Smart London (UK) Plan:
Digital Technologies, London and Londoners

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GOVERNANCE

WHO RUNS LONDON: NETWORK GOVERNANCE

The Greater London Authority

- London's city-wide top tier of local government
- Comprises the Mayor (executive) and the Assembly (scrutiny)
- Primarily a strategic body

London's 32 boroughs and the City Corporation

- Second tier of local government in London
- London's primary local service providers

National Government

- Controls most public service spending in London; provides a strong legislative and regulatory framework

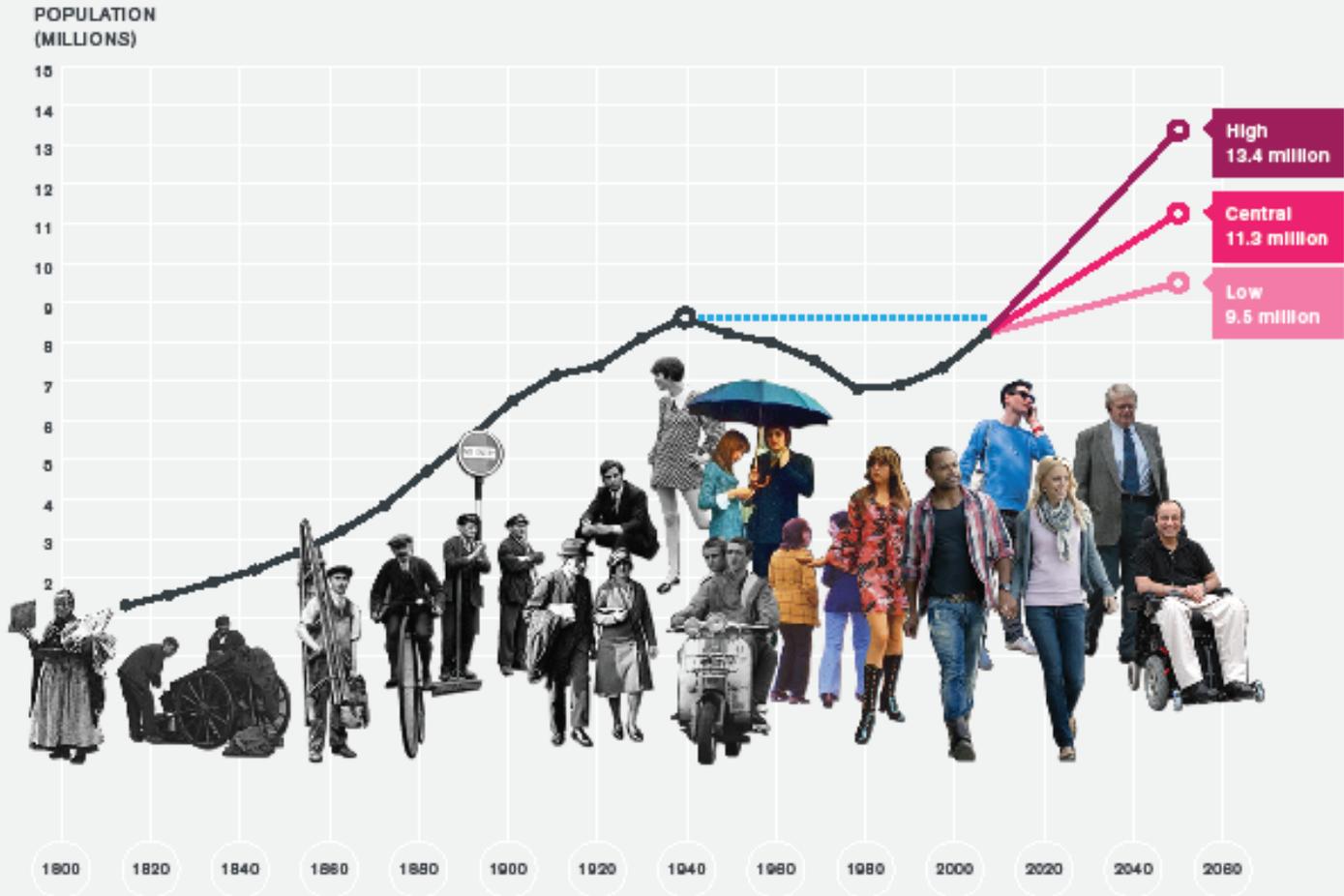Informal formal partnerships and networks

THE MAYOR OF LONDON

- 'Strong Mayor' system: Mayor has executive powers. Largest personal mandate of any UK politician
- Under the GLA Act, the Mayor promotes
  - economic development and wealth creation
  - social development
  - the improvement of the environment
- In addition, activities must take account of
  - Achieving sustainable development
  - Equality of opportunity
  - Heath improvement
- Public accountability arrangements
- Statutory strategies

GROWTH IN LONDON'S POPULATION AND ECONOMY IS THE DRIVING FORCE

We estimate that London's
population became bigger
than ever in February 2015.

We reached a population
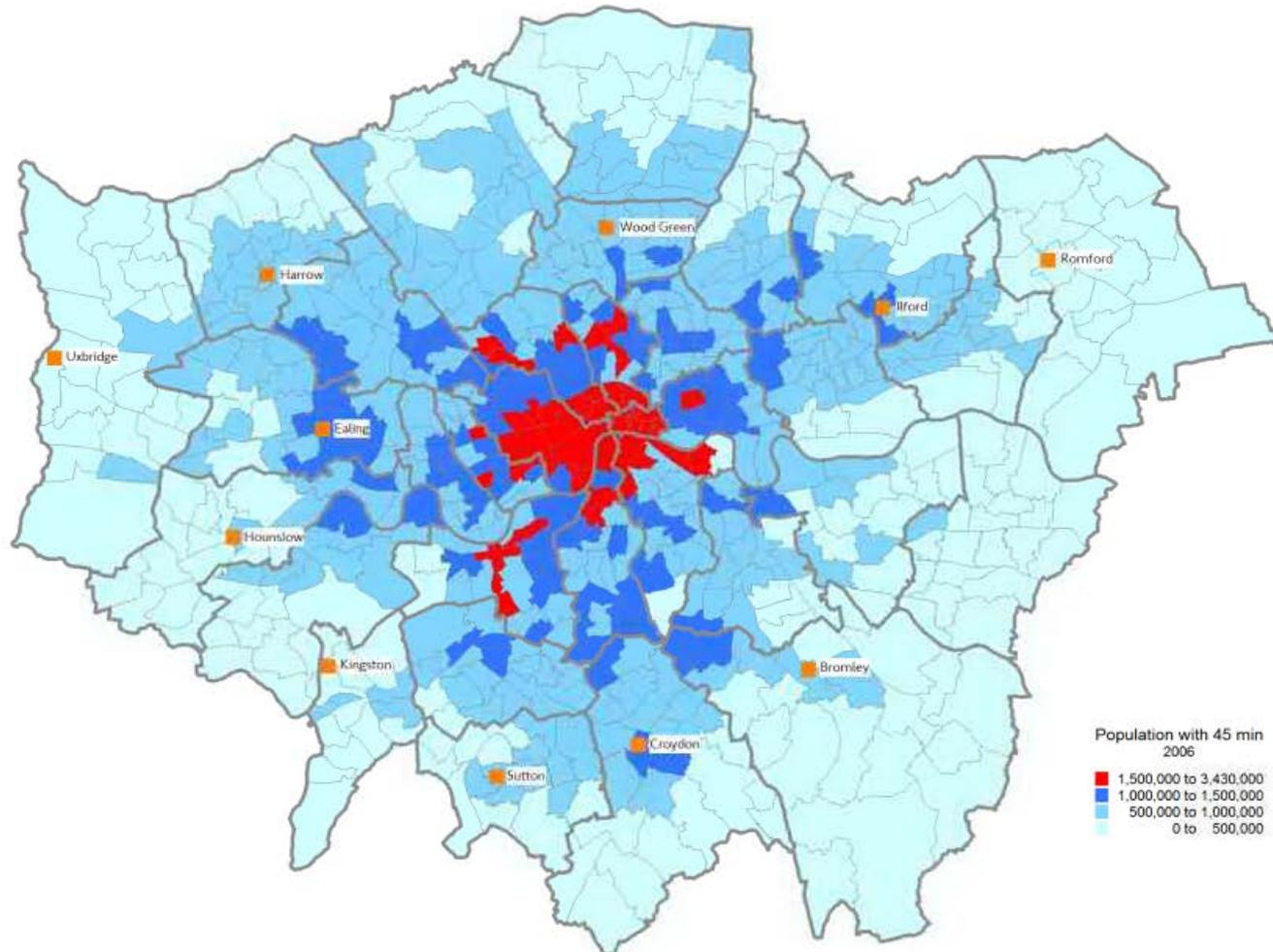of 8.6 million people, the same
as the last peak in 1939.

Projections show
growth to 11.3 million
inhabitants by 2050

An overall increase of 37%
from 2011 to 2050

Source: GLA Intelligence Unit

POPULATION
(MILLIONS)

High
13.4 million

Central
11.3 million

Low
9.5 million

Firms can access a large volume of people who themselves are attracted to live and work in London.

Number of residents accessible by public transport in 45 minutes

Population with 45 min
2006

- 1,500,000 to 3,430,000
- 1,000,000 to 1,500,000
- 500,000 to 1,000,000
- 0 to 500,000

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So there is a concentration of employment in London, particularly central London.

Number of people in employment per sq km, all sectors

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London's deep assets #1: Knowledge Economy

London's deep assets #2: Global Hub

London's deep assets #3: Infrastructure

INFRASTRUCTURE
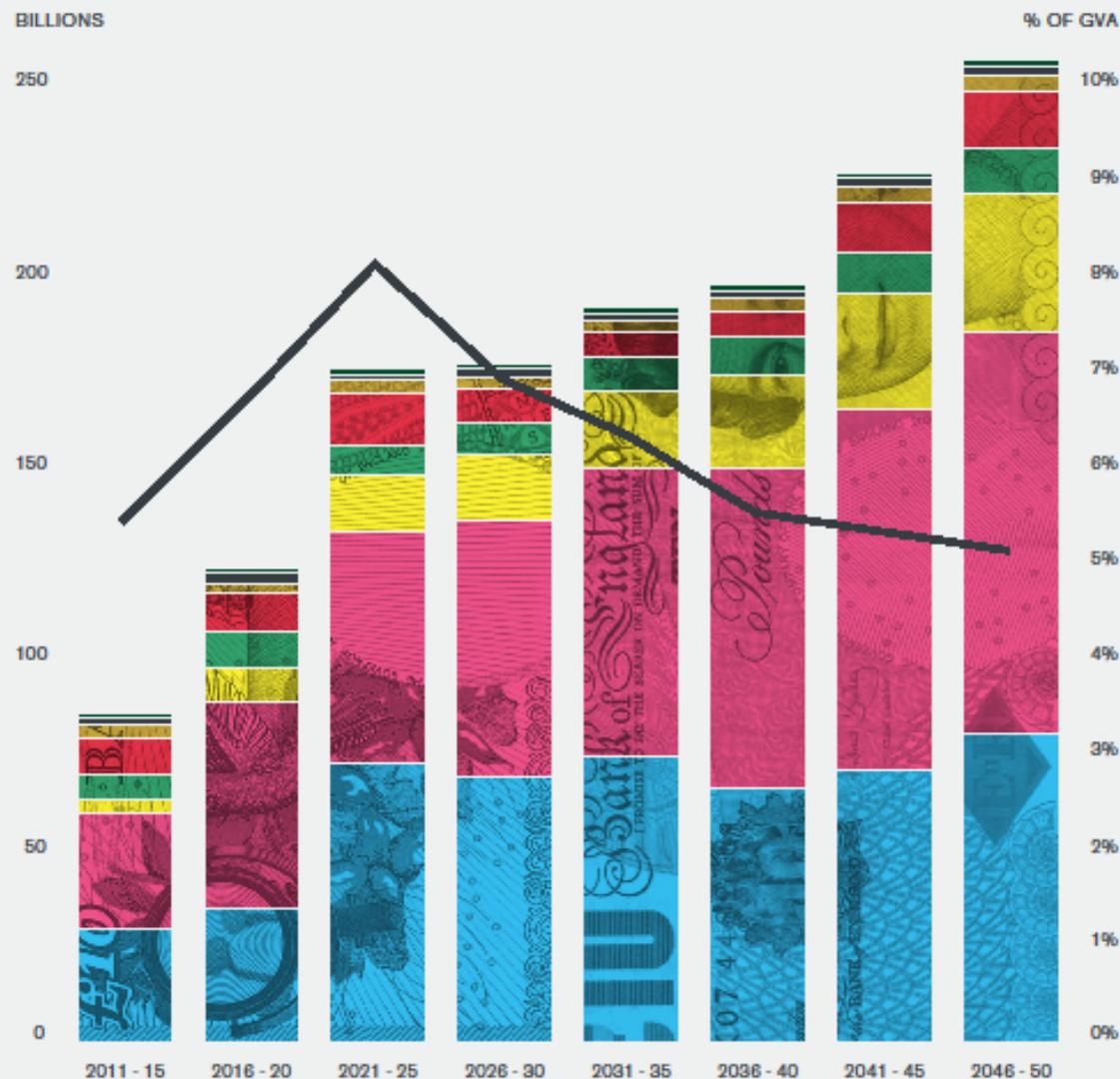
MAYOR OF LONDON

LONDON INFRASTRUCTURE PLAN 2050
IMPROVING QUALITY OF LIFE AS LONDON GROWS

APPENDIX

BILLINGS

% OF GVA

Cost estimates

Our best cost estimates to meet all our infrastructure needs would almost double expenditure as a proportion of the economy. Housing and transport make up three quarters of the total costs. Hence the need to prioritise and otherwise reduce costs and increase funding sources (see section 5).

OVERALL CAPITAL EXPENDITURE

Population 2050 of 11.3 million, construction cost inflation of 2% per annum above RPI, policy aspirations are achieved

- Transport
- Housing
- Energy
- Water
- Schools
- Waste
- Digital connectivity
- Green infrastructure
- Capex as % GVA

Source: Arup

The next high growth areas

London's identified growth areas could accommodate an additional 1 million people.
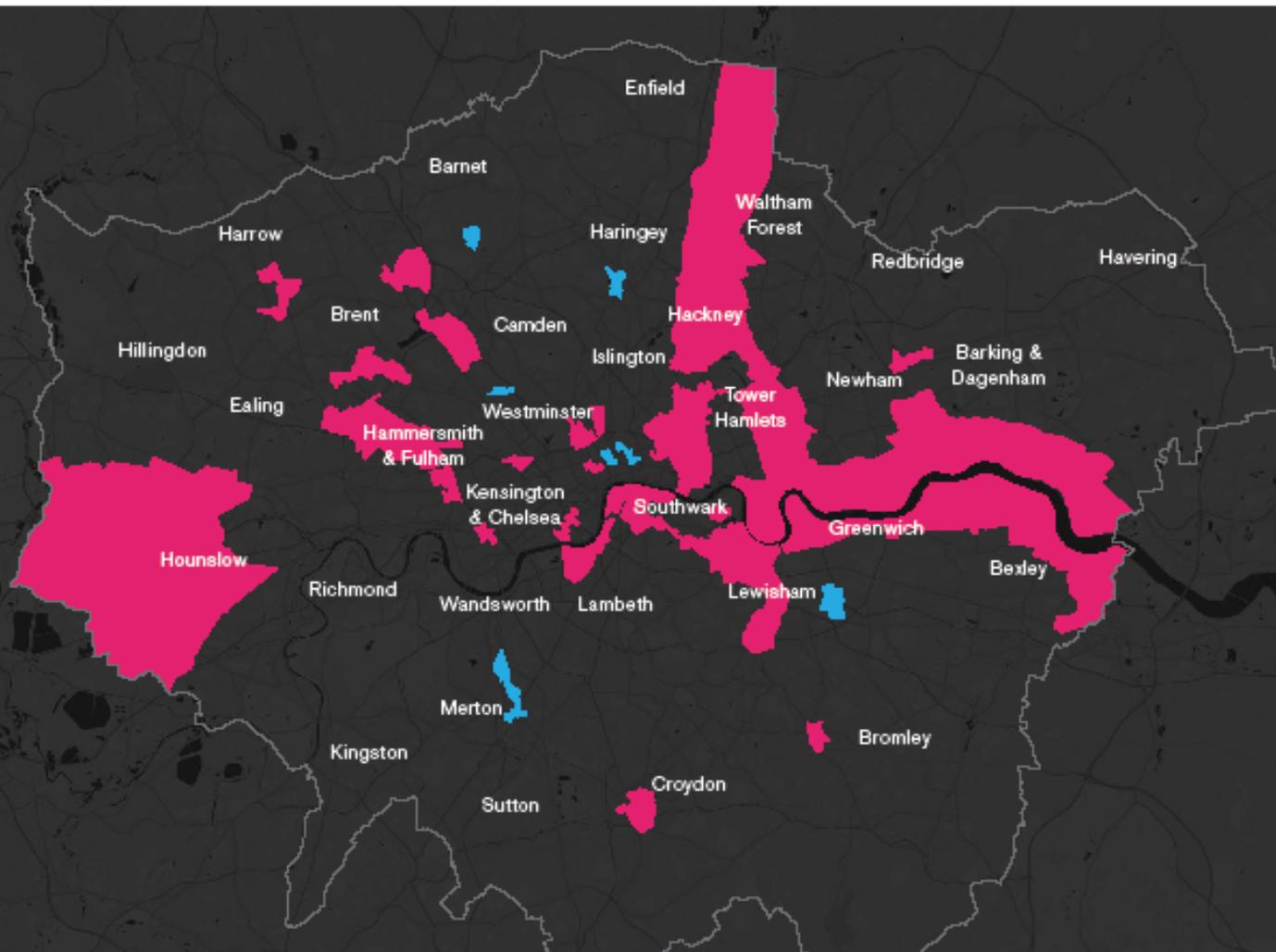
As defined in the London Plan:

🔴 **Opportunity areas** (brownfield land areas with significant capacity for new housing, commercial and other development linked to existing or potential improvements to public transport accessibility. Typically they can accommodate at least 5,000 jobs or 2,500 new homes or a combination of the two, along with other supporting facilities and infrastructure)

🔵 **Areas for intensification** (areas with significant capacity for new jobs and homes but at a level below that which can be achieved in the Opportunity Areas)

Part of the Mayor's Housing Strategy:

⚪ **Housing Zones** (a new initiative jointly funded by the Mayor and national government to boost housing delivery in areas with high development potential) (boundaries to be confirmed)

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Ordnance survey 100032216

Map labels: Enfield, Barnet, Harrow, Haringey, Waltham Forest, Redbridge, Havering, Brent, Camden, Hackney, Hillingdon, Islington, Barking & Dagenham, Newham, Ealing, Westminster, Tower Hamlets, Hammersmith & Fulham, Kensington & Chelsea, Southwark, Greenwich, Hounslow, Richmond, Wandsworth, Lambeth, Lewisham, Bexley, Merton, Bromley, Kingston, Croydon, Sutton

575,000	303,000	8,000	8,650	100,000	50,000
New jobs	New homes	New jobs	New homes	New jobs	New homes
Opportunity areas		Areas for intensification		Up to 20 housing zones	

AFFAIRS

Crossrail 2

Alongside completing the
Tube upgrade programme, the
delivery of Crossrail 2 in the
2020s will be critical for London
and the UK. It will unlock up to
200,000 new homes, many in
the Upper Lee Valley, which is a
focus for regeneration.
A consultation on Crossrail 2 in
summer 2014 showed support
for the scheme standing at
over 80%. In the 2014 Autumn
Statement, the Government
awarded TfL £2m to further
develop the Crossrail 2
business case.

Legend:
- London Underground
- London Overground
- National Rail
- Tramlink
- Core tunnel portal
- Central core of route
- Regional scheme – possible options
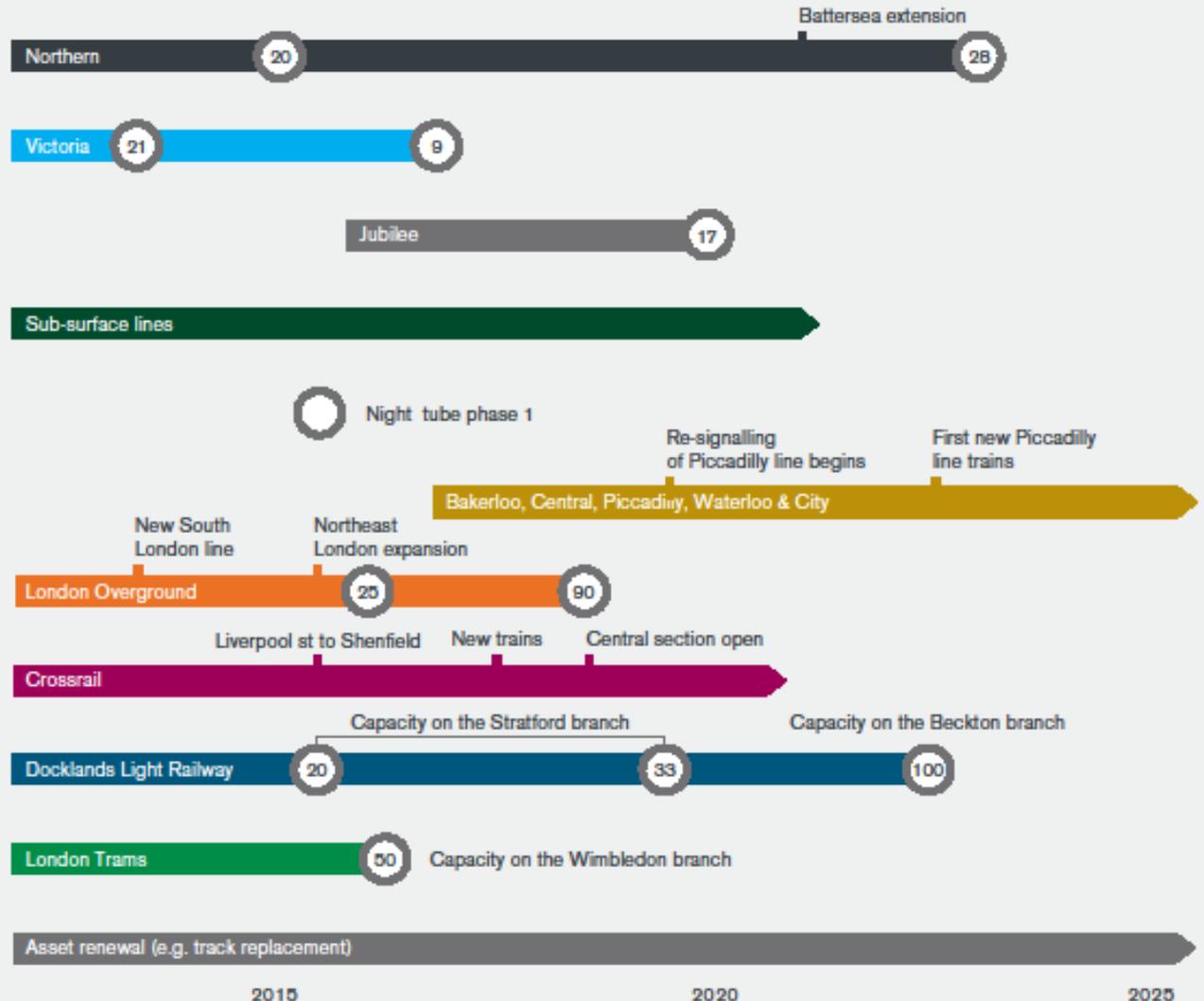- Option for a future eastern branch

All stations marked provide an indication of where
Crossrail 2 stations could be located. No station
or infrastructure location has yet been finalised as
that level of engineering has not taken place at
this stage in the project.

DELIVERY – SECTOR SPECIFIC

Major tube upgrades

An extensive programme of modernisation is being carried on the Tube, with major stations, trains, track and control systems being updated or replaced to provide more than a 30% increase in capacity. More than half of the Underground's 270 stations have already been improved, while new air-conditioned walk-through trains are being introduced on 40% of the network. The Circle, Metropolitan and Hammersmith & City lines already have these trains in service and they are now also on the District line – where more trains are due this year.

LINE MODERNISATION

Percentage increase in peak hour passenger capacity

Source: Transport for London

Major tube upgrades timeline (2015–2025):

- **Northern** — 20 ... Battersea extension 28
- **Victoria** — 21 ... 9
- **Jubilee** — 17
- **Sub-surface lines**
- Night tube phase 1
- **Bakerloo, Central, Piccadilly, Waterloo & City** — Re-signalling of Piccadilly line begins ; First new Piccadilly line trains
- **London Overground** — New South London line ; Northeast London expansion ; 25 ; 90
- **Crossrail** — Liverpool st to Shenfield ; New trains ; Central section open
- **Docklands Light Railway** — 20 ; Capacity on the Stratford branch 33 ; Capacity on the Beckton branch 100
- **London Trams** — 50 Capacity on the Wimbledon branch
- **Asset renewal (e.g. track replacement)**
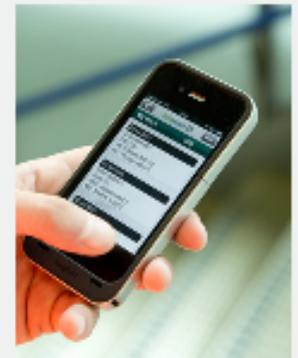
2015   2020   2025

Digital connectivity

As proposed in the consultation, the Mayor has set up a Connectivity Advisory Group (CAG) to take practical steps to ensure everyone in London has access to affordable high-speed connectivity.

With the CAG, the Mayor has developed a comprehensive work programme including:

o Establishing a Building Connectivity Rating Scheme
o Identifying locations on GLA group property for wireless infrastructure
o Providing a connectivity toolkit for London boroughs including a connectivity map using Ofcom postcode data
o Writing a best practice guide for boroughs and providers
o Demand stimulation for superfast services, including a digital skills programme and digital inclusion strategy
o Continuing rollout of vouchers to subsidise connectivity for SMEs.

This work plan will give London the tools it needs to tackle the areas with low levels of coverage, and allow the Mayor to set further ambitious targets by this summer to bring the vast majority of businesses and residents in London the connectivity they need, wherever they are located, as soon as they need it, at competitive prices.

% OF PEOPLE WHO SAY IT'S "CRITICAL" OR "IMPORTANT" TO BE ABLE TO CONNECT TO THE INTERNET WHEN OUTSIDE THE HOME OR OFFICE
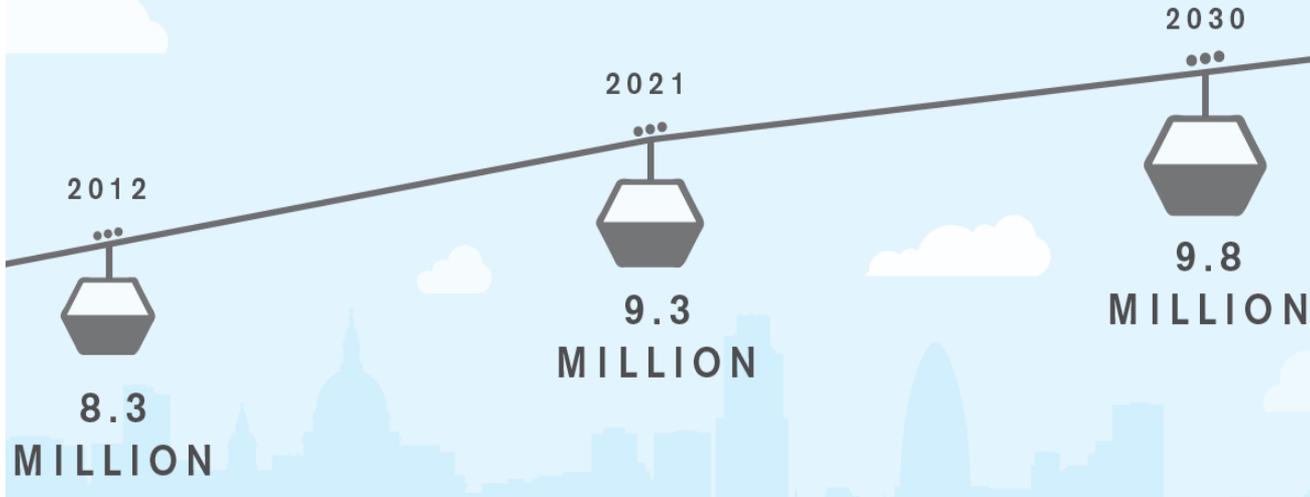
All ages	53%
31 – 40 years	70%
41 – 50 years	59%

Source: Wireless Nation, Arqiva

SMART LONDON PLAN

WHY A SMART LONDON?

POPULATION PROJECTION

2012
8.3 MILLION

2021
9.3 MILLION

2030
9.8 MILLION

LONDON WILL NEED AT LEAST
800,000
MORE HOMES

PUBLIC TRANSPORT WILL NEED TO ACCOMMODATE MORE THAN
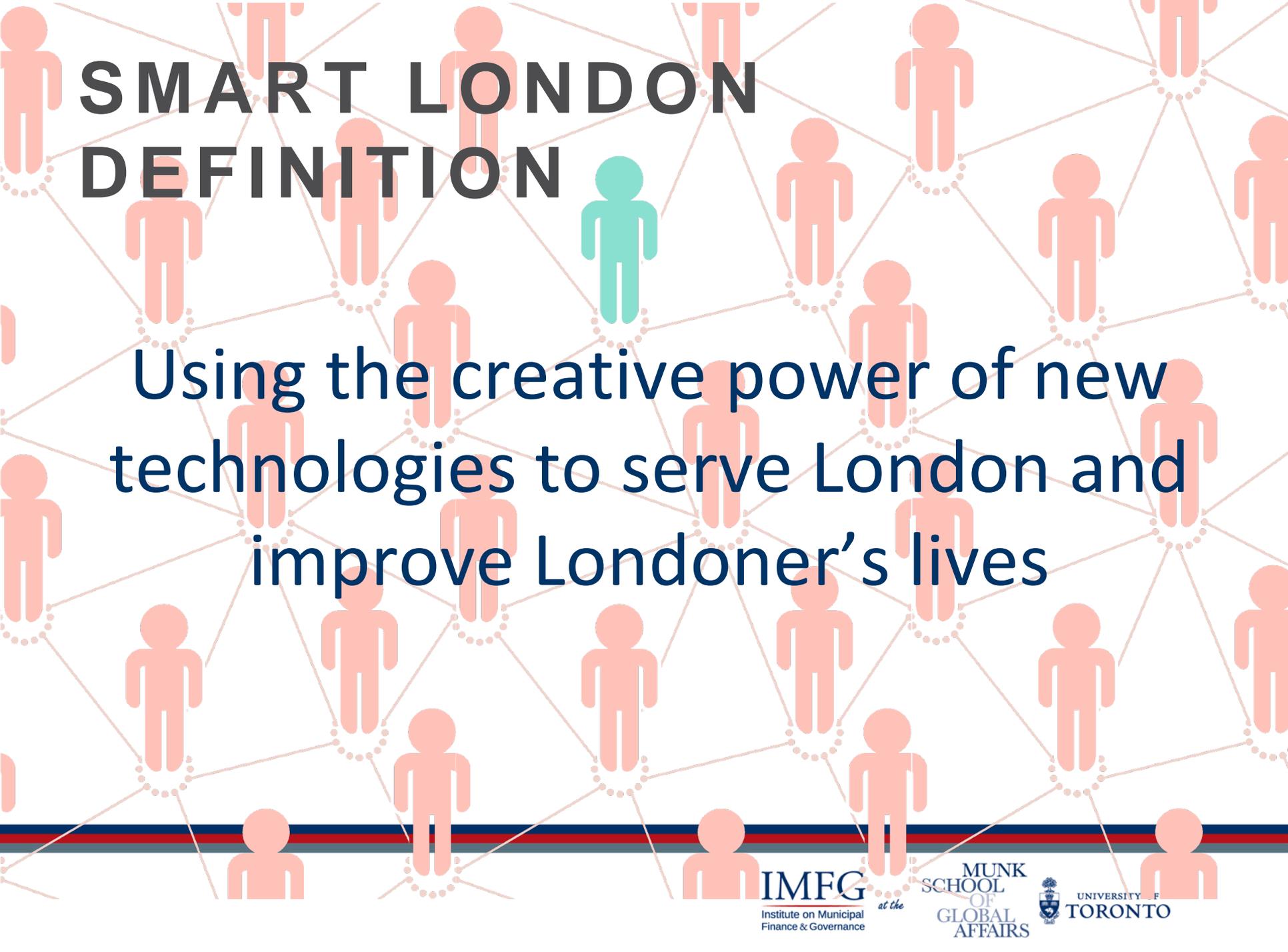600,000
EXTRA PASSENGERS AT PEAK TIMES

CONGESTION ON LONDON'S ROADS COSTS THE ECONOMY OF £2 BILLION A YEAR

LONDON WILL HAVE
641,000
MORE JOBS BY 2031

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SMART LONDON DEFINITION

Using the creative power of new technologies to serve London and improve Londoner's lives

SEVEN KEY THEMES

1. Londoners at the core
2. Access to open data and infrastructure
3. Leveraging London's research technology and creative talent
4. Brought together through networks
5. Enable London to adapt and grow
6. City Hall better serving Londoner's needs
7. Offering a 'smarter' London experience for all

LONDONERS AT THE CORE

We will:
- Ask Londoners what 'Smart London' should look like?;
- A vehicle for inclusion;
- Narrow skills gap – for everyone;

Measures of success:
- Engage digital Londoners in policy making;
- Host hackathons to solve growth challenges;
- Deliver pan-London inclusion strategy;
- Double number of technology apprenticeships;
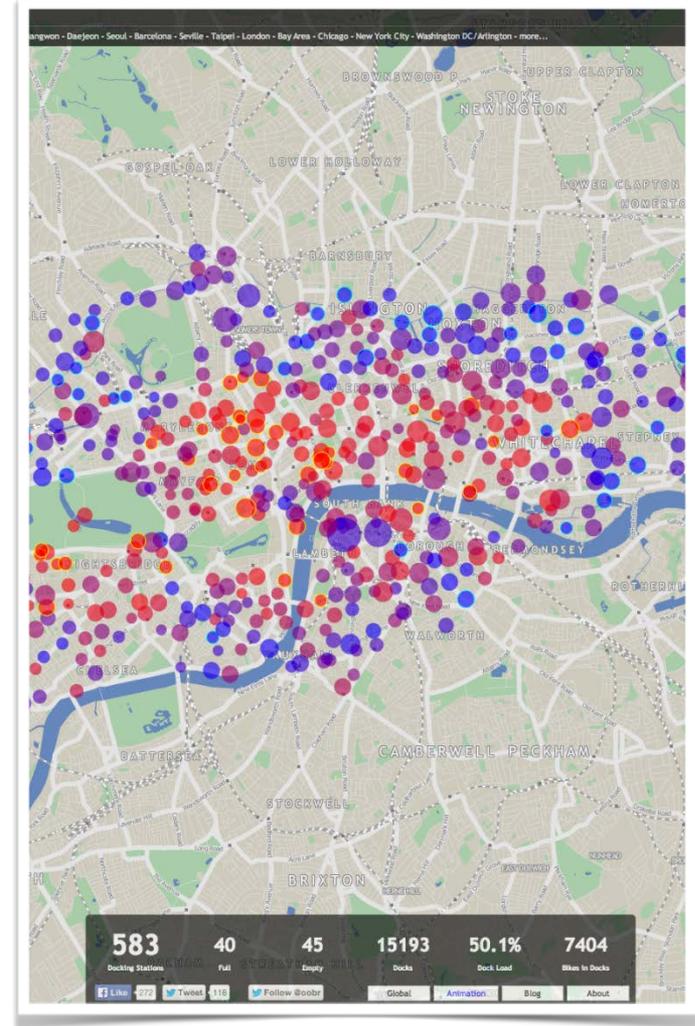- 1,000's per borough engaged digital research platform.

OPEN DATA & INFRASTRUCTURE

We will:

- Identify and prioritise data release;

- Work with partners to create common standards;

- Create next generation London Datastore;

- Establish Smart London borough partnership;

- Better inform Londoners through the dashboard.

Measures of success:

- Evidenced based stories of compelling data use;

- Increase number of Londoners using Digital technology to access city information;

- Incorporate 'Data as a Utility' into 2050 London Infrastructure Plan;

- Evolve & converge data with sensor infrastructure;

- Double users of dashboard and Datastore.

LEVERAGING LONDON'S RESEARCH, TECHNOLOGY AND CREATIVE TALENT

We will:
- Launch a Smart London Innovation Challenge;
- Showcase emerging innovation to investors;
- Help export London's solutions to the world;
- Ensure underpinning infrastructure e.g. broadband.

Measures of success:
- Invest £24million in ultrafast broadband - 22k SMEs;
- Support 100 SMEs through an export programme;
- Increase technology employment to 200k by 2020;
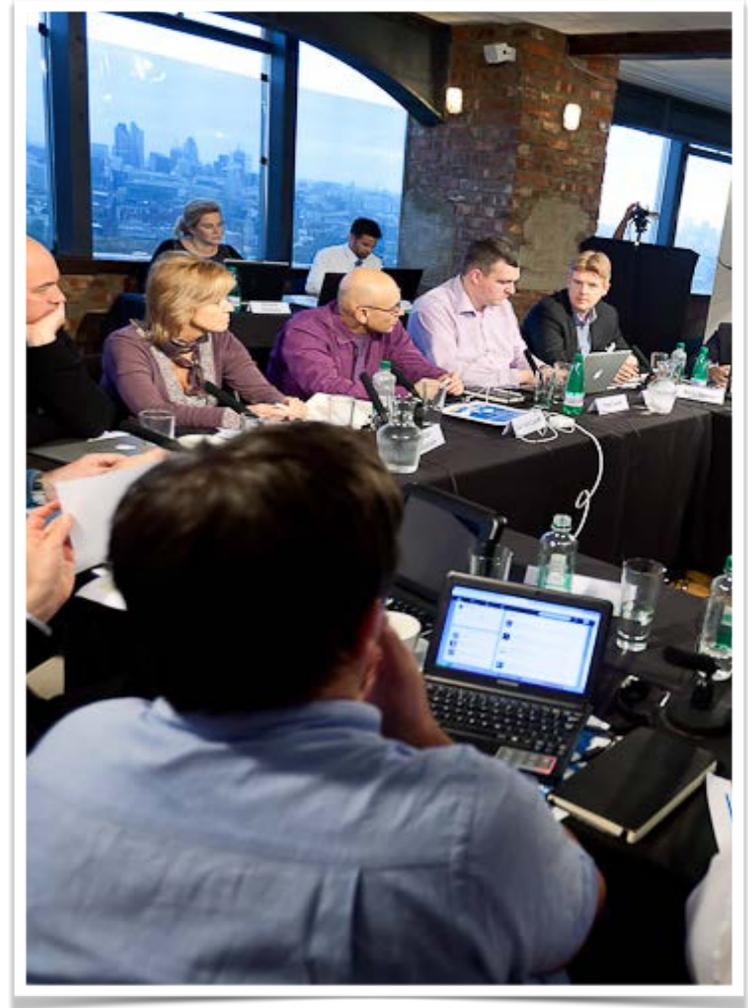- Increase 'innovation active' businesses by 10%.

BROUGHT TOGETHER THROUGH NETWORKS

We will:

- Establish a London Innovation Network;

- Develop 'lighthouse' projects;

- Collaborate with the Future Cities Catapult;

- Work with European cities.

Measures of success:

- Establish a Smart London Innovation Network;

- Lever £200million into London to demonstrate Smart City approaches;

- Integration with European initiatives.

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CONCLUSIONS

- Innovation, infrastructure, data
- Early stage, still 'feeling our way'
- Many cities across UK, Europe, globally, have shared interests
- Innovation, 'smart' use of technologies and digital engagement essential to achieving economic growth while maintaining quality of life and accountability

THANK YOU