

## London's transport infrastructure

What are the major economic and social challenges facing London and its commuter hinterland over the next two to three decades?

London faces a number of key challenges over the coming decades. The City continues to grow at a rate not seen for many years (the fastest rate in 80 years) and our work has shown that the existing London Plan and the Mayor's London Infrastructure Plan (2050) are underestimating the level of population growth and employment growth that the city can expect over the next 25 years. This has significant implications for London in relation to how the population can be accommodated, how people will travel to work, access to job opportunities, the city's environment and quality of life. The hard and soft infrastructure that will be required to support this growth will need to be planned to deliver these greater levels of growth, but will also need to be adaptable to future changes in the economy, environment and society.

The recently published Atkins report Future Proofing London (which can be downloaded from our [website](#)) identifies four key interlinked risks that London faces which include:

- Housing - A failure to meet the city's housing needs
- Economy – the economy becomes less diverse
- Society – society becomes more unequal, and increased social tensions impact on London's stability
- Environment – the city's continued growth degrades the environment further impacting on quality of life

The following provides further detail on each of these key economic and social challenges and provides a reference to the appropriate section in the Future Proofing London report where further illustration and detail on these points can be found.

Population and employment growth greater than expect and planned for

As part of our work on Future Proofing London we worked with Oxford Economics to look at future population and employment scenarios for London. Oxford Economics forecast London's population to reach 12 million by 2050 compared to the London Infrastructure Plan (2050) that projects the population to reach 11.3 million by 2050. This is a difference equal to the current size of Manchester.

The London Infrastructure Plan forecasts jobs to reach 6.3 million by 2050, this is a level that Oxford Economics forecasts will be surpassed by 2026.

If these projections that underpin London's strategic and infrastructure planning are underestimating the level of growth that is likely in London, then the city will be failing to plan properly for its growth, and the risks we have identified will be exacerbated.

(for further detail on the population and jobs growth see section 3 pages 38-40 of Future Proofing London).

## Housing

Housing is a vital piece of the city's infrastructure, without sufficient housing London cannot continue to accommodate population growth and house those that work in the city. Housing demand continues to grow as the population increases and with population estimates identified above this demand is not set to ease any time soon.

Supply is failing to keep pace with demand, current rates of housing delivery (26,000 pa) are well below London Plan housing targets of 42,000 pa, and the London Plan target itself is likely to be below what is actually required (with many suggesting 50,000 homes per annum are required).

The increasing demand for housing and the chronic undersupply of housing are combining to make housing affordability a serious issue for London. On top of this, wages have not increased at anywhere near the same rate as house prices, this is not just an issue for those on low incomes but also for those on medium incomes.

These housing issues are pushing people out of both central London and London entirely to find a place to live. Some of those moving out of London are retaining their jobs in London resulting in ever greater commuting distances.

(for further detail on housing challenges facing London see section 4 pages 45-50 of Future Proofing London).

## Economy

Jobs growth over the past 15 years has been focused on the Central Activities Zone (CAZ) with less growth in outer London. With job densities much greater in inner London, many outer London residents are reliant on commuting to jobs in central London. The trend in greater job growth in inner London compared to outer London is expected to continue and as a result there will be a need to consider the implications this has for outer London communities and London's transport infrastructure.

Much of the job growth has been in high value sectors (such as professional, real estate and scientific and technical activities) again with the greatest concentrations of growth in these sectors being in inner London. However the cost of housing is impacting on the ability to fill graduate vacancies in these professional sectors. The housing crisis could lead to labour shortages (across all sectors of the economy) and / or increasing reliance on people commuting from greater distances to fill jobs.

Coupled with the growth in high value sectors has been the decline in employment in lower skilled jobs, which are forecast to decline further. This continued shift to a higher value economy has its benefits (particularly in terms of GVA growth), but it also presents challenges with regards to whether there are sufficient job opportunities available to the lower skilled population.

The sectors of the economy that will see substantial jobs growth in London are going to change, with greatest growth in professional, scientific and technical services (28% of all jobs growth 2015-2030) administrative and support (16%) and information and communication (10%)

and limited growth in financial services (0.6%) in what has traditionally been a big growth sector for London. Many of the businesses in knowledge based sectors are small scale and often rely heavily on affordable and flexible business space, rather than traditional office accommodation. With the continual loss of industrial and business space to competing land uses (such as residential) these sectors may find that land and premises availability and affordability act as a constraint on growth.

(for further detail on housing challenges facing London see section 4 pages 51-57 of Future Proofing London).

## Society

Inequality in London is getting worse and poverty is shifting to the suburbs, compared to a decade ago when poverty was more evenly dispersed. Whilst the number of wealthy households in inner London has increased by 203% between 1980 and 2013. Recent data shows a large proportion of overseas buyers for inner London homes, and a high proportion of residents in inner London with second homes.

Despite the growth in London's economy, deprivation levels remain high in much of east and south east London. In west and south west London there are higher levels of residents with managerial and professional jobs and higher income levels than east and south east London.

There has been greater growth in those seeking job seekers allowance in outer London than in inner London and the growth in unemployment rates have been much higher in east and outer east London.

These clear patterns of suburbanisation of the less wealthy coupled with a forecast for more modest growth in job opportunities (particularly in higher value sectors) in outer London, will mean that the increased polarisation of London's society is set to continue. The implications of this are likely to be

- greater social unrest impacting on stability of the city
- reduced social mobility and loss of human capital, which ultimately can limit economic growth and innovation
- poorer physical and social health as a greater section of society find it difficult to access social and cultural opportunities
- more volatile economic growth

(for further detail on housing challenges facing London see section 4 pages 58-64 of Future Proofing London).

## Environment

Environmental changes as a result of both climate change and the Cities population growth have the ability to impact on London's economy and society.

There is a significant amount of residential, commercial and community premises and vital infrastructure that is within the Thames tidal floodplain. Climate change could lead to increases in sea levels which in turn will increase the risk of tidal flooding and increases in heavy rainfalls

leading to an increased risk of fluvial flooding. With the potential for significant loss of life and damage to property there will be a need to ensure that London invests appropriately in ensuring its flood defence infrastructure is fit for purpose.

Surface water flooding is also a key issue and likely to increase as development of the city continues and climate change impacts take hold. London is vulnerable to surface water flooding with 16 of London's boroughs identified in the top 20 districts in England as susceptible to surface water flooding.

London is one of the most water stressed cities in the world. With an increasing population the issues related to water scarcity are likely to increase. London will need to consider how it manages water demand downwards and or looks to secure water supplies in a different way, although it will be vital that any alternative water supplies are sourced sustainably.

London is susceptible to Urban Heat Island effect due to the high-rise form and density of development. Increasing summer temperatures have the potential to lead to a greater number of heat-related deaths, an increase in respiratory illness and a decline in labour productivity.

In addition to the environmental risks associated with climate change, air quality is another challenge that London faces as it continues to grow. The majority of pollution in London comes from transport and congestion. The additional growth that is expected in London will generate additional trips with a further impact on emissions. Air quality is a significant challenge for the city as poor air quality is harmful to human health and ultimately reduces the quality of life in London.

(for further detail on housing challenges facing London see section 4 pages 65-68 of Future Proofing London).