

A circular progress indicator with a red and white checkered border. A horizontal bar across the center is divided into a dark blue left half and a light blue right half. The text "UPGRADE UNDER WAY" is written in white capital letters across the bar.

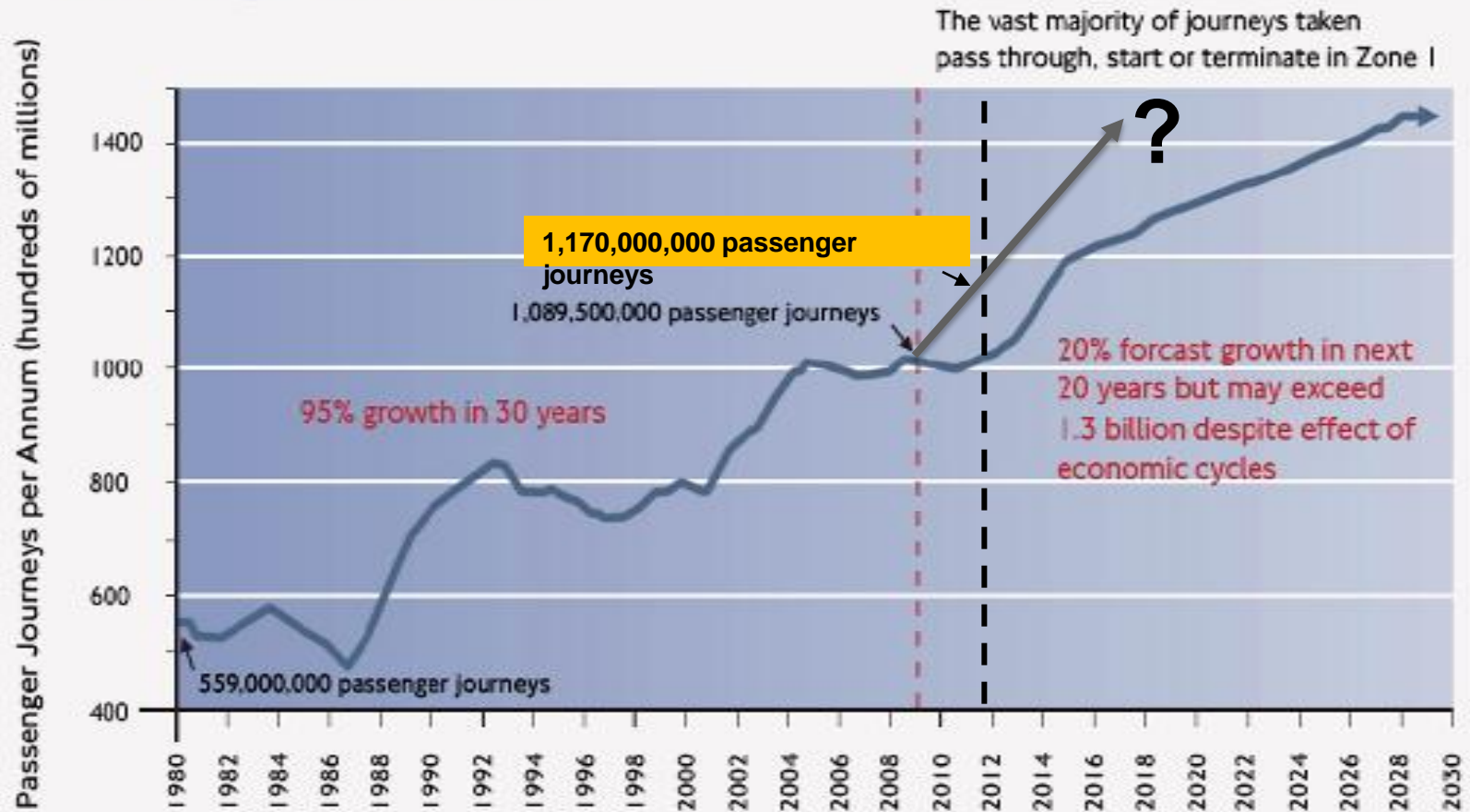
**UPGRADE UNDER WAY**

**1.17 billion passengers a year**



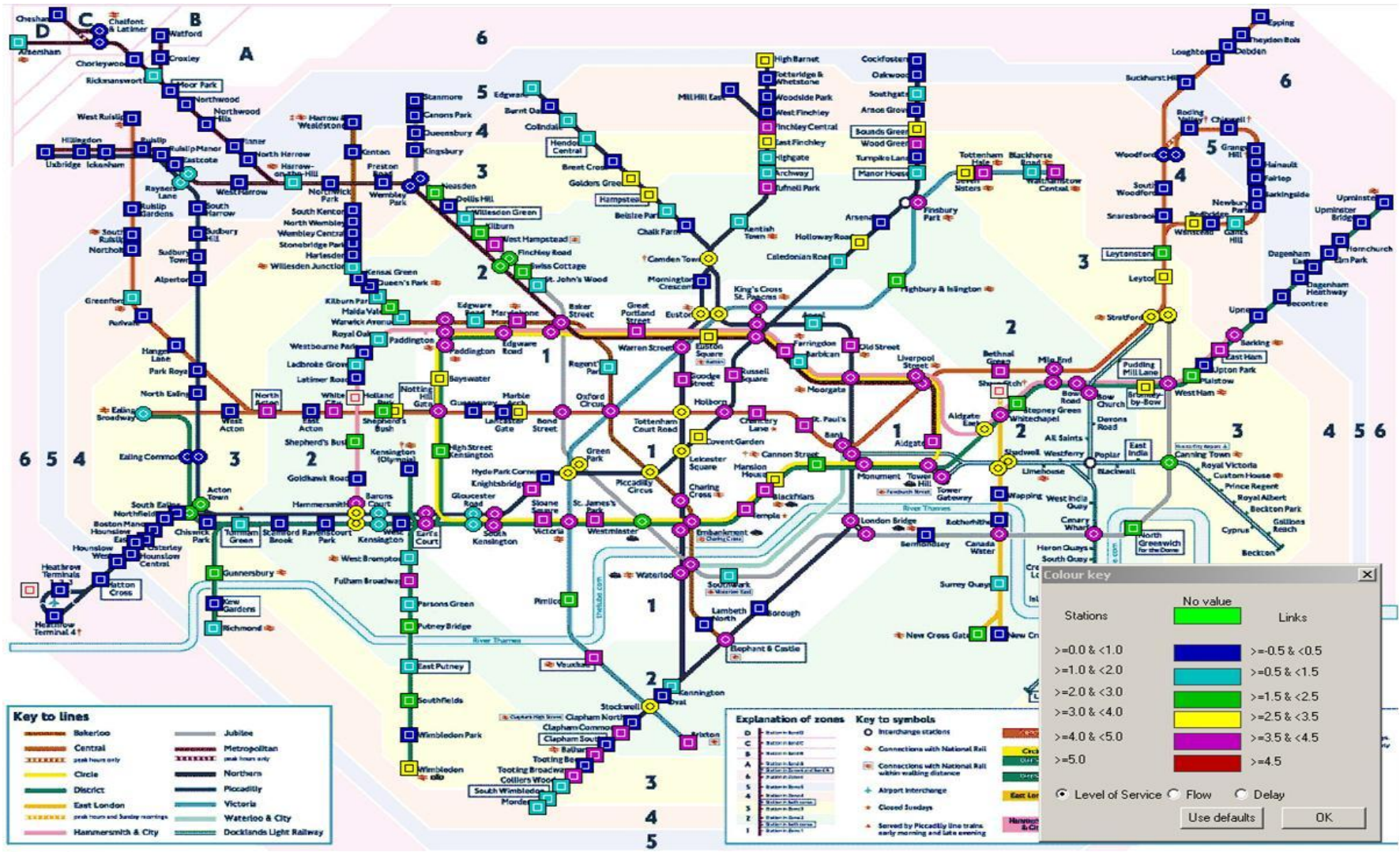
# Accelerating Growth

## Passenger Growth





# Peak Congestion (2031)



A photograph showing the interior of a crowded train. Passengers are standing and sitting, filling the car. The text is overlaid on the image.

**By 2026, 30 Central London Stations will experience crowding greater than 4pppsm**

**A rising proportion, currently 53% of journey time, is spent in stations rather than on trains.**





Infrastructure UK





**To whom** were these questions  
addressed B.G.? (Before Google)



# Innovation





# Innovation

Oyster introduced 2003



# Accessing Innovation

**1**

**Commercial Empathy**

**2**

**People, Organisation and  
Creative Confidence**

**3**

**Accepting New Technology**



**1**

**Commercial Empathy**

**Innovative Contractor  
Engagement**





# ICE: Why Would a Contractor invest in Innovation?

Client – Market Testing

Client – “Late Contractor Engagement”

Design based compliant bids – no latitude

Bid Evaluation for alternatives

**Ideas may be more valuable to the Contractor, post contract**



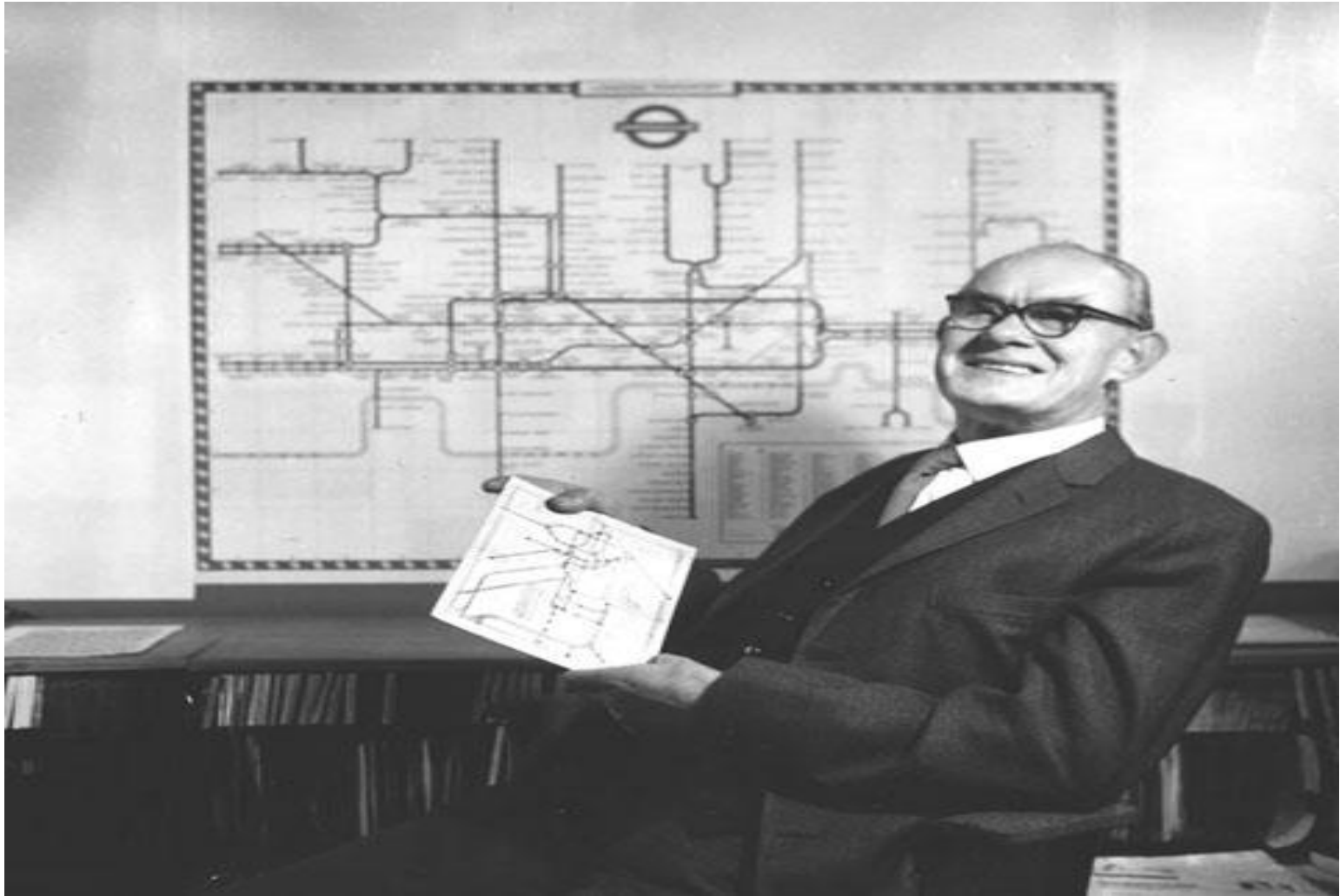
# ICE – A structured solution

## Key features of Innovative Contractor Engagement:

- **Pre-qualify innovators.**
- **A structured, but protected, dialogue phase.**
- **LU acknowledge the cost of dialogue.**
- **Requirements statement and bid evaluated against business output.**
- **Orthodox ITT/ Target cost Contract.**
- **LU share value of innovative ideas from unsuccessful bidders**



# Accessing Innovation – Harry Beck





# Accessing Innovation

