

Appendix 2 - Setting London in context

The challenges of growth

1. London's infrastructure challenges are closely tied to population growth, which in turn reflects the strength of its economy. London's population is growing rapidly, with the city recently eclipsing its 1939 peak of 8.6 million people. Current projections suggest that London will reach 10 million by 2030 and 11.3 million, more or less, by 2050. Such rates of growth will place significant pressure on London's infrastructure systems - most notably housing and transport, but also energy, water and social infrastructure. There are also key economic, social and environmental implications. In order to manage growth successfully London will require a significant programme of infrastructure investment, alongside innovative approaches to infrastructure and development that will allow us to be more efficient, particularly in the context of reduced availability of funding and natural resource constraints.
2. Growth is in many respects a reflection of London's success – a testament to its productivity and competitiveness, the positive international perception of London and its status as a global city. People want to live and work in London, and businesses want to invest here, recognising the opportunities London provides. But unfortunately growth brings challenges and distortions – particularly to the housing market and also in terms of infrastructure capacity. In order to sustain London's position as a top tier leading city in the global economy, further investment in infrastructure is required to increase productivity and quality of life. Despite the challenges growth brings, research undertaken for the GLA suggests most Londoners are positive about growth. A recent telephone survey with 1,000 adult Londoners found that more than 60% of Londoners believe growth will benefit them; the challenge will be to ensure this is the case¹.
3. Ensuring London meets its infrastructure challenges is not just an issue for London, but indeed the rest of the UK due to the significant contribution London makes to the UK economy. Output per worker is significantly higher in London relative to other UK cities, with London's GVA per hour standing at £38.80 in 2013 rising to £42.80 in Inner London, compared to £31.10 for the rest of the UK². London also makes a significant net contribution to the national exchequer
4. A skilled workforce combined with a comprehensive transport system enables this higher level of productivity, allowing for agglomeration benefits and a competitive clustering of jobs, business and economic activity. Despite recent investment, we know that London's transport network is undermining productivity due to capacity constraints – even after accounting for Crossrail 1, and house prices are serving as a disincentive to locate in the capital for many workers. London's rate of productivity growth lags rival global cities such as Paris and Madrid.
5. Research undertaken by GLA Economics found that other parts of the UK benefit from proximity to London due to spillover effects, and as such maintaining productivity in London is essential to ensuring the on-going growth of the UK economy. Efforts to rebalance the economy should not be at London's expense; rather they should be in tandem with investment in the capital.

Work undertaken to date: The London Infrastructure Plan 2050

6. In 2014 the Mayor published the London Infrastructure Plan 2050 (LIP2050) to ensure that London has the infrastructure it needs to remain one of the best cities in the world in which to

¹ Telephone survey with 1000 adult Londoners in March 2015

² GLA Economics, 2015, 'Productivity in London'.

live, work and do business. The LIP2050 sets out a series of expectations regarding the delivery of infrastructure in the 21st century – digitally connected, green, integrated, innovative, and understood as a system of systems. The LIP2050 acts as an evidence base for an on-going, strategic conversation about London's future infrastructure requirements, and has strong potential to inform the development of a new National Infrastructure Plan. It will also inform the mayor's statutory strategies which will require revision following the Mayoral election in May 2016 – these include the London Plan (the overarching strategy for the capital and London's spatial development plan), Economic Development, Transport and Environmental strategies.

7. In view of environmental and fiscal constraints our analysis found that London as a city needs to operate more efficiently and sustainably in order to meet its future infrastructure requirements. Investment in the context of growth should be targeted at improving productivity, increasing resilience and promoting sustainability.
8. In the recent past, the Mayor has focused on leveraging infrastructure investment to unlock housing development (and to obtain financing for infrastructure from development, as was done with the Northern Line extension – an innovative model which can be imitated elsewhere). However, in the longer term, the expectation will be that investments in new infrastructure will be made in tandem with smarter land use, improved planning and coordination of infrastructure relative to development.

Other elements of the London Infrastructure Plan

9. London's infrastructure requirements beyond transport are significant, and at the heart of these requirements is housing. Increasing housing supply is the number one challenge facing London as a city. The London Plan sets out a target to build 49,000 homes a year to meet historical and arising housing demand. Such a number requires a near doubling of current output, to a level of supply not seen since the 1930s. Infrastructure, (particularly transport infrastructure) is one of the key levers available to unlock sites for housing development throughout London. As a case in point, the impact of Crossrail's arrival in 2018 can already be seen, with more than two fifths of planning applications within a kilometre of a Crossrail station citing the new railway as a justification for the development proceeding – equating to around 53 million square feet of residential, commercial and retail space.
10. Infrastructure has the ability to make sites viable for development, and as such it is important that it is planned, delivered and coordinated with this in mind. There is also a need for the public sector to be more active in capturing the value generated by infrastructure investment, as this will allow for further investments, and provide a funding source.

Utilities

11. Housing and transport are not the only areas for further infrastructure investment. In order to ensure sustainable growth outcomes, attention also needs to be given to the key utilities which underpin the effective functioning of London, including water, digital connectivity and energy. Ensuring delivery of these required services is complicated by the fact that the Mayor does not have strategic authority over these areas, even though the Mayor is required to set the overall development strategies for the city.

Water

12. A growing challenge for London, with key issues relating to water security, flood risk and water quality needing to be addressed. Estimates put forward as part of the LIP2050 work identified an emerging supply and demand gap reaching 10 per cent by 2025, and this could be exacerbated by issues such as a failure to address leakages or encourage more sustainable rates

of consumption. The GLA is working with London's water companies and Ofwat to address some of these challenges; however as part of later stages of the work of the National Infrastructure Commission it will be important to identify how these challenges can be collectively managed in a cost effective but responsible way.

Digital infrastructure

13. This should be viewed as a utility. Provision of high speed, ubiquitous access to the internet is essential to the effective operation of a global city such as London, particularly from an economic perspective due to London's deep economic specialisations in finance, creative and digital services. The continued existence of 'not spots' both for residents and businesses across the city, including in its economic centre, suggests that the market is not operating effectively; such obvious market failures require much stronger intervention by the Government, with suitable state aid exemptions negotiated from the European Commission as necessary.

Energy

14. London's energy infrastructure needs to be developed in the most cost effective and sustainable way, with a focus on ensuring security of supply and meeting future demand. The LIP 2050 identified a 20% increase in energy demand can be expected by 2050 (after measures to reduce demand). To respond to this, government must double investment to ensure enough zero carbon energy is supplied to the national grid. We also need to ensure sufficient investment ahead of demand to unlock development sites. One in five of London's substations has less than 2MW spare capacity, however a large commercial development in London can use 8MW – and as such lead times are increasing to get connected. In order to address such issues a stronger policy of allowing investment ahead of need in the electricity infrastructure system is required.
15. Energy efficiency is vital to meeting the UK's climate change targets, and is one of the most cost effective means of reducing CO2 emissions. In tandem with efforts to address supply, such demand-side approaches should be considered as part of the work the National Infrastructure Commission is undertaking. A particular focus of this work should be on addressing the efficiency of London's existing building stock. London has some of the oldest and most energy inefficient building stock in Europe and it is expected that 80% of these buildings will still be standing in 2050. There is a need to retrofit this building stock through means such as insulation to reduce levels of energy consumption. London is already pursuing a number of programmes to address this issue, including the successful retrofit programmes RE:NEW and RE:FIT. Over 113,000 homes and 450 public sector buildings have been retrofitted as part of a Greater London Authority programme with more projects in the pipeline.
16. The inclusion of energy efficiency as a national infrastructure priority is supported by a wide range of stakeholders and businesses, including by the CBI. I hope that you will give consideration to this issue and that London can play its role in delivery an energy efficiency infrastructure programme.

Costing London's infrastructure requirements

17. Work in developing the LIP2050 was underpinned by a comprehensive cost model developed by Arup, which will continue to evolve to reflect changing priorities and assist with prioritisation and spatial planning. The analysis attempted for the first time to understand the magnitude of the full costs of London's infrastructure needs, including that of maintaining or replacing much of the existing asset base.

18. The headline figure from the Arup report is that total required investment in London's infrastructure between 2016 and 2050 will reach £1.3 trillion. Our projections show that London will need to increase its level of expenditure relative to GVA output by some 1.5% to meet its growing infrastructure requirements through to 2050, with costs doubling as a proportion of the economy over the next decade, but declining as a percentage of the economy after 2030.
19. While these estimates are based on an ambitious, policy-compliant scenario (including meeting our housing targets, decarbonising the electricity supply, and securing the necessary investment in transport), they indicate the scale of investment required, and are perhaps not unexpected given the resumption of net population growth after 75 years of no net growth at all.. Housing and transport make up over three quarters of total projected capital expenditure.

Delivering London's infrastructure

20. Work on the Infrastructure Plan highlighted a number of institutional barriers affecting the delivery of London's infrastructure, including split governance across and within sectors, varied regulation and lack of coordination. My setting up of the London Infrastructure Delivery Board was one response to these issues. It is made up of key infrastructure stakeholders in London, including the utilities across the infrastructure sectors (energy, water, digital etc.), as well as business, boroughs, regulators and Government representatives.
21. Some of its recent initiatives have included developing the London Infrastructure Database and Mapping Application, which aims to bring together information from a range of sources to support the planning, joined-up delivery and coordination of infrastructure across the capital. The mapping application identifies planned investments relative to growth and infrastructure capacity – and it provides a strong evidence base to inform future discussions around London's future infrastructure requirements on a spatial level. Other areas of focus of the Delivery Board have included testing best practice delivery in growth areas; and also advocating regulatory reform.

Regulatory challenges

22. The need for regulatory reform to support infrastructure investment is clear. The Mayor is concerned that regulatory frameworks are inhibiting development, innovation and higher levels of efficiencies. Much of London's infrastructure – water, energy, digital; is in the hands of the regulated utilities. The regulations in place successfully protect consumers from unnecessary price rises; however there are some unintended consequences. These include the fact that the Mayor has no direct influence over investment decisions, despite being elected to have strategic oversight of planning in the capital. The London Plan is not a statutory consideration as part of the process of approving business plans by the regulators.
23. In addition, regulations do not support appropriate levels of investment ahead of demand at particular locations where growth is expected to occur (and is occurring). Increased flexibility or new models of delivery are required to secure earlier investment on a more strategic basis. The GLA is committed to working with the regulators to address these issues through bodies like the UK Regulators Network.
24. In view of these issues the GLA is therefore keen to ensure that regulators require the utility providers to have regard, in particular, to the London Plan and its economic and demographic forecasts; that they require utility providers to share their plans as they develop; that they adopt more of a rolling forward planning approach (rather than fixed terms); that they take a much longer term horizon in key sectors like water and energy; that they allow for more investment ahead of demand, with a risk and reward sharing model, so that infrastructure is in

place before development comes rather than afterwards; that they encourage much more open data and sharing of data, including of future activity (via the mapping application above); and that they incentivise innovation.

Funding and financing London's infrastructure requirements

25. When developing the LIP2050, our original estimates of London's infrastructure needs were based on a number of ambitious policy scenarios, including aviation. The Plan determined that the cost of London's future infrastructure requirements are high and a significant funding gap of £135 billion is likely to emerge by 2050 when comparing expected costs against current sources of revenue.
26. To meet this challenge the Mayor has argued for fiscal devolution in order to help London better meet its funding gap. If London controlled more of the tax revenues it generates, it would be better positioned to incentivise growth and address its unique infrastructure challenges. The recent announcement by the Chancellor promising to devolve business rates is an important step forward (and welcomed), but it still is not enough to meet London's future funding challenges. More needs to be done to devolve the full suite of property taxes raised in London as recommended by the London Finance Commission, and enable new local funding mechanisms.
27. New forms of fiscal devolution to better capture value and create self-funding infrastructure schemes such as stamp duty increment zones, VED devolution should be prioritised. Increased devolution would ensure that larger infrastructure schemes could be realised faster through new or increased use of alternative funding mechanisms, such as business rate supplements, tax increment financing and enterprise zones. We have demonstrated successfully through the Northern Line extension and Crossrail the applicability of such funding mechanisms in the London context.
28. Longer term fiscal opportunities may include. London or wider South East payroll taxes or income tax supplements (either in lieu of tax cuts or additional) hypothecated for investment. A recent survey of Londoners found that around 60% of Londoners were willing to pay more income tax by giving up part of a tax cut in return for increased infrastructure investment³. Wales and Scotland, much smaller economies, have such powers on a much greater scale – as do many other cities and regional economies worldwide. London is much more reliant upon national decision making and national spending transfers than comparable cities: for example 74% of GLA and borough expenditure is funded from intergovernmental transfers, compared to equivalent figures of 31% in New York and 18% in Paris⁴.
29. These approaches provide London with increased capacity to address its own needs – enabling new financing and funding mechanisms and improved accountability. It will also remove a layer of the political process in realising infrastructure in the capital, speeding up delivery and approval. Without the funding levers to invest appropriately, the mayor's capacity to invest in infrastructure will be severely constrained.

³ Mayor of London, July 2015 – telephone poll of Londoners

⁴ London First, 2015 'London 2036: an agenda for jobs and growth'.