**Surface Transport Panel**

**Date:** **15 July 2015**

**Item:** **Traffic Scheme Post-Implementation Modelling Review**

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## This paper will be considered in public

## 1 Purpose

1.1 This paper sets out TfL's Road Space Management's post-scheme implementation modelling review process. The reviews will be undertaken as part of the monitoring strategy to inform future enhancements to operational modelling capability.

## 2 Recommendation

2.1 **The Panel is asked to note the paper.**

## 3 Presentation – Traffic Scheme Post-Implementation Modelling Review

3.1 The presentation attached as Appendix 1 covers the following areas:

(a) Operational modelling hierarchy;

(b) Case studies of schemes delivered over the last five years and operational models used;

(c) Road Space Management's monitoring strategy; and

(d) How continuous improvement is delivered.

3.2 This paper responds to the request of the Finance and Policy Committee at its meeting on 22 January 2015 that TfL's traffic modelling be considered and refined in the light of the feedback from major scheme reviews. It was agreed that a post-implementation major scheme review and the feedback mechanism for traffic modelling would be reported to a future meeting of the Surface Transport Panel.

**List of appendices to this report:**

Appendix 1: Presentation – Scheme Post-Implementation Modelling Review


**List of Background Papers:**

Minutes of Finance and Policy Committee of 22 January 2015


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# Scheme Post-Implementation Modelling Review

## Alan Bristow, Road Space Management (RSM)

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- Our modelling approach
- Case Studies
- Monitoring Strategy
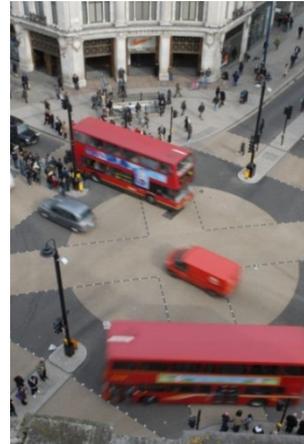- Continuous Improvement
- Summary

# Operational Modelling Hierarchy

- DfT WebTag Model Appraisal guidance states that modelled journey times should be within **+/-15%** of observed Journey Times
- One or more models are selected, depending on the complexity of the assessment (ONE, TRANSYT, LINSIG, VISSIM)
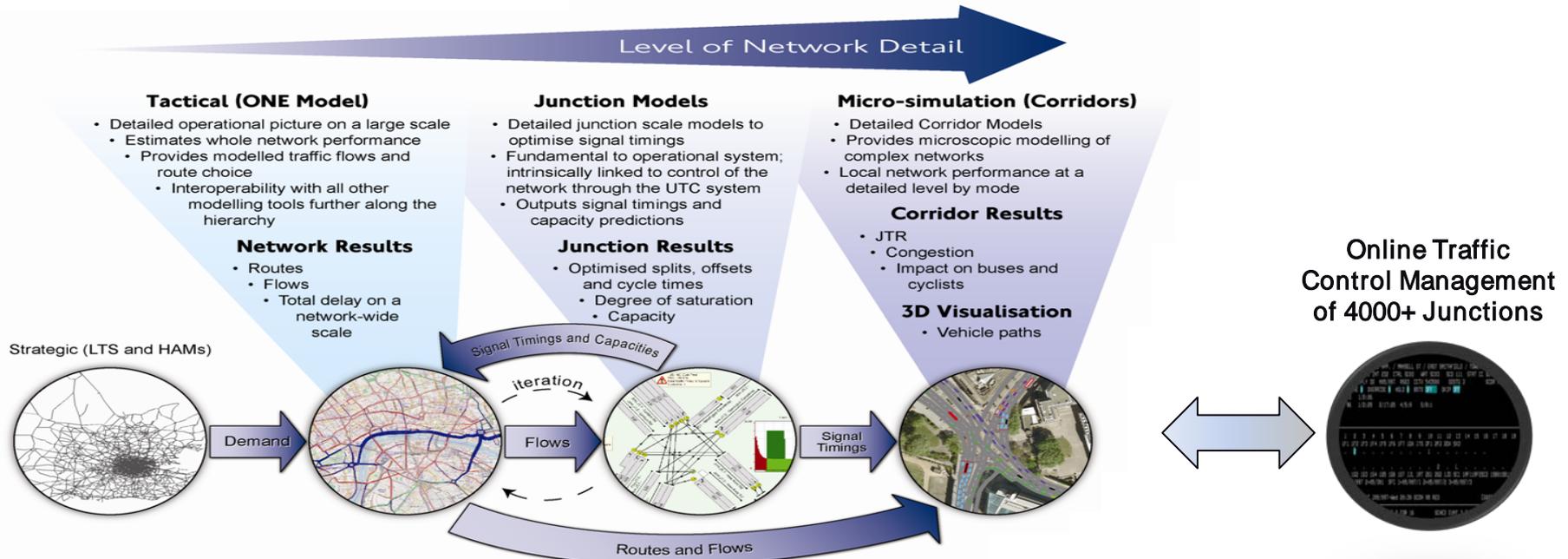
# Case Studies (Major Schemes)

- **Piccadilly 2-way (SATURN, VISSIM & TRANSYT)**
  - **Purpose**: City of Westminster scheme - Traffic re-routing due to removal of one-way system
  - Average 4% variance between modelled & observed bus journey times



- **CCWEZ Removal (ONE Model)**
  - **Purpose**: Removal of Western Extension Zone Congestion Charging - Increased traffic volumes which required new optimised signals strategies.
  - 8% modelled increase in traffic flow within CCWEZ once removed, 9% observed (1% variance)



- **Oxford Circus Diagonal Crossing (VISSIM & TRANSYT)**
  - **Purpose**: City of Westminster scheme – New diagonal crossing and assessment of scheme impact on bus performance along Oxford Street/Regent Street.
  - Average 3% variance between modelled & observed degrees of saturation

- **E&C Southern Roundabout (VISSIM & LINSIG):**
  - **Purpose**: Removal of non-signalised roundabout and provision of new at-grade crossings
  - Average 4% variance between modelled & observed degrees of saturation



**We consistently and considerably exceed DfT WebTag standards**
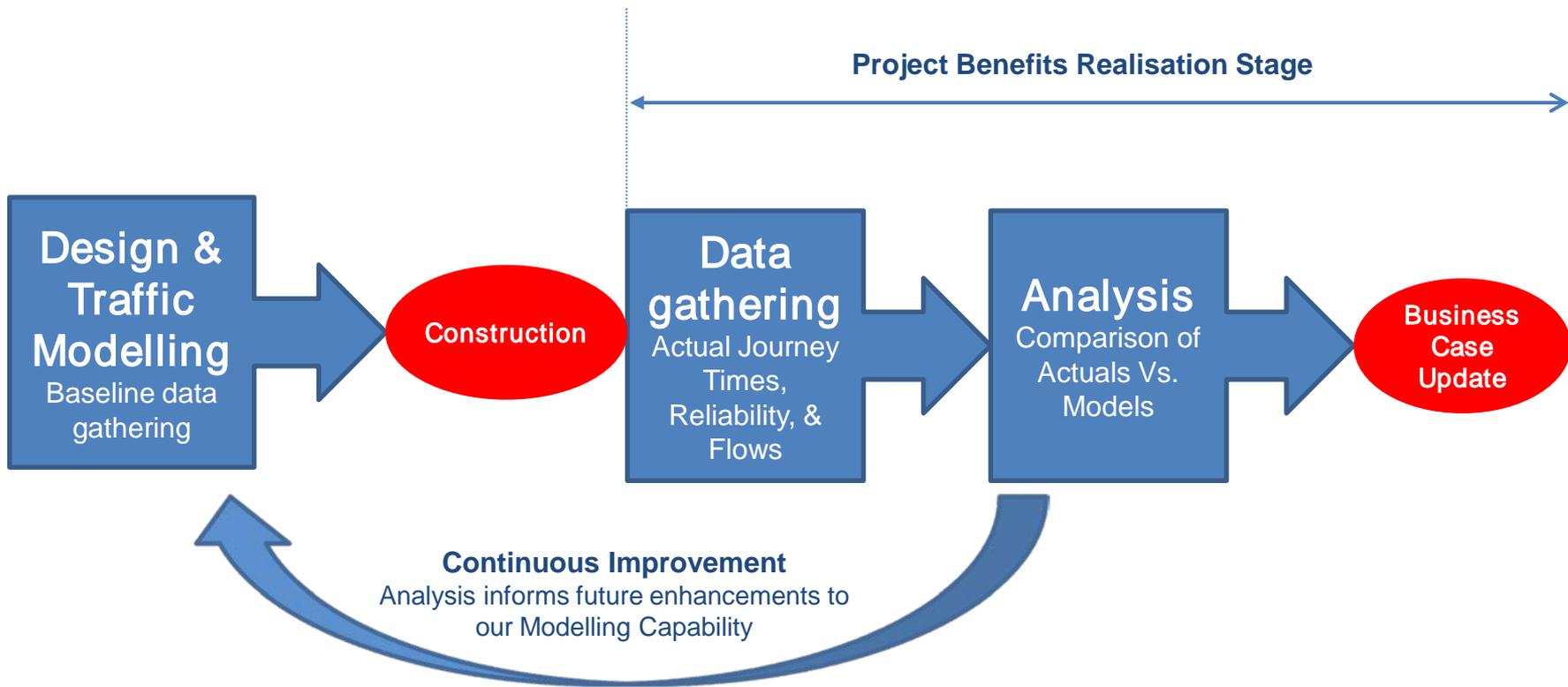
# Continuous Improvement

- **Our continuous improvement process:**
  - Leads to more accurate and faster models, and hence improved project outcomes
  - Ensures that baseline models are up to date and better represent current network conditions
  - Enables better multi-modal analysis to: inform business case analysis; improve scheme design and options assessment; and better testing of operational strategies



- **We also use new and better data sources to enhance our models:** Bluetooth, Hyperion iBus data; Automatic Number Plate Recognition data; mobile phone data (in the near future)

- DfT Web Tag guidance states +/-15% JT variance is acceptable

- TfL case studies demonstrate that our modelling accuracy already exceeds this (between 0-10%), and we aim to achieve +/-5%

- Rolling out our Monitoring Strategy, new model developments and enhancements, and exploiting innovative data sources will enable us to achieve this