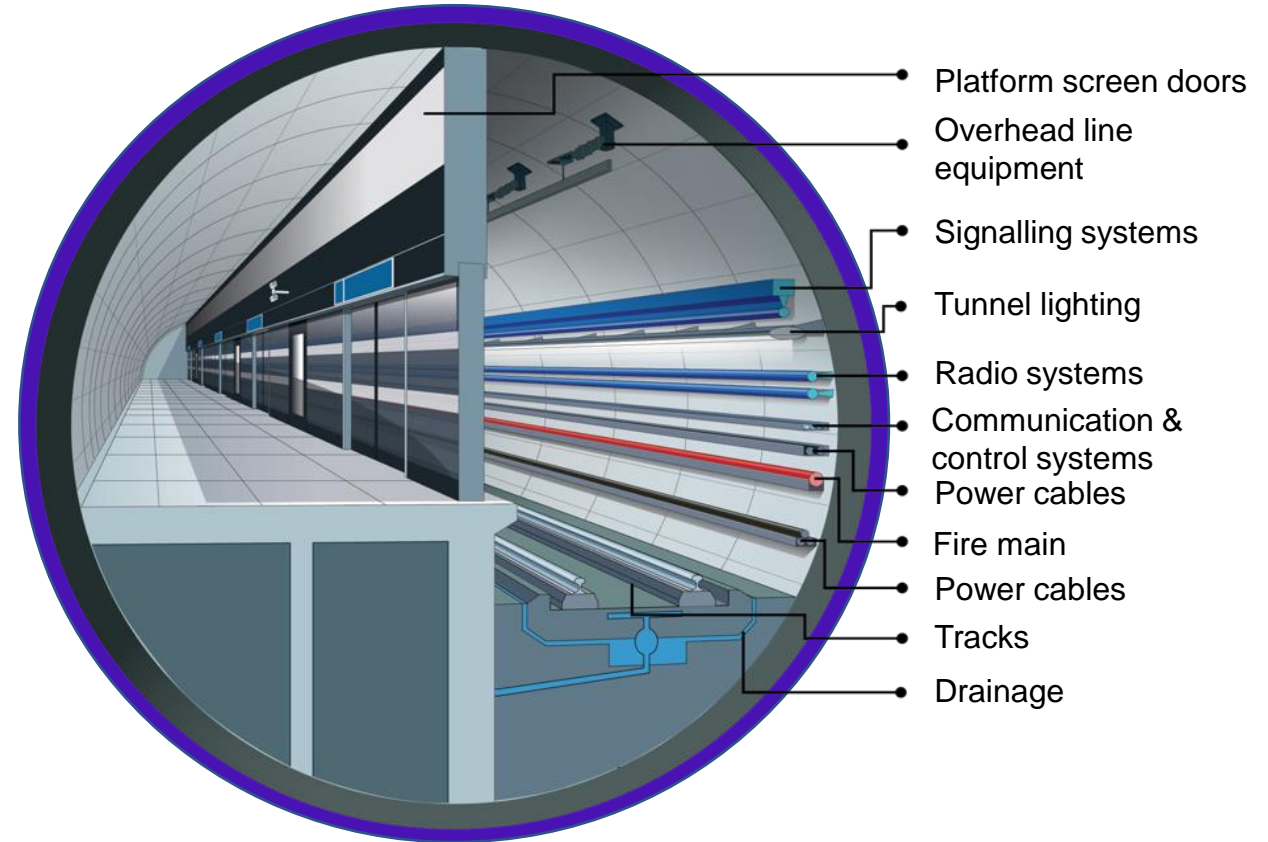
THE launch of Crossrail train s
London has been delayed for
setback for the flagship infrast
Plans to start running Elizab
the tunnel between Paddingto
east London by December ha
replaced with a new target of autumn 2017. The ... Continued on Page 2



ALWAYS TWO MAJOR RISKS TO OVERCOME



Tunnelling/Major Civils



An Advanced Fully Digital Railway

WHAT WENT WRONG?



Schedule Was Over-compressed



System Integration Complexity Was Under-Estimated



Opening-Date Fixation

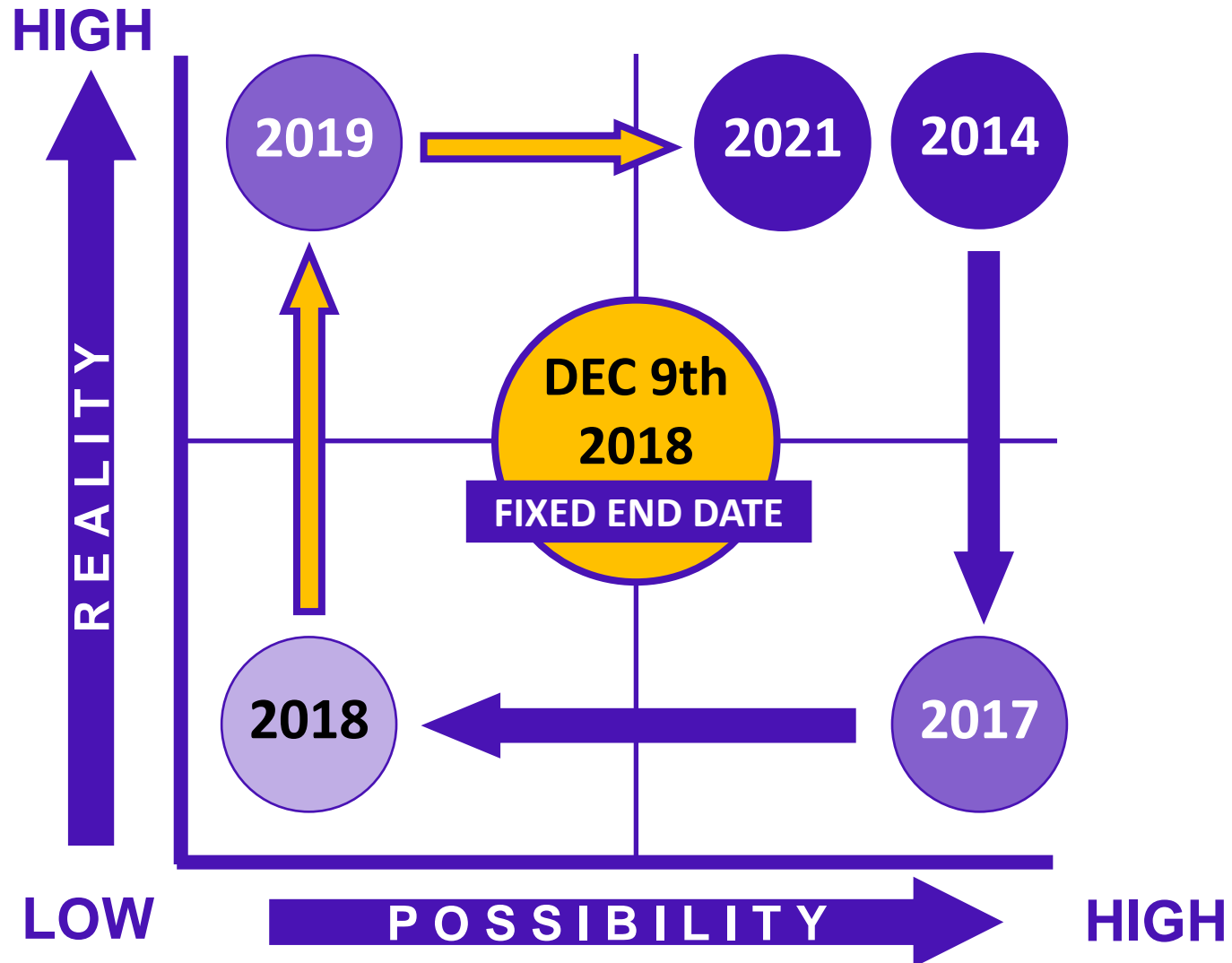


Extent of Work Remaining to Complete Railway Under-estimated

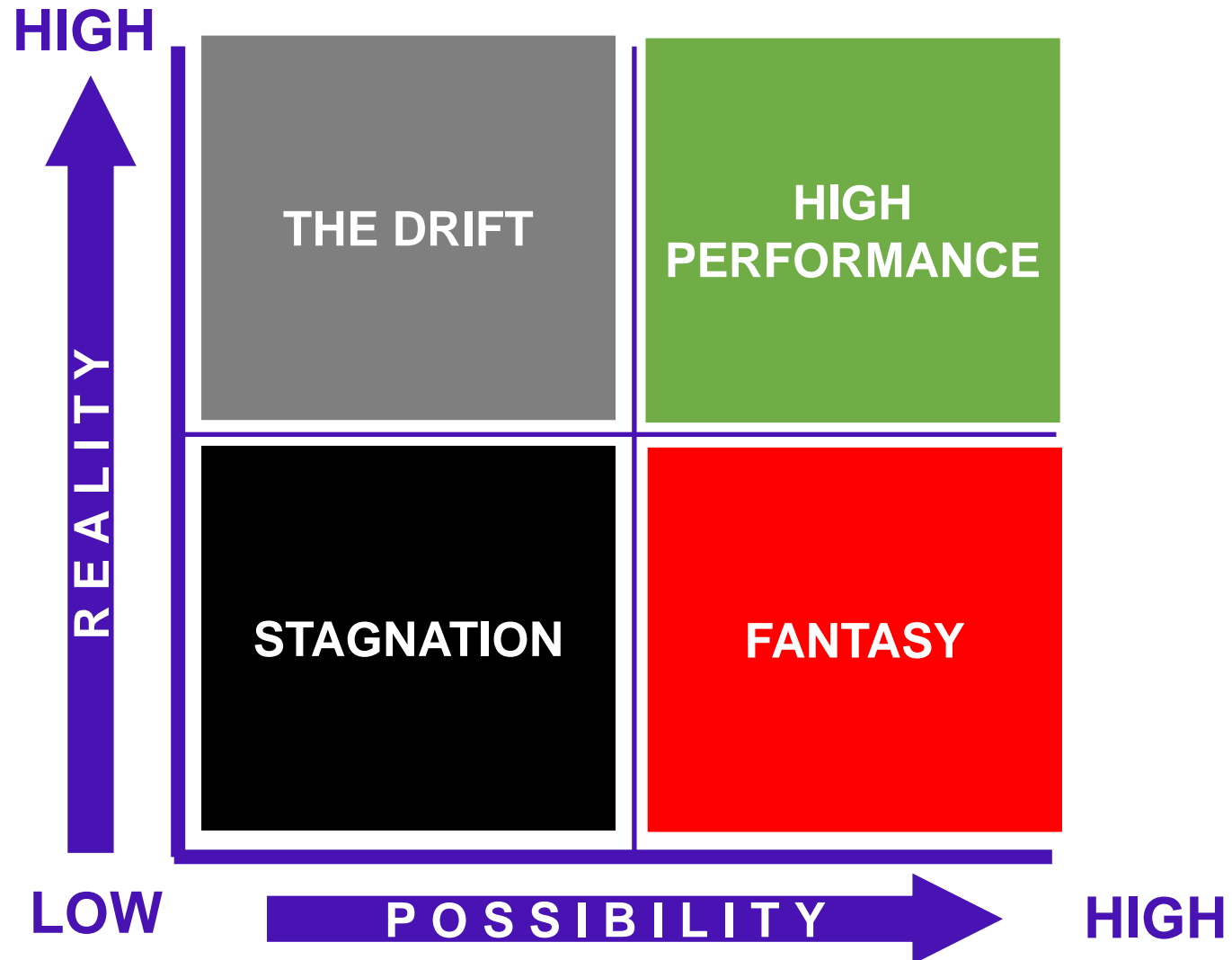


The Actual Work Done Overstated

Perspective 1: Risk and Uncertainty



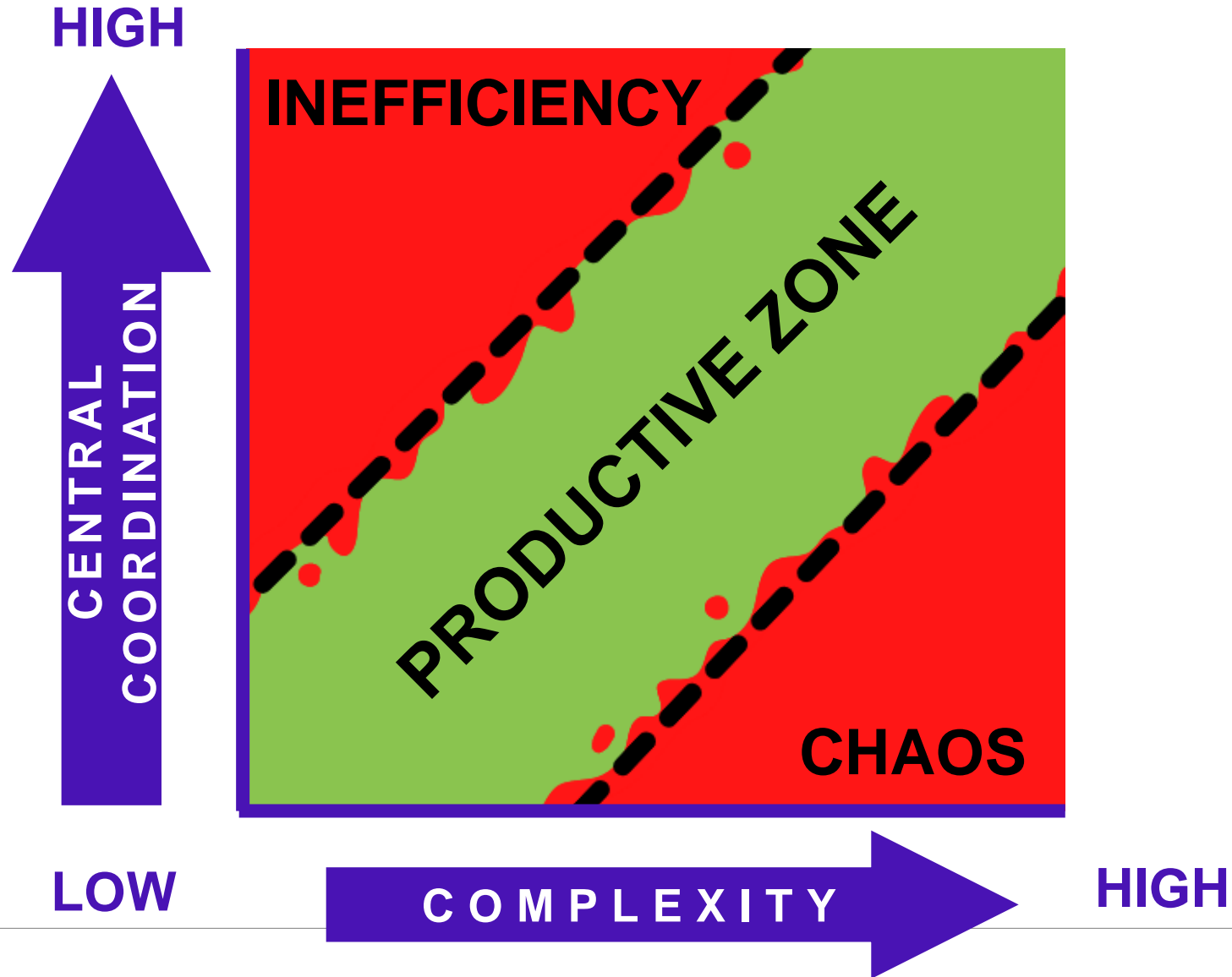
Perspective 1: Risk and Uncertainty





Perspective 2: Modularity and Design

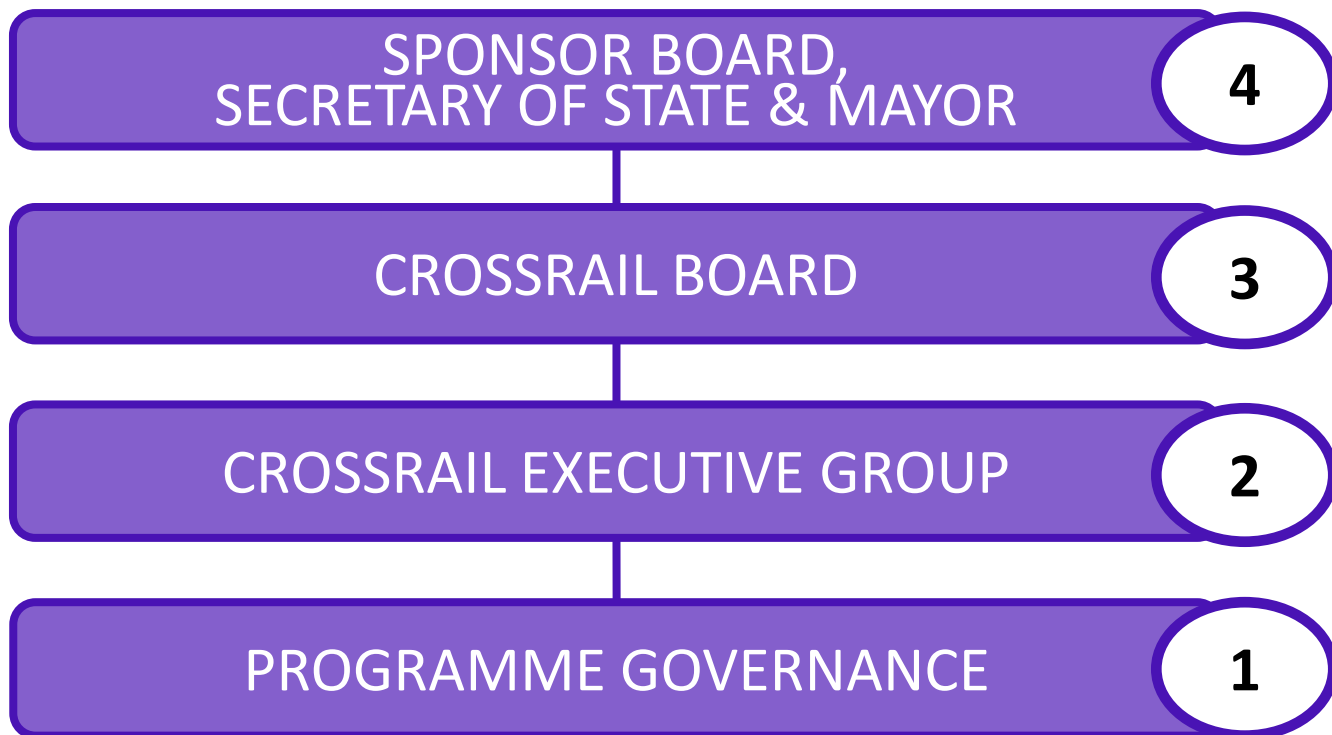
Perspective 3: System Integration



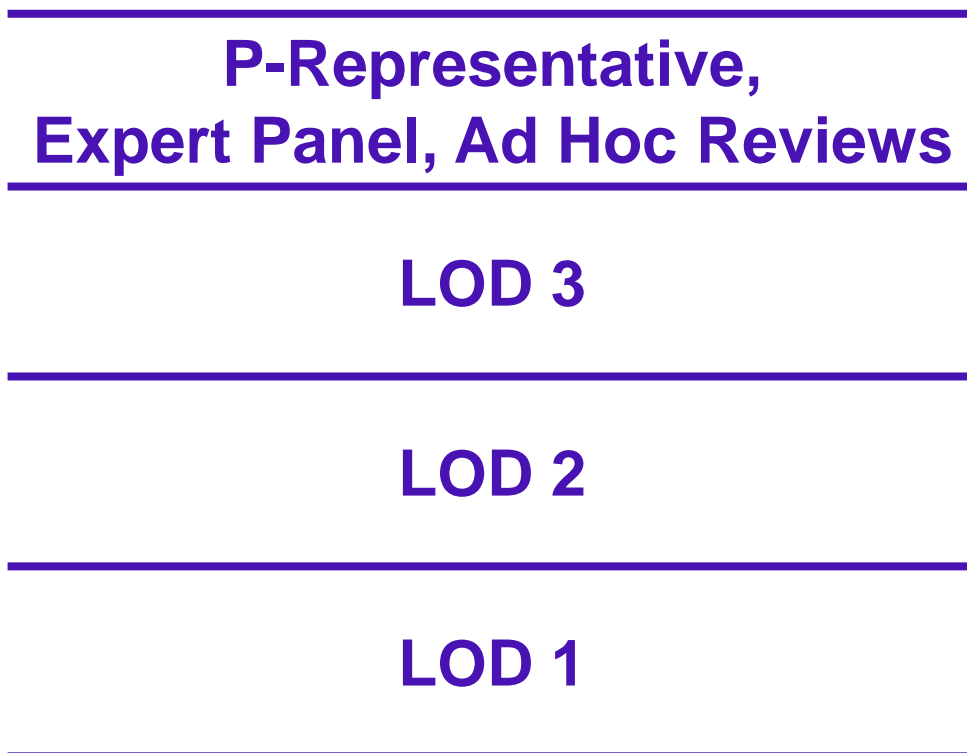
Perspective 4: Governance Structures



Institutional Governance



Four Layers of Assurance



**All the right structures ...
without the right mindset!**






Perspective 5: Leadership

OWNING THE WHOLE

TRANSPARENCY



The role the CEO was to create the environment and conditions for whole coalition to come together to achieve an extraordinary breakthrough

-  The importance of a singular higher purpose for all
 -  Move from “The House of Risk” to “the House of Intervention”
 -  A kind and inclusive environment that all can speak “Truth to Power”
 -  Remove the fear of failure
 -  Lead “by commitment” not “by personality/ego”
-

THANK YOU



TRANSPORT
FOR LONDON
EVERY JOURNEY MATTERS

