

MAYOR OF LONDON

Innovating in the Planning Application Process

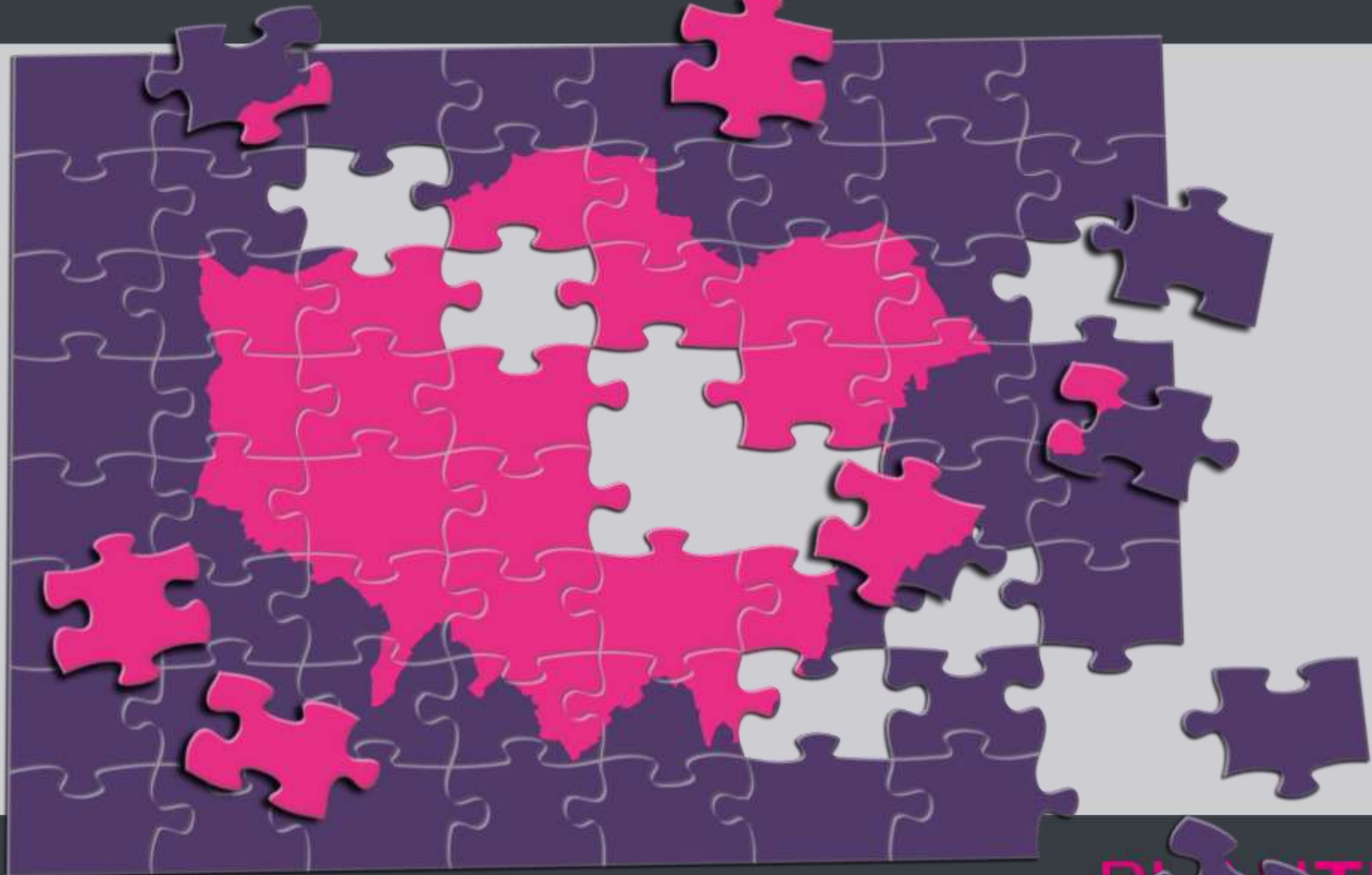
Peter Kemp
Planning Change Manager, GLA



PLANTECH

DRIVING PLANNING WITH TECHNOLOGY

MAYOR OF LONDON

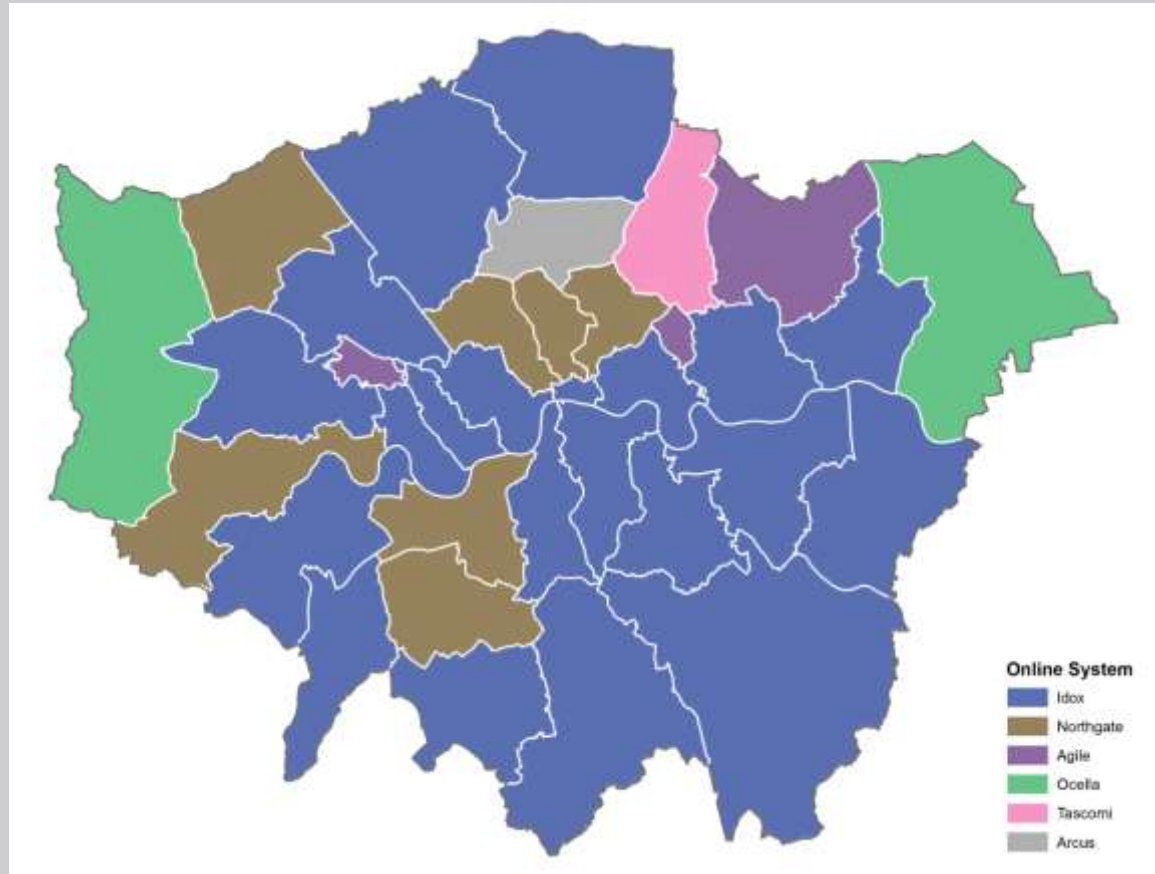


Development Data Automation



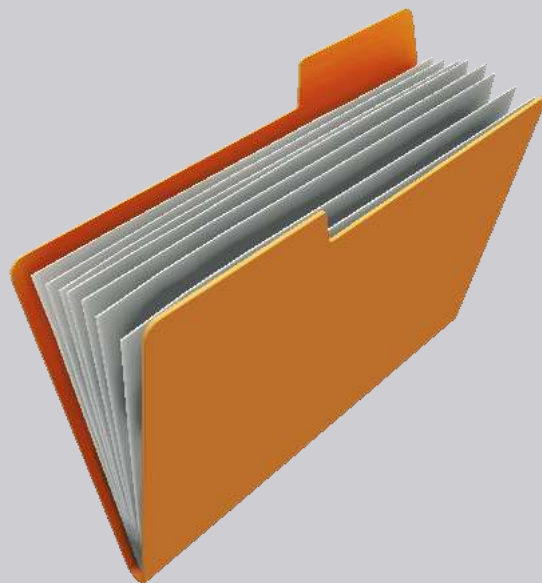
MAYOR OF LONDON

Back Office Systems Discovery

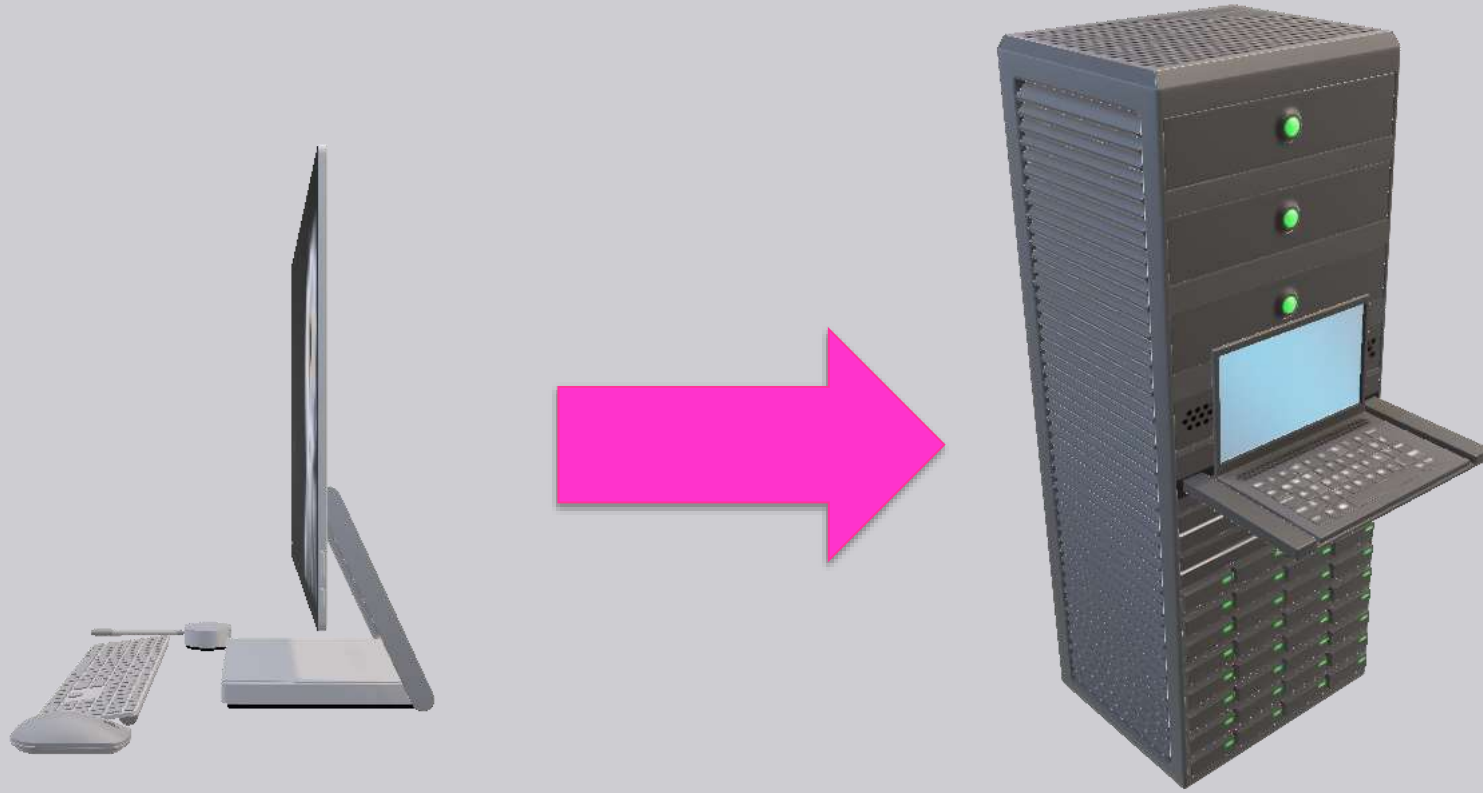


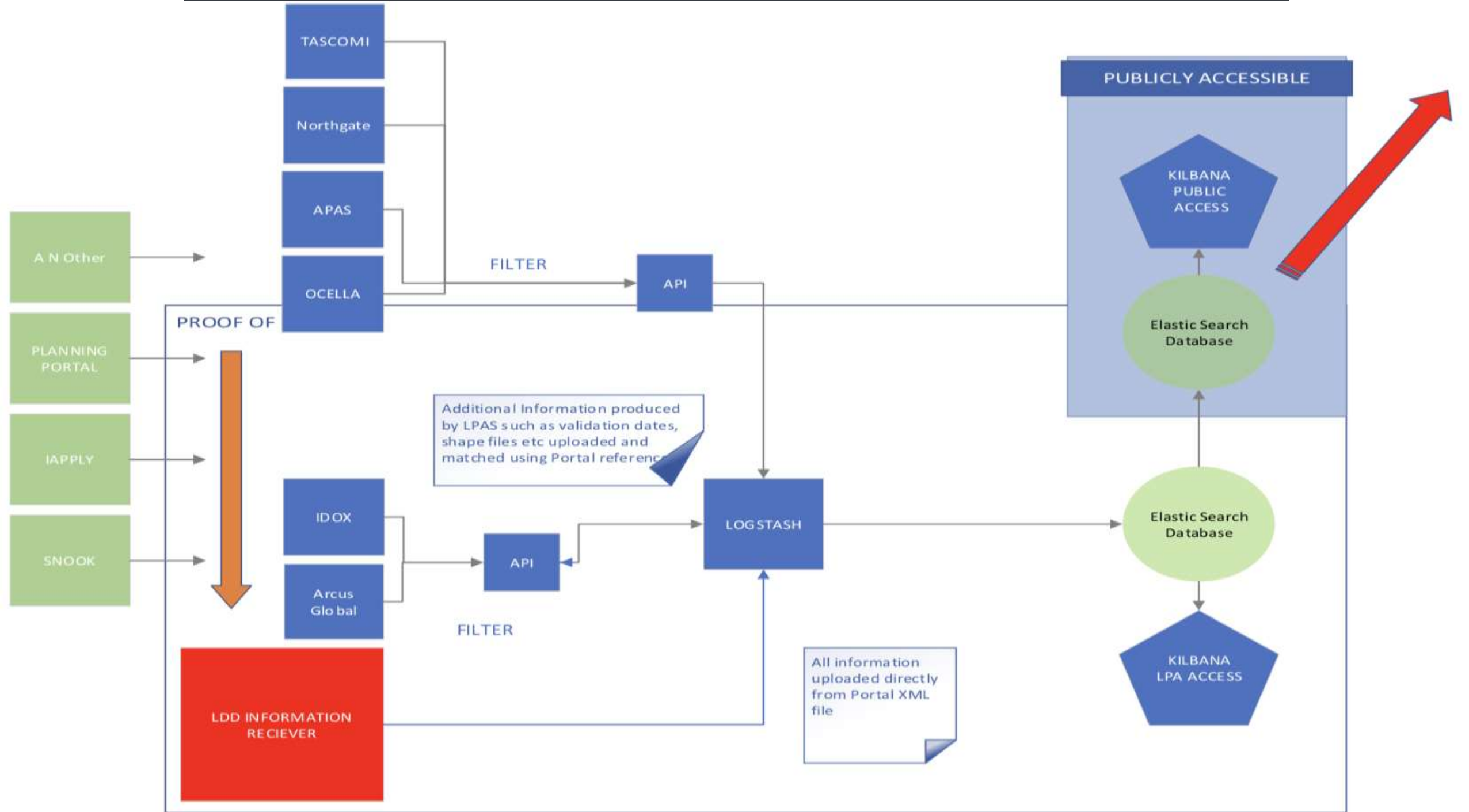
Planning Authority	Provider
Barking & Dagenham	Idox
Barnet	Idox
Bexley	Idox
Brent	Idox
Bromley	Idox
Camden	Northgate
City of London	Idox
Croydon	Idox
Ealing	Idox
Enfield	Idox
Greenwich	Idox
Hackney	Northgate
Hammersmith & Fulham	Idox
Haringey	Arcus
Harrow	Northgate
Havering	Ocella
Hillingdon	Ocella
Hounslow	Northgate
Islington	Northgate
Kensington & Chelsea	Idox
Kingston	Idox
Lambeth	Idox
Lewisham	Idox
LLDC	Agile
Merton	Northgate
Newham	Idox
OPDC	Agile
Redbridge	Agile
Richmond	Idox
Southwark	Idox
Sutton	Idox
Tower Hamlets	Idox
Waltham Forest	Tascomi
Wandsworth	Northgate
Westminster	Idox

MAYOR OF LONDON



MAYOR OF LONDON







MAYOR OF LONDON

Where are we now



MAYOR OF LONDON





<https://maps.london.gov.uk/planning/>

London Planning Data Map

MAYOR OF LONDON

<https://map.london.gov.uk/planning/>

File Edit View Favorites Tools Help

PLANNING DATA MAP ⓘ

This first (beta) open planning data map for London contains 16 datasets grouped within 'Good Growth' and 'Constraints'. Let us know how you think it might be improved or expanded. ldg@london.gov.uk

Search near a location

- Designated Open Space
- Site of Importance for Nature Conservation (SINC)
- Site of Special Scientific Interest (SSSI)
- Flood Risk
- Conservation Areas
- Strategic Industrial Location (SIL)
- Locally Significant Industrial Site (LSIS)
- Safeguarded Wharves
- Article 4 Directions: Office to Residential

Find Layers & Sites by Location

MAYOR OF LONDON

12:49
24/09/2019

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Layers with sites found at selected location:

Layers found (5):	Display:	Export:
1. Flood Risk Site: For more information please visit: https://flood-map-for-planning.mayor.gov.uk/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2. Brownfield Register Site: 181-183 King Street, Town Hall Passage & Land West of Nigel Palfair Avenue	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3. Site Allocation Site: MTC 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4. Town Centres Site: Hammersmith	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5. Article 4 Direction Site:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Buttons: Hide All Layers, Show All Found Layers, Export Selected to CSV

PLANNING DATA MAP

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Search near a location:

Find Layers & Sites by Location

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13:36
24/01/2019

PLANTECH

DRIVING PLANNING WITH TECHNOLOGY

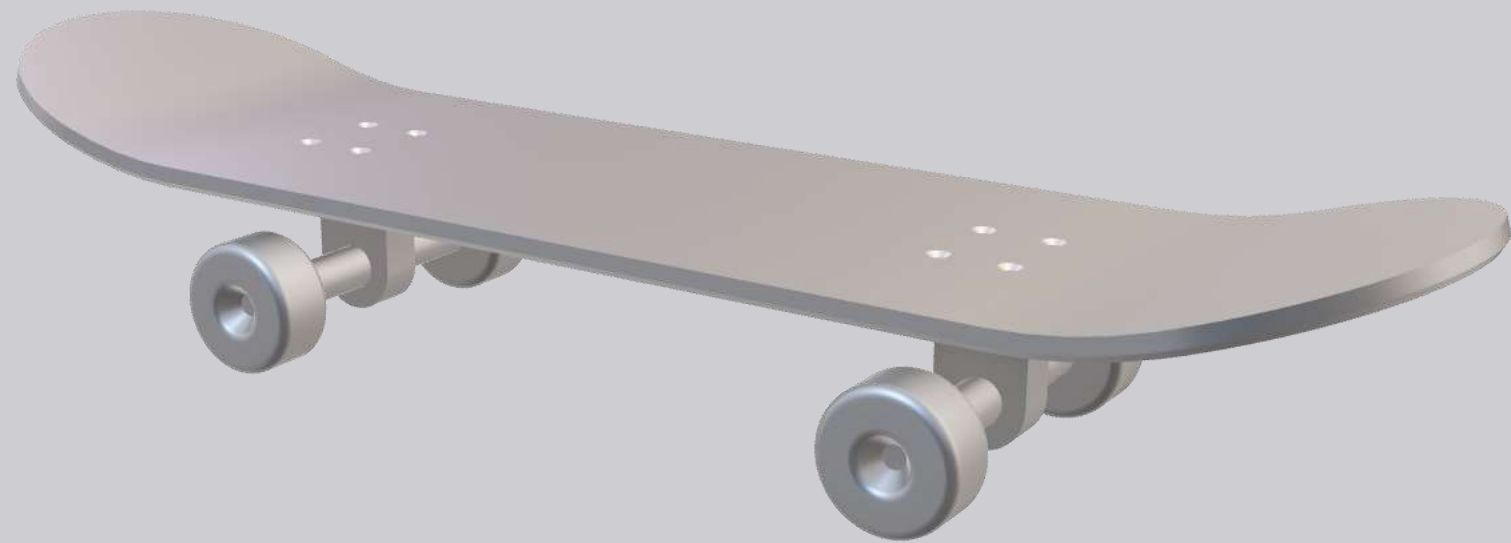


DATA IN

IMPROVE

WEBMAP OUT

MAYOR OF LONDON

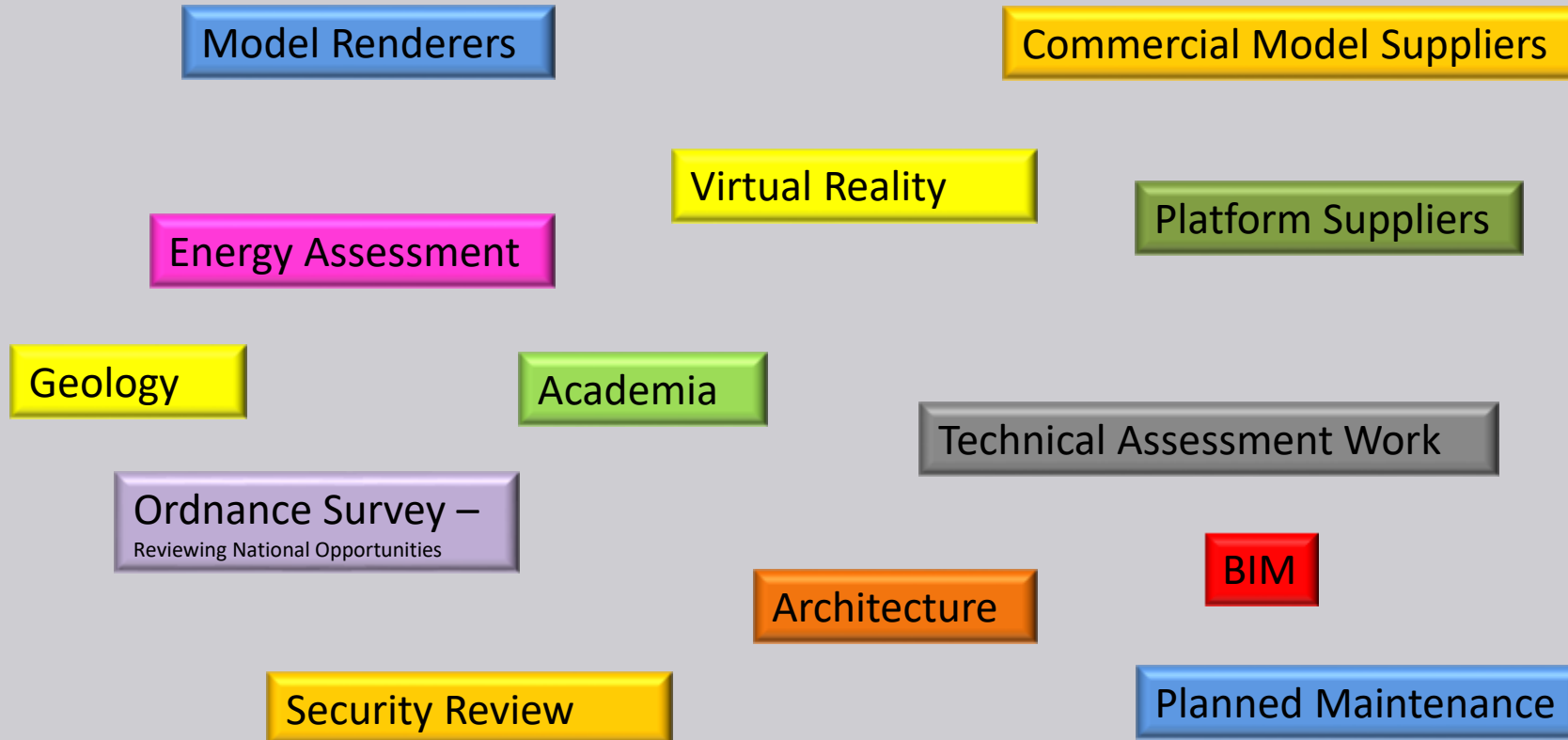




3D LONDON

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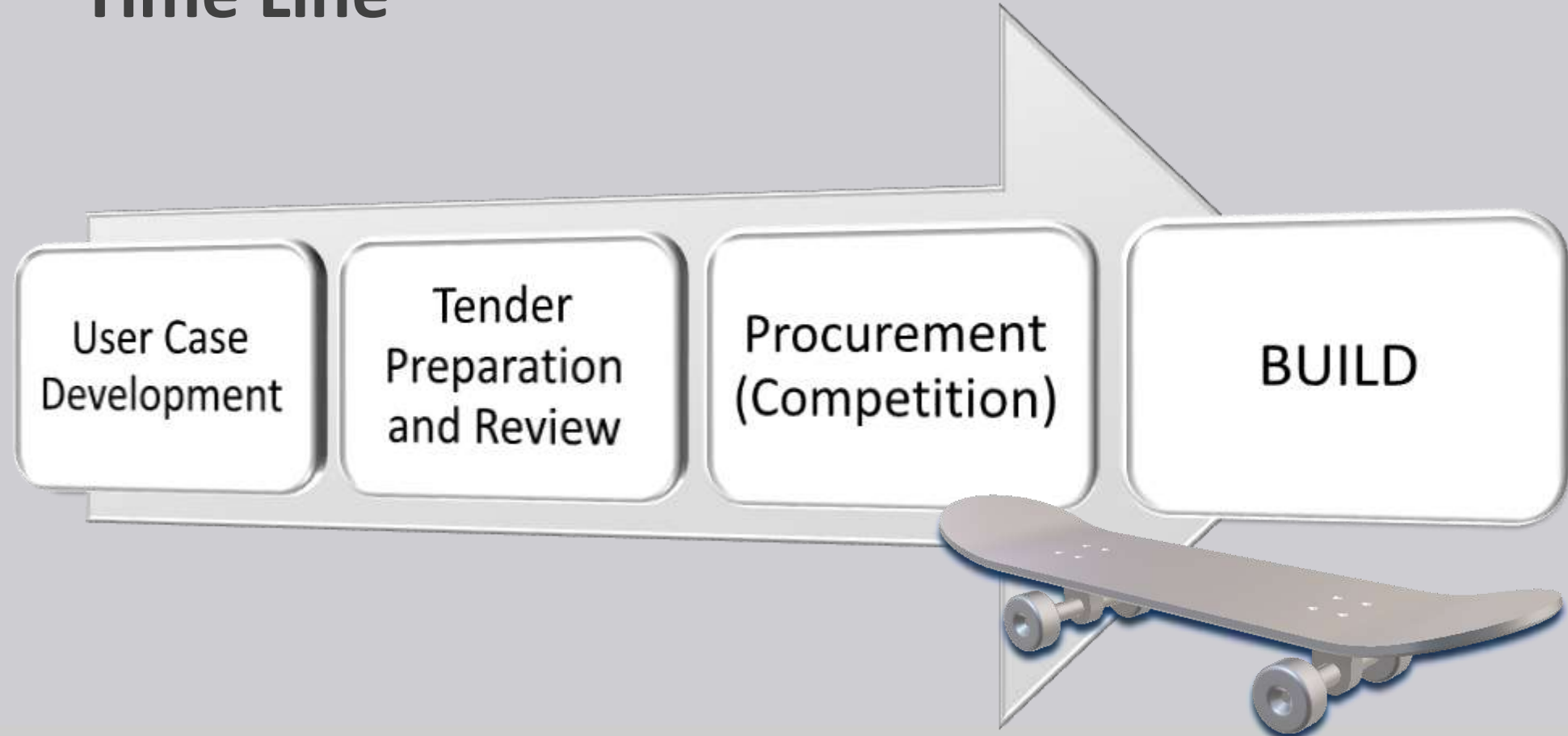
MARKET OVERVIEW







Time Line

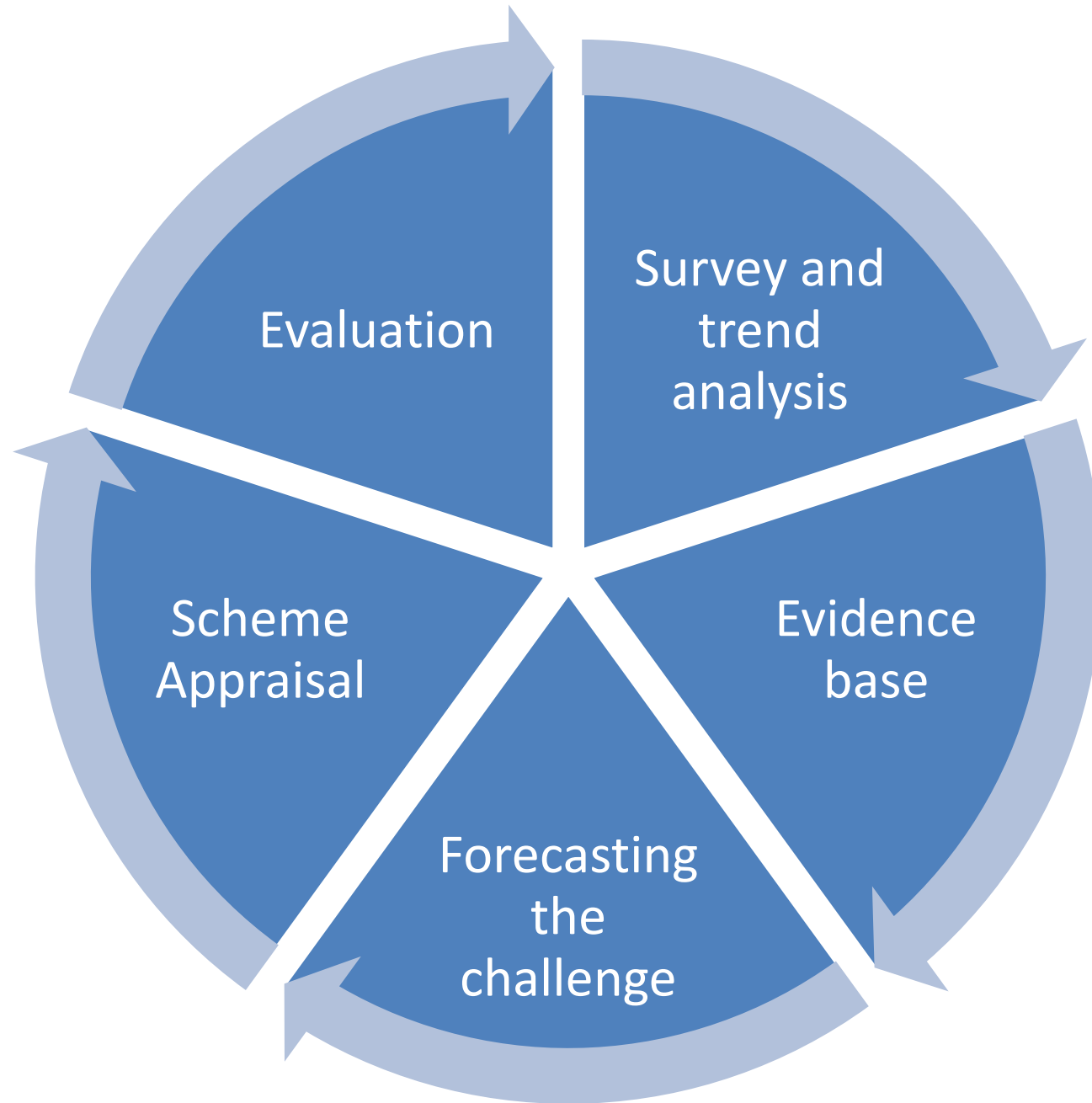


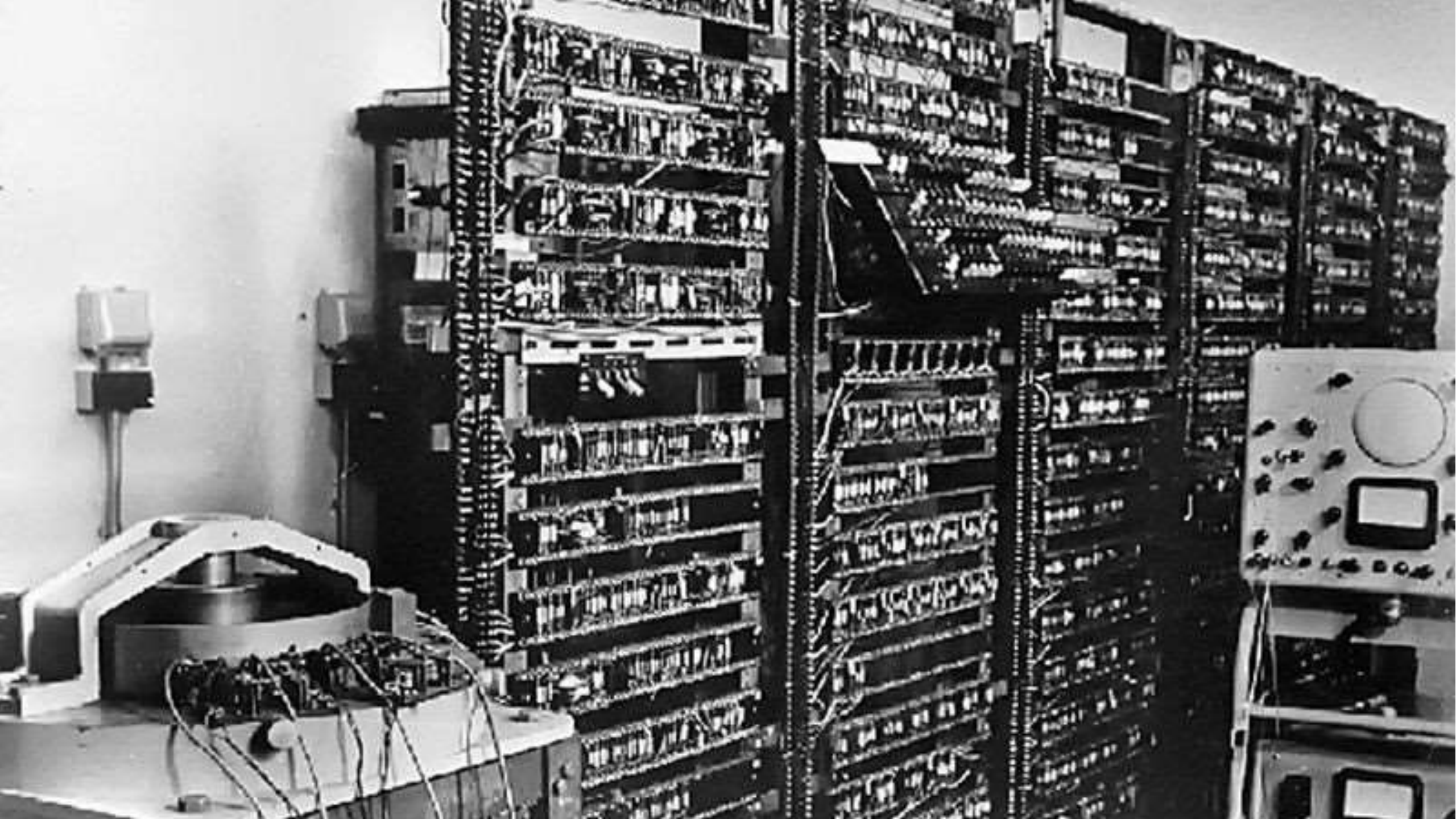
Innovations in transport demand and land use modelling

City Intelligence Unit Conference



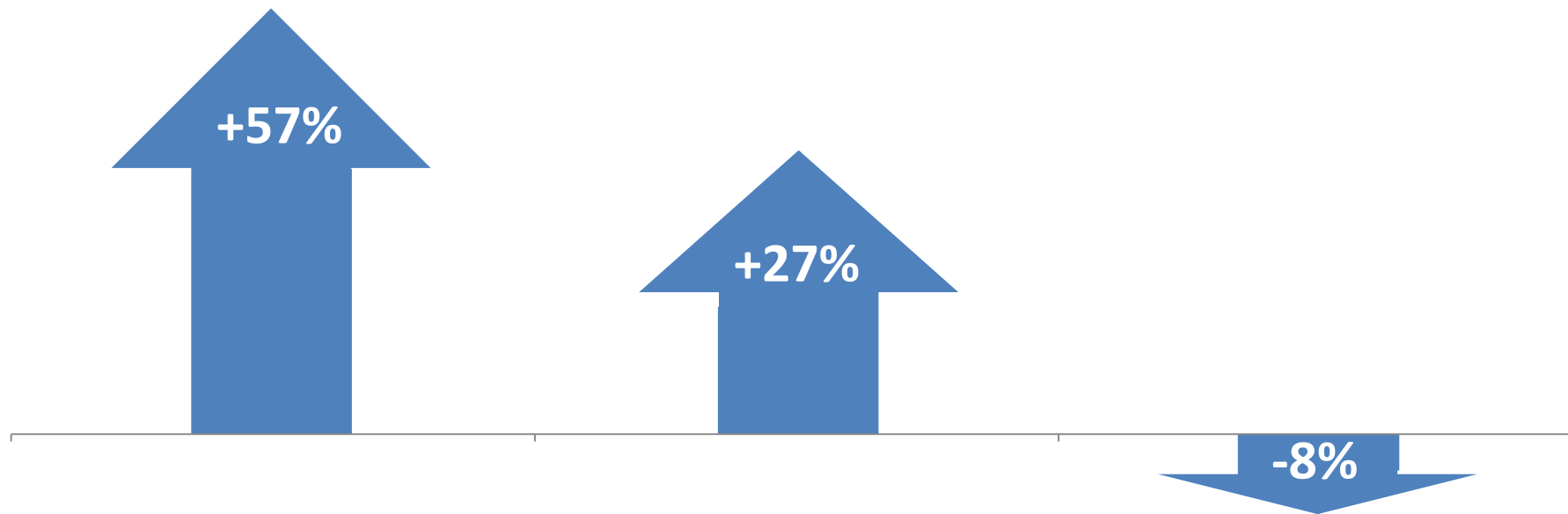








Since 2000...





GATEway

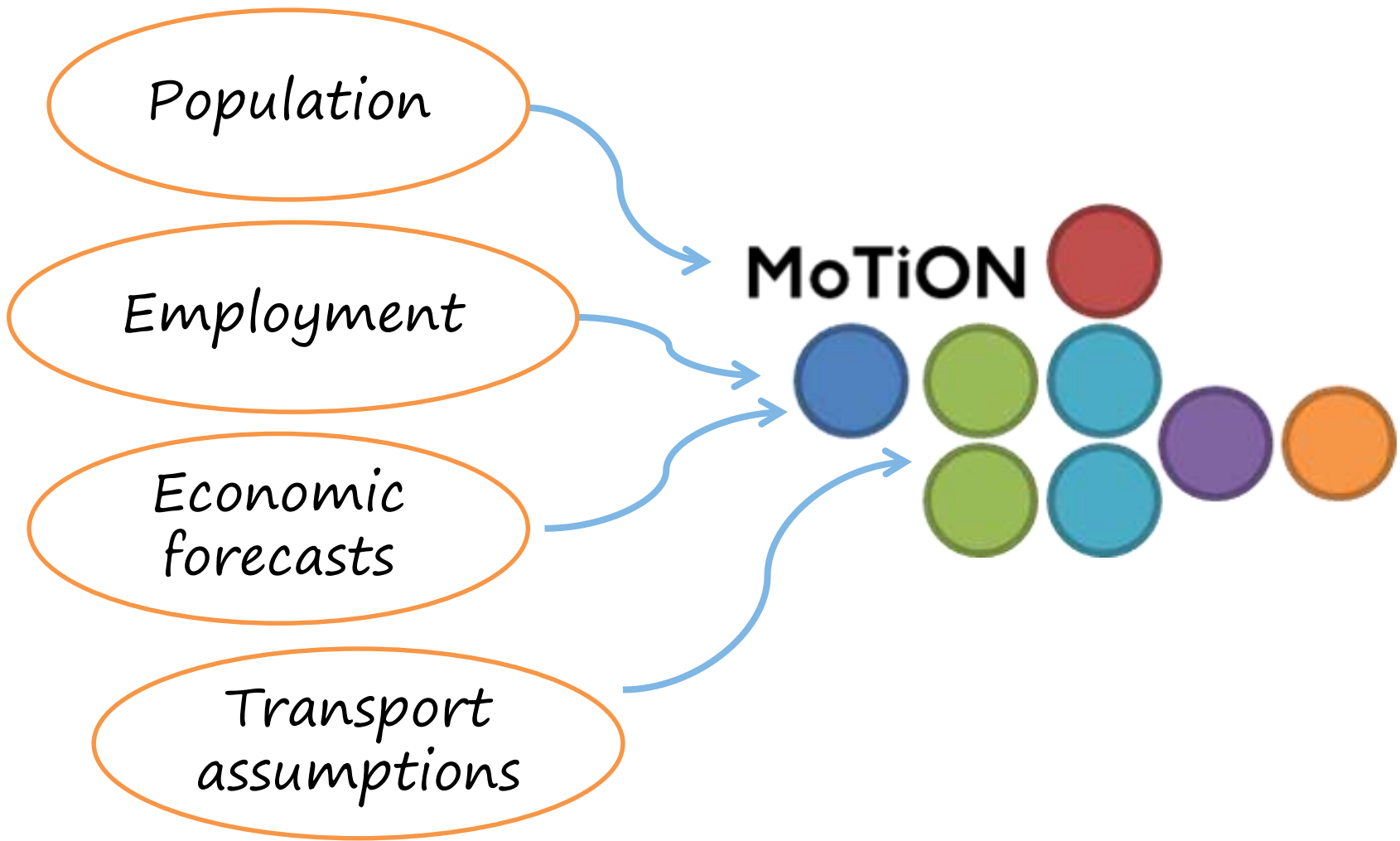


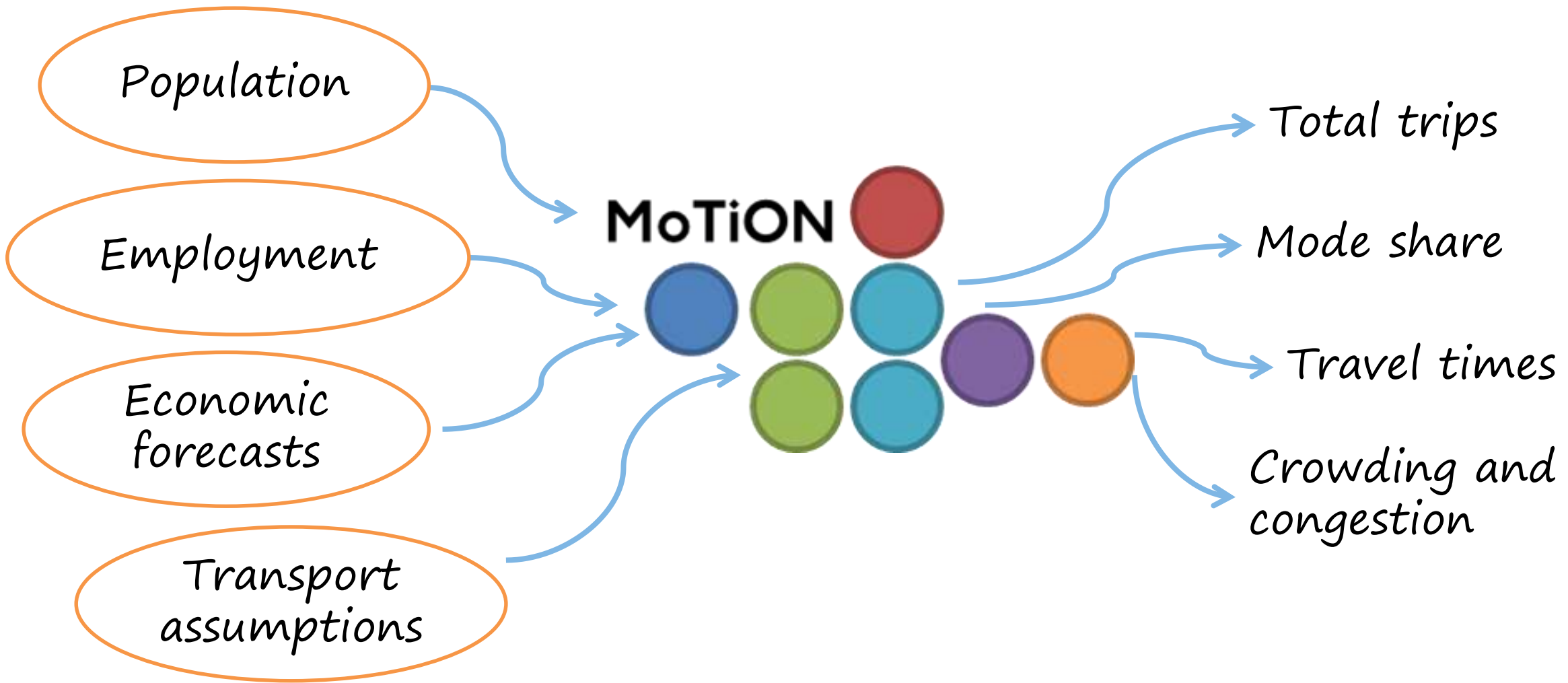
GATEWAY-PROJECT.OAS.IT

GATEway
COLLEGIUM AUTOMATA TECHNOLOGIA

MoTiON







Population

Employment

Economic forecasts

Transport assumptions

MoTiON

Total trips

Mode share

Travel times

Crowding and congestion

Estimating Demand from MObile Network Data



LoHAM

One model covering the whole of London which predicts

the routes that drivers choose
the associated **congestion and delays** impacts



Railplan

A public transport model that predicts

the **types of public transport** that customers choose
the routes that customers choose
the associated **crowding impacts**



Cynemon

A cycling model which predicts

the routes that cyclists choose
the **resulting journey times** between each origin and destination



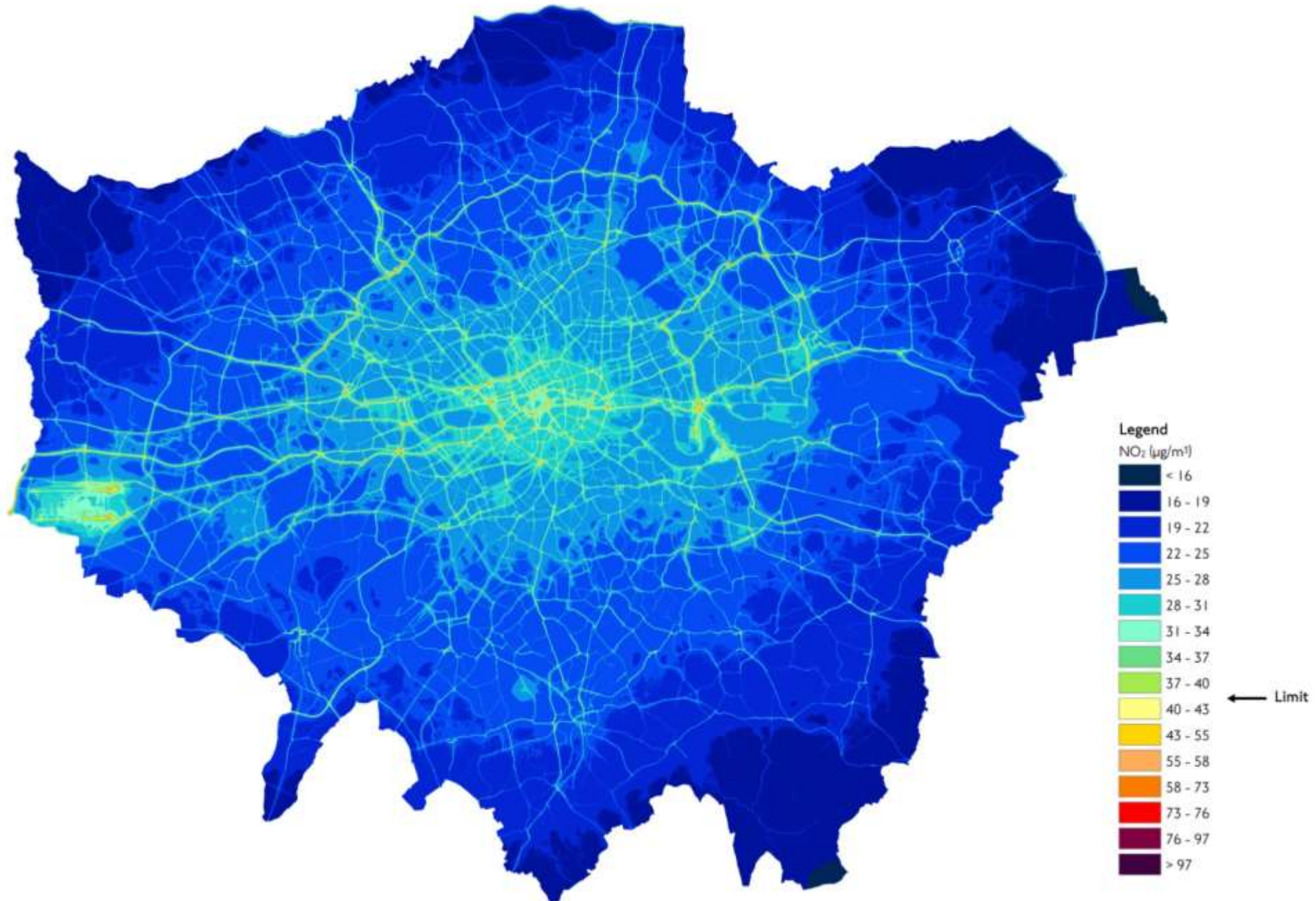


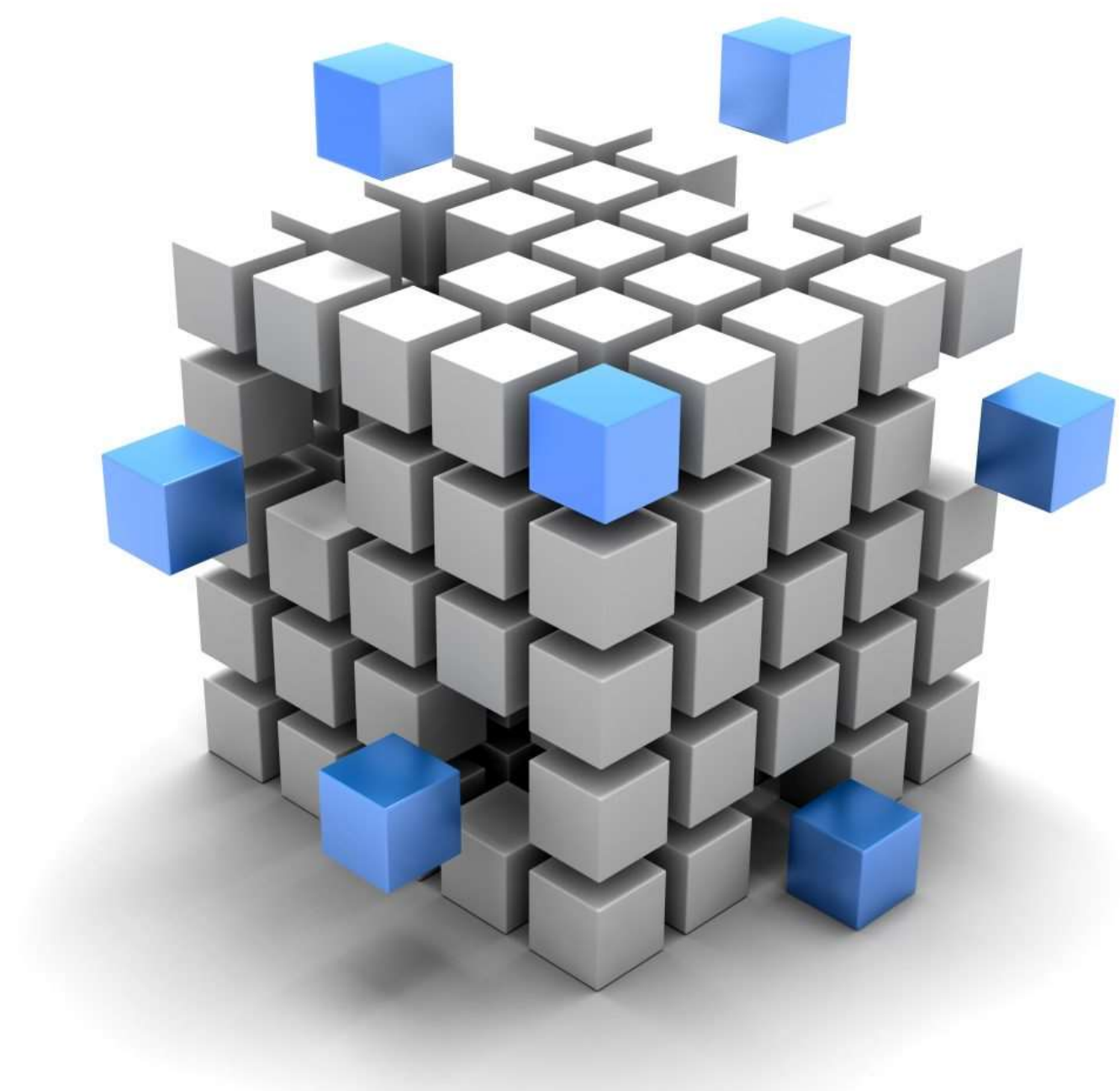


Removing women's barriers
to cycling could generate
50,000 extra trips per day



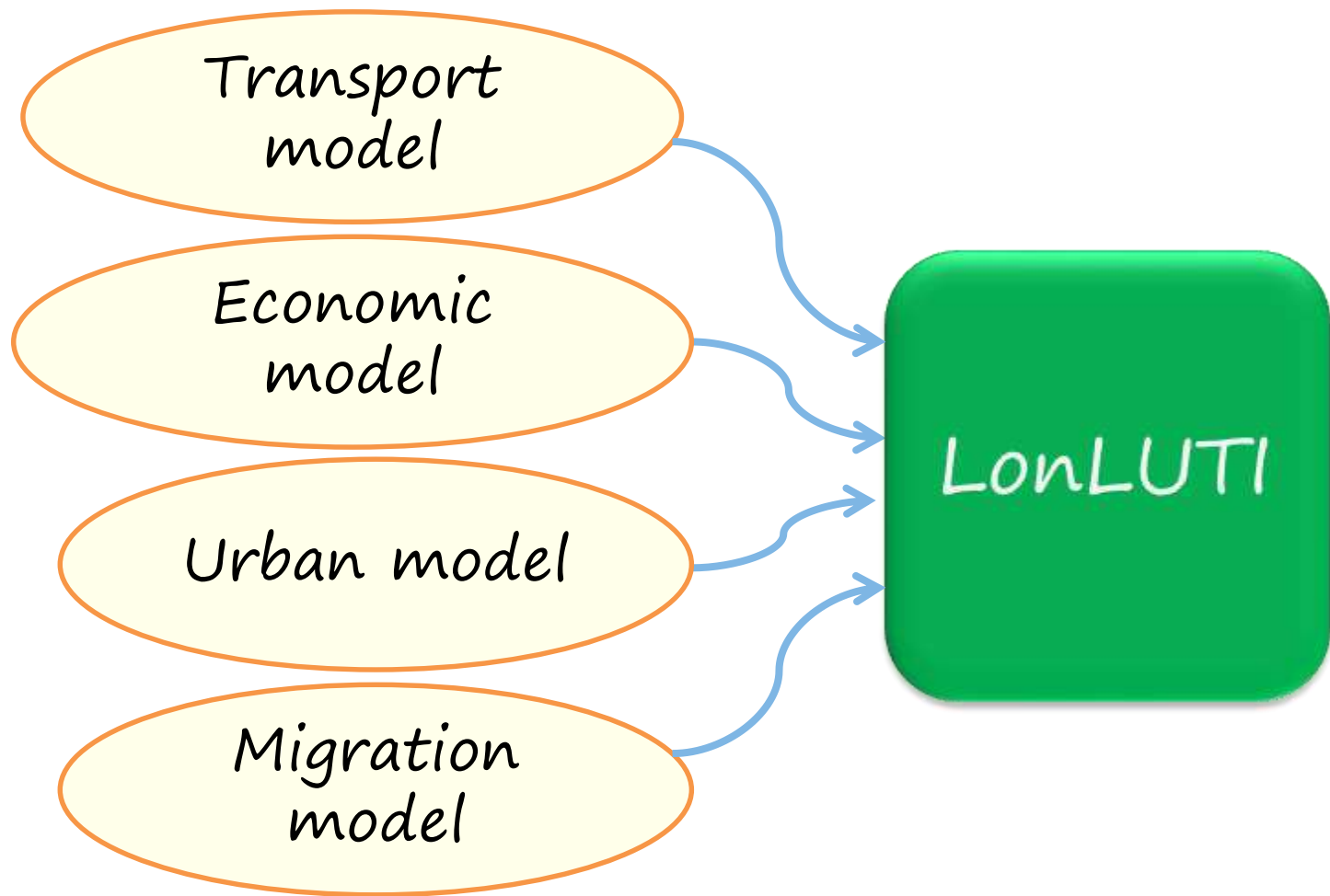
Greater London - Annual mean NO₂ concentrations 2025

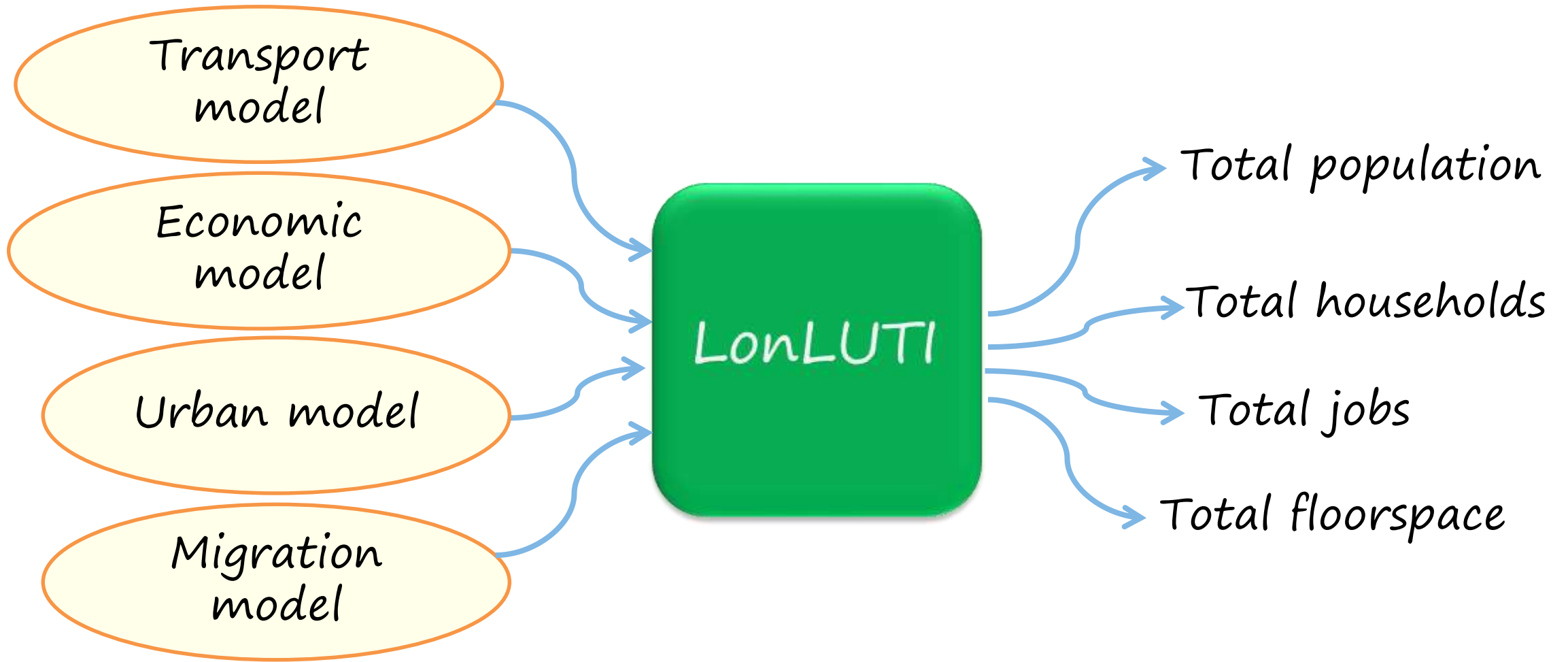


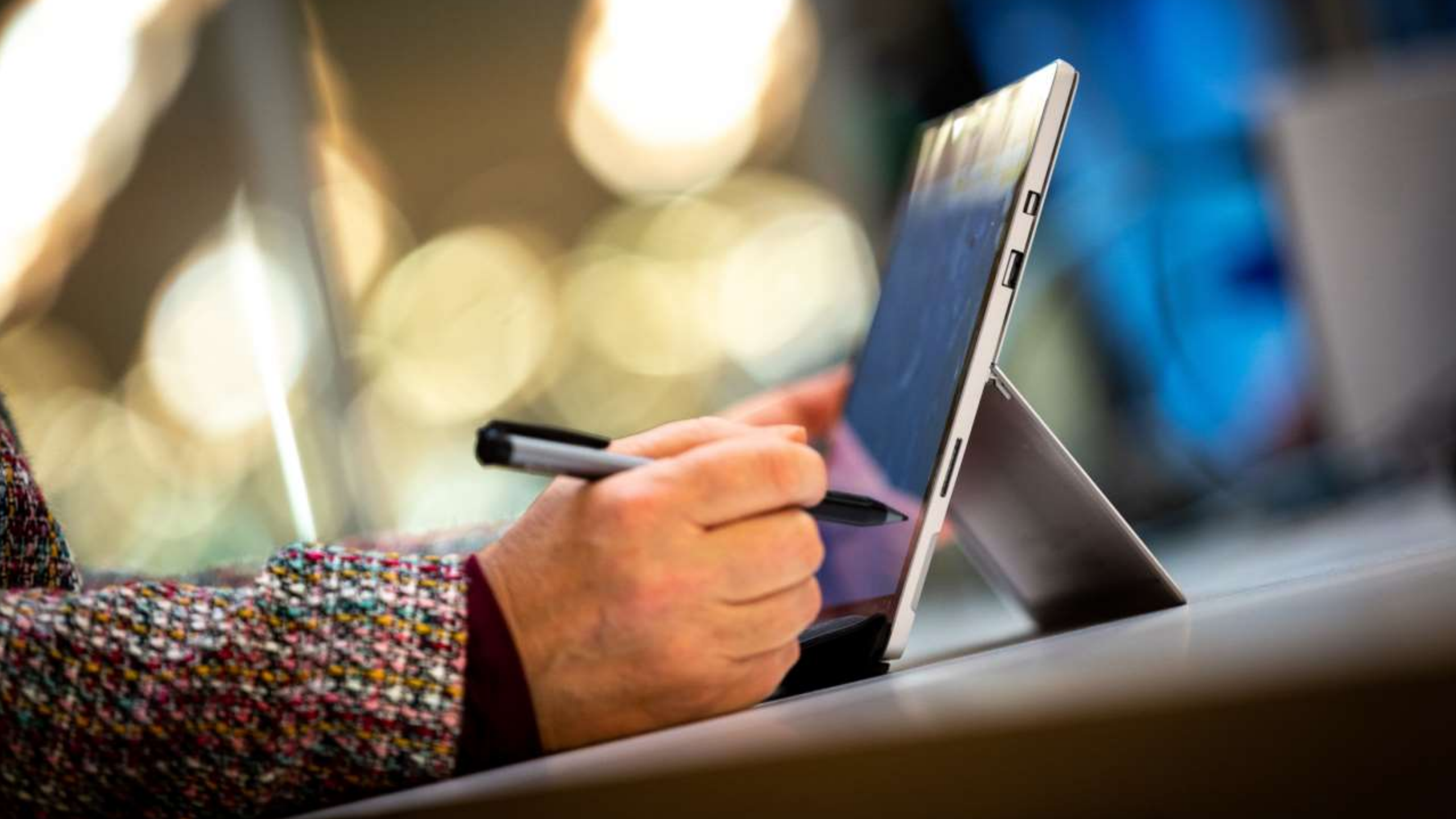


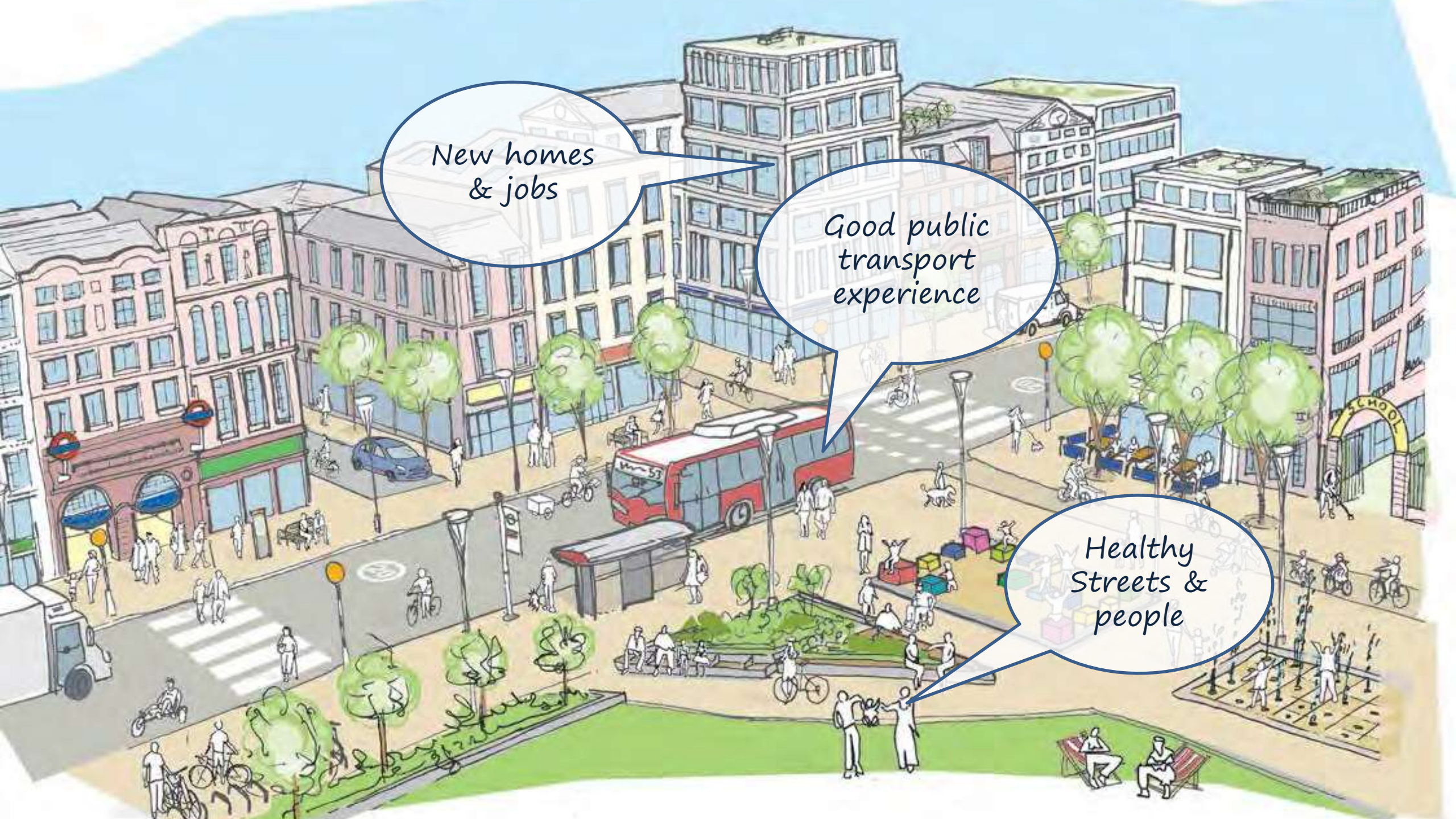


LonLUTI









New homes
& jobs

Good public
transport
experience

Healthy
Streets &
people

WHAT'S

NEXT





Thank you



EVERY JOURNEY MATTERS

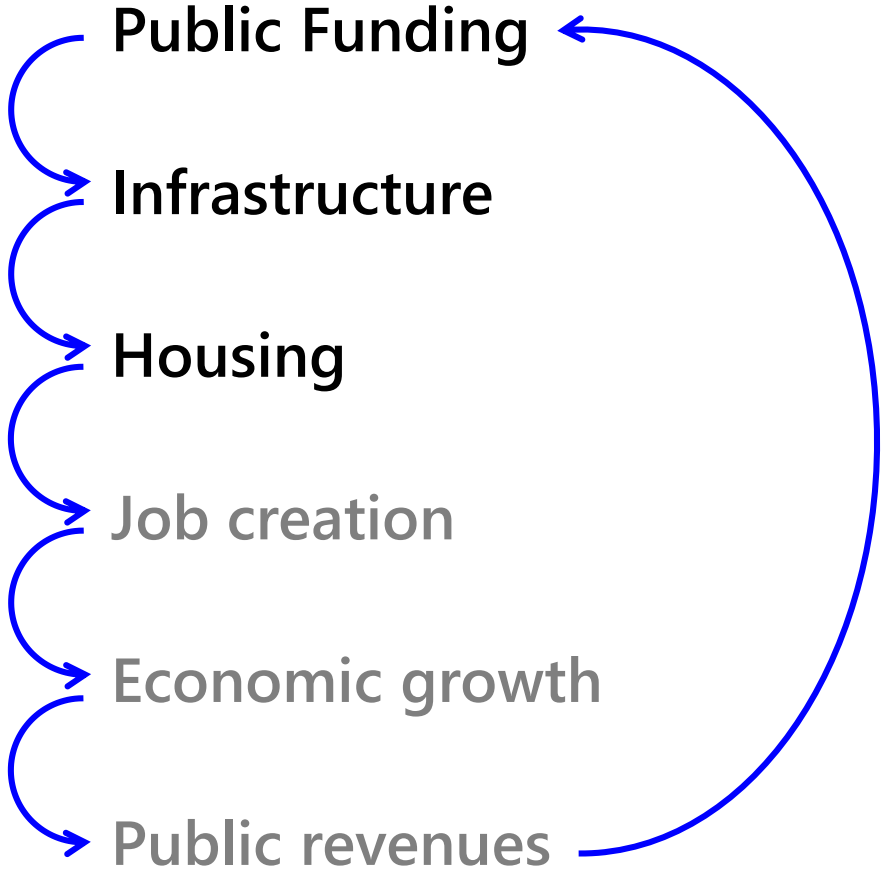
GAPs

MIND THE

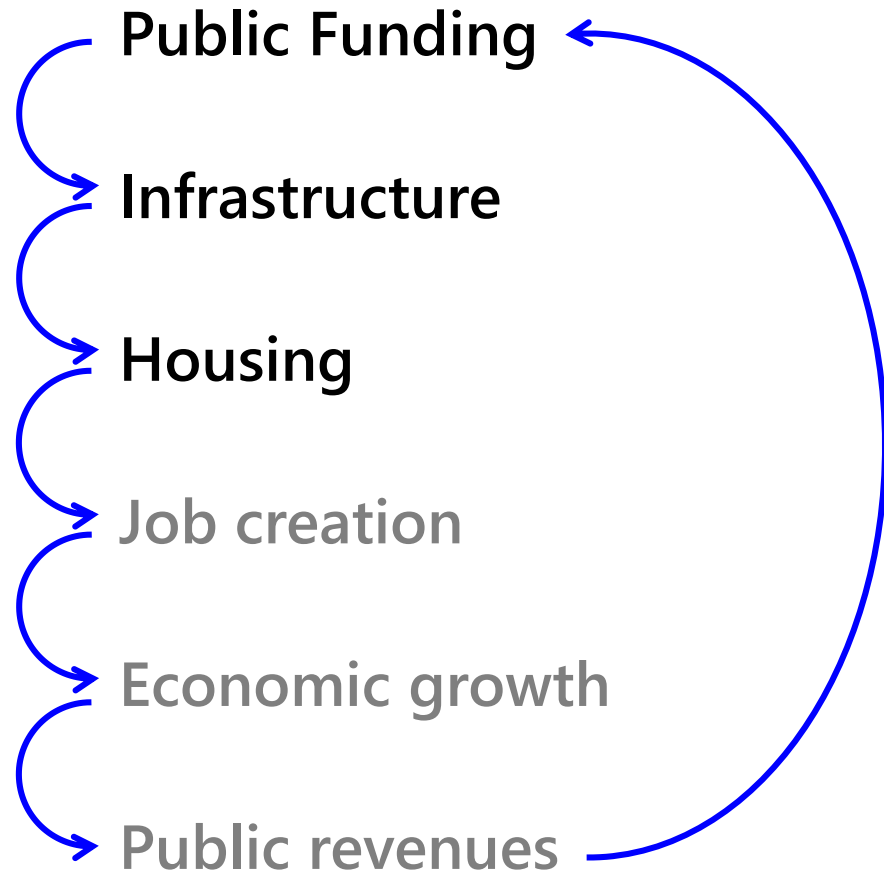
Public funding
Infrastructure
Housing
Job creation
Economic growth
Public revenues



Questions



Questions



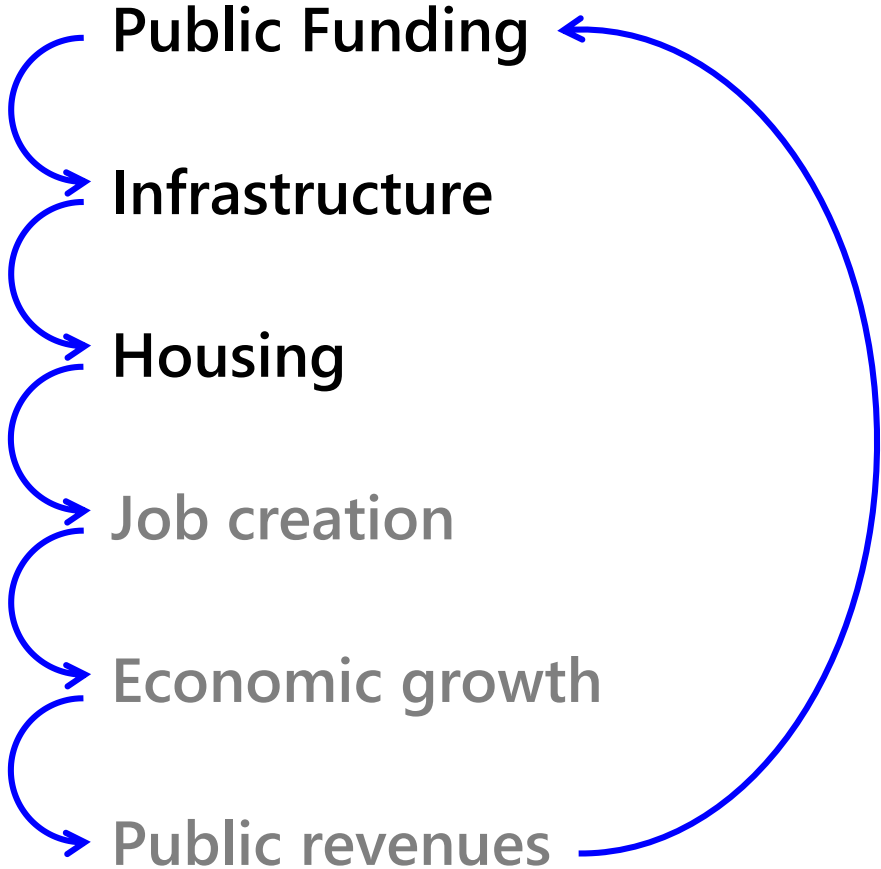
***Some gaps are obvious;
what are their impacts?***

***Other gaps are implied or anecdotal;
how big are they?***

Are these self-inflicted wounds?

How to measure it all?

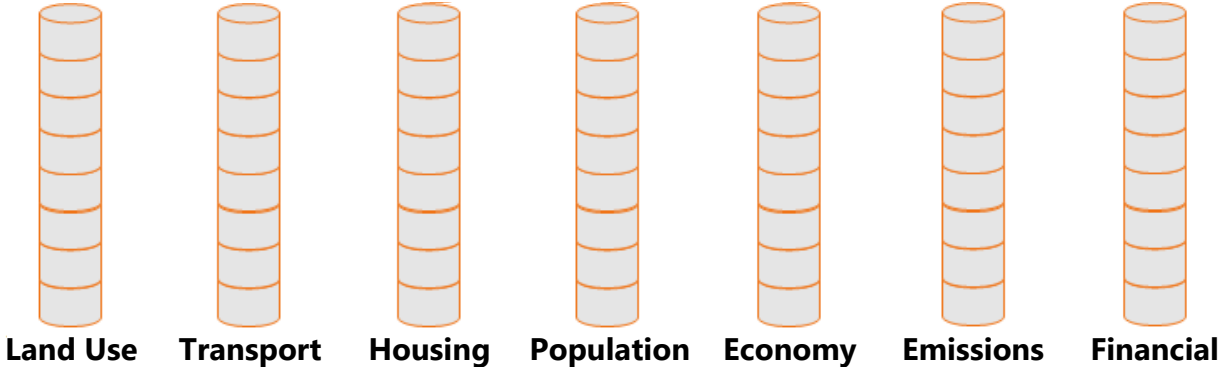
Conclusions



Gaps may be self-reinforcing; modelling needed

Urban models in the inventory

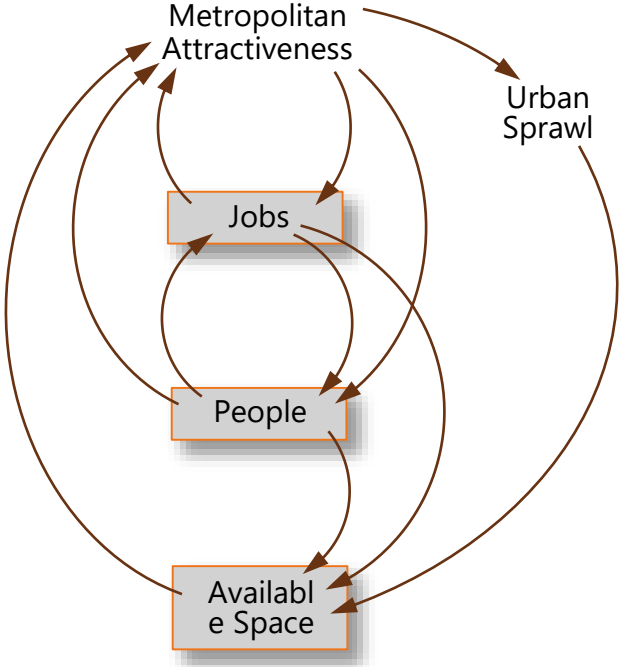
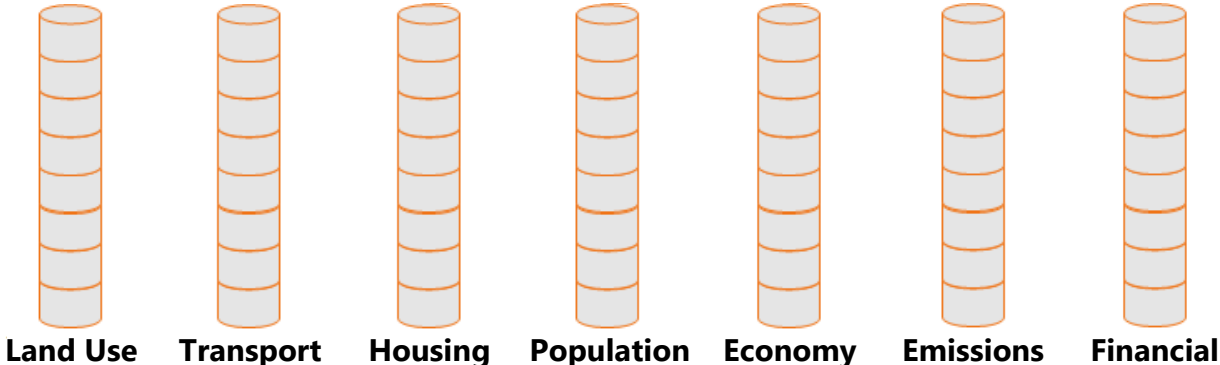
Detailed, discipline-specific models



Urban models in the inventory

*With lots of cross-influences between these urban elements...
Where is the real-world causality?*

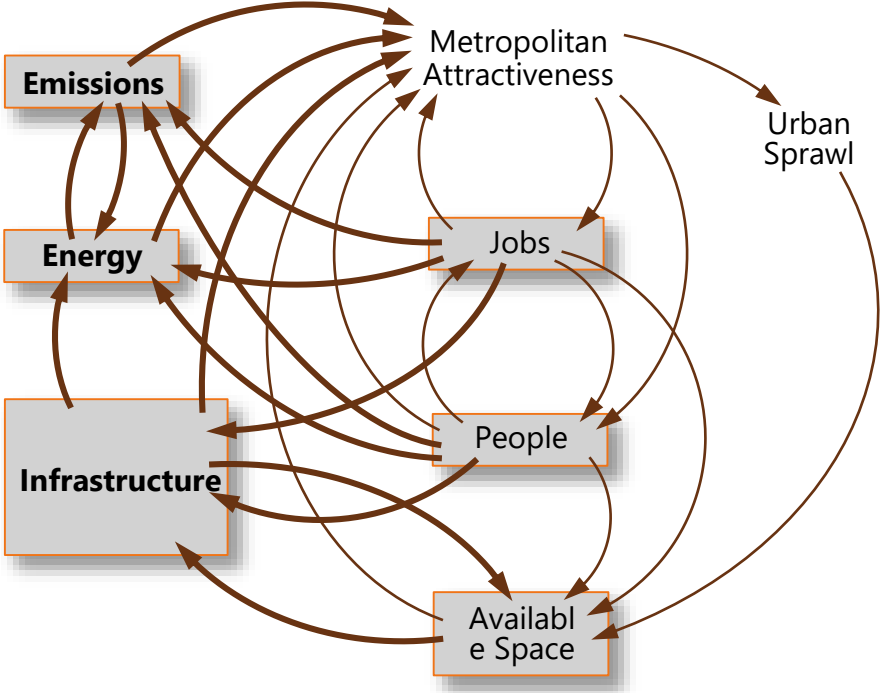
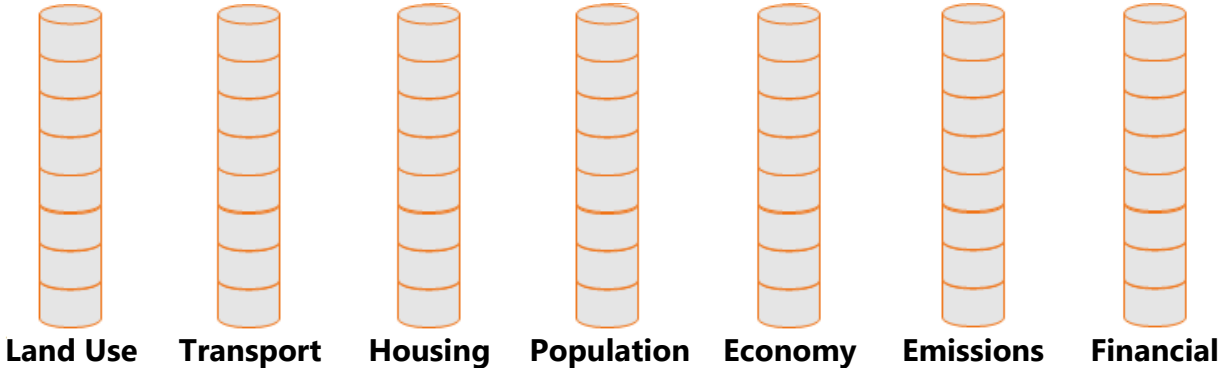
Detailed, discipline-specific models



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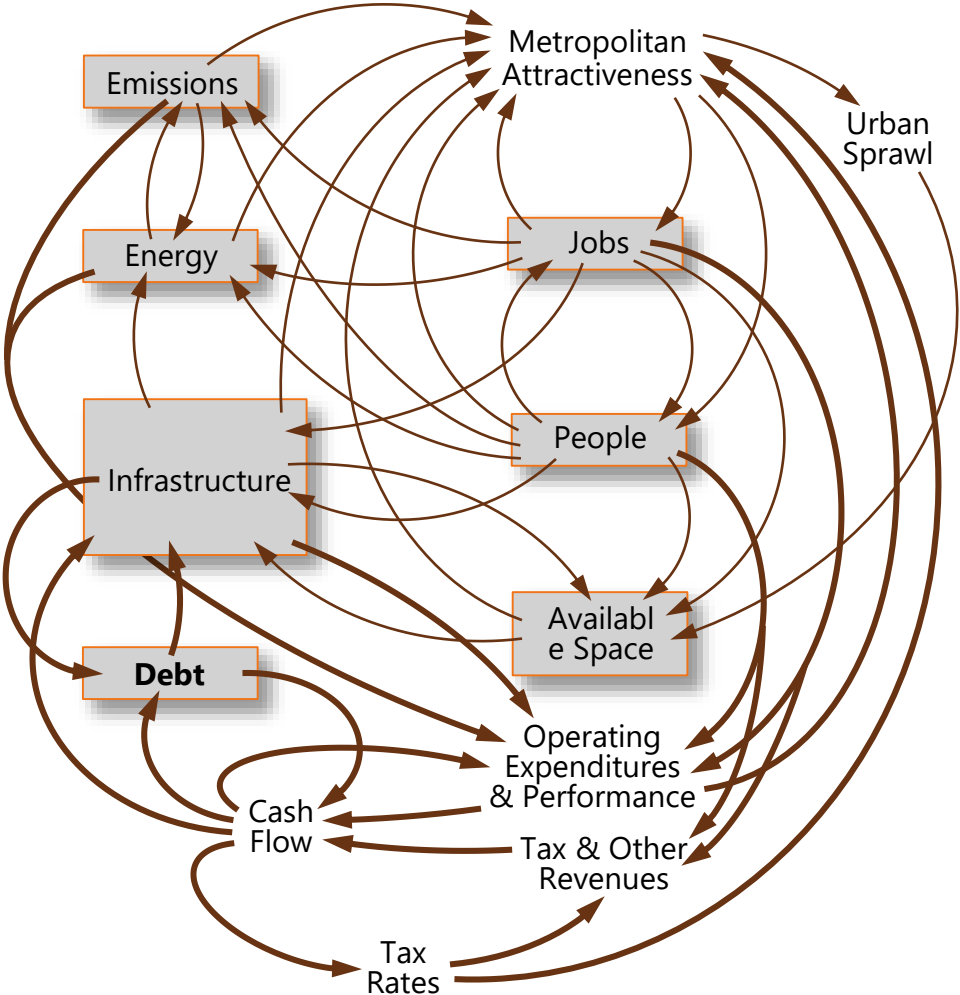
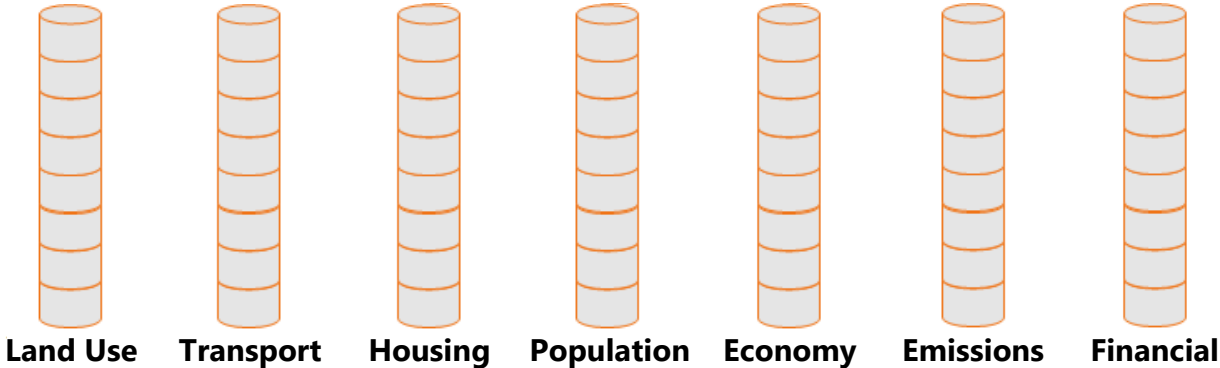
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Detailed, discipline-specific models

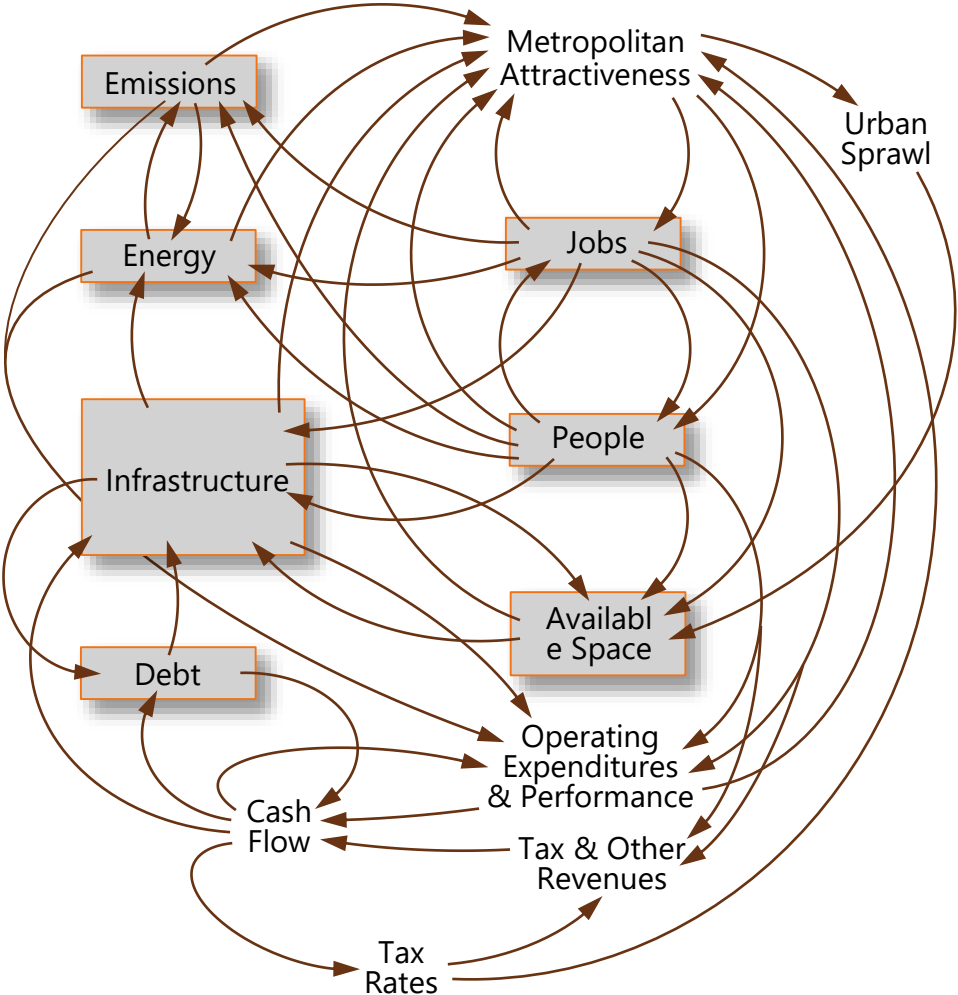
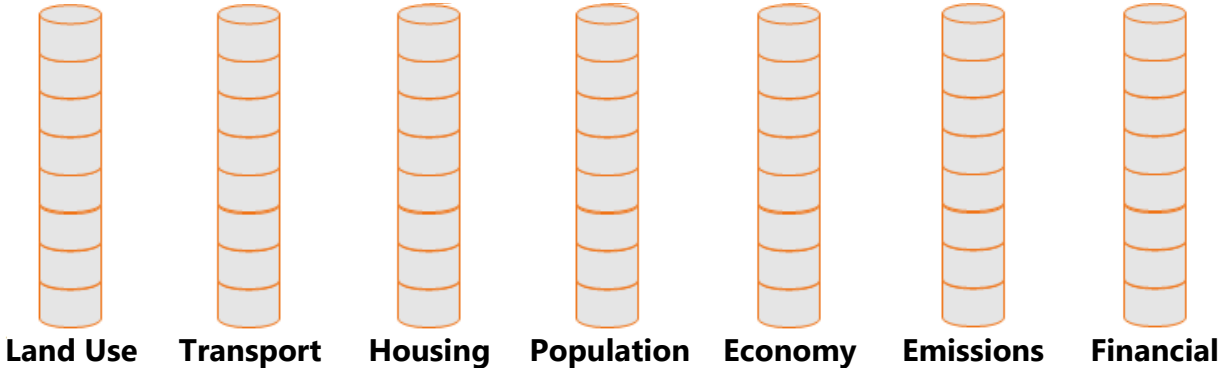


Urban models in the inventory

**With lots of cross-influences between these urban elements...
Where does causality lie?**

Can we connect all these urban models, to avoid sub-optimizing?

Detailed, discipline-specific models



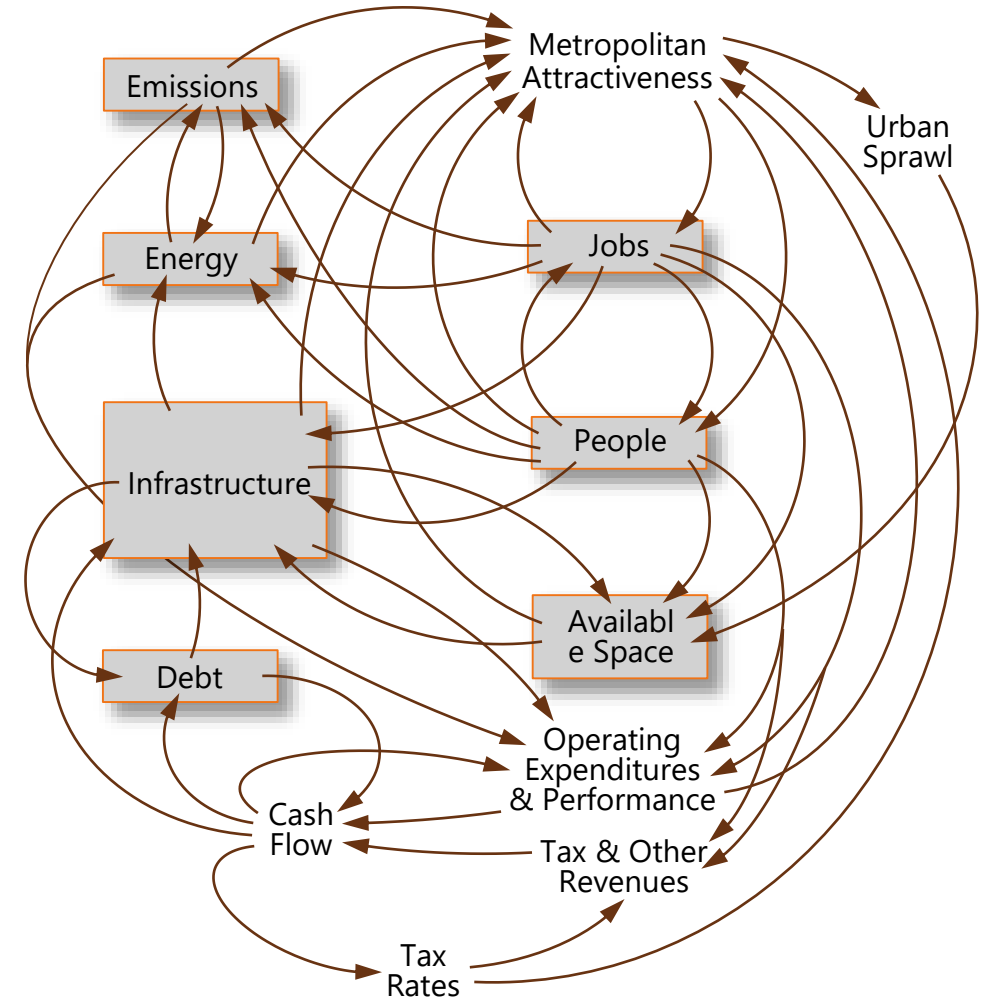
A new model in the urban inventory

Whole-system modelling...all the elements and relationships that make up the urban system

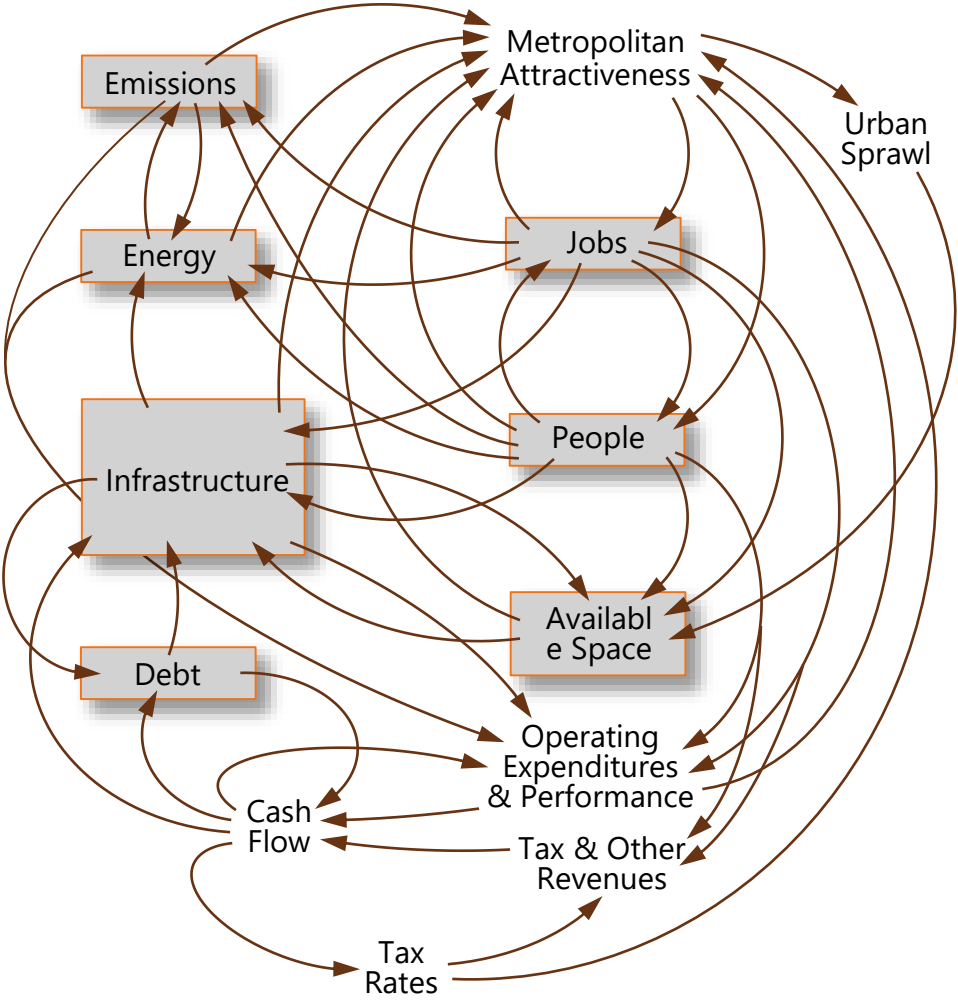
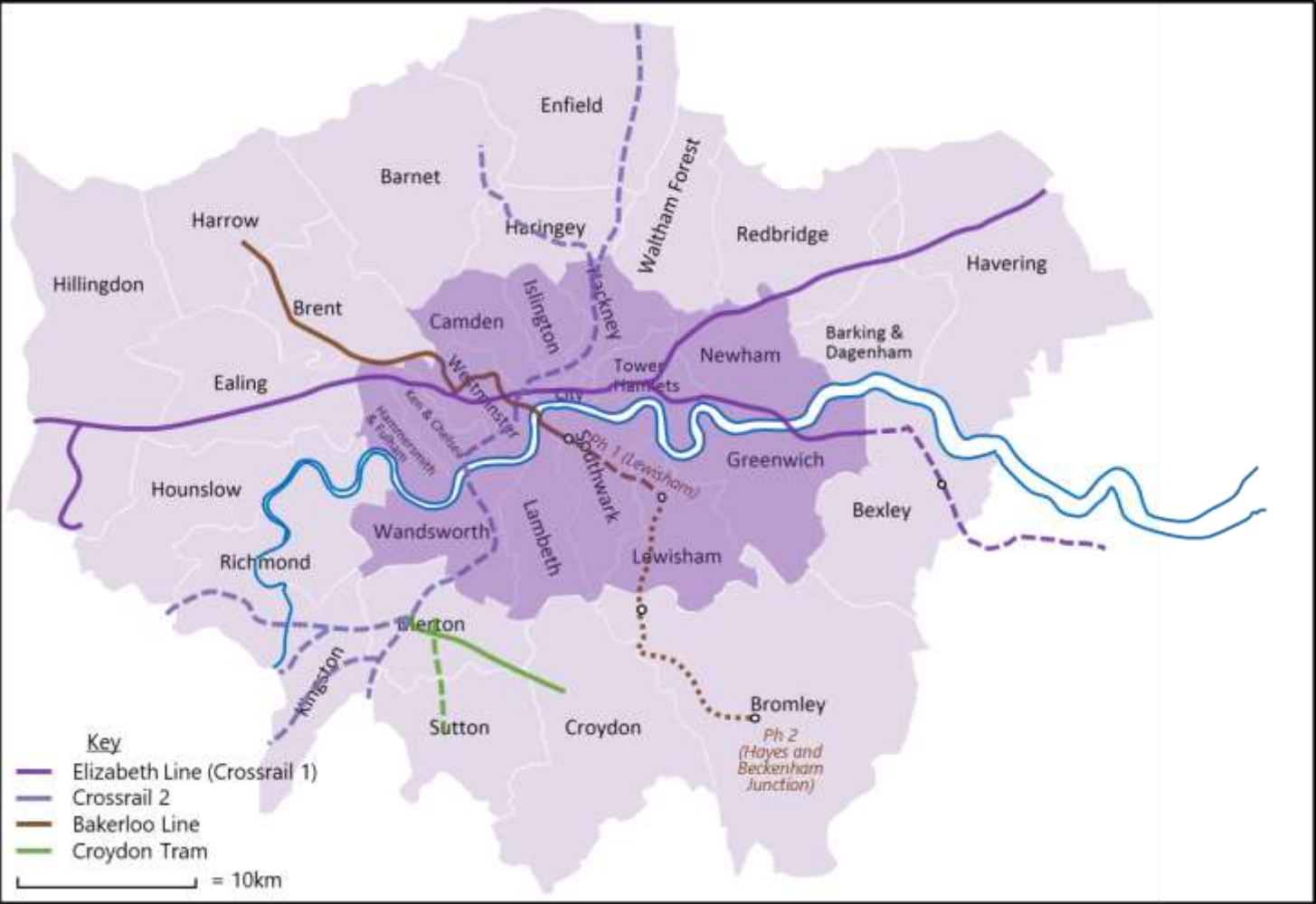
Method invented at MIT...

City simulators developed by Greenwood in a pioneering partnership with the GLA

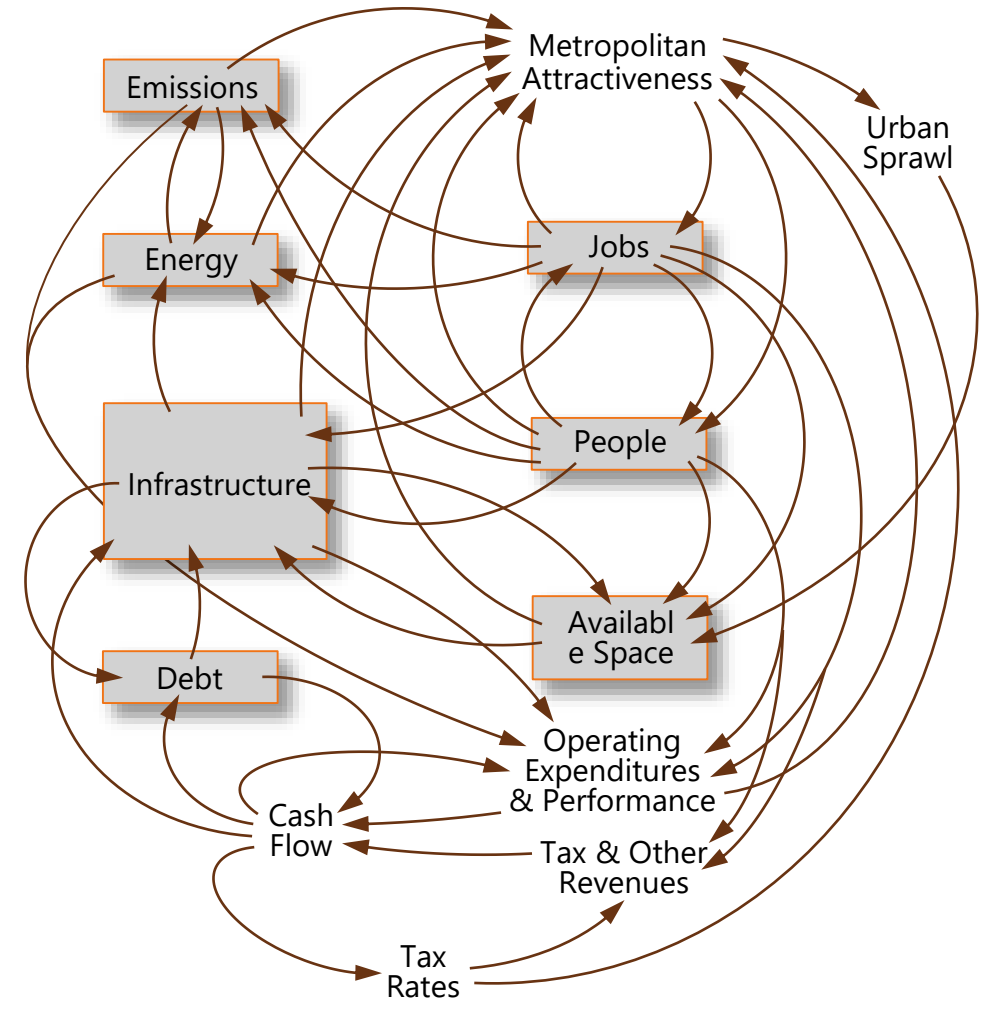
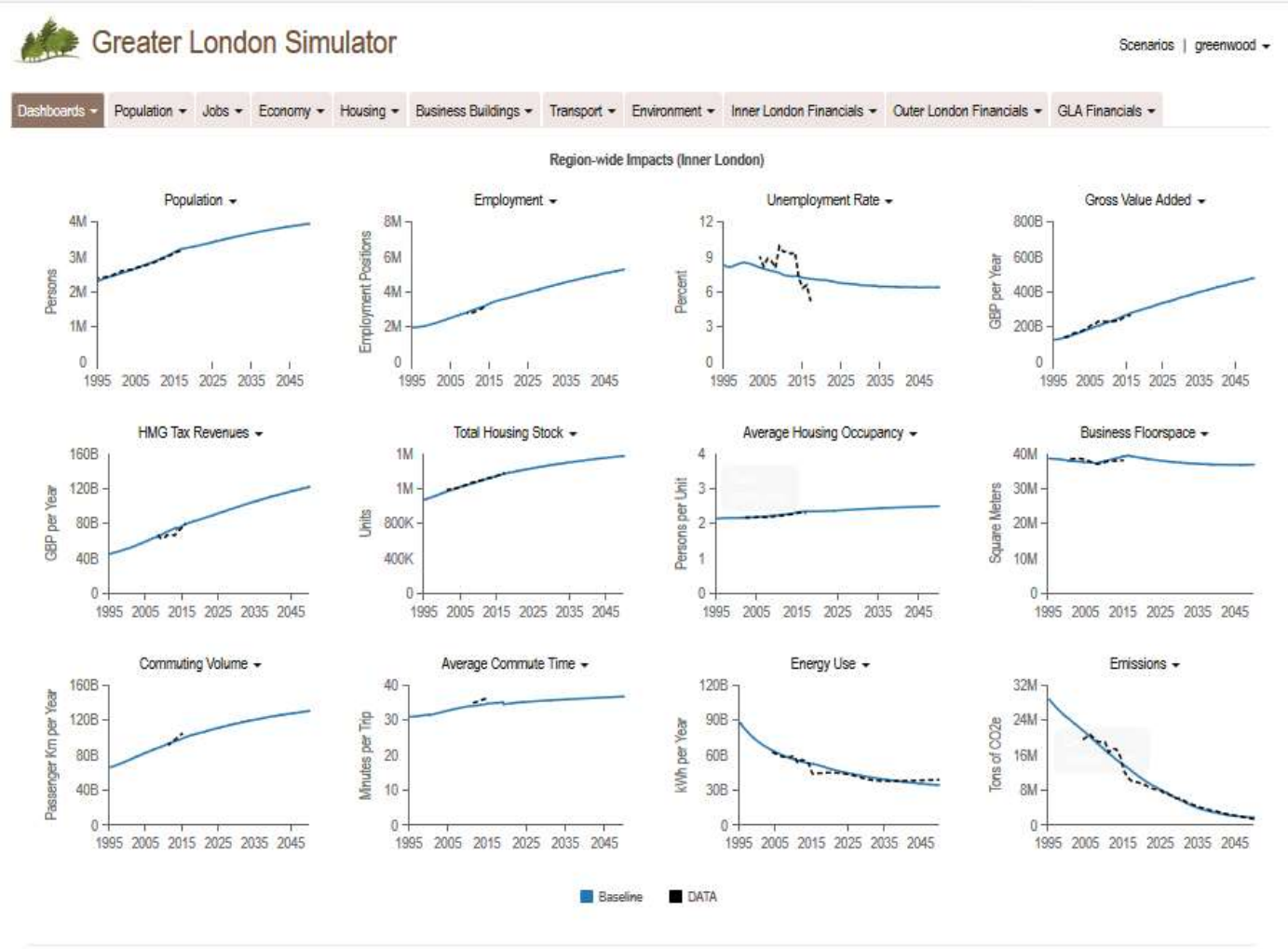
Strong complementarity with discipline-specific urban models



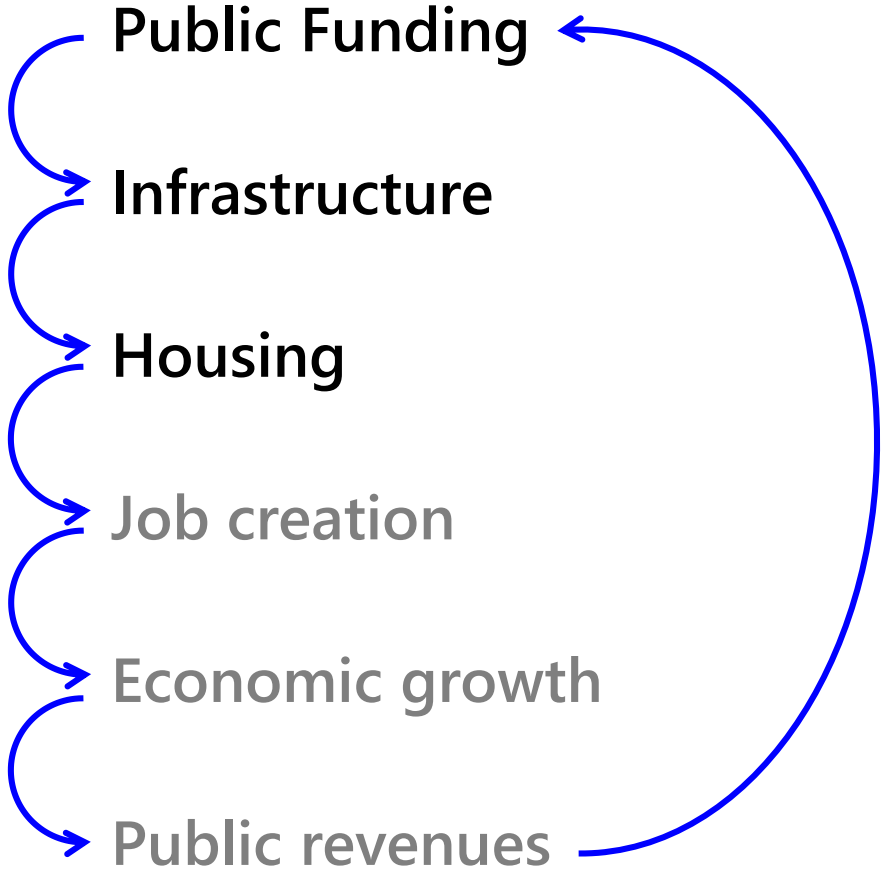
The London Simulator



The London Simulator



Conclusions



Gaps may be self-reinforcing; modelling needed

To find out, simulate the whole urban system

Infrastructure investments are the simulation test vehicles

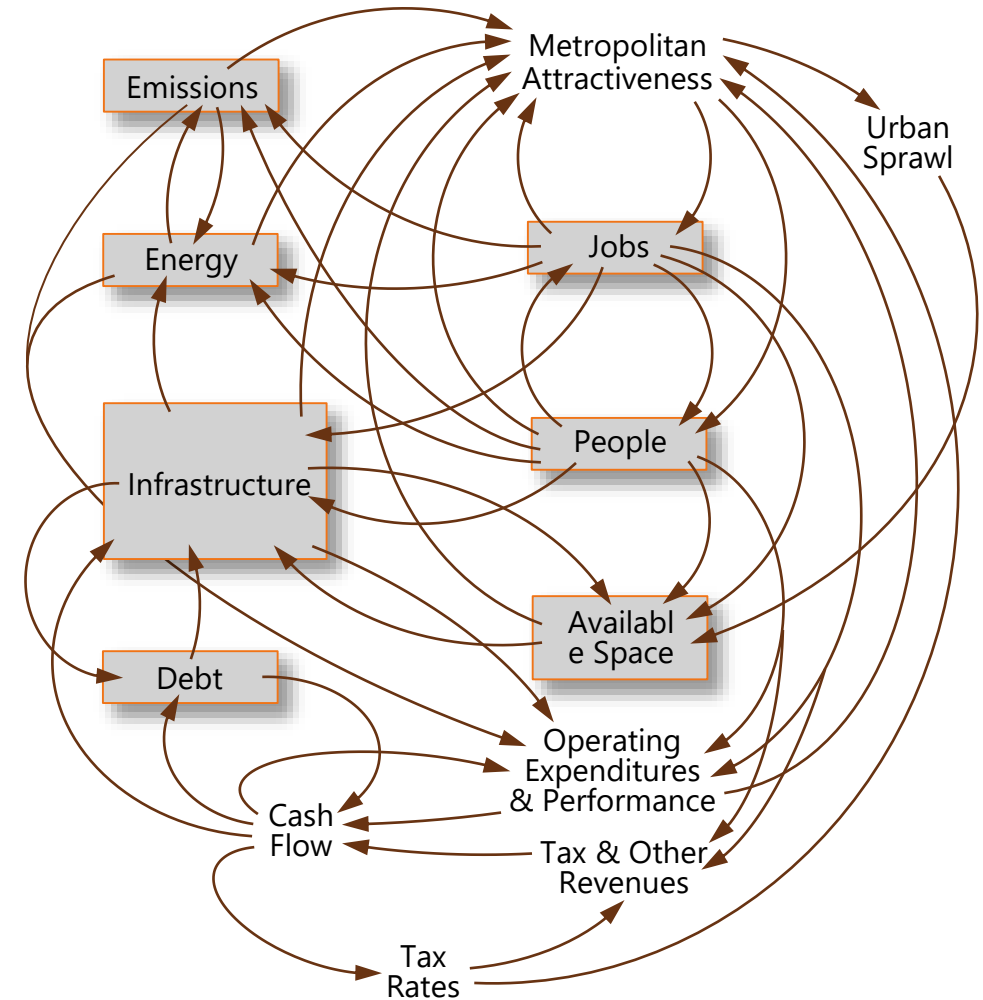
Past & present public investments

- Jubilee Line Extension
- London Olympics
- Crossrail 1

Prospective future investments

- Northern Line Extension
- Sutton Tram Extension
- Crossrail Extension to Ebbsfleet
- Bakerloo Line Extension
- Crossrail 2
- South London Metroisation
- Royal Docks Redevelopment
- Fibre to every building

These investments directly enable new London housing



Infrastructure investments are the simulation test vehicles

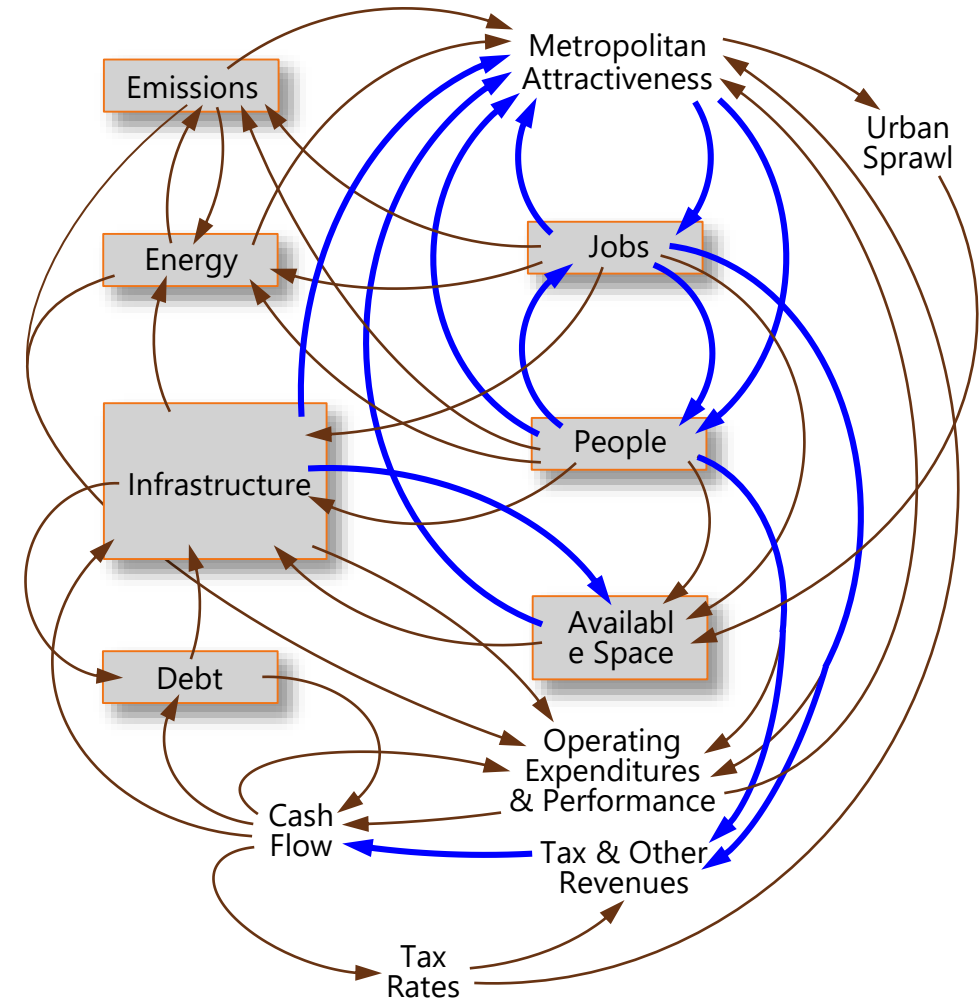
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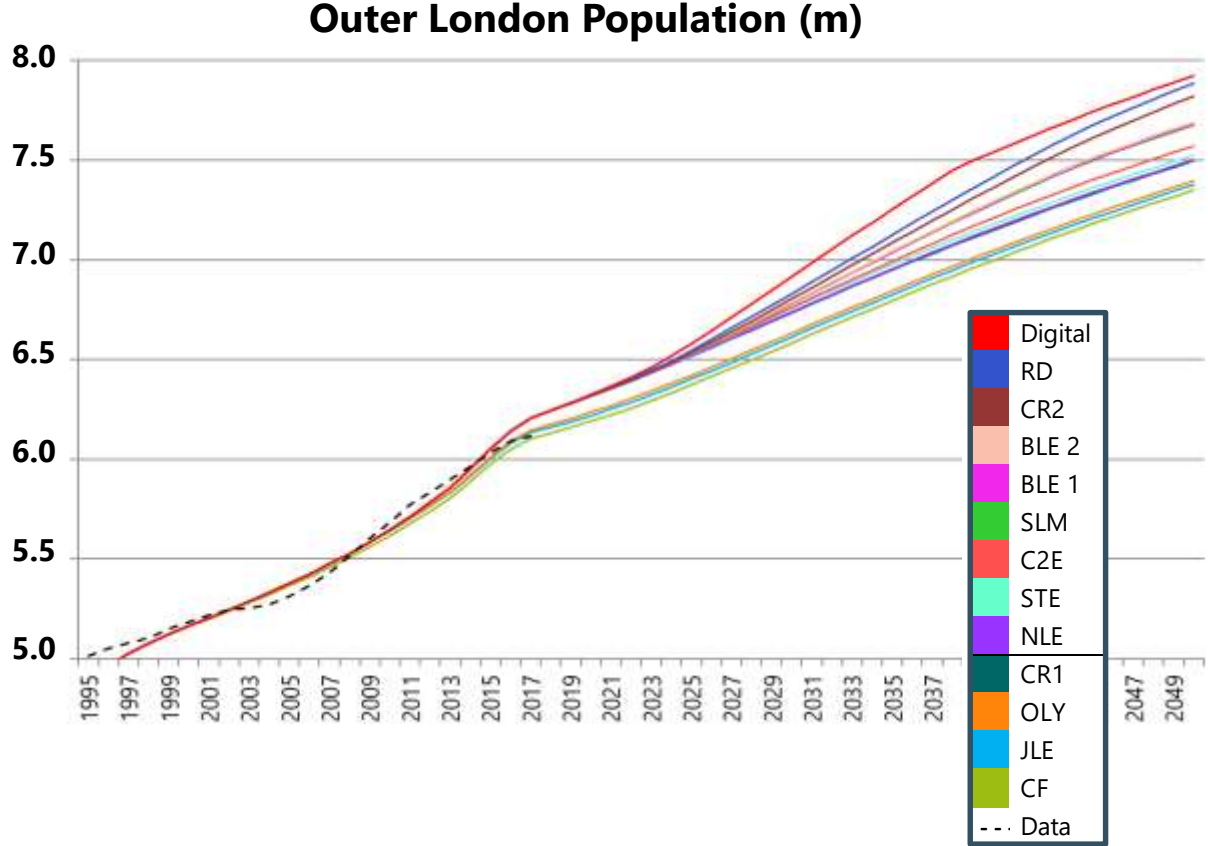
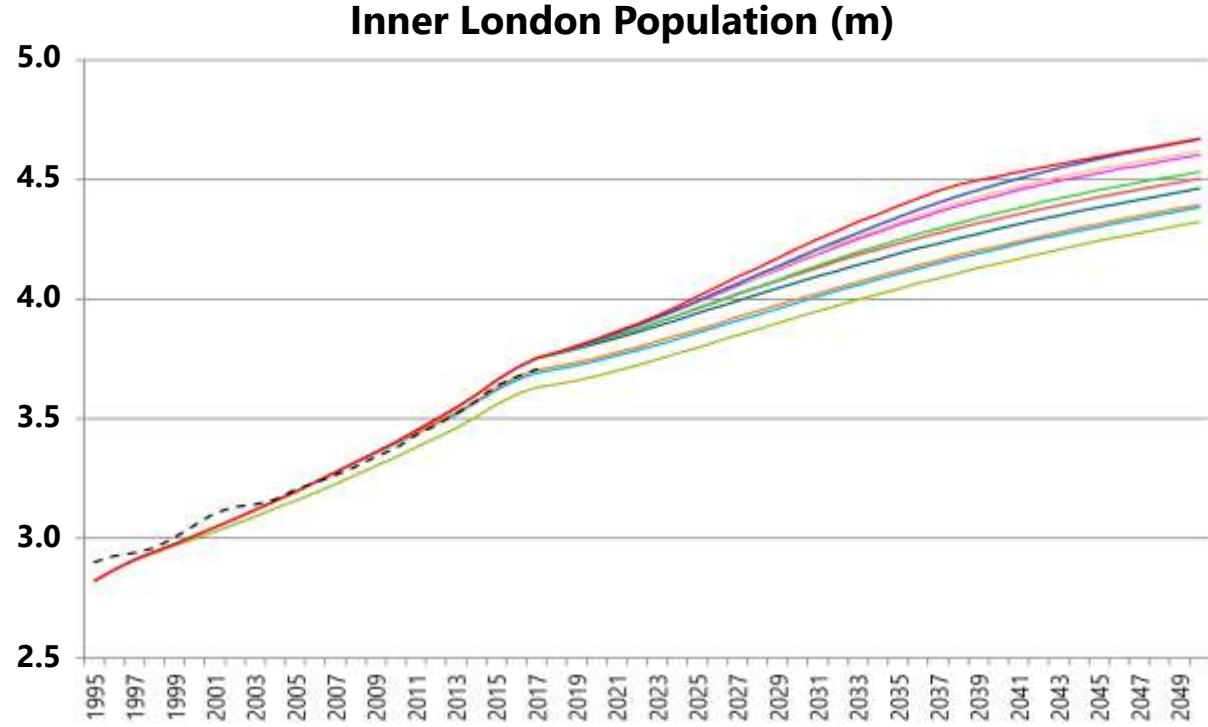
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New infrastructure → housing → population → economic and public revenue growth?



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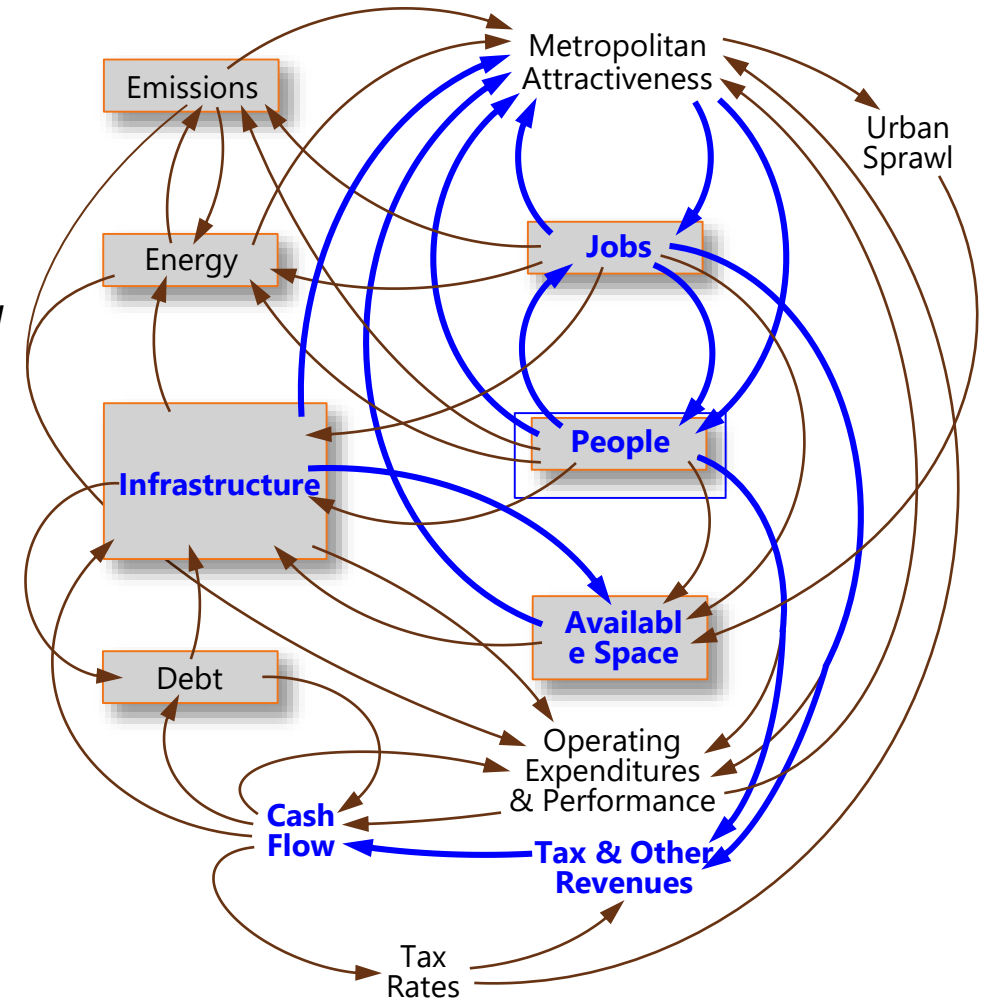
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2050 impacts from £38.5B invested

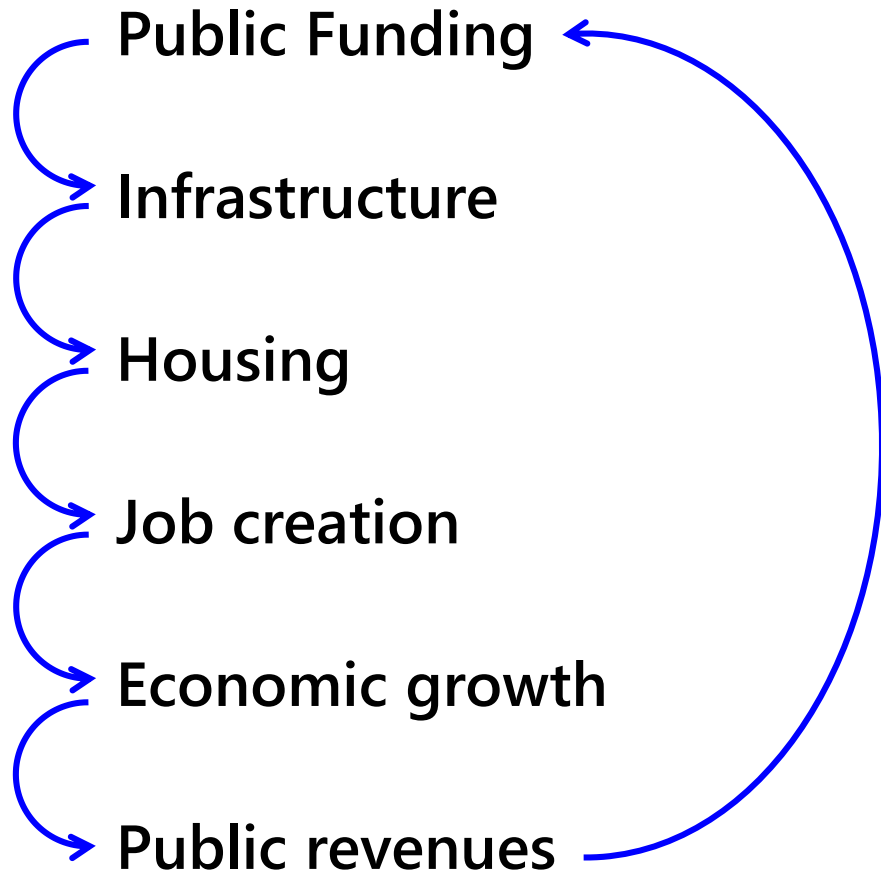
- 307,000 new housing units
- 700,000 additional Londoners
- 385,000 additional jobs
- £20B/year added to London's economy (in real terms)

HMT's London cash flow up by >2x investment cost (NPV)

These investments are more than self-funding



Conclusions



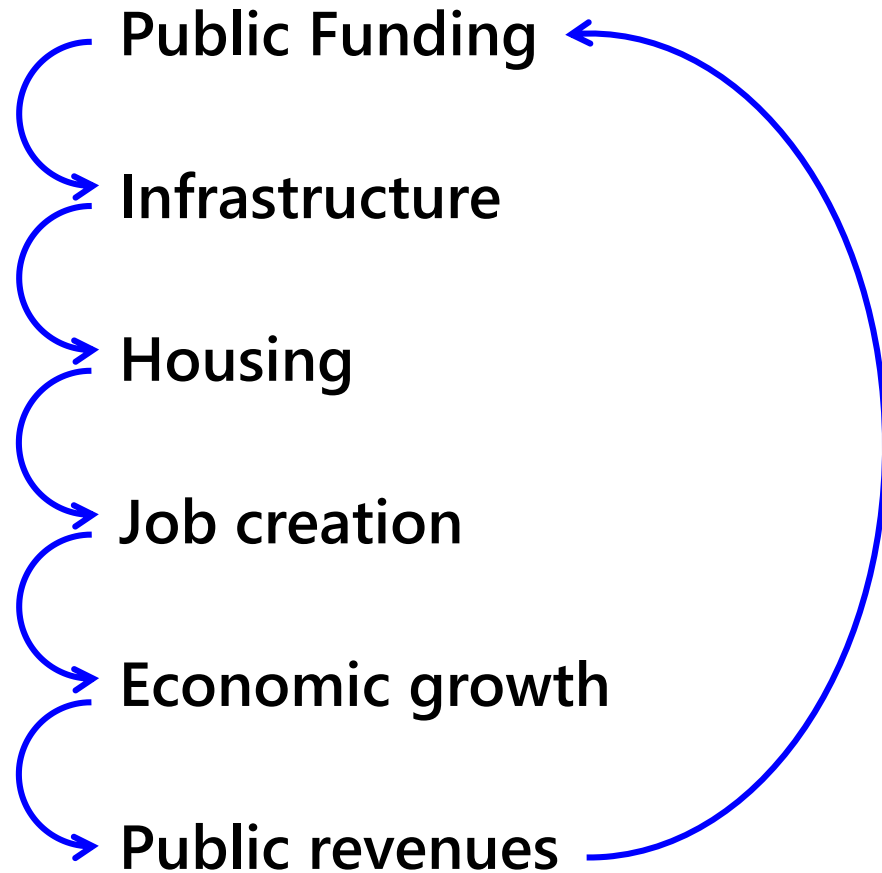
*These gaps **are** self-reinforcing*

Simulating the whole urban system is proving and quantifying the chain of gaps

A growing London is starving for increased infrastructure investment and what it brings...



Conclusions



These gaps are self-reinforcing

Simulating the whole urban system is proving and quantifying the chain of gaps

A growing London is starving for increased infrastructure investment and what it brings...

Resulting gaps perpetuate a 'vicious cycle' that makes many investments self-funding...

Funding & financing such investments will significantly boost prosperity and life quality