

CITY OF YORK COUNCIL

STEP – Smart Travel Evolution Programme



2017
Transport Systems Team,
City of York Council



Preparing York to be the **FIRST SMART
TRANSPORT CITY** in the UK

Building a **PLATFORM** to ensure the City
can meet the challenges of **BIG DATA,**
CONNECTED and **AUTONOMOUS**
VEHICLES and **FULL FIBRE** connectivity

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Supporting Infrastructure

City 'Full Fibre' Network

MAC Address Harvesting

Image-based calibration

City wide Wi-Fi

On vehicle CCTV analytics

LIDAR

Digitised network data (TROs)

Bus Real Time data

We take our existing data sources, and new data sources that FULL FIBRE network will make possible

We consider the policy challenges that the City faces now and in the near future

The areas STEP can help resolve

Policy Gains

Road Network Efficiency

Productivity Gains

Emissions Reduction

Congestion Management

Land Use Planning

CAV Readiness

Economic Vitality

City Technology Agenda

'Smart City' Initiatives

STEP ONE



Supporting Infrastructure

City 'Full Fibre' Network

MAC Address Harvesting

Image-based calibration

City wide Wi-Fi

On vehicle CCTV analytics

LIDAR

Digitised network data (TROs)

Bus Real Time data

DATA

Journey time
Mobility data (trip matrices)
Origin / destination
link speed / congestion

STEP Builds a City 'DATA PLATFORM' LAYER that collects and stores data from sources and applies basic processing

Policy Gains

Road Network Efficiency

Productivity Gains

Emissions Reduction

Congestion Management

Land Use Planning

CAV Readiness

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STEP TWO

**smart
travel
evolution
programme**



Supporting Infrastructure

City 'Full Fibre' Network

MAC Address Harvesting

Image-based calibration

City wide Wi-Fi

On vehicle CCTV analytics

LIDAR

Digitised network data (TROs)

Bus Real Time data

DATA

Journey time
Mobility data (trip matrices)
Origin / destination
link speed / congestion



MODELLING

Agile multiple layered REAL TIME modelling;
- MACRO (assignment)
- MESO (corridor analysis)
- MICRO (junction simulation)

To this we add a MODELING layer that allows us to run City wide models at varying scales, in near real time

This allows us to understand the way the transport network is performing, and improves our TRANSPORT PLANNING activities

Policy Gains

Road Network Efficiency

Productivity Gains

Emissions Reduction

Congestion Management

Land Use Planning

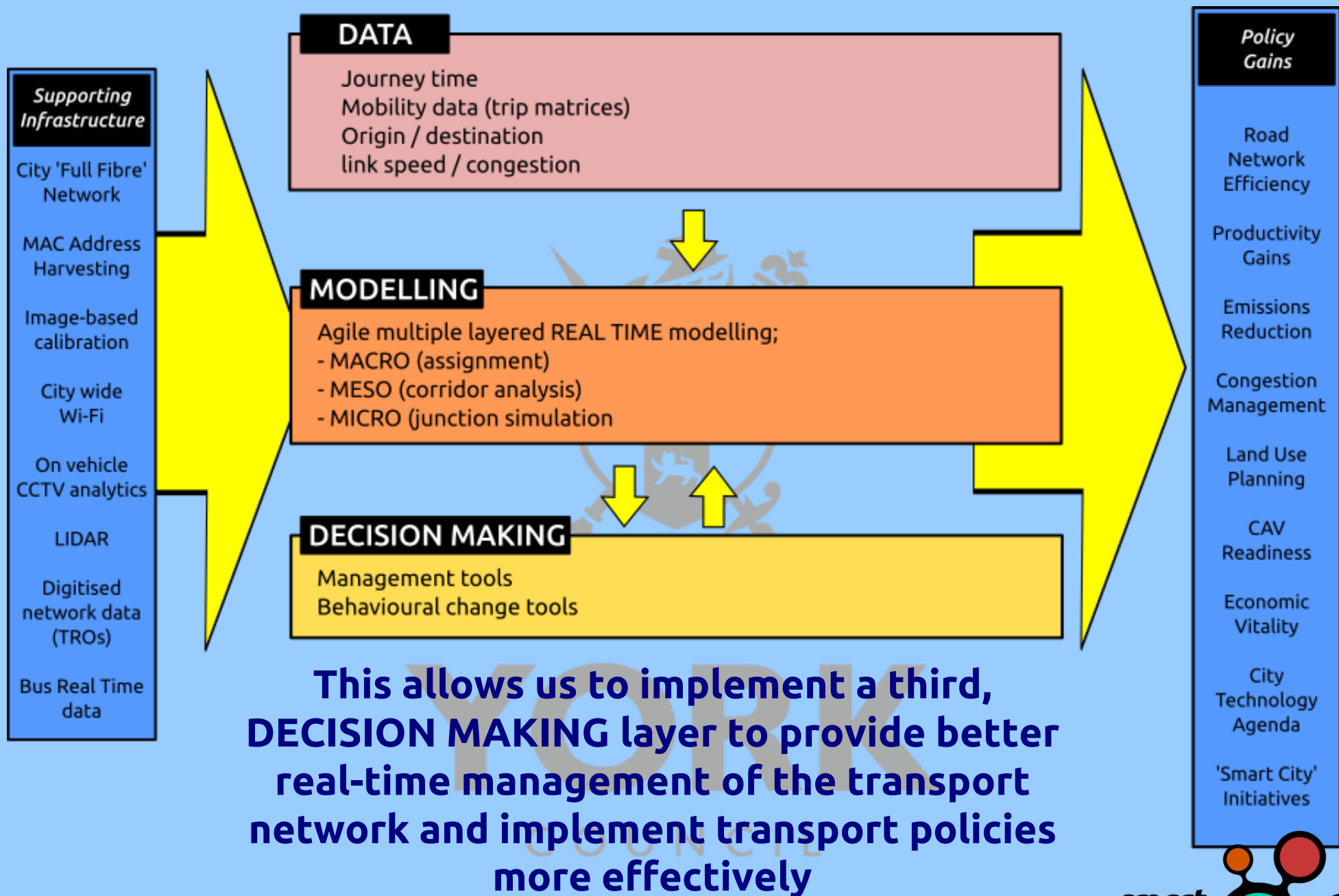
CAV Readiness

Economic Vitality

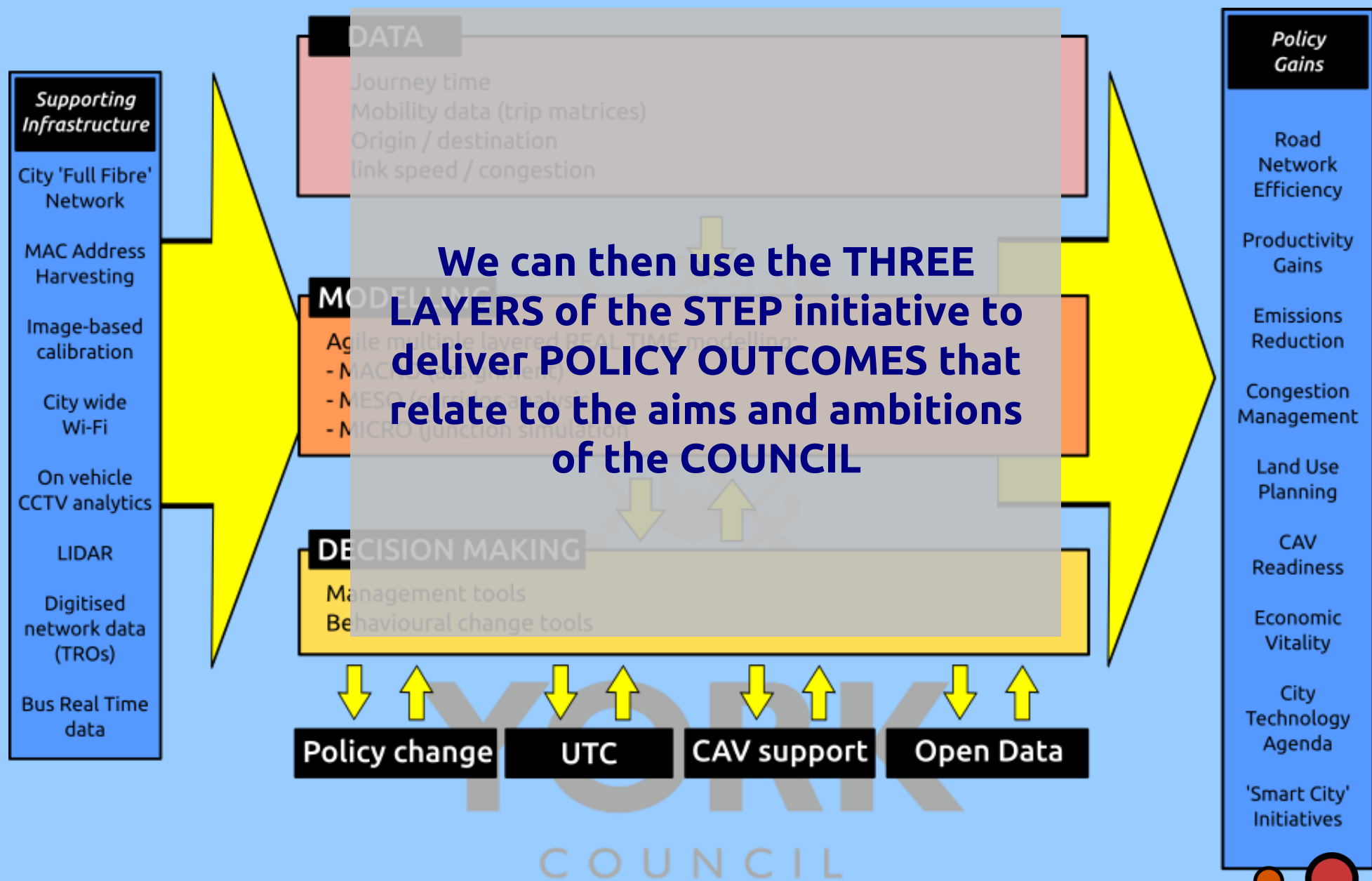
City Technology Agenda

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STEP THREE

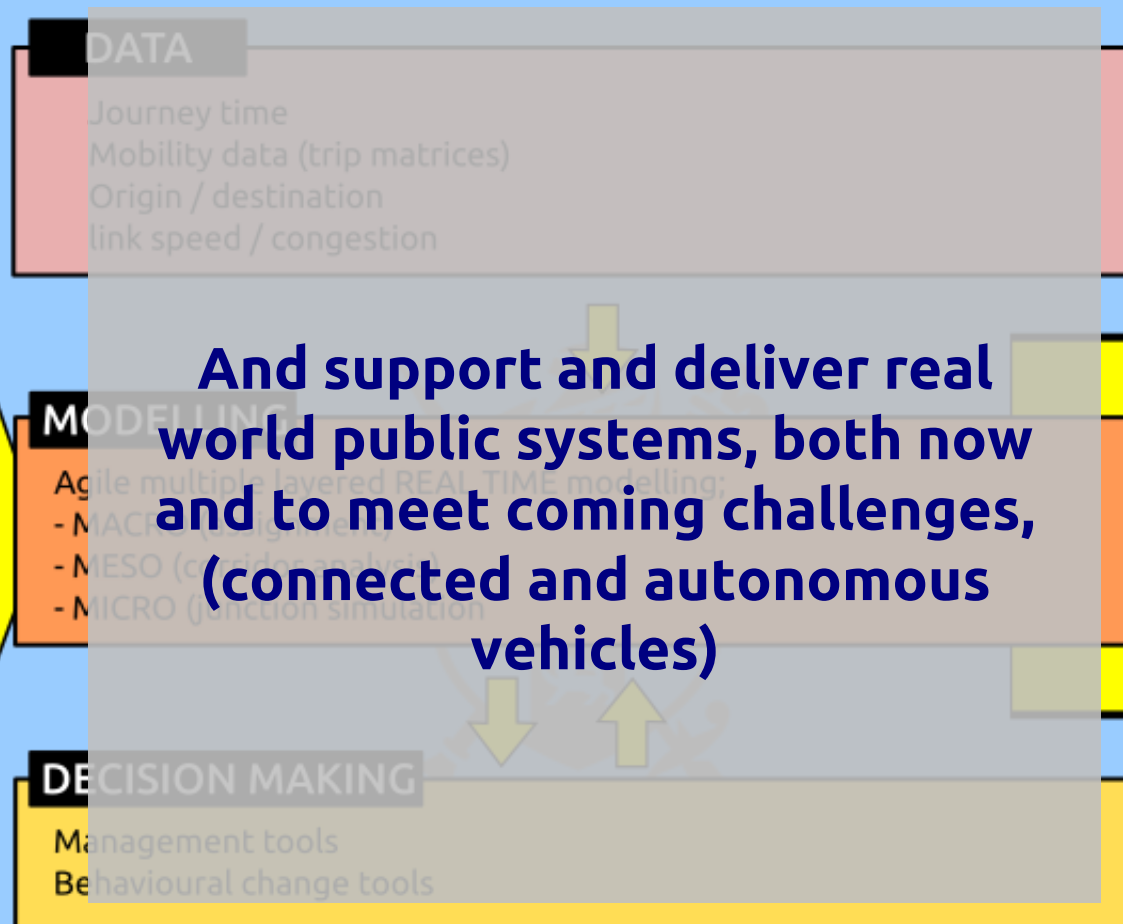
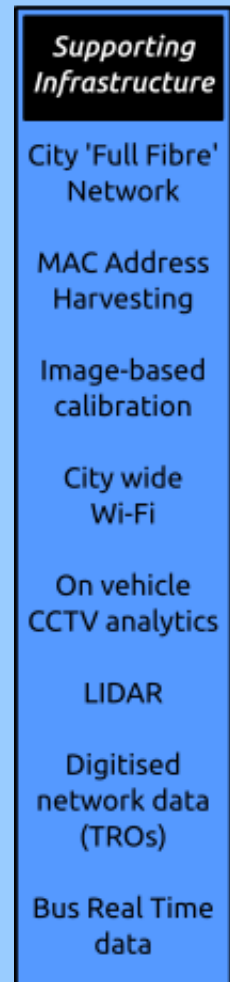


STEP FOUR



STEP FIVE



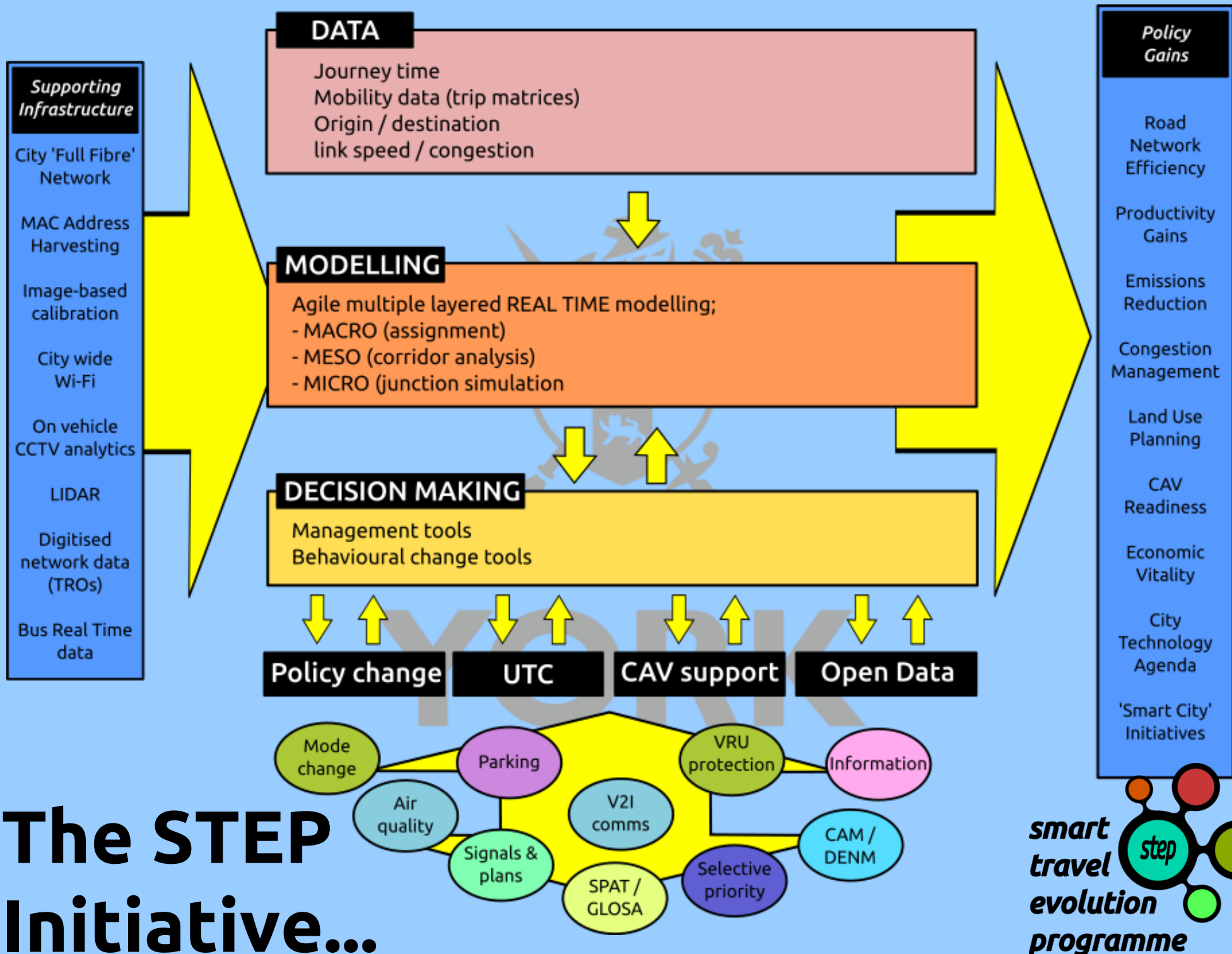


And support and deliver real world public systems, both now and to meet coming challenges, (connected and autonomous vehicles)

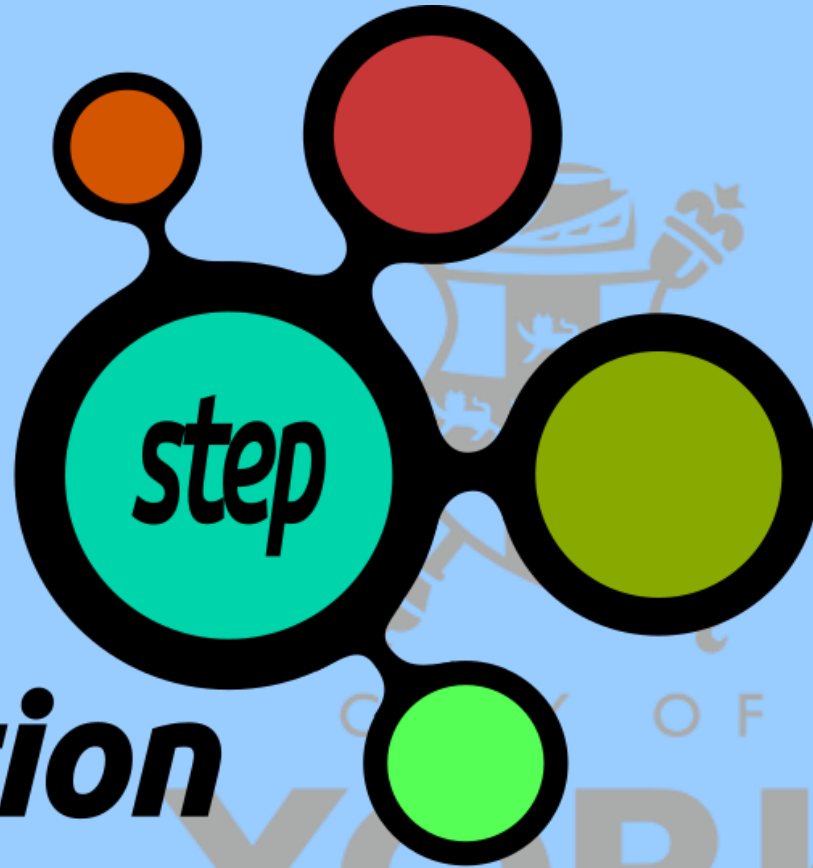


STEP SIX





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