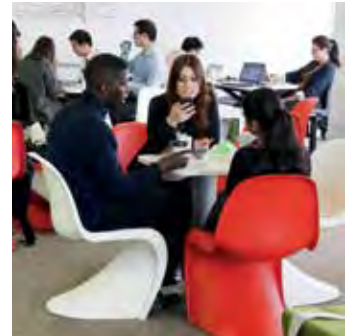


# MAYOR OF LONDON



## The Mayor's Economic Development Strategy for London

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## **Contents**

<b>Mayor's foreword</b>	<b>5</b>
<b>Executive summary</b>	<b>8</b>
<b>1. Introduction</b>	<b>21</b>
<b>2. The state of London's economy</b>	<b>35</b>
<b>3. A fairer, more inclusive economy</b>	<b>51</b>
<b>4. Creating the conditions for growth</b>	<b>83</b>
<b>5. Supporting London's sectors</b>	<b>131</b>
<b>6. Working together to achieve the Mayor's vision</b>	<b>183</b>
<b>7. Next Steps</b>	<b>191</b>
<b>Glossary</b>	<b>194</b>

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## Mayor's foreword

London is one of the richest cities in the world, yet despite our economic strengths, our city is home to some of the poorest neighbourhoods in the country. Almost three in ten Londoners today live in poverty – a shameful situation, which is not only damaging the life chances of many Londoners, but is having a detrimental effect on economic growth.

When I stood to be the Mayor of London, I said I wanted all Londoners to have the same opportunities that this city gave to me and my family. And I am as passionate as ever about building an economy that delivers for everyone and leaves none of London's communities behind.

This Economic Development Strategy is about taking a fresh approach to economic development. I'm clear, inequality is not inevitable and that tackling it can actually lead to greater economic prosperity. So, in this strategy, I set out my plans to create a fairer, more inclusive city with an economy that works for all Londoners.

For centuries, our city has been a global centre of trade and commerce, attracting investment, ideas and talent from around the world. This long history means that today London is not only a lynchpin of the global economy, but the best place in the world to do business and to start and grow a new company.

Our entrepreneurial spirit, reputation for dynamism and openness to collaboration gives us a crucial edge over international rivals. And our economy's firm foundations and core underlying strengths – such as our favourable time-zone, language, highly educated workforce, cosmopolitan culture, world class universities and respected legal and financial institutions – help to guarantee our continued success by giving investors the support, confidence and services they need to conduct business in our city.

These strong foundations mean that I'm optimistic about our economic prospects, but there's no question our city faces major challenges ahead. Brexit is causing huge uncertainty for many of London's businesses, as well as those overseas thinking of investing in London. And a failure to secure a good deal in negotiations with the EU would deal a hammer blow to our economy - hitting the poorest and most vulnerable the hardest. That's why, as Mayor, I'm lobbying hard to secure a deal that protects jobs, growth and prosperity.

For more than a thousand years, London's economy has prospered because of our openness to people and our willingness to trade with partners across the globe. Whatever happens, as the UK prepares to leave the EU, it is imperative we stay true to this tradition and show how now - more than ever - our city both remains open for business and is ready to seize new opportunities.

But Brexit is only one of our challenges. London's housing crisis, weak productivity growth, wage stagnation, a lack of adequate infrastructure investment and levels of inequality all threaten to put a brake on our economic ambitions and create a more divided city. The latest research shows that inequalities in income and wealth ultimately damage economic performance.

So this strategy sets out how we can achieve and foster 'good' economic growth that doesn't come at the expense of disadvantaged Londoners, our air quality, natural environment, employment standards or social cohesion. I want to continue to improve the conditions that allow businesses to flourish and thrive. But my overarching goal is to further enhance London's competitiveness and create a business environment that is not only friendly - in terms of being conducive to investment and growth - but also fair, where all companies play by the rules and where all Londoners stand to benefit.

By channelling investment into key areas, equipping Londoners with the skills, education and training they need to participate in the modern economy, and by investing in infrastructure and offering targeted support to certain sectors - like tech, life-sciences, the night-time economy and the capital's creative industries - I believe we can deliver on this vision at the same time as helping London's businesses go from strength to strength. On top of this, by promoting innovation and the adoption of cutting-edge digital technologies across our economy, we can raise productivity and transform London into one of the world's leading smart cities.

With greater collaboration between the public sector and the private sector, we can ensure our city has the housing, transport, infrastructure, technology, jobs and skills we need for everyone to prosper in the 21st Century.

As Mayor, my aspiration is to ensure the proceeds of growth are more evenly shared and to make every Londoner feel like they have a stake in our economy and our society. By facilitating this kind of sustainable growth, we can improve the quality of life for many Londoners and increase opportunities for people to fulfil their potential.

I want London to remain the best place in the world to do business, and at the same time have much more emphasis put on the general wellbeing, health and happiness of Londoners - this should always be the ultimate goal of any economic growth and development.

A handwritten signature in black ink, appearing to read 'Sadiq Khan', with a small mark below the name.

**Sadiq Khan**  
Mayor of London

## Executive Summary

More people live and work in London than ever before. Our economy is growing too – new businesses and jobs are being created on an unprecedented scale, in spite of economic shocks like the financial crisis in 2008, growing global competition, and the prospect of Brexit.

London is often ranked the most economically competitive city in the world - our transport and communications networks, legal, political and regulatory frameworks, alongside our rich mix of specialisms create a complex and unique ecosystem for business. Thanks to this and our vibrant cultural life, tolerance and diversity, we are able to attract talent and investment from across the world.

Yet despite these strengths, London is also home to some of the poorest neighbourhoods and communities in the country. Inequality is present at all levels of our society and economy, and many Londoners are unable to share in the rewards of growth. Achieving a decent standard of living is becoming ever more expensive while wage growth remains relatively flat, and many Londoners are forced to live in poverty or in debt. Many of our young people are growing up without access to the opportunities that the previous generation enjoyed.

Meanwhile, London's environment, and especially its air quality, is under threat, putting people's health at risk. The prospect of Brexit is causing uncertainty and anxiety for businesses and investors, as well as the million EU citizens from outside the UK who have made their home in the capital.

The Mayor, Sadiq Khan, wants a prosperous economy that works for all Londoners – and in which neither opportunity nor achievement are limited by gender, ethnicity, sexuality, religion, disability, place of birth or background. He wants businesses and entrepreneurs to feel supported to grow and innovate, and to enjoy the certainty of knowing that London will remain globally competitive and open to business. This draft strategy sets out the Mayor's vision for the economy. He now wants everyone with a stake in London's future to help him make it a reality.

### **A FAIRER, MORE INCLUSIVE ECONOMY**

Creating a fairer economy – one which works for all Londoners, and in which no one finds themselves locked out from opportunity – is central to the Mayor's mission. An economy in which the talents of some Londoners are not fully realised is not only unfair, it is wasteful and



inefficient. The more Londoners that have the opportunity to make the most of their talents in tomorrow's economy, the faster our new industries can grow and prosper. There is evidence that more equal economies do better in the long-term, with more stable and quicker growth over longer periods than economies that have high levels of inequality<sup>1</sup>. And there is also evidence that they are safer, healthier and happier places<sup>2</sup>.

Fairness and inclusion sit at the heart of this Economic Development Strategy - putting the wellbeing, health and happiness of Londoners first, and in doing so supporting sustainable economic growth. To create a fairer, more inclusive economy, London needs:

### **World class education**

Although children in London generally have better educational outcomes than their peers in the rest of the UK, compared to other global cities, especially in East Asia, we are falling behind. Our skills system does not cater adequately for the needs of learners or employers, with insufficient support in particular for the growth in technical skills that our economy needs. The Mayor will work with education and skills providers to help give every child the best start in life - including

a first class careers education – while ensuring employers play a central role in defining what the economy needs, helping to better prepare Londoners to take advantage of opportunities in our growing sectors. You can read more in chapter 3.1 of this strategy.

### **Opportunity for all Londoners**

For all London's prosperity, unemployment and economic inactivity is still high compared to the rest of the UK. This is especially the case among certain groups and communities, including disabled people, carers, women with children and some ethnic minority communities. While the gap is closing, the Mayor wants more Londoners to have the opportunity of well-paid, stable work. This means jobs with good conditions, equal opportunities for progression and in which people are paid fairly and equally. The Mayor will help to break down barriers to employment and make it easier for people to develop new skills through education and training, and work with public services providers to support digital inclusion. He will work with businesses to promote fair employment practices and help them to develop their employees' skills, and ensure there is support for Londoners from less advantaged backgrounds to start their own businesses. You can read more in chapter 3.2 of the strategy.

<sup>1</sup> Berg, A. and Ostry, J.D. (2011) 'Inequality and Unsustainable Growth: Two Sides of the Same Coin?', International Monetary Fund Staff Discussion Note No. 11/08, April 2011. See also Ostry, J.D., Berg, A. and Tsangarides, C. G. (2014), 'Redistribution, Inequality and Growth' IMF Staff Discussion Note, SDN/14/02.

<sup>2</sup> Wilkinson R. G. and Pickett, K. (2008) 'The Spirit Level: Why More Equal Societies Almost Always Do Better', London, Allen Lane, 2009.



### **A lower cost of living**

For many, London is an expensive city in which to live. The costs of accommodation, travel and childcare are a barrier to work for many on low or medium incomes, making it harder for businesses to recruit or retain the talent they need. The Mayor will work to increase the supply of genuinely affordable homes, and make it easier for those on low and medium incomes to buy or rent a home. Through Transport for London, the Mayor intends to ensure that Londoners also have access to public transport they can afford, which is why he has already frozen Transport for London fares to 2020. Working with employers in the public and private sector he will support fresh proposals to help make childcare more affordable for working families and help increase the

supply of quality childcare. You can read more in chapter 3.3 of the strategy, in the Mayor's draft [Housing Strategy](#) and the draft [Transport Strategy](#).

### **Fair pay and employment practices**

The Mayor wants to ensure that London is not only the best city in the world in which to do business, but the best city in which to work as well. That means that work should always pay fairly, that workplaces should be safe, opportunities should be based on talent and effort, and that exploitative practices should be eradicated. He will work with businesses to promote model employment standards, asking them to adopt his Good Work Standard, and increase take-up of the London Living Wage. This means working collaboratively



with employers, supporting them to adopt best practice and constantly raise standards. This will not only help to address inequalities – better pay and conditions should also improve staff retention and productivity. You can read more in chapter 3.4 of the strategy.

### **Better health and less poverty**

Health inequalities in London are significant – how long Londoners can expect to live in good health varies between boroughs. The Mayor will work with London's boroughs, NHS Trusts, businesses, charities and community groups to address health inequalities and improve health and wellbeing in London. You can read more in chapter 3.5 of the strategy, in the Mayor's [Diversity and Inclusion Vision](#) and the Mayor's draft [Health Inequalities Strategy](#).

### **Inclusive and safe communities**

London's diversity and the tolerant nature of Londoners is one of its great strengths, contributing hugely to our appeal to global businesses, investors, tourists and global talent. However, now more than ever we cannot take it for granted. Although the majority of Londoners voted to remain in the EU, it is clear that the threat of a hard Brexit has undermined our reputation for openness and tolerance. This underlines the importance of the #LondonIsOpen campaign, which the Mayor launched soon after the referendum. The Mayor will continue working tirelessly to spread this message, and to promote and maintain our diversity and inclusivity. London is a safe city by any standard, and the Mayor is clear that keeping Londoners safe is his first priority.

We must continue to invest in community and social infrastructure such as schools, health services and green spaces, as well as cultural facilities to build inclusive communities. And we will continue to make it clear that London is open to the world - to those who come to live and work in our city from overseas. Through the Mayor's Office for Policing and Crime (MOPAC) and the London Fire and Emergency Planning Authority (LFEPA), the Mayor will continue to work to make the city safe for all. Further detail is set out in chapter 3.6 of this strategy, in the [Diversity and Inclusion Vision](#) and the Mayor's [Police and Crime Plan](#).

## **CREATING THE CONDITIONS FOR GROWTH**

London's economy is expected to grow rapidly in the years ahead. However, a range of factors could affect future growth and prosperity, not least Brexit. Many businesses are deeply concerned about the impact that leaving the EU will have. For London to retain its global competitiveness, the UK must achieve a future relationship that protects our ability to trade across the EU, as well as our ability to attract talent. During the Brexit negotiations, the Mayor is making the case to Government for the UK to remain part of the Single Market. It may be necessary to amend parts of this Economic Development Strategy once the likely impacts of the new conditions post-Brexit are understood. Whatever the outcome, the Mayor will work tirelessly

to cement London's position as a global centre of business and trade. He will continue promoting London globally as a destination and partner for investment, trade, and tourism, and build links with other cities around the world.

London needs a growing, dynamic economy to drive prosperity and create opportunities for all Londoners. Building on London's existing strengths and global competitiveness, the Mayor is committed to creating the most supportive, innovative environment for businesses and entrepreneurs in the world, focusing on:

### **Space for business and work**

The Mayor has to balance competing demands for land use, all of which are important for London's growth – housing and commercial space, as well as for community, civic, cultural and many other uses. Through the London Plan, the Mayor will work to balance these priorities and to ensure that London has enough office, retail and industrial space to meet the needs of a growing economy, including affordable workspace.

We have seen the loss in recent years of much office and industrial space, often to conversion or redevelopment for residential use. This is putting pressure on businesses which serve and support London's economy, especially small and medium sized enterprises. A range of different types of workspace are

needed for businesses of different sizes, sectors and stages of development. The Mayor will work with boroughs to protect viable office space from being lost and to boost the supply of affordable and low cost workspace. He will offer loans and grants to fund workspace, support Enterprise Zones, and use planning policy to increase the amount of workspace available. You can read more in chapter 4.1 of the strategy and in the forthcoming draft [London Plan](#).

### **Transport**

Through its airports, high speed rail links and the river, London has international connections that put it at the heart of the global economy. However, our transport system faces major capacity constraints. There are growing levels of overcrowding on the rail network and congestion on the streets. London's future success will therefore depend on investing in new public transport capacity. Meanwhile, we must encourage more people to switch from private vehicles to walking and cycling. The Mayor will work with TfL, national government and other stakeholders to secure the investment in London's transport network needed to sustain London's competitiveness, and to make travel more affordable, ensuring all Londoners can access work and study opportunities. You can read more in chapter 4.2 of the strategy and in the Mayor's draft [Transport Strategy](#).

### **Infrastructure**

As well as transport, London will need a wide range of other infrastructure. This includes major utilities like energy, water and waste as well as, crucially, digital infrastructure. The scale of growth means there are huge challenges in coordinating the required investment. The Mayor will bring together the key stakeholders so that infrastructure is built in a more coordinated and efficient way, and lead efforts to improve digital connectivity across London, including tackling areas of low or no connectivity ('not-spots').

Data and digital technologies are a key and increasingly vital component of London's economy, and its public realm. Data produced by public and private sources provide a huge pool of resources that can be used to better plan and deliver public services, and support investment in better urban planning and infrastructure provision. London and its boroughs need more explicit city data and technology policies to plan a 21st century city for Londoners and businesses. The Mayor has set out his ambition to make London the world's leading smart city. You can read more in chapter 4.3 of the strategy, in the [infrastructure work programme](#) and in the work of the Smart London Board and London's Chief Digital Officer.

**Innovation and skills**

London's universities, specialist colleges, and research institutions are some of the best in the world. They drive innovation and scientific advancement, and supply London's businesses with talent. The Mayor will support these institutions to grow, collaborate, and develop their expertise and contribution to the economy. He will urge government to maintain clear and easy routes for international students, academics and technical staff to come to London. A flexible approach to migration is needed to help ensure London continues to attract talent and skills - from both the EU and across the world.

Learning should be a lifelong process, giving everyone the best chance to progress in their career. Once responsibility for adult skills is devolved, the Mayor will be able to do more to direct funding to meet the needs of London's businesses and learners. The focus will be on improving pathways on which to progress and giving Londoners the skills they need in a changing labour market. Together with the London Economic Action Partnership (LEAP), the Mayor will invest in new colleges, facilities and spaces for learning. You can read more in chapter 4.4 and in the Mayor's draft [Skills Strategy](#).

**Enterprise and entrepreneurship**

London is home to some of the world's most creative and entrepreneurial people. The Mayor will help start-ups and small businesses to grow by promoting access to affordable workspace, finance and business support. He will be a strong advocate for London's businesses, and will lobby on their behalf, on issues from Brexit to reform of the business rates system.

London's businesses operate internationally, exporting and importing goods and services around the world. The Mayor will foster trade, pursue investment and build links with other global cities. Through his promotional agency, London & Partners, he will promote London and all it has to offer to investors, businesses and tourists. He will also support more businesses to export. You can read more in chapter 4.5 of the strategy.

**SUPPORTING LONDON'S SECTORS**

Through the actions and priorities outlined above, the Mayor will work to support growth across London's economy. However, he has identified some sectors that are key to a fairer and sustainable future economy for London - sectors that can bring wider benefits to Londoners, as well as offering huge potential for growth. They are also areas where the Mayor's actions can make a real difference. He has identified opportunities in the following sectors:



**Advanced urban services**

London is a world leader in architecture, urban design, planning, engineering, property development, energy and transport. Our architects and engineers have created some of the most iconic buildings and infrastructure across the globe. Increasingly, the application of new technologies to these disciplines is creating new advanced urban services. These have the potential to make cities more productive, sustainable, and liveable. They are also improving the way people access public services. The Mayor has announced that he wants London to be the world's leading smart city - a global testbed for tech-driven solutions to public service challenges. He will help to establish common standards for collecting data and he will make more data open to the public. The Mayor will support investment in urban demonstrators to showcase the potential for growth in the sector to the world. You can read more in chapter 5.1.

**Cultural and creative industries**

London's status as a leading creative capital plays a huge part in attracting business, talent, investment and tourism from across the globe. It has the world's third largest film industry, is an international fashion hub and a centre for design excellence. Four UNESCO world heritage sites, many internationally recognised museums, world class theatres, restaurants, clubs, music venues and historic local pubs all

contribute to London's appeal, as well as creating many thousands of jobs. The Mayor will protect London's culture and heritage and help more Londoners to access and enjoy it. He will support growth in the cultural and creative sector across London and help creative people to set down roots by piloting Creative Enterprise Zones. There will be a particular focus on the Thames Estuary, where with partners the Mayor has developed a vision for a Production Corridor. You can read more in chapter 5.2 of the strategy and in the Mayor's forthcoming Culture Strategy.

**Financial and business services**

London is the world's leading financial centre. The City handles huge flows of money and underpins the national economy. With key institutions such as the Bank of England, the Financial Conduct Authority and global headquarters of many international banks and insurance houses at its heart, London also boasts an unparalleled ecosystem of professional, legal and business services. London's status as a global financial hub, however, is under threat from Brexit. The Mayor will be a strong advocate on behalf of the City, lobbying the government for a deal with the EU which enables London's financial and business services sector to trade within the Single Market and to access talent from Europe, and banging the drum overseas for London's financial and professional services. You can read more in chapter 5.3.



### **Life sciences**

London has a long history as a centre for advancement in medicine and biology and today, together with Oxford and Cambridge, forms the 'Golden Triangle', a global hub for life sciences. It is home to some of the greatest scientific minds, and a beacon for world-class research, with a rich network of renowned research centres, healthcare providers, medical charities, innovative small businesses and global industry players. And, of course, while creating high-skilled jobs and generating revenue, the life sciences are also tackling some of society's biggest health challenges like cancer, heart disease, diabetes and dementia. Some of our most entrepreneurial science and technology companies need more support to turn their ideas into products that are taken up by the NHS and other markets, and growth is held back by the need for greater provision of long term investment and affordable workspace (including wet lab space), regulatory uncertainty after Brexit, and the need to continue attracting world class talent. The Mayor will work with the sector and MedCity to address these challenges and to improve collaboration across the sector in the wider south-east. You can read more in chapter 5.4.

### **Low carbon and environmental goods and services**

The Mayor wants London to show the world how a successful and growing global city can also be a sustainable one, and has set a target of making London carbon neutral by 2050. This transition will require fresh responses from the business community and action from Londoners to reduce their carbon footprint - but in doing so, it will create major new commercial opportunities. The Mayor will help businesses across London's innovative CleanTech community to seize them. You can read more in chapter 5.5 of the strategy and in the Mayor's [Environment Strategy](#).

### **Tech and digital**

London is already one of the world's leading hubs for digital technology, with particular strengths in specialist fields such as artificial intelligence (AI), financial technology (FinTech) and digital health. While technology is creating whole new industries, revolutionising existing ones, and changing the way that transactions are made and content is consumed, it also has the potential to transform the experience that Londoners and visitors have of our city. London's tech community is spurring much of the innovation across Europe and the globe. The Mayor wants all Londoners, as well as businesses across different industries, to benefit from the opportunities presented by digital technology. He will ensure that London's

tech-driven sectors have access to the infrastructure and skills they need to grow, and support collaboration across different sectors and disciplines. He will showcase this innovation globally to attract the investment this sector needs to thrive. You can read more in chapter 5.6 of the strategy.

### **Tourism**

London is the third most visited city in the world, supporting jobs and growth in a wide range of sectors from hospitality and food to our cultural and creative industries. Tourism is an important employer, providing jobs for people at every stage of their career. It also helps to make London a diverse and open city. Many of London's entrepreneurs, investors, and international students and workers get their first taste of the city when they visit, on holiday or on business. Working with London & Partners and the tourism industry, the Mayor will make London's offer even stronger for both leisure and business tourism, focusing on the visitor experience and the quality of amenities. He will also work to promote the city more widely, ensuring that more visitors have the chance to enjoy more of what London has to offer – including encouraging dispersal to areas outside of central London which offer many of the city's 'hidden gems'. You can read more in chapter 5.7 of the strategy and in the [Tourism Vision](#).

### **DELIVERING THE MAYOR'S VISION**

The Mayor needs the support of public, private, voluntary and community sector organisations - and everyone with a stake in London's economy – to make his economic vision a reality.

#### **Strengthening partnerships**

The Mayor has pledged to be the most pro-business Mayor London has had, ensuring business always has input into his policy decisions. He engages with London's businesses through his Business Advisory Board and the London Economic Action Partnership (LEAP), through dialogue with business groups and representative bodies, and through direct engagement with London business leaders. In addition to specific forums and dialogue on policy and key challenges, the Mayor will use new forums and tools, such as his Good Work Standard, or the Skills for Londoners Taskforce to engage and support businesses in tackling the challenges to growth and shared prosperity, such as through promoting skills development and progression. The Mayor's approach will be innovative, co-designing and co-developing policy hand in hand with business.

The Mayor will be creative in his approach to working with communities to ensure they also feed into policy development and delivery, including the voluntary sector and civil society groups. He will use a wide range of methods to engage Londoners, encouraging them to be active citizens, to play their part in shaping London's future, and in particular, he will reach out to groups who are underrepresented in the economy. The Mayor will also continue to work with London boroughs, the wider south-east region and other UK cities – working together to support growth both locally and nationally. You can read more in chapter 6.1 of the strategy.

### **Making the case for devolution**

The UK has a heavily centralised system of government compared to its international peers. This means the Mayor and the boroughs are unable to use the bulk of tax revenues generated in the capital to invest in the lives of Londoners and London's infrastructure. Central government continues to control funding for the welfare system, skills, schools, the health service and much of housing and innovation policy. While the Mayor acknowledges that the rest of the country is to some extent reliant

on revenues raised in the capital, and supports the principle of redistribution, he believes that city governments should have more control of their own funding through stronger fiscal powers. This can help support investment in infrastructure and promote innovation and growth, which in turn will benefit not just London but the whole of the UK economy. The government has already started devolving some powers and funding to local government. However, the Mayor wants a more radical devolution agreement so he can deliver his vision for London's economy. You can read more in chapter 6.2 of the strategy.

### **Leading by example**

The GLA group<sup>3</sup> is a major employer in London. It spends around £11bn each year on products and services, sourced from suppliers and contractors across the UK. The scale and diversity of this buying power is an opportunity to boost the economic, social and environmental wellbeing of communities. The Mayor will use his procurement policies to help make this happen. He will also ensure that all the recommendations he is making to employers are implemented within the GLA group first. You can read more in chapter 6.3 of the strategy.

<sup>3</sup> The Greater London Authority, Transport for London, the London Fire and Emergency Planning Authority, Mayor's Office for Policing and Crime, London Legacy Development Corporation and Old Oak and Park Royal Development Corporation.



# 1. Introduction

London's dynamic economy creates a huge range of opportunities. The chance to find well-paid work, to progress in a rewarding career, and enjoy all that the city has to offer. It attracts the best and the brightest from all over the world.

But for many Londoners, the wealth and prosperity on their doorsteps can seem remote and inaccessible. The Mayor is determined to create **a fairer, more inclusive economy**. He wants all Londoners to be able to participate in, and benefit from, the city's economic success. As London's economy grows, its prosperity should be reflected in higher living standards for all – not just the wealthiest Londoners.

Average household incomes in London are significantly higher than the rest of the UK<sup>4</sup>, and London is home to some of the wealthiest individuals in the world. But the gap between the incomes of the richest and poorest in London is the widest of all regions in England<sup>5</sup> and almost three in ten Londoners live in poverty<sup>6</sup>. The top ten per cent of households own more than half of the city's wealth<sup>7</sup>. The Mayor believes inequalities in income and wealth on this

scale are damaging to the economy, to the wellbeing of citizens, and to London itself. They contribute to things like the unacceptable gap in healthy life expectancy between the wealthiest and most deprived parts of London. This is a 15 year gap between men and a 19 year gap between women<sup>8</sup>.

To address inequalities, the Mayor believes more should be done to help the poorest and most disadvantaged groups in London. Supporting more people into well-paid work, or self-employment, is an important first step towards reducing inequality. All those that want to work, and who can, should be able to. They should have access to a job where they are fairly paid and treated, feel valued and are able to progress. The Mayor wants London to be a city with model standards of employment where more people are paid at least the London Living Wage, which is calculated independently to reflect the high cost of living in the capital.

Creating a fairer, more inclusive economy also means **making the city more affordable**. Addressing London's housing crisis is one of the Mayor's top

<sup>4</sup> Median gross household weekly income (before housing costs) was £679 in London compared to £568 in the UK for the period 2011/12-2013/14 (three year average). Source: DWP Family Resources Survey, see GLA Economics (2016) 'Economic Evidence Base for London'. Chapter 10, Table 10.1, p519

<sup>5</sup> The bottom 10 per cent of households have gross incomes (before tax) below £231 per week, while the top 10 per cent have income above £1,945 per week. See GLA Economics (2016) 'Economic Evidence Base for London'. Chapter 10, Table 10.1, p519.

<sup>6</sup> Poverty is defined as income below 60 per cent of the median income.

<sup>7</sup> GLA Economics (2016) 'Economic Evidence Base for London'. Chapter 10, Section 10.5.1.

<sup>8</sup> Public Health England (2017) 'Public Health Outcomes Framework', Healthy Life Expectancy at birth indicator 0.1i, 2013-15.

priorities. He wants to enable people to live within reasonable distance of where they work and in the neighbourhoods they call home. Londoners should also have access to an efficient and affordable public transport network to take them to and from work. It should also be easier to walk or cycle. This will be good both for Londoners' health and the environment.

If people are to see continued improvements in their living standards, London needs a strong and growing economy. The Mayor wants London to be **the world's greatest city for business** - a world capital for trade and investment. For that to happen, London must remain open to entrepreneurs that want to start and grow their businesses here.

To be competitive on the world stage businesses need to be ever **more productive and innovative** in how they operate. Yet, like the rest of the UK, productivity growth in London has slowed since the 2008 financial crisis. The Mayor wants productivity to return to pre-crisis growth rates, and in the longer term to exceed them. This will enable London to be the most productive and innovative of all world cities.

To raise productivity, firms must be able to invest in new technologies, products and processes. This requires a competitive business environment which provides stability and the confidence

to invest. Businesses must also be able to access financial capital and first class infrastructure, including digital connectivity. And they need to be able to invest in the skills of their workforce through high quality education and training. The Mayor wants London to continue to offer the **most competitive business environment in the world**.

Education is vital for both the life chances of children and our economy's future performance. While London's schools are much improved, children in many other global cities do far better on international tests. London needs an education system that gives all young people the skills they need to work in a global economy. This system must also recognise and nurture talent. Learning should be a lifelong process where young people and adults continue to develop their skills through further and higher education and work-based learning. London's universities are already world class. They have a key role to play as both providers of higher education and as a source of research and development.

At the same time, London must remain **open to the most talented workers from across the globe**, including Europe. London's arts, culture, history and its diverse people and places are what makes it special. It is why so many people choose to live, work and visit here over other international cities.

Protecting and promoting London's cultural riches is therefore central to the Mayor's economic vision. London is one of the most diverse cities in the world. The Mayor believes that this diversity is an asset for the economy and should be celebrated. He wants London's communities to be united by the city's unique culture, and for all Londoners to be safe, healthy and live well together.

All the forecasts point to further major growth in population and employment in London in the decades ahead. However, the Mayor recognises that growth cannot be pursued at all costs. Growth must not come at the expense of poorer air quality, higher greenhouse gas emissions, increased noise levels, unfair employment practices or greater inequality. This is neither sustainable nor compatible with Londoners living healthier, happier lives. That is why the Mayor wants to see **'good growth'** in London. This is growth that is well planned and sustainable. It is growth which preserves and enhances the city's integrity for future generations and improves the quality of life of Londoners.

As a world city, London should be leading the fight against climate change and moving towards a **low carbon economy**. By 2050, the Mayor wants London to be

a zero carbon city. To meet this target, all businesses and households will need to do more to reduce their environmental footprint. That means reducing energy use and using resources more efficiently by recycling and reusing materials, or reducing consumption. London's environmental assets – the city's air, water, green spaces, soundscape, biodiversity, and much more - all form part of the city's natural capital. They should be valued in the same way as other forms of capital in the economy. Without them, the ability of businesses to operate effectively will be compromised and the health and wellbeing of residents will be put at risk. London's natural capital must be protected and enhanced for future generations.

London's growth means there are opportunities to incorporate new technologies into the city's buildings and infrastructure. This will enable London to become a truly 'smart city' where data is used in more sophisticated ways, and to make the city function more efficiently through the widespread adoption of common standards. London will be a **global testbed for smart city and low carbon technologies**. The public and private sector are already working side-by-side to find solutions to London's growth challenges.



## THE MAYOR'S AIMS FOR LONDON'S ECONOMY IN 2041

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1. Londoners are living healthier and happier lives.
2. Living standards are improving with real incomes growing year-on-year.
3. London has a fairer and more inclusive economy.
4. London is a more affordable city to live and work.
5. Londoners who want to work, and are able to, have access to quality employment.
6. London has the most talented workforce in the world.
7. London is a global leader in innovation and creativity.
8. London is the world capital for business, trade and investment.
9. London is the best city in which to start and grow a business.
10. More people are walking, cycling and using public transport to travel, helping London to grow sustainably.
11. London is one of the greenest, cleanest and most resource efficient economies in the world.
12. London has the highest productivity among global cities.

## **LONDON AND THE UK: GROWING TOGETHER**

The Mayor wants London's growth to benefit all of the UK including the devolved nations. He supports both the 'Northern Powerhouse'<sup>9</sup> and 'Midlands Engine'<sup>10</sup> initiatives because more trade and investment between regions benefits everyone. However, London's unique contribution to the national economy needs to be recognised. London accounts for more than a fifth of UK economic output and one in three of its service exports<sup>11</sup>. On these and many other measures, London is unquestionably the engine of the national economy. Keeping that engine running isn't just good for Londoners, it benefits the whole nation. It relies on a symbiotic relationship with other regions. Links between London and the wider south-east are especially important –

with arguably a single labour market, housing market, and transport network centred on the capital.

The evidence suggests that **when London grows, so does the rest of the country**<sup>12</sup>. It is easy to see why when London's contribution to the rest of the UK is considered (box below). London's international reputation for business has been established over centuries. It cannot be replicated or transplanted to another part of the country. If resources such as funding for vital infrastructure were to be diverted from the capital it would undermine London's international competitiveness. Investors would look to other global cities. The loss of this investment would damage the national economy. The Mayor is keen to strengthen collaborations with other UK cities to support national economic growth.

<sup>9</sup> The 'Northern Powerhouse' is an initiative to boost the economy in the North of England. See HMG (2016), '[The Northern Powerhouse Strategy](#)'.

<sup>10</sup> The 'Midlands Engine' is an initiative to boost the economy of the Midlands. See HMG (2017), '[Midlands Engine Strategy](#)'.

<sup>11</sup> See GLA Economics (2016), '[Economic Evidence Base for London](#)'.

<sup>12</sup> GLA Economics (2014), '[Growing Together II: London and the UK Economy](#)'.

## HOW LONDON CONTRIBUTES TO THE UK ECONOMY

1. **Business accelerator.** More businesses migrate out of London to the rest of the UK than migrate in. However, the overall number of businesses in London continues to grow because of the high rate of business start-ups<sup>13</sup>.
2. **Jobs and income generator.** London's businesses provide employment for workers from across the wider south-east and further afield. Local economies benefit from the wages earned in London which are spent on goods and services outside the capital.
3. **Skills accelerator.** The pull of London's job market attracts a large number of graduates into the city from other regions. But later in life, many choose to move out of the city, taking with them a wealth of skills and experience from working here. London's universities educate around 360,000<sup>14</sup> students a year, including many of the brightest and best from overseas. These students go on to find work, start a business, or continue into academia and research in other parts of the UK.
4. **Supporting national supply chains** – London's businesses and residents buy goods and services produced by firms in other regions and provide a large market into which these firms can sell. This is also true of London's government. For example, investment by TfL and Crossrail has supported around 60,000 jobs a year outside London<sup>15</sup>. Of the world's largest 250 companies, 40 per cent have their European headquarters in London<sup>16</sup>. These, and other 'anchor' institutions, have supply chains that stretch right across the UK. Arterial transport connections from London, like the M4 Corridor, are a crucial part of this value chain.

<sup>13</sup> Trends Business Research (2016), 'The changing spatial nature of business and employment in London', GLA Economics Working Paper 73.

<sup>14</sup> Based on 2015/16 data.

<sup>15</sup> Mayor of London (2017) 'Mayor's Transport Strategy: Draft for public consultation', p.33

<sup>16</sup> Deloitte (2014), 'London Futures'.

- 5. Financial centre** – London's financial ecosystem includes core industries like banking, asset management and insurance and related professional services such as law and accounting. It manages flows of financial capital from across the globe. Access to this ecosystem makes it possible for businesses in the rest of the UK to operate globally in a way they might not otherwise be able to. Furthermore the strength of London's financial sector creates many related financial services jobs in other parts of the UK.
- 6. Tax generator** – London raises far more in taxes than it spends through public expenditure. In 2016, the surplus in public sector revenue was equivalent to £3,100 per person. The only other regions to run surpluses were the south-east (£1,700 per head) and the east of England.
- (£250)<sup>17</sup>. A successful London economy is therefore vital to the UK exchequer.
- 7. Net exporter** – the value of goods and services exported overseas from London is worth more than the value of imports to London. That means as a region, London runs a trade surplus, unlike the rest of the UK. Without London's trade surplus the national position would look considerably worse.
- 8. Gateway to the UK** – London is a way in for many businesses and investors looking to invest in the UK or for people who want to study or work in the country. London helps to draw people in, and from there they discover other parts of the UK. Similarly, 15 per cent of visitors to London go to another UK location outside London, injecting around £641m a year to the national economy<sup>18</sup>.

<sup>17</sup> ONS (2017) 'Country and regional public sector finances: Financial year ending March 2016'. Experimental statistics.

<sup>18</sup> London & Partners (2015), 'Understanding the London+ Visitor'.

## THE MAYOR'S APPROACH

More and more city governments across the world are recognising the importance of economic inclusion in their strategies, reframing what they are trying to achieve from their growth and development and how they go about it<sup>19</sup>. The Mayor wants to do the same in London; starting by putting the wellbeing and happiness of Londoners first. Wellbeing means different things to different people. However, there is a growing body of research to define, measure and identify the main determinants<sup>20</sup>. Focusing on wellbeing means focusing on those aspects of life that matter to people. This includes their income and work, their physical and mental health, and their relationships with the communities and environments they live and work in.

The wellbeing of Londoners and the prosperity of businesses are inseparable and mutually dependent. Many of the challenges affecting the wellbeing of residents are the same ones that hold businesses back. Examples include the

shortage of skills, lack of affordable housing, the need for a more efficient transport network, the deterioration of the environment, and the mental and physical health of Londoners. So focusing on wellbeing of Londoners should go hand in hand with creating a competitive business environment.

The Mayor believes he has a vital role to play - not only helping the economy to grow, but helping it to grow in the right way. He will focus on creating the conditions for 'good growth'. That means helping to ensure London has the space for business, transport, infrastructure, housing and skills that the economy needs to grow sustainably and productively. He will help innovation to flourish across the whole economy. He will do so by directing investment, enabling the right collaborations, showcasing our strengths, attracting investment and supporting crucial industries. This will bring wider benefits for London and Londoners.

<sup>19</sup> In the UK, the case for inclusive growth has been made by the Royal Society of Arts' (RSA) Inclusive Growth Commission in RSA (2017), '[Making our economy work for everyone](#)'. See also: OECD (2016), '[Making Cities Work For All: Data and Actions for Inclusive Growth](#)'; and World Economic Forum (2017), '[The Inclusive Growth and Development Report 2017](#)'.

<sup>20</sup> See the [What Works Centre for Wellbeing](#).



## DRIVERS OF GROWTH & COMPETITIVENESS

- 1 Specialisation / Diversity
- 2 Natural capital / Green infrastructure
- 3 Culture
- 4 Institutions
- 5 Skills
- 6 Transport & infrastructure
- 7 Enterprise
- 8 Agglomeration
- 9 Productivity
- 10 Innovation & creativity

## INPUTS TO A MORE INCLUSIVE ECONOMY

- 11 Affordable living
- 12 Education & lifelong learning
- 13 Fair pay & working practices
- 14 Equal opportunities
- 15 High quality environments
- 16 Financial and digital inclusion

## OUTCOMES IN AN INCLUSIVE ECONOMY

- 17 Sustainable economic growth
- 18 Higher living standards
- 19 Higher wellbeing
- 20 Better health & life expectancy
- 21 Social mobility
- 22 Greater equality
- 23 Inclusive, safe communities
- 24 High employment

## THE ROLE OF THE MAYOR AND THIS STRATEGY

The future of London's economy will be determined by the people who live and work in the city – whether they are established business owners, aspiring entrepreneurs, students or one of the many millions of employees and residents. This strategy is a call to action to everyone with a stake in the future of London's economy to get behind the Mayor's vision of a fairer, more equal, and prosperous city. Together, we can help sustain London's position as the world's greatest city for business. And we can help ensure that the proceeds of economic prosperity are more fairly distributed.

The Mayor, through the Greater London Authority (GLA) group, is able to influence the development of London's economy in a number of areas:

- **Planning** - through the [London Plan](#), [Opportunity Area Planning Frameworks](#) and decisions on strategic applications, the Mayor can influence how land is allocated to accommodate growth in the economy. Through his development corporations<sup>21</sup>, he has a direct role in the planning and delivery of areas with major capacity for growth.
- **Transport** - through [Transport for London](#) (TfL), the Mayor invests around £10bn each year on London's transport network<sup>22</sup>, helping to grow and manage London's economy.
- **Housing and land** – the Mayor has responsibilities for investing in new affordable homes through the [Homes for Londoners](#) partnership. He also identifies the scale of housing need in London. The GLA group owns a portfolio of land the Mayor can use to further his aspirations for the economy.
- **Regeneration and placemaking** – the Mayor works across the public and private sector to secure and invest funds in regeneration programmes. These aim to improve economic, social, environmental and cultural outcomes, ensuring that all Londoners can participate in and benefit from London's growth.
- **International promotion and sector support** – the Mayor works with a number of organisations to attract investment and support growth. These include [London & Partners](#) which promotes the city to international investors, businesses and tourists. He also works with [MedCity](#) which supports the promotion and growth of the life sciences sector in London and the south-east. He supports the creative industries too through his investment in [Film London](#), [British Fashion Council](#) and [London Design Festival](#).

<sup>21</sup> The London Legacy Development Corporation and the Old Oak and Park Royal Development Corporation.

<sup>22</sup> Total costs for 2017/18 including operating costs, new capital investment and renewals were estimated to be £10.2 billion. See Transport for London (2017), 'Transport for London Budget 2017/18'.

- **Culture and heritage** – the Mayor works with partners to enhance, promote and protect London's culture and heritage. This helps to attract international and UK visitors, creative businesses and entrepreneurs. He also promotes London as a 24-hour city.
- **Business support** – together with the [London Enterprise Action Partnership](#)<sup>23</sup> (LEAP) the Mayor supports small businesses by funding the [London Growth Hub](#). This provides a single access point for business support in London, access to finance and affordable workspace.
- **Skills and employment** – through LEAP, the Mayor funds improvements to London's college buildings. He also distributes European funding to projects helping Londoners to access jobs and to progress in work. In due course, he will gain control over the post-19 adult education budget. This will mean he is able to better shape skills provision in London to meet business needs.
- **Environment** – the Mayor works to ensure London's environment is protected and enhanced so that it remains a healthy city for workers and residents.
- **Health** – the Mayor works to improve the health of London's workers and residents. He coordinates and delivers activities around mental health, healthy schools, food, and the environment.
- **Safety and security** – the Mayor helps to ensure London is a safe place to live and work through the [Mayor's Office for Policing and Crime](#) (MOPAC) and the [London Fire and Emergency Planning Authority](#).

In these, and in other areas where he has more indirect influence, the Mayor will do all he can to deliver his vision for the economy.

However, many of the most powerful 'levers' over London's economy are outside the Mayor's control. Interest rates are set by the Bank of England, while the vast majority of tax and spending decisions are made by central government<sup>24</sup>. London has the same population as Wales, Scotland and Northern Ireland combined. Despite this, the Mayor and the GLA have far less control over how revenues are raised and resources are spent than their devolved governments. The Mayor is therefore calling for more of the taxes raised in London to be brought under his control to help achieve his vision for London's economy (see chapter 6.2)<sup>25</sup>.

<sup>23</sup> The London Local Economic Action Partnership, chaired by the Mayor, is one of 38 Local Enterprise Partnership (LEPs) across England. LEPs are voluntary partnerships between local authorities and businesses set up in 2011 by the Department for Business, Innovation and Skills to help determine local economic priorities and lead economic growth and job creation within the local area.

<sup>24</sup> Approximately 74 per cent of London's funding comes from centralised grants, compared to 31 per cent in New York, 17 per cent in Paris and 8 per cent in Tokyo.

<sup>25</sup> See the arguments made by the London Finance Commission (2017), '[Devolution: a capital idea](#)'.



## THE CONSULTATION PROCESS

The publication of this draft is part of a continuing consultation with stakeholders to agree the final Economic Development Strategy for London. To date this has included:

- Publication of the draft and final versions of the 'Economic Evidence Base'<sup>26</sup>, which has informed the development of the strategy.
- Publication of 'A City for All Londoners'<sup>27</sup>, which sets out the Mayor's vision for London and the strategic direction for this document, together with feedback, polling and other pre-consultation community engagement activities.
- Consultation events including round table discussions with community representatives and business groups on specific topics.
- Consultation related to the Integrated Impact Assessment that has been carried out alongside the strategy to ensure it meets legal duties.

This consultation draft gives stakeholders the chance to provide feedback on the Mayor's economic development vision, objectives and proposed policies. It is also an opportunity to suggest ways in which these can be improved. The consultation runs from 13th December 2017 to 13th March 2018 on our website: [www.london.gov.uk](http://www.london.gov.uk). The final strategy will be published in May 2018 after we have analysed the responses to this consultation.

The rest of the document is structured as follows. Chapter 2 identifies the key challenges facing London's economy. Chapter 3 discusses how the Mayor aims to make London a fairer, more inclusive economy. Chapter 4 sets out policies designed to create the conditions for future growth. Chapter 5 sets out how the Mayor will support innovation and growth across the economy through his support for sectors. Chapter 6 discusses how the Mayor will work with partners to put the vision and strategy into action. Chapter 7 includes further information on how to respond to the consultation and next steps.

<sup>26</sup> GLA Economics (2016), '[Economic Evidence Base for London 2016](#)'.

<sup>27</sup> Mayor of London (2016), '[A City for All Londoners](#)'.



## 2. The state of London's economy

A comprehensive assessment of the state of London's economy is provided in the [Economic Evidence Base](#) which accompanies this strategy<sup>28</sup>. Drawing on this evidence, the following chapter highlights some of the key challenges facing London's economy.

### **London is one of the most successful city economies in the world...**

If London were a country, it's economy would be the 8th largest in Europe<sup>29</sup>. That economy reflects the character of the city – global, open, innovative, diverse and dynamic. These characteristics help to make it one of the most prosperous cities in the world and a global economic centre. There are more people living and working in the capital than ever before<sup>30</sup> and the value of London's economy is now greater than some major European nations including Belgium, Sweden and Norway<sup>31</sup>. This enables many people in London to enjoy a very high standard of living with average weekly household incomes<sup>32</sup> higher than the rest of the UK<sup>33</sup>.

London is a global financial capital with a unique ecosystem that has built up around it. There are now more head offices of banks in London than in any other place in the world and over 250 foreign banks with an office in London<sup>34</sup>. Other sectors like tech and creative industries are also growing with global leaders like Apple, Google, Amazon, Facebook and many others investing in the city. Forty per cent of the world's largest 250 companies base their European headquarters in London<sup>35</sup>.

### **...but many Londoners have not shared in that success.**

The gap in average incomes between the poorest and richest 10 per cent of residents makes London the most unequal region in the UK<sup>36</sup>. And rising incomes of the richest has enabled them to accumulate assets like property<sup>37</sup>, with 10 per cent of households estimated to own 50 per cent of London's wealth<sup>38</sup>. As these assets have risen in value at a faster rate than the economy as a whole, it has compounded London's inequalities<sup>39</sup>.

<sup>28</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016'.

<sup>29</sup> Based on 2014 Eurostat data. See GLA Economics (2016), 'Economic Evidence Base for London 2016', Table 1, p.4.

<sup>30</sup> In 2015, London's population reached 8.7 million, higher than its 1939 peak. The number of jobs in London in 2017 was 5.75 million, based on the ONS Workforce jobs series, a record high.

<sup>31</sup> Based on Eurostat data from 2014. See GLA Economics (2016), 'Economic Evidence Base for London', p.4.

<sup>32</sup> Household income includes income for all individuals in a household and from all sources, including: earnings, pensions and investments (including property), benefits, maintenance grants, and other sources.

<sup>33</sup> The three-year average for the period 2011/12 to 2013/14 was £679 compared to £568 in the UK.

<sup>34</sup> The CityUK (2017), 'UK-based financial and related professional services: Enabling Growth Across the UK'.

<sup>35</sup> Deloitte (2014), 'London Futures'.

<sup>36</sup> The lowest earning 10 per cent of households have gross incomes below £231 a week, while the highest earning 10 per cent have incomes above £1,945 per week.

<sup>37</sup> According to the ONS Wealth and Assets Survey, households in the 10th percentile of the distribution had an average total net wealth of £4,600 and those in the 90th percentile had average net wealth of £1.36 million. This measure incorporates net property wealth, physical wealth, net financial wealth and private pension wealth.

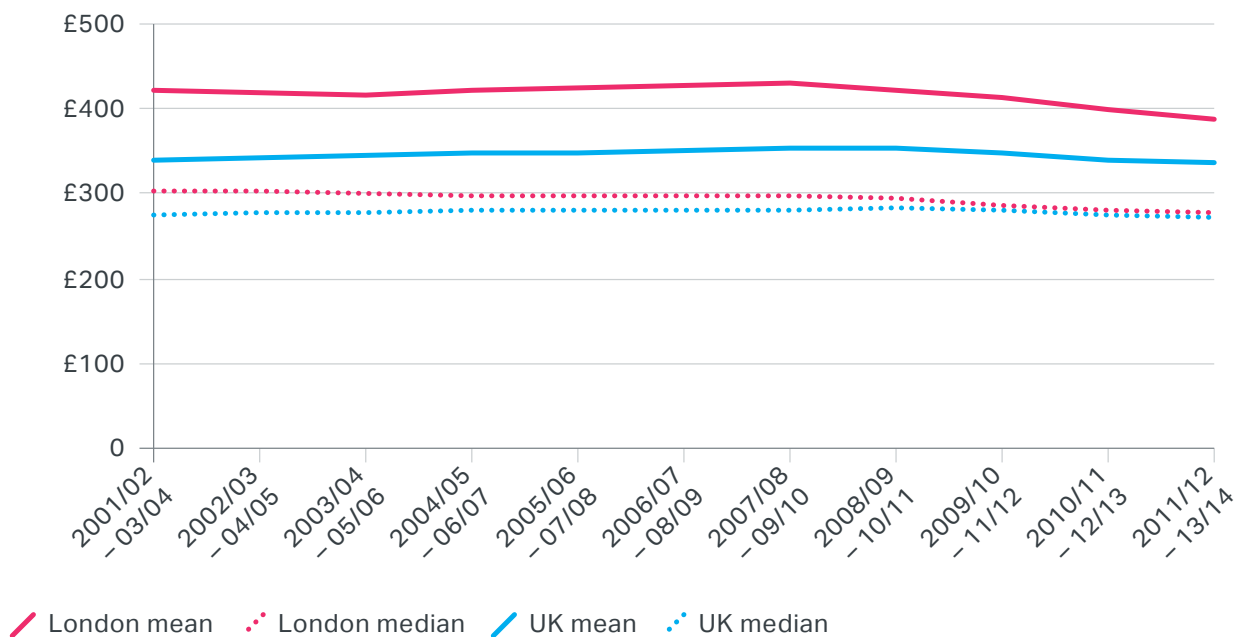
<sup>38</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', Chapter 10, p.558.

<sup>39</sup> For example, over the period 1997-2007, nominal GVA in London increased by a compound annual growth rate of 6.3 per cent, compared to nominal annual house price growth of 11.7 per cent. Source: GLA Economic (2015), 'House prices in London – an economic analysis of London's housing market', Working Paper 72, Table 3, p.20.

In contrast, 3 in 10 Londoners live in poverty<sup>40</sup> - the highest poverty rate of all regions in the UK. Poverty and deprivation is often intergenerational with limited opportunities for those on low incomes to progress. Too many Londoners, especially women, earn less than the London Living Wage and a gender, race and disability pay gap still exists<sup>41</sup>.

**Wages have struggled to keep pace with the rising cost of living in London.** In recent years, many residents have seen little or no improvement in their living standards as wages have struggled to keep pace with the growing cost of living. After housing costs are accounted for, average incomes in London and the UK are very similar to the rest of the UK<sup>42</sup>.

**Figure 1: Household income (£) after housing costs, London and UK**



Source: Family Resources Survey (three-year averages), net household income adjusted for inflation using ONS RPI all prices index, and equivalised to account for household size.

<sup>40</sup> On average over the period between 2012 and 2014, 2.2 million Londoners were in relative poverty (below 60 per cent of the national median), equivalent to 27 per cent of the population. See GLA Economics (2016), 'Economic Evidence Base for London' p.542.

<sup>41</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', Chapter 9.

<sup>42</sup> Median weekly household income after housing costs was £398 in London and £390 in the UK on average between 2011/12 and 2013/14. Source: Department for Work and Pensions Family Resources Survey, see GLA Economics (2016), 'Economic Evidence Base for London 2016', chapter 10.

**For all London's growth and prosperity, Londoners have the lowest reported levels of wellbeing of all regions in the UK...**

When asked about how satisfied they are with life, how happy they are, their feelings of worthwhile or their levels of anxiety, Londoners score themselves lower than all other UK regions<sup>43</sup>. Possible explanations for this include: longer commuter journeys, longer working hours<sup>44</sup>, stressful working conditions, or the higher levels of income inequality. Two million people in London are estimated to experience some form of mental ill health each year<sup>45</sup> affecting their quality of life and generating significant economic costs through sickness absence, job losses or by limiting their access to education.

**...and there are large gaps in healthy life expectancy across the capital.**

Healthy life expectancy is the estimated lifetime spent in "Very good" or "Good" health based on how individuals perceive their general health. In London, the gap in Healthy Life Expectancy between the wealthiest and poorest boroughs is 15 years for men and 19 years for women, with variations between some neighbourhoods even starker<sup>46</sup>.

**London's economy has thrived on its openness to talent, investment and trade...**

London has a very diverse population – of the 8.7 million people that live in the capital, nearly 40 per cent were born outside the UK. Twenty-six of the 30 local authorities with the most ethnically diverse populations in the UK are in London. There are over 300 languages spoken and a rich mix of different faiths, cultures and identities. The Mayor believes this diversity contributes to London's economic success by providing businesses with access to a diverse pool of skilled labour. Moreover, evidence suggests that migrant and minority communities are linked to higher levels of self-employment, entrepreneurial activity, innovation and small business formation in cities<sup>47</sup>. And there is also evidence that migration to the UK since 2000 has been of substantial net fiscal benefit<sup>48</sup>.

<sup>43</sup> For example, when asked how anxious did you feel yesterday? London's average anxiety rating was 3.15, compared to the England average of 2.93. Where 0 is 'not at all anxious' and 10 is 'completely anxious'.

<sup>44</sup> Londoners work an average of three weeks a year more than the rest of the UK. See ONS (2017), '[Introducing quarterly regional labour input metrics](#)'.

<sup>45</sup> Further detail on London's health inequalities is set out in the [Health Inequalities Strategy](#).

<sup>46</sup> Public Health England (2017), '[Public Health Outcomes Framework](#)', Healthy Life Expectancy at birth indicator 0.1i, 2013-15.

<sup>47</sup> See Kloosterman, K. and Rath, J. (2001), '[Immigrant entrepreneurs in advanced economies](#)', *Journal of Ethnic and Migration Studies*, 27, 2, p.189-201; Honig, B. et al. (2010), '[Transnational and immigrant entrepreneurship in a globalised world](#)'; and Goldin, I. et al. (2011), '[Exceptional people: how migration shaped our world and will define our future](#)'. Exclusion from mainstream employment may also push migrants into setting up their own business.

<sup>48</sup> Dustmann, C. and Frattini, T. (2014), '[The Fiscal Effects of Immigration to the UK](#)', *Economic Journal*, Vol.124, Issue 580, pages F593-F643, 2014.

**...but the decision to leave the European Union threatens to stem the supply of skilled labour and risks making it harder for London's businesses to trade with Europe.**

London's economy is more reliant upon workers from Europe than the rest of the UK. In 2015, 13 per cent of jobs in London were filled by people born in the European Economic Area (EEA), compared to 5 per cent in the rest of the UK. Sectors particularly reliant on labour from overseas include accommodation and food services and administrative and support services. These industries have high proportions of people born in the EEA and also outside the EEA. The construction sector is particularly reliant on people born in the EEA<sup>49</sup>.

Around 43 per cent of London's exports in goods and 35 per cent of its exports in services go to the European Union<sup>50</sup>. If the UK were to fall back to World Trade Organisation (WTO) rules, these exports would be subject to tariff and non-tariff barriers which would make them more expensive, less profitable or potentially unavailable on the continent. Combined with the potential border delays associated with leaving the customs union this impact on trade would have a hugely detrimental knock-on effect to London's and the wider UK economy.

## **BREXIT: SECURING A GOOD DEAL AND PROTECTING LONDON'S COMPETITIVENESS**

The Mayor campaigned for the United Kingdom to remain in the European Union but accepts that the public voted to leave. However, like many business leaders, he is deeply concerned about the potential impact on London's economy from a Brexit that fails to protect the barrier-free trade with the rest of Europe, and access to European talent, that have allowed it to become Europe's leading

business and financial centre. The Mayor wants to ensure that the UK's new relationship with both the EU and the wider world best serves the national interest, and enables London to remain the world's leading business capital. He has established a Brexit Expert Advisory Panel from across business and academia to support him in this mission.

<sup>49</sup> See GLA Economics (2016), 'Economic Evidence Base for London 2016', Chapter 6, Figures 6.21 and 6.22, p271,

<sup>50</sup> HMRC Regional Trade Statistics, ONS UK Balance of Payments – The Pink Book and ONS International Trade in Services.

In the Mayor's view, the best way to protect London's economic strengths is to negotiate a future relationship with the EU that guarantees the UK's continued membership of the single market. While he will continue to make the case for this approach, he will also continue to propose ways in which the UK government can mitigate the risks associated with its own commitment to leave the single market.

In his response to the UK government's White Paper on the UK's exit from the European Union<sup>51</sup>, published before the triggering of Article 50, the Mayor was clear that he believed it was in London's and the nation's interest to:

- Offer a cast-iron guarantee to all EU citizens currently living in the UK that they can stay post Brexit.
- Provide certainty and clarity to business during the negotiations by putting in place an interim, or transitional deal, so they can continue to invest and recruit, avoiding a 'cliff-edge' scenario in the run-up to March 2019 when the UK is scheduled to leave the EU.

The Mayor believes that London's long tradition of being open to people and talent from Europe and across the world has been fundamental to the capital's success over many years. The Mayor's immigration plan for London<sup>52</sup> argues that qualified freedom of movement of people is the best way to protect economic prosperity in London and the UK in the aftermath of Brexit. The plan also pushed for:

- A transitional arrangement with the EU which maintains the status quo of single market and customs union membership.
- Removal of international students from the annual net migration target as a matter of urgency and adoption of a pro-active approach to bringing global talent to the UK by reforming the current non-EU visa system.

London benefits significantly from a variety of European funds, including the European Social Fund (ESF), European Regional Development Fund (ERDF), funding for research by universities, research organisations and businesses, and other types of funding. The Mayor wants the UK to remain in European research programmes and believes London should be granted an allocation of UK funding to at least match the loss of other European funds.

<sup>51</sup> Mayor of London (2017), '[London's Global and European Future](#)'.

<sup>52</sup> Mayor of London (2017) '[Immigration: a future approach](#)'.



## Productivity in London is high relative to the rest of the UK...

Productivity – the value of goods and services produced per person or per hour – is a key factor in determining economic prosperity. Higher productivity is linked to higher wages and living standards<sup>53</sup>. In London, it is more than a third higher than the rest of the UK<sup>54</sup>. A range of different factors could explain this including:

- London's specialisation in sectors with very high productivity like financial services, which accounts for nearly a fifth of London's economy<sup>55</sup>, technology and the creative industries<sup>56</sup>.
- the openness of London's economy, which means businesses have to be highly productive to compete and enables the city to attract international investment.
- the concentration of firms in central London, which accounts for around 52 percent of London's economic output and 45 percent of the jobs<sup>57</sup>. Firms in central London have excellent access to a range of different markets and their close proximity to one another facilitates the rapid transfer of innovation and knowledge. These so-called 'agglomeration benefits' bring wider spillover benefits to London's economy over and above those that accrue to individual firms<sup>58</sup>.
- London's attractiveness to the most creative and talented people including pioneering researchers, scientists, entrepreneurs and business leaders. London is a highly skilled city with over half of all workers in the capital educated to at least degree level<sup>59</sup>.
- London's transport system, which opens up a huge labour market to businesses with large numbers of people able to commute from across Greater London, the wider south-east and further afield.

<sup>53</sup> HM Treasury (2015), 'Fixing the foundations: Creating a more prosperous nation'.

<sup>54</sup> Based on GLA Economics (2017), 'Regional, sub-regional and local gross value added estimates for London, 1997-2015'. UK GVA per worker was £49,067 in 2015 and London GVA per worker was £67,455.

<sup>55</sup> As measured by Gross Value Added (GVA). GVA per workforce job in Financial and Insurance Activities in 2014 was £181,800 compared to the average for all sectors of £58,374. Source: GLA Economics (2016), 'Economic Evidence Base for London 2016', chapter 1, Figure 1.19, p.35

<sup>56</sup> GLA Economics (2017), 'London's Creative Industries – 2017 update', Working Paper 89.

<sup>57</sup> Central Activities Zone, Northern Isle of Dogs and 1km fringes. See GLA Economics (2016), 'Economic Evidence Base for London 2016', pp56-57, Tables 2.2 and 2.3.

<sup>58</sup> For a discussion of the benefits of agglomeration see: Nathan, M. and Overman, H. (2008), 'Agglomeration, Clusters and Industrial Policy'.

<sup>59</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', chapter 5.

**...but compared to other global cities, productivity in London could be higher, and recent productivity growth has been weak.**

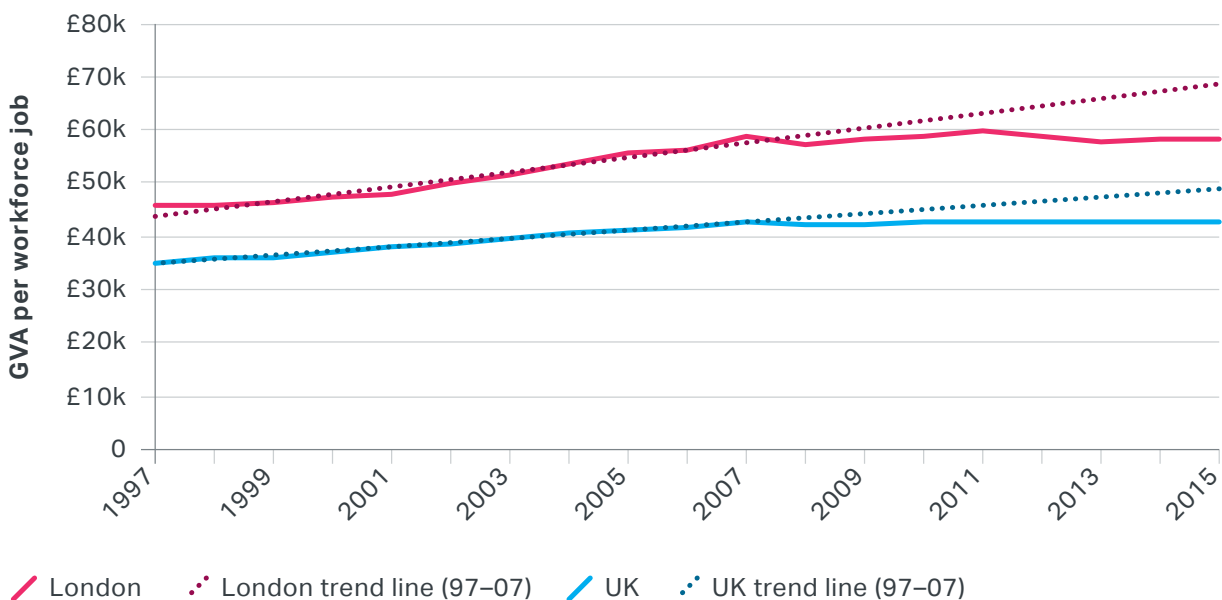
Productivity in London is below that of New York, Paris and Tokyo suggesting that at an international level there is still room for improvement<sup>60</sup>. Productivity performance is uneven in London with central areas performing more strongly than outer areas<sup>61</sup>. Moreover,

productivity growth in London since the financial crisis has slowed - as it has done for the whole of the UK and in some other developed nations.

**The unemployment rate has been falling in London...**

London's unemployment rate is at historically low levels and similarly the employment rate is at historically high levels<sup>62</sup>.

**Figure 2: Productivity: GVA per workforce job in London and the UK between 1997 and 2015, constant 2015 prices**



Source: GLA Economics calculations.

<sup>60</sup> International city comparisons of productivity are difficult to make on a consistent basis due to different measures of output, employment and the lack of regional price deflators. See GLA Economics (2016), 'London in comparison with other global cities', Current Issues Note 48, p31 Figure 5.1.

<sup>61</sup> GLA Economics (2017) 'Regional, sub-regional and local gross value added estimates for London, 1997-2015', Current Issues Note 52.

<sup>62</sup> See GLA Economics (2016), 'Economic Evidence Base for London', p.415. Based on ONS Labour Force Survey data.

**...but unemployment is still above the UK average and high among some groups.**

While the gap has been closing, unemployment in London is still higher than the rest of the UK<sup>63</sup>. People from ethnic minority backgrounds and disabled people are less likely to be in employment (see chart). The proportion of women of working age in employment is also lower than the rest of the UK<sup>64</sup>.

Higher costs of living, notably childcare, and the lack of flexible working may explain why fewer women work in London. Unemployment also varies spatially across the city; boroughs with higher levels of deprivation have higher unemployment rates<sup>65</sup>. The rate of economic inactivity – the proportion of the working age population who are not seeking or able to start work – has been relatively static for many years<sup>66</sup>.

**Figure 3: Unemployment rates in London and the UK, residents aged 16 years and over, three-month rolling average, 1992 to 2016**



Source: ONS Labour Force Survey. Based on the International Labour Organisation (ILO) definition of unemployment.

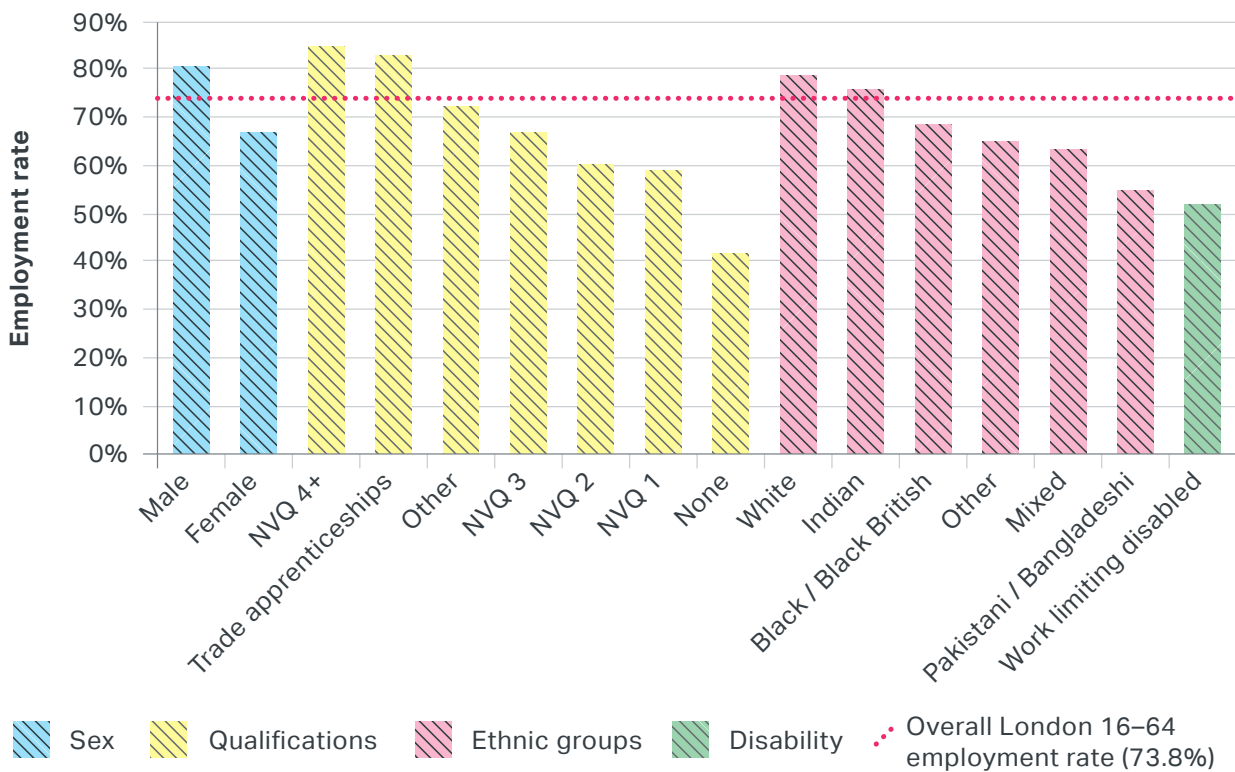
<sup>63</sup> Based on ONS Labour Force Survey data. See GLA Economics (2016), 'Economic Evidence Base for London 2016', p.428. This trend is generally statistically significant but not for all years.

<sup>64</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', chapter 9. This suggests that female parents have a lower employment rate in London compared to the rest of the UK. There is no statistical difference between female non-parents in London and the rest of the UK.

<sup>65</sup> For example, the unemployment rate in Barking and Dagenham was 10.4 per cent in 2016.

<sup>66</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', chapter 9, Figure 9.4.

**Figure 4: Employment rates for select groups (aged 16-64) in London, Jan-Dec 2016**



Source: Annual Population Survey.

**...and many people in work still struggle to get by on low pay and in unstable employment.**

Getting a job is generally considered the best way out of poverty, yet in London 21 per cent of working families live in poverty and approximately 200,000 Londoners claim in-work benefits. There are also a growing number of people in self-employment or low-paid part-time employment. Since 2004,

self-employment in London has grown at twice the rate of jobs with a single employer<sup>67</sup>. Lower paid occupations have seen the fastest rates of growth in self-employment. The numbers of Londoners on zero hours contracts<sup>68</sup> in 2015 was five times higher than in 2008 at the start of the recession. Close to 40 per cent of these people are underemployed and want more hours, a second job or a new job with more hours<sup>69</sup>.

<sup>67</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', Chapter 9, Figure 9.6, p.418.

<sup>68</sup> Zero hour contracts are employment contracts that offer no guarantee of a minimum number of hours.

<sup>69</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', Chapter 9, Figure 9.50, p. 469.

### **The performance of school children has improved significantly...**

For many years, London's school children underperformed relative to the rest of the UK but that trend has been reversed; the proportion gaining five A\*-Cs including English and Maths is now better in London than other regions.

### **...but attainment levels vary significantly by different backgrounds...**

White British boys who receive free school meals achieve the lowest grades at GCSE of any ethnic group and White British girls receiving free school meals are also the lowest performing female ethnic group<sup>70</sup>. Looking at attainment levels among ethnic groups across the board and regardless of economic status, children from Black communities tend to have lower attainment levels at GCSE than their peers and are more likely to be excluded<sup>71</sup>. Gypsy, Roma and Traveller children have the lowest attainment levels at every key stage<sup>72</sup>.

### **...and international comparisons of performance at school age are less favourable.**

On international tests, London's children rank behind 17 other cities or states for mathematics. Children in Shanghai are approximately three years of schooling ahead of children in London and only the top 10 per cent of London pupils have mathematics skills equal to the average child in Shanghai<sup>73</sup>. This gap represents a threat to London's future international competitiveness.

### **London's parks, rivers and green spaces – the city's 'natural capital' - help to make it an attractive city to live, work and visit...**

Access to clean water, clean air and green spaces is often taken for granted – but they are essential to the health of workers and residents. Without them the economy cannot function sustainably so they need to be protected and enhanced.

<sup>70</sup> The Sutton Trust (2016), '[Class differences: ethnicity and disadvantage](#)'. Chapter 9, Figure 9.10, p.422.

<sup>71</sup> Equality and Human Rights Commission (2010), '[How fair is Britain, the first triennial review](#)'.

<sup>72</sup> Department for Education 2016, National and Local Authority Tables.

<sup>73</sup> Based on Programme for International Student Assessment (PISA) tests of the skills and knowledge of 15 year-old students. See Jerrim, J. & Wyness, G. (2016), '[Benchmarking London in the PISA rankings](#)', UCL Institute of Education.

### **...but the quality of London's environment is under constant threat...**

London suffers from poor air quality which contributes to a large number of premature deaths a year<sup>74</sup>. Poor air quality is associated with many health problems including lung and heart diseases. It affects the health of all Londoners, but people in the lowest socioeconomic groups are more likely to be exposed to poor air<sup>75</sup>. Nearly a quarter of London's primary schools are based in areas of the city which regularly exceed the legal limits for nitrogen oxides (NOx)<sup>76</sup>. Having a poor environment in which to live and work makes it harder to attract business and talent to the city.

### **...and climate change poses a catastrophic risk to the global economy.**

Rising global greenhouse gas emissions have put the world at severe risk of catastrophic climate change. The effect of two hundred or more years of fossil fuel use in the developed world, compounded by rapid growth in the emerging economies means that, unless current emissions levels are reduced,

the world faces irreparable damage. Climate change threatens to expose London, and the rest of the world, to extreme weather events like flooding, storm surges, heatwaves and droughts impacting on peoples' health, wellbeing and the performance of the economy. The Stern Review estimated that without intervention the overall costs and risks of climate change will be equivalent to losing at least 5 per cent of global GDP each year<sup>77</sup>.

### **The city is expected to grow significantly...**

For the last decade, London's economy has in most years grown at a faster pace than the UK as a whole and the share of UK economic output generated in London has been growing<sup>78</sup>. London's labour market has seen exceptionally strong growth. By 2041, it is estimated that 1.2 million more jobs could be created in London's economy - the same number of people currently employed in Greater Manchester<sup>79</sup>. The capital's population is also expected to grow by 1.98 million to reach 10.78 million by 2041<sup>80</sup>.

<sup>74</sup> King's College London (2015), '[Understanding the Health Impacts of Air Pollution in London](#)'.

<sup>75</sup> Aether (2017), '[Updated Analysis of Air Pollution Exposure in London](#)', Report to Greater London Authority.

<sup>76</sup> Ibid.

<sup>77</sup> Stern, N. (2006), '[Stern Review on the Economics of Climate Change](#)'.

<sup>78</sup> In 2014, London accounted for 22.5 per cent of the UK's total GVA, up from 18.9 per cent in 1997. See GLA Economics (2016) 'Economic Evidence Base for London' p.14

<sup>79</sup> GLA Economics' central projection shows employment increasing from 5.7 million jobs in 2016 to 6.9 million jobs in 2041, an increase of 1.2 million jobs. See GLA Economics (2017), '[London labour market projections 2017](#)'. The total number of employee jobs in Greater Manchester in 2015 was 1.21 million according to ONS BRES data sourced from Nomis.

<sup>80</sup> Based on the central projection in GLA Intelligence (2017), '[2016-based Trend Projection Results](#)', Update 2017-09.

**...accommodating London's growth sustainably will be a major challenge.**

On the transport network, people travelling to, from and around London on public transport at peak times face significant levels of crowding which can make journeys unpleasant and cause delays. Car dependency has given London some of the most congested streets in Europe contributing to the high levels of pollution, adding to business's costs and making the city a less pleasant place to walk, cycle and spend time in. London has limited airport capacity which risks undermining its status as a leading international hub for business. London's cultural infrastructure such as its music venues, pubs and nightclubs are being lost at an alarming rate. There are similar pressures on other elements of London's infrastructure, including the energy, water and sewerage networks; and social infrastructure like schools and health services.

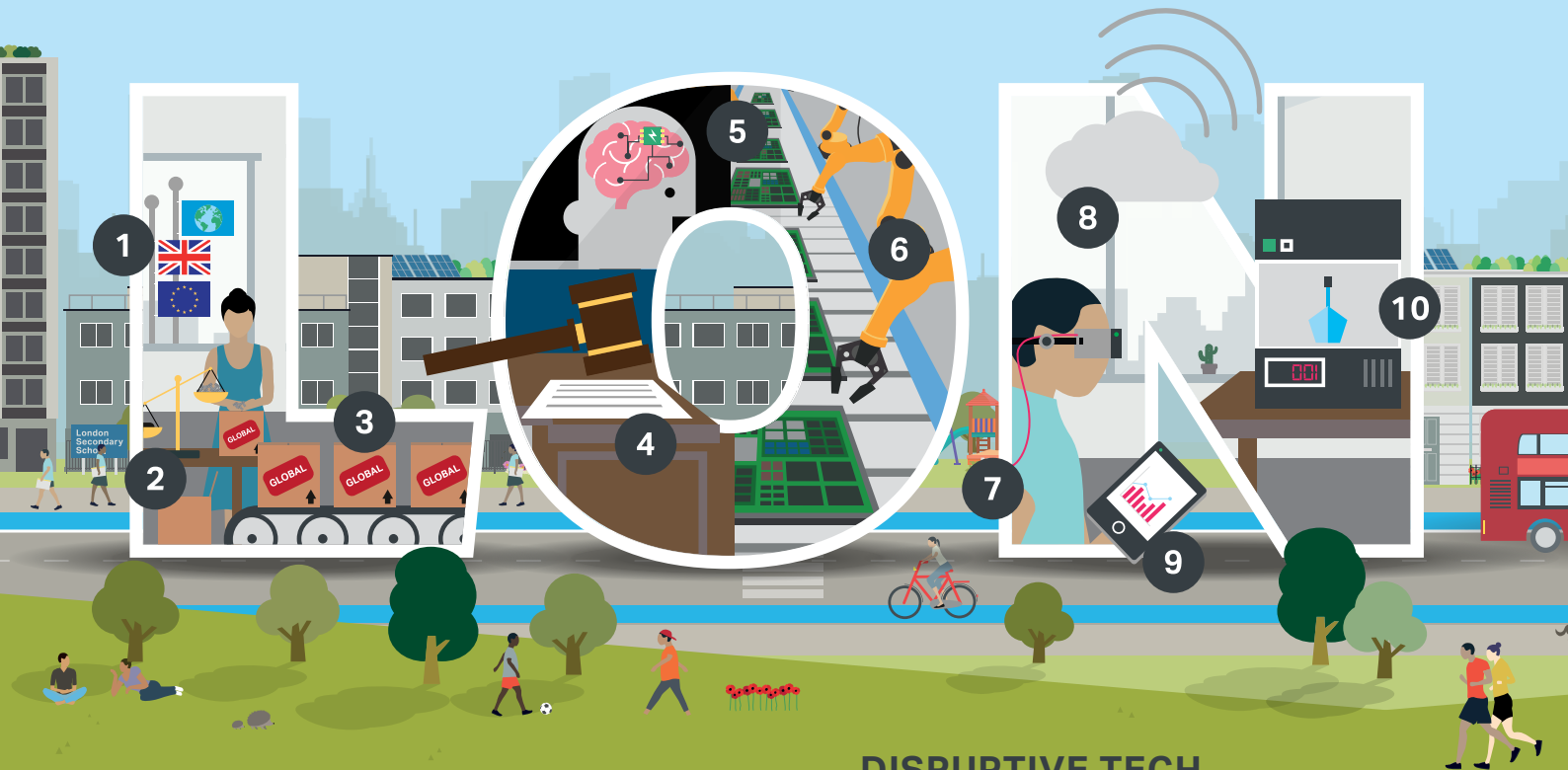
London will need investment in new homes, offices, schools, health facilities, cultural facilities, green spaces, and infrastructure to accommodate growth sustainably. In planning this growth there is a need to ensure there is capacity for more companies to enjoy the benefits of a central location whilst also capitalising on the economic opportunities in outer London.

**There are many different factors that could affect the scale and direction of this growth.**

In addition to the uncertainties surrounding the UK's relationship with the European Union, there are many different factors that could change the shape of London's economy. For example, the use of public and private data, artificial intelligence and automation could revolutionise some sectors and industries helping to boost productivity, but the latter could also put jobs at risk. Technologies such as these are likely to change the way people work, where they work or the type of work they do. Together with the many other forces shaping the global economy, they mean that London's businesses and workforce will need to be adaptable and resilient to change.

The Mayor will take a systematic approach to assessing these trends and their potential impact on the London economy. Where needed, and where he is able to, he will work with partners in the private and public sectors to support Londoners and London businesses to adapt to the new economy. He will commission research and convene groups of experts to develop a better understanding of the opportunities and risks associated with them – including any potential distributional impacts.

# FUTURE DRIVERS OF CHANGE



## THE GLOBAL MACROECONOMIC AND POLITICAL ENVIRONMENT

- 1 The UK's relationship with the EU, and the rest of the world
- 2 Growing inequality
- 3 Global competition / Emerging markets
- 4 Changing regulatory environments

## DISRUPTIVE TECH AND INNOVATION

- 5 AI / Machine learning
- 6 Automation
- 7 Virtual / Augmented reality
- 8 Internet of things
- 9 Data analytics / Smart technology
- 10 3D printing
- 11 Distributed Ledger Technology / Blockchain





## DEMOGRAPHIC AND SOCIAL CHANGE

- 12** A more diverse population
- 13** An ageing population with more complex health needs
- 14** Affordability challenges
- 15** Growing expectations around choice, transparency and value
- 16** A growing population / Urbanisation
- 17** Changing health needs
- 18** The changing nature of work

## TRANSITION TO A LOW CARBON ECONOMY

- 19** Climate change / Decarbonisation
- 20** The need for greater resource efficiency / Less waste
- 21** More localised and renewable energy



### **3. A fairer, more inclusive economy**

The route to a fairer and more inclusive economy requires action on many fronts and the responsibility must be shared between business, individuals, community groups, central and local government. If granted more powers from central government, the Mayor believes he could do more to promote economic fairness and inclusion. Notwithstanding the limits to his powers the Mayor believes he can make a difference. To create a fairer, more inclusive economy, London needs:

1. **World class education** - which gives every child the best start in life.
2. **Opportunity for all Londoners** – where people have the support they need to overcome barriers to work and progression.
3. **A lower cost of living** – including more affordable childcare, transport, housing and other costs of living.
4. **Fair pay and employment practices** – where Londoners are paid and treated fairly by their employers.
5. **Better health and less poverty** – where people are living healthier lives free from poverty for the benefit of their wellbeing and the economy.
6. **Inclusive and safe communities** – where London's diversity is celebrated, people are engaged in their communities and how they are changing, and where all Londoners feel safe.

### **3.1 WORLD CLASS EDUCATION**

Education has a profound effect on young people's life chances and is one of the most powerful ways to break down inequalities and improve social mobility. Creating a fairer, more inclusive economy that is globally competitive must therefore start with a world class education system which gives every child the best start in life. This means outstanding schools, colleges, universities, teachers and support staff, and young people motivated to work hard and learn.

London's schools have seen a transformation in recent years. They achieve the best outcomes of any region both for the progress and attainment of young people at the end of primary and secondary school, especially for the most disadvantaged children. The London Challenge, a school improvement programme launched by the UK's Labour Government in 2003, played an important part in helping to improve London's schools.

However, there are new challenges that need to be addressed. Large numbers of young pupils still do not achieve the expected standard by the end of Key Stage 4 (GCSE level). We need as many people as possible to have studied some form of maths up to age 18. Adults with basic numeracy skills earn higher wages and are more likely to be employed than those who fail to

master basic quantitative skills<sup>81</sup>. Higher levels of achievement in maths are also associated with higher earnings for individuals and higher productivity. All teachers, parents and employers need to convey to children from an early age that maths is an essential part of modern life. Whatever grade a pupil gets at GCSE maths there must be opportunities for progression; whether this is to A-level maths, continuing with Core Maths as part of an apprenticeship or functional maths.

Of equal importance is the growing recognition that interdisciplinary skills are essential to tackle real world problems and develop creative solutions. Ensuring young people gain qualifications across a breadth of subjects including arts subjects is essential. The reduction in arts based GCSE exam subjects is of concern particularly considering the importance of the creative sector for the London economy<sup>82</sup>. There also remains a lack of high quality vocational and technical routes into work.

The responsibility for education in London is shared across a number of different stakeholders including the Department for Education, Department for Business, Energy and Industrial

Strategy, local authorities, maintained schools and academies, independent schools, Further and Higher Education providers and many others. The Mayor will provide strategic leadership, raising awareness of the educational challenges, and developing an ambitious new vision for a world-class education and skills system that is accessible to all. This will include production of a strategy for post-16 skills and adult education, which amongst other things will set out London's ambitions for a responsive technical education system. It will also inform the strategic priorities for the devolved Adult Education Budget (AEB) from 2019/20.

### **Giving every child the best start in life**

The earlier a child starts to learn the better they tend to do in school and later on in life, which is why early years education is so important<sup>83</sup>. Research by the Institute of Fiscal Studies suggests attending a pre-school of high quality leads to positive financial returns over the lifetime to the individual, household and the Exchequer<sup>84</sup>. The parents of three and four year-olds in London are less likely to take up free part-time childcare places than those in the rest of the country<sup>85</sup> and it is often children from disadvantaged backgrounds who are missing out. By the age of five,

<sup>81</sup> Report of Professor Sir Adrian Smith's review of post-16 mathematics, July 2017.

<sup>82</sup> The Stage (August 2017), 'GCSE arts subjects in 'free fall' as results confirm 9% decline in entries'.

<sup>83</sup> Public Health England (2016), 'Health matters: giving every child the best start in life'.

<sup>84</sup> Cattan, S., Crawford, C., and Dearden, L. (2014), 'The Economic Effects of Pre-school Education and Quality', Institute for Fiscal Studies, IFS Report R99.

<sup>85</sup> In 2016, 86 per cent of 3 and 4 year-olds in London took advantage of their free part-time place, compared to 95 per cent nationally.

children eligible for free school meals are almost three months behind their more affluent peers. **The Mayor will work with stakeholders to help improve affordability and access so families can find childcare that meets their needs; and help improve the quality of early years education in London. This will include:**

- Helping to tackle the cost of childcare though encouraging employers to adopt such initiatives as the Childcare Deposit Loan Scheme.
- Encouraging employers to adopt flexible working, parental leave and other policies that make it easier for people to balance their home and work commitments through the Good Work Standard (see chapter 3.4).
- Identifying more space for childcare facilities.
- Helping to improve the skills of those working in the sector.
- Improving parents' access to quality affordable childcare by setting up new Early Years Hubs<sup>86</sup>.

- Promoting free school meals for all children.
- Improving early years learning environments by rolling out his Healthy Early Years programme<sup>87</sup>.

### **Promoting excellence and providing a school place for every child**

The Mayor wants all schools in London to be of the highest standard - and many already are. There are over 3,000 schools in the capital and 92 per cent of state-funded schools are rated as 'good' or 'outstanding'<sup>88</sup>. However, changes to the funding formula and increasing costs are putting pressure on school budgets and staff. Further government funding will be needed for London schools. London's schools and further education colleges suffer from high staff turnover with large numbers of teacher and head teacher vacancies. Over half of London's school leaders report that they face a shortage of teachers<sup>89</sup>. This is at a time when more teachers and head teachers will be needed due to the growing population; and when investment in schools is needed to close the skills gap with other global cities.

<sup>86</sup> The GLA are proposing to provide grant funding for Early Years Hubs to improve collaboration across settings. Schools, childminders and Private Voluntary and Independent (PVI) nurseries will work together to support quality early years practice and engage with families to improve access for the most disadvantaged. We anticipate that a minimum of three Hubs will deliver over a three year period to support disadvantaged children.

<sup>87</sup> Building on the success of Healthy Schools London, Healthy Early Years London (HEYL) is an awards scheme funded by the Mayor of London that supports and recognises early years setting achievements in child health, wellbeing and school readiness. HEYL focuses on the whole child and gives settings a framework for their activity with children, parents, carers and staff and the wider community. HEYL will help to reduce health inequalities by creating environments which support a healthy start to life and promote a whole setting and targeted approach across a number of health priorities.

<sup>88</sup> Mayor of London (2017), [Annual Education Report 2017](#).

<sup>89</sup> Ibid.



The last decade has seen a significant increase in demand for school places and for more schools especially at primary level. Pupil population projections for the next decade suggest that significantly more school places will be required with many more needed in secondary schools<sup>90</sup>. The Mayor is working with [London Councils](#) and other partners to plan for, better coordinate, and deliver the additional school places that London needs. The Mayor will work with the London school system and stakeholders to improve teacher recruitment and retention, and leadership in London schools. For example, the [Getting Ahead London](#) programme provides structured coaching, careers advice and networking opportunities to aspiring head teachers<sup>91</sup>. The current bulge of pupils currently moving into secondary school will move through to post 16 over the next 5-10 years.

### **Preparing young people for work in a global city**

All pupils need an education that prepares them for the next stage of their lives, be that in Further or Higher Education, entering employment or setting up their own business. Preparing pupils for the world of work must start with ensuring as many as possible

achieve at least five A\*-Cs at GCSE including English and Maths so that they have basic numeracy and literacy skills. There are time management, organisational, communications and many other life skills they need to learn at school, and later in Further and Higher Education. Creative skills are becoming more important too. The Mayor will help young people to develop these skills through volunteering activities organised by [Team London](#)<sup>92</sup>, his cultural programmes, community sports initiatives and support to youth organisations.

The types of subjects and careers that are pursued by young people can vary significantly by gender and background. For example, in 2015 just 12 per cent of entries to A-level Computing in London were from females and just a fifth of entries in Physics<sup>93</sup>. The Mayor believes that all professions would benefit from being more open and diverse. Each stage of a person's education needs to support young Londoners to take advantage of the unique opportunities that come through living in the capital.

Schools, Further Education colleges and universities need to work with the business community to help pupils

<sup>90</sup> Projected demand for state school places will reach 737,000 primary and 498,000 secondary places by 2025. This constitutes a rise of 60,000 places in the primary sector (8.8 per cent) and 105,000 places in the secondary sector (26.5 per cent) above current levels.

<sup>91</sup> See the [Getting Ahead London website](#) for further information.

<sup>92</sup> Team London is the Mayor's volunteering programme.

<sup>93</sup> Mayor of London (2017), '[Annual Education Report 2017](#)'.



to understand the world of work and enterprise so they feel inspired by the opportunities that are ahead of them. The Mayor is helping to make this happen through the [London Ambitions programme](#) jointly developed with London Councils and LEAP. The programme helps schools and colleges connect with businesses to give young Londoners a more rounded careers education.

However, the Mayor believes more can be done. Excellent careers advice and guidance should not stop as young people enter adulthood. To be able to make the most of the opportunities London has to offer, all Londoners should have access to the information, advice and guidance that allows them to respond to the capital's dynamic and evolving labour market, throughout their working life. The Mayor will work with partners to **develop the careers education offer as part of his aim to develop a coherent and accessible all-age careers information, advice and guidance offer for London**. This will address barriers to accessing good quality information and job opportunities faced by young people and adults in London especially among disadvantaged and underrepresented groups.

**He will also work with schools and teachers to break down gender stereotypes that exist in some careers especially those in Science, Technology, Engineering and Maths (STEM).** Through the London STEM partnership plan, the Mayor will work with partners in business and education, to improve London's STEM offer in schools, colleges and Higher Education institutions. The Mayor's London Scientist programme, will nurture the next generation of young scientists and engineers across the capital by inspiring them to investigate London's challenges.

#### **Supporting enterprise in education**

The Mayor wants to help create the next generation of entrepreneurs by promoting enterprise in education. This needs to start by developing children and young people's business acumen at school, college or university, which gives them the skills and the confidence they need to start a business. Team London will continue to develop the [Enterprise Adviser Network](#) which connects businesses to schools with the help of business volunteers. The Mayor also wants to draw on the strengths of London's universities in **supporting student entrepreneurship across the education system**.

## SUMMARY OF ACTIONS

The Mayor will:

1. Pilot the Healthy Early Years London programme and deliver the Early Years Hubs to tackle the cost of childcare, improve the health, wellbeing and school readiness of children under five, and upskill early years workers – helping to increase the take-up and quality of early years education.
2. Work with London schools, colleges, providers, businesses, universities and London boroughs to develop a coherent and accessible all-age careers information, advice and guidance offer.
3. Work with schools, colleges, universities and industry to break down gender stereotypes and address other inequalities, for example in BAME communities, especially in STEM subjects. As part of this, the Mayor will fund up to 5,000 pupils who are underrepresented in the science, technology, engineering and maths (STEM) sector to enter their projects for a national CREST Award – the top science award scheme for school children in the country.

4. Continue to lobby for London early years, schools and colleges to have sufficient funding to continue to improve outcomes for all pupils.

The Mayor asks that:

- Government supports the London school and college system to work together to increase teacher numbers by improving both recruitment and retention.
- Government provides adequate funding for London schools to cover actual costs, including for special educational and disability needs, and increases in teacher pay and National Insurance costs.
- Government makes available school improvement funds in London to sustain and enhance London's educational attainment to improve outcomes in maths and English and take action to continue to progress outcomes for disadvantaged pupils.
- Businesses offer more STEM work experience to pupils using the London Ambitions portal and/or working with STEM Learning.
- London's universities support student entrepreneurship across the education system.



### 3.2 OPPORTUNITY FOR ALL LONDONERS

London needs diverse labour markets creating jobs that are accessible to all. Opportunities should be available at different levels that offer clear progression routes. London has seen record-high rates of employment in recent years, but there is still more to do to raise rates among some disadvantaged groups and communities.

Getting more Londoners into work will support the growth of London's economy and improve the wellbeing of those out of work. Employment is vital for helping to lift people out of poverty, helping to improve their incomes and also their health and wellbeing<sup>94</sup>. Evidence suggests that people who are unemployed have higher rates of mortality<sup>95</sup> and a lower quality of life<sup>96</sup>.

The Mayor believes all those that want to work, and who are able to, should have access to a good job or a route into self-employment. Moreover, it is not sufficient to aim simply for employment for all; the health and wellbeing benefits of work are also dependent on the quality of the job including the pay and working conditions and job security<sup>97</sup>.

### Overcoming barriers to work and learning

Good quality education and training are vital for supporting people into sustainable employment and for their continued progression. The Mayor wants to encourage more Londoners to invest in their own education and training, in particular at advanced and higher levels. One of the barriers is the cost of undertaking further and/or higher education and training and the perceived returns. The Mayor will work with schools, colleges, skills providers, boroughs, parents and employers to **promote the economic benefits of individuals investing in their learning**. This will include promoting the personal benefits from re-skilling and up-skilling through the take up of **Advanced Learner Loans**, which provide financial support to those aged 19 and over undertaking qualifications at Level 3 and above (equivalent to A Levels).

The Mayor will support underrepresented groups to access employment and progress in their careers, including the self-employed and those working in less secure forms of employment (see chapter 3.4). There are a range of different programmes that currently support people into work (or to return

<sup>94</sup> For example, see Waddell, G. and Burton, K. (2006), 'Is work good for your health and wellbeing?'

<sup>95</sup> Roelfs D J, Shor E, Davidson KW, Schwartz, JE. (2011), 'Losing life and livelihood: A systematic review and meta-analysis of unemployment and all-cause mortality', *Social Science & Medicine*, 72, 6, p.840–854.

<sup>96</sup> ONS (2012), 'Analysis of experimental subjective wellbeing data from the Annual Population Survey', April to September 2011.

<sup>97</sup> Marmot, M. et al. (1985 onwards) 'The Whitehall II Study'.

to work), some of which fall under the Mayor's influence. The Mayor and LEAP have committed over £230 million from the European Social Fund (ESF) towards skills, employment and youth programmes in London. This funding is hugely valuable to Londoners. It helps to reach out to communities and engage the most disadvantaged groups.

However, Brexit means this funding and the programmes are at risk. The Mayor will seek to expand the current range of ESF programmes on offer through match funding with the devolved Adult Education Budget from 2019/20. He will continue to lobby and negotiate with government to ensure that London gets a **fair funding settlement** in any future growth funding that replaces European funds, and that this funding is fully devolved to the Mayor.

The government has devolved the **Work and Health programme** (the successor to the Work Programme) to London government. The programme has been designed with London's sub-regional partnerships of boroughs to assist the very long-term unemployed and particularly those with health conditions and impairments to enter, or re-enter, work. The Mayor will also **promote training provision that meets the needs of disabled people**, in line with the Special Educational Needs and Disability (SEND) review.

Proficiency in the English language is a prerequisite for most jobs. It is also needed to access many public services and to enable people to play an active role in society. However, some people in London do not speak English well or at all. Demand for **English from Speakers of Other Languages** (ESOL) frequently outstrips supply and sometimes the courses do not meet the needs of learners. Through the development of a new Skills Strategy for London and the devolution of the Adult Education Budget, the Mayor will give consideration to new approaches to strategic planning and commissioning of ESOL among wider basic skills needs including literacy, numeracy and digital skills.

The Mayor also wants to improve access to employment for offenders following a criminal sentence as this means they will be less likely to reoffend, cutting crime, reducing the number of victims, and saving the taxpayer money. Working with MOPAC and the business community, the Mayor will work to improve job opportunities for offenders and develop their skills to make them more employable<sup>98</sup>.

### **Adult Education**

London needs good quality adult education to encourage people to continue their learning through life so they develop the skills needed to access employment and progress in

<sup>98</sup> Mayor of London (2017), 'A Safer City for All Londoners: Police and Crime Plan 2017-2021'.

work. The Adult Education Budget (AEB) will be devolved to the Mayor from 2019/20. Control of this funding and the associated powers and responsibilities creates the opportunity to deliver a more tailored, localised skills system that is responsive to the needs of adult learners, particularly the most disadvantaged in London.

The Mayor, working with the sub-regional partnerships, will set out the ambitions, priorities and outcomes for adult education in London through an **annual skills funding statement**. Activities will be focused on improving progression, the quality of learning, and helping Londoners into work (including through apprenticeships, further and higher level learning). The Mayor will work with boroughs, Jobcentre Plus and other relevant service providers to improve the integration of adult education with employment, health and housing support.

### **Promoting digital inclusion**

The Mayor is committed to giving more Londoners the skills and support they need to access the digital world. Lack of access to a computer, good digital connectivity and basic digital skills holds some groups back from finding work and from accessing public services and financial support. Digital exclusion often follows wider social and economic

exclusion. It is experienced more by disabled and older people, many of whom are not online and have never used the internet. Women, those on low incomes and many from London's Black, Asian and Minority Ethnic (BAME) population are also more likely to be digitally excluded<sup>99</sup>. Lack of confidence and the cost of digital technology partly explain why many are excluded<sup>100</sup>.

The GLA has signed the government's [Digital Inclusion Charter](#), which aims to get everyone online who wants to be by 2020. The Mayor will launch a new **Digital Inclusion Strategy**, some of the key actions to promote digital inclusion being taken forward include:

- Piloting projects to support people to get online and get the basic digital skills they need, such as the [Mi Wifi](#) project in Lewisham.
- Making the case for faster and better connectivity for all parts of London especially in areas of economic deprivation.
- Working in partnership with central government, local boroughs and other stakeholders to help get Londoners online ensuring that national investment in digital skills provision is made available and taken up in the capital.

<sup>99</sup> ONS Labour Force Survey, 2015.

<sup>100</sup> ONS Home Internet and Social Media Usage, 2016.

## SUMMARY OF ACTIONS

The Mayor will:

1. Work with London's further education providers and other key stakeholders (including higher education) to promote the benefits of further learning, and promote Continuing Professional Development (CPD) and succession planning.
2. Address the perceived costs by promoting Advanced Learner Loans, which provide financial support to those aged 19 and over undertaking qualifications at Level 3 and above.
3. Support the devolved Work and Health programme in London to help long-term unemployed people to (re)-enter work, working in collaboration with London's boroughs and sub-regional partnerships.
4. Promote training provision that meets the needs of disabled people, in line with the Special Educational Needs and Disability review.
5. Help make ESOL courses more accessible so they meet the needs of different groups of learners in the capital, especially the unemployed.
6. Set out priorities and outcomes for adult education in London

through an annual skills statement for the devolved Adult Education Budget (AEB) from 2019/20.

7. Develop a Digital Inclusion Strategy to help increase the number of Londoners benefiting from digital technology.

The Mayor asks that:

- Government ensures London's funding settlement for the Adult Education Budget (AEB) in 2019/20 and future years is at the very least no lower than current levels.
- Government further devolves funding, powers and responsibilities to the Mayor to achieve a coherent and integrated skills and adult education offer for London including 16-18 provision, higher level learning and careers services, with apprenticeship levy funds and EU replacement funds devolved.
- Colleges, skills providers, boroughs and employers to work with City Hall to promote the economic benefits of individuals investing in their learning, including through Advanced Learner Loans.
- Businesses and schools work together to offer more young people opportunities to engage with employers before they leave school.

### 3.3 A LOWER COST OF LIVING

The high costs of living in London - including childcare, transport, housing, healthy food and energy - can create barriers to employment and learning, with those on lower incomes the worst affected. Low income households often face a poverty premium where they pay more for essential goods and services like energy paid for on pre-payment meters rather than by direct debit or goods bought on hire purchase<sup>101</sup>. The poverty premium disproportionately affects single adult households especially older people, lone parents and disabled households<sup>102</sup>. If people are restricted in their ability to access work and learning opportunities by high costs then it risks reinforcing London's inequalities, limiting social mobility and affecting health outcomes. The Mayor will take action to make London a more affordable city.

#### **More affordable housing**

London needs a mix of homes for sale and for rent to support the economy to grow and for people to be able to live comfortably and healthily in secure surroundings. Yet the capital is in the midst of a housing crisis with many

Londoners priced out of the city or forced to live in cramped conditions or in temporary accommodation. The Mayor is determined to support the building of new genuinely affordable homes<sup>103</sup> for Londoners to rent and buy, but he recognises that fixing the housing crisis will be a long-term process. He will use his powers and work with local councils, housing associations and developers to build the homes Londoners need, overseen by the Homes for Londoners Board he has established. Devolution of additional powers and funding from Government would enable him to go even further, and could support a step-change in housing supply in London.

The Mayor's long-term strategic aim is to make half of all new homes built in London affordable. This is compared to just 15 per cent of homes granted planning permission in 2015/16. The Mayor's draft [Housing Strategy](#), supported by the draft [London Plan](#), sets out a revised assessment of London's housing needs and proposals to address these needs by **increasing housing supply, boosting the supply of genuinely affordable homes, and making private renting more affordable.**

<sup>101</sup> Tinson, A. (2014), '[Addressing the cost of living from a poverty perspective requires a multipronged approach](#)'.

<sup>102</sup> For example, see Davies, S. et al. (2016), '[Paying to be poor: uncovering the scale and nature of the poverty premium](#)'; Tinson, A. (2016), '[Disability and poverty: why disability must be at the centre of poverty reduction](#)'; and Mawhinney, P. (2015), '[Consultation response: Department for Business, Innovation and Skills call for evidence on switching principles](#)', Ref 3615.

<sup>103</sup> See the Mayor's draft [Housing Strategy](#).



### **More affordable transport costs**

London has an extensive public and private transport network which connects people to jobs. But the cost of transport in London can be a barrier to employment and learning. Transport costs comprise a higher proportion of household expenditure for low income families so keeping fares low is an important way to tackle inequality. The Mayor's draft Transport Strategy sets out a longer-term approach to **affordable fares**, and commits TfL to setting public transport fares at levels that ensure affordable access to travel for all Londoners. The Mayor has already frozen all TfL fares until 2020 to make them more affordable, and introduced a new Hopper fare, which by the end of 2018 will allow unlimited bus transfers within the hour. Like Tube passengers, bus passengers will no longer be penalised for changing services.

Rail fares in London, which are not currently within the Mayor's direct control, continue to rise year-on-year, despite services often being crowded

and unreliable. The Mayor believes both the affordability and reliability of services would be improved if London's suburban rail services were under his control, bringing them into TfL's affordable fares pledge.

The Mayor has set out a number of actions in his draft [Transport Strategy](#) to help Londoners to switch to active modes of travel. These include adopting the **Healthy Streets Approach** where streets are designed to encourage people to live active, healthy lifestyles rather than around the needs of motor vehicles.

The Mayor will also work to **improve the accessibility of the transport system**, providing a better experience for disabled people and the growing number of older people. Further information on the changes planned for London's transport network is provided in chapter 4.2 and in the Mayor's draft [Transport Strategy](#).



### **More accessible and affordable childcare**

Childcare costs are around a third higher in London than the rest of the country, which makes it uneconomical for some parents, usually mothers, to return to work. This is one of the reasons why the female employment rate in London is lower than the rest of the UK. Moreover, less than half of London boroughs have enough childcare for parents working full-time. For those who do not work regular office hours childcare becomes even more complicated<sup>104</sup>.

The Mayor wants London to have **more affordable and accessible childcare** and also to improve the quality of provision. He will work with London

boroughs and other partners to shine a light on the particular challenges faced by Londoners, to showcase innovative models of childcare provision, and look at a range of measures to support the families who need it most. This will include improving awareness of available childcare and support, and getting employers to engage in ways to make childcare more affordable and flexible.

The Mayor is leading by example having introduced an interest-free Deposit Loan Scheme to give parents across the GLA group the funds to cover the up-front costs of childcare<sup>105</sup>. He is urging businesses and organisations across London to follow suit and offer the same scheme to their employees.

<sup>104</sup> Family and Childcare Trust (2017), '[Childcare survey 2017](#)'.

<sup>105</sup> Devised by the single-parent charity Gingerbread.



The Mayor is also looking at how, through the London Plan, more space can be found for childcare by strengthening the requirement for developers and local authorities to deliver childcare provision within new developments, and for nursery provision to be provided within new primary schools.

### **Greater financial inclusion**

Financial services like pensions, bank accounts, insurance, loans and payment cards are essential for people to play a full part in modern society. This includes being able to manage money, to plan for the future, and to deal with unexpected events. In a city like London there are a wide range of services on offer, including affordable options from mainstream financial institutions and credit unions,

but people also require the skills and motivation to use and benefit from them.

Nearly 1.5 million adults in the UK do not have a bank account<sup>106</sup>. An estimated two million people took out a high-cost loan in 2012 as they were unable to access any other form of credit<sup>107</sup>. There are 13 million people in the UK who do not have enough savings to support them for one month if they experienced a 25 per cent cut in income<sup>108</sup>. Half of households in the bottom half of the income distribution lack home contents insurance, compared with one in five households on average incomes<sup>109</sup>.

Financial exclusion affects a wide range of Londoners at different times in their lives.

<sup>106</sup> University of Birmingham (2015) 'Financial Inclusion Annual Monitoring Report 2015'.

<sup>107</sup> Centre for Social Justice (2014) 'Restoring the Balance: Tackling problem debt'.

<sup>108</sup> StepChange (2014), 'Life on the Edge'.

<sup>109</sup> Rowlingson, K. & McKay, S., (2014). 'Financial Inclusion: Annual monitoring report 2014'.

“The Mayor will work with partners to address some of the key causes of financial exclusion and increase financial literacy among young people.”

London's boroughs include some of the most indebted households in the country. Over one million Londoners are at risk of problem debt – with nearly 1 in 5 of the population reporting that they regularly miss bill re-payments or feel overwhelmed by their debts. Of those, fewer than 1 in 5 seek advice to help their situation, and those who do often wait nearly a year to seek help<sup>110</sup>.

There are many things that need to change to make London and the UK a more financially inclusive society. Some of these are outside of the direct control of the Mayor, such as the way financial service providers are regulated and the way debt, money and pension advice services are commissioned by the government. But the Mayor believes he can help by:

- Using his profile to help **tackle the stigma of problem debt** and seeking advice.
- Encouraging employers to **promote payroll deducted loans and savings products** to their staff, and partner with credit unions.
- Supporting efforts to **promote access to affordable financial services** products and free debt advice services provided by government, civil society, financial services institutions, and credit unions.

<sup>110</sup> Money Advice Service (2016) 'A Picture of Over-Indebtedness'.

## SUMMARY OF ACTIONS

### The Mayor will:

1. Help to increase the supply of housing including affordable homes and help make private renting more affordable.
2. Improve the accessibility and affordability of the cost of transport, and provide a better experience for disabled and older people.
3. Help to support access to more affordable and accessible childcare.
4. Work with partners to address some of the key causes of financial exclusion and increase financial literacy among young people.

### The Mayor asks that:

- Government provides comprehensive and urgent devolution of additional funding and powers that recognise the scale of London's housing challenges.
- Developers, housing associations and local authorities plan for and build the new and genuinely affordable homes that Londoners need.
- Local authorities provide and coordinate help and support for Londoners affected by the housing crisis.
- Government increases funding for childcare to reduce the costs for parents and enable more women to sustain employment.

### 3.4 FAIRER PAY AND EMPLOYMENT PRACTICES

The Mayor wants all Londoners to be paid and treated fairly by their employers. Studies show that happier and healthier workforces tend to be more productive ones<sup>111</sup> and paying a decent wage can help with staff recruitment and retention. The Mayor aims to improve the pay and working conditions for all people and make London the best city in the world to work.

#### **The Good Work Standard**

The Mayor's [Good Work Standard](#) is an initiative to encourage employers to implement the very best employment standards in London. With fair pay and the [London Living Wage](#) at its heart, the Mayor's Good Work Standard will support employers to adopt best practice and achieve high standards in areas such as working conditions, diversity and inclusion (including the employment of older workers and disabled people), flexible working, health and wellbeing, apprenticeships and training, and communication with employees. The Mayor leads one of the capital's largest employers, employing almost

80,000 people (1.4 per cent of London's workforce) across City Hall, the capital's transport network, police and fire services. The GLA group spends £11 billion per year with its suppliers who also employ many people. As a result the Mayor can improve many Londoners' experiences of work through the GLA group's practices. The Mayor has published a stronger [Responsible Procurement Policy](#), which reflects his determination to establish fair employment practices with the GLA's suppliers (see chapter 6.3).

#### **A Living Wage city**

The Mayor wants London to be a Living Wage city where every working Londoner is paid at least the London Living Wage. The London Living Wage is a voluntary scheme which sets an hourly rate of pay based on a formula which calculates the level necessary to provide a worker in London and their family with enough to afford a decent standard of living. In April 2016, the government introduced a compulsory national Living Wage for the over-25s currently set at £7.50 per hour – however, the London Living Wage at the time of writing stands at £10.20 per hour.

<sup>111</sup> Oswald, A., Proto, E. & Sgrosi, D. (2009), 'Happiness and productivity', *Journal of Labour Economics*, 33, 4, p.789-822.

Workers paid the London Living Wage tend to have higher morale, feel more positive about their employment and employer, and improve their performance at work<sup>112</sup>. Employers who are London Living Wage accredited may also enjoy a reputational boost from consumers and clients knowing they are doing business with an employer that pays their staff fairly<sup>113</sup>. Some London boroughs now offer business rate discounts to Living Wage accredited employers and the Mayor wants more to follow suit.

The Mayor will continue to promote the benefits of the London Living Wage and campaign for more employers to pay it, especially through the Good Work Standard. At the time of writing London has already seen more than a 50 per cent increase in the number of Living Wage accreditations since Sadiq took office. The Mayor is also committed for the GLA to lead by example, and has tasked his Deputy Mayors and functional bodies to root out examples where the Group was not paying the Living Wage. Some incidences were identified and have now been put right, but the Mayor will continue demanding exemplary standards from the extended GLA family.

### **Protecting lower income workers from workplace exploitation**

The Mayor's Good Work Standard will work on a voluntary basis to encourage employers to improve employment standards. However, the Mayor wants some basic employment standards to be mandatory and for legislation to be properly enforced. He will work with government to ensure that the recommendations made in the Mathew Taylor review to improve the rights of agency workers, zero hour contractors, and those employed within the gig economy, are properly implemented. And he will work with central government, local authorities, and civil society to support efforts to create a labour market enforcement regime that works for London workers and businesses. Employers must be able to understand and fulfil their responsibilities. Employees must know what their rights are and relevant authorities must be empowered and resourced to address bad practice. The government will need to ensure employment legislation and practices keep pace with modern business models. National enforcement agencies will also need to work closely with each other and with stakeholders like local authorities to address emerging vulnerabilities. The government published its first [UK Labour Market Enforcement Strategy in July 2017](#), which sets out proposals to make this happen.

<sup>112</sup> London Economics (2009) '[An independent study of the business benefits of implementing a Living Wage policy in London](#)'.

<sup>113</sup> Trust for London (2012) '[Costs and Benefits of a Living Wage](#)'





## SUMMARY OF ACTIONS

### The Mayor will:

1. Recognise and celebrate businesses that promote high standards in employment and procurement through the new Good Work Standard for London.
2. Promote fair pay and good employment practices through the Good Work Standard and help to establish London as a Living Wage city.
3. Provide guidance on being a good employer of disabled people to support more disabled people to find and progress in work, and keep older workers (50+) engaged with the workforce.

### The Mayor asks that:

- Government implements the recommendations of the Mathew Taylor review to improve the rights of agency workers, zero hour contractors, and those employed within the gig economy.
- Government should broaden the powers of HMRC, and the Employment Agency Standards Inspectorate, and implement a much more activist enforcement regime to root out illegal employment practices.
- Businesses, business groups and local councils work with him to promote the principles of the Good Work Standard, and encourage engagement from employers across the capital.
- Local authorities extend business rate discount schemes for Living Wage accredited employers across London.

### 3.5 BETTER HEALTH AND LESS POVERTY

Poverty arises when a person's resources are insufficient to meet a minimum level of need. This can be caused by several factors, including low and insecure wages or unemployment; high living costs, including housing, transport and childcare costs; or an inefficient or insufficient benefits system.

The Mayor will continue to seek ways to tackle some of the costs that low-income households face and promote fair and stable employment through his work on economic fairness as detailed above. But he also acknowledges that poverty in London can be caused and exacerbated by the benefits system. London has been hit particularly hard by recent changes to welfare policy and whilst Universal Credit has the potential to improve and simplify work incentives, its roll-out has highlighted a number of administrative shortcomings that cause genuine hardship. He will work with boroughs and civil society bodies to help understand these effects and will push for changes to government policy.

Poverty is closely linked to poorer health outcomes<sup>114</sup>. For example, children living in cold, damp and mouldy homes are almost three times more likely to suffer from respiratory illnesses<sup>115</sup>. Poorer health outcomes makes it harder for adults to access work and to be productive when they are working. Improving the physical and mental health of Londoners is therefore vital for the economy and to Londoners' wellbeing. As well as promoting the London Living Wage to help lift people out of poverty, the Mayor has published a draft [Fuel Poverty Action Plan](#) setting out measures to help Londoners get fair tariffs for their energy whilst using energy more efficiently.

The Mayor's draft [Health Inequalities Strategy](#) sets out how, with partners, he aims to improve health and reduce health inequalities in London and achieve five key ambitions; healthy children, healthy minds, healthy places, healthy communities and healthy habits. The Mayor will work with London's boroughs, the NHS, charities and community groups to realise these ambitions. He will also work with employers across London to

<sup>114</sup> Living in poverty or on a low income is associated with a greater risk of limiting illness and poor mental health. This can be caused by material factors - such as being unable to afford items necessary for a healthy life; or psychosocial factors such as 'status anxiety'. See Rowlingson, K. (2011), '[Does income inequality cause health and social problems?](#)', Joseph Rowntree Foundation.

<sup>115</sup> Friends of the Earth and the Marmot Review Team (2011), '[The Health Impacts of Cold Homes and Fuel Poverty](#)'.

<sup>116</sup> The London Healthy Workplace Charter provides clear and easy steps for employers to make their workplaces healthier and happier.

<sup>117</sup> Parity of esteem is the principle by which mental health is given equal priority to physical health. It was enshrined in law by the Health and Social Care Act 2012.

raise awareness of the business benefits of a healthy workforce, supporting them to create happy, healthy, productive workplaces through accreditation to the [London Healthy Workplace Charter](#)<sup>116</sup>. The Mayor is committed to ensuring parity of esteem<sup>117</sup> between mental and physical health and is personally championing [Thrive LDN](#), a citywide movement focusing on mental health and communities.

#### **Healthy and affordable food**

Access to healthy and affordable food is vital to the health and wellbeing of Londoners and a priority for the Mayor. Promoting healthy eating will help to address health inequalities, reduce poverty and build more inclusive communities. Food insecurity is a major issue for Londoners and we need to find an economically viable long term solution to it.

**The [London Food Strategy](#) will set out how the Mayor will work with partners to ensure that London's food system provides healthy, sustainable and affordable food.** Key elements of the strategy include:

“The Mayor will seek ways to tackle some of the costs that low-income households face and promote fair and stable employment through his work on economic fairness.”

- Ensuring Londoners have the skills and knowledge to live healthy, happy and productive lives.
- Reducing reliance on foodbanks.
- Tackling childhood obesity, which is higher than any other region in England<sup>118</sup>.
- Reducing food waste and the carbon impact of the food system, diverting surplus food to useful purposes.
- Addressing food poverty by developing food poverty action plans and good food retail plans.
- Promotion of skills programmes to enable Londoners to undertake rewarding jobs in the food sector and hospitality industry, via apprenticeships and work placements.
- Provision of workspace for innovative food businesses and entrepreneurs.
- Promotion of the role of food markets in fostering entrepreneurship and for building vibrant places.
- Celebrating and promoting London's diverse food cultures and their contribution to London's economy.

## SUMMARY OF ACTIONS

### The Mayor will:

1. Work with partners to devise and implement solutions to food insecurity in London.
2. Improve access to healthy and affordable food and promote the benefits of eating healthily.

### The Mayor asks that:

- Local authorities work to promote healthy and sustainable food, including the development of food poverty action plans and healthy food retail plans.
- Businesses, particularly those within traditionally low paid sectors, sign up to the London Healthy Workplace Charter, so that they can develop and maintain healthier workplaces.

<sup>118</sup> NHS Digital (2017) 'National Child Measurement Programme, 2016/17 school year', p11.

### 3.6 INCLUSIVE AND SAFE COMMUNITIES

London has a unique capacity to bring together people from all over the world, acting as a magnet for talent and a melting pot of different faiths, cultures, ethnicities and nationalities. London's extraordinary diversity, entrepreneurial spirit and cosmopolitan culture set it apart. Across the globe it is viewed as a beacon of progress, tolerance and acceptance. These principles have been fundamental to London's economic growth and success.

#### Well designed, socially integrated places

The scale of growth planned in London means there is an opportunity to learn from past mistakes and deliver comprehensive development which balances housing, economic, environmental and social needs. The investment in the physical fabric of London made via the Mayor and his agencies is significant. The Mayor will ensure that the projects funded and sponsored by his agencies are of the highest standards and promote the principles of 'good growth' and inclusive design. He will also embed these principles in the London Plan so that all developments, buildings, and spaces, are of **good quality and design**. The Mayor will build a richer understanding of what it means to create socially integrated communities and develop a new **Social Integration Strategy**.

London's town centres, high streets and neighbourhoods will change as the population grows. This change needs to be managed carefully to ensure that communities are integrated and that the opportunities presented are inclusive. A larger population will mean additional demands on community and social infrastructure like schools and hospitals. The Mayor will work with public, private and community partners to support the delivery of community infrastructure and developments will be planned to achieve mixed communities, generating wider socio-economic benefits as far as possible.

Every day investment and planning decisions are made that have the potential to make a piece of London more lively, welcoming, and interesting. These decisions can enhance a place's distinctive character and the local economy. Some of these decisions concern major developments, but even the overall effect of many small developments can change a place dramatically. Done badly, urban regeneration initiatives risk driving up house prices and living costs thereby pushing lower income households out of the area.



The Mayor works closely with the boroughs and other stakeholders to support the regeneration of London's town centres, high streets and neighbourhoods. In these areas, there is significant untapped potential for citizen-led initiatives to implement the necessary strategic, coordinated and long term changes that some neighbourhoods will see; as part of a more collaborative regeneration effort. Giving local people a platform to propose ideas themselves is a powerful way for Londoners to have meaningful involvement in the development of the city, but also to understand better the opportunities and challenges there may be. In addition, the opportunity to crowdsource solutions can reveal creative and innovative proposals, leading to new ideas that would not have been previously considered; ideas based on a unique understanding of local conditions and issues.

To build a more inclusive city, the Mayor wants to do more to foster **active citizenship** and collaboration at the neighbourhood level. Together with LEAP he will fund projects through his **Good Growth Fund** that result in tangible improvements to quality of life and cater for London's diverse and changing population.

To create more inclusive and socially integrated communities the Mayor will work with local authorities, the community and voluntary sector, developers, wider industry and stakeholders to:

- Plan developments to promote employment uses and civic functions to achieve mixed communities and generate wider socio-economic benefits.
- Work with public, private and community partners to deliver well designed and productive places, drawing on local assets to develop tailored solutions.
- Promote the importance of well-designed, inclusive and high quality public spaces, buildings and housing; maximising community participation, active citizenship and volunteering in the process of growth.
- Enable businesses of all sizes to unlock the potential of their employees to volunteer their time and skills, engaging more people in civil society<sup>119</sup>.

<sup>119</sup> Research shows that Employee Supported Volunteering (ESV) is growing in the UK with 70 per cent of FTSE 100 companies and 20 per cent of small and medium-sized enterprises (SMEs) offering ESV. From 2010/2011 to 2013/2014, the percentage of people in paid work participating in ESV increased from 10.5 to 13.3 per cent. Even with this increase, there is significant scope to enable a much larger percentage of London's workforce to volunteer, reap the personal benefits and in turn provide benefit to London's communities. See: Accenture (2016), ['A 2020 vision for employer-supported volunteering'](#).

**Social infrastructure**

Social infrastructure includes a wide range of services and facilities such as schools, GP surgeries, community venues, sports facilities, green spaces, places of worship and many more elements of society that contribute to quality of life. Social infrastructure is integral to the creation of an inclusive city, not just through the services that are provided, but through its contribution to social cohesion, and improved physical and mental health. They are also important sources of employment. Similarly, London's cultural infrastructure such as its pubs, music venues, community centres, and other cultural facilities are vital to London's communities (see chapter 5.2).

The Mayor wants to ensure that the places, spaces, networks and institutions that communities value are at the heart of the city's development. In order for this to happen, there needs to be a better understanding of local community infrastructure and its value to inform planning at a city and local level. The London Plan will provide guidance on the types of social infrastructure needed to support growth.

**A safer, more secure London**

The economy can only function effectively if people feel safe going about their daily business. London remains one of the safest cities in the world. However, safety and security is a serious concern for many people in London. While crimes like burglary and car theft continue to decline, new threats are emerging, including the threat of terrorism, cyber crime, hate crime, knife crime, gang related crime and sexual violence.

Crime and terrorism are first and foremost a threat to public safety, but they are also a threat to London's economy. If fears over safety deter people from living or working in the capital, or businesses from investing, then London's economy will suffer. To improve safety and security in London, the Mayor will take forward the priorities set out in his [Police and Crime Plan](#).

To address concerns about crime in the business community, the Mayor will support the work of the [Safer Business Network](#) in promoting Business Crime Reduction Partnerships across the capital, partnerships which help to improve the links between the police and businesses. The Mayor will also publish a Cyber Security Strategy to address concerns about online crime (see chapter 5.6).



At a time of unprecedented pressure on our police, and following multiple terrorist attacks in the capital, the Government must give police and security services the resources they need to keep the city safe. The Met

have already delivered savings of nearly £600m since 2010 and the Government's current funding settlement requires them to reduce costs by roughly a further £400m by 2020-21.

## SUMMARY OF ACTIONS

### The Mayor will:

1. Promote the importance of well-designed, inclusive and high quality public spaces, buildings and housing.
2. Work with local authorities, the community and voluntary sectors to enable the creation of more socially integrated communities.
3. Maximise community participation, active citizenship and volunteering in the process of growth.
4. Work with the Met Police and partners to make London a safer, more secure city confronting violence, extremism and terrorism and improving cyber security.

### The Mayor asks that:

- The voluntary sector and civil society groups work with him to ensure London's communities have a voice in policy development and delivery, with an emphasis on groups that are less engaged.
- Businesses of all sizes enable their employees to volunteer their time and skills to support the community.
- Government provides our police and security services with a fair funding deal for London to help keep the city safe.



## 4. Creating the conditions for growth

London's economy and the number of jobs it supports are expected to grow strongly in the coming years. The number of jobs in London is projected to increase from around 5.7 million today to 6.9 million in 2041<sup>120</sup>. This projection assumes that London's economic output continues to grow at between 2 and 2.5 per cent per annum in line with historic trends. However, growth cannot be taken for granted. There are many factors which mean London's economy could grow at a faster or slower rate. One of the biggest unknowns is the impact that Brexit will have on the economy. There are many other factors such as a downturn (or upturn) in the global economy, global competition and geopolitical events that could all affect London's growth over this time frame<sup>121</sup>.

London has proved itself in the past to be resilient to the ups and downs of the business cycle and the Mayor is confident that the economy will grow strongly in the years ahead. He will do everything in his power to create the conditions for growth.

In '[A City for All Londoners](#)' the Mayor described his ambitions for supporting good growth across the capital. Good growth brings together a number of different Mayoral objectives. It means providing more affordable, accessible and high quality housing for Londoners. It means creating attractive places to live where the built and natural environment is enhanced and people can live active, healthy lives. It means development that is carefully planned, designed and coordinated so that infrastructure like utilities and digital communications, schools and health services are in place early and are delivered and operated efficiently.

Creating the conditions for growth is not just about being able to physically accommodate it. It is about getting more people into work (as discussed in the previous chapter) and boosting productivity. This will mean creating an environment where entrepreneurship and innovation can flourish, where people continue to develop their skills, where London remains open to talent, and businesses can operate more efficiently.

<sup>120</sup> GLA Economics (2017), '[London Labour Market Projections 2017](#)'.

<sup>121</sup> See GLA Economics (2016), '[Economic Evidence Base for London 2016](#)', chapter 4 for a discussion of the risks facing London's economy.

This chapter sets out how the Mayor will create the conditions for growth in the following areas:

1. **Space for business and work** – accommodating London's businesses, balancing the competing demands for space.
2. **Transport** – promoting walking and cycling, reducing car dependency and investing in public transport capacity to enable growth whilst supporting the transition to a low carbon economy.
3. **Infrastructure** – ensuring London has the digital connectivity, water, energy, waste and green infrastructure it needs to grow.
4. **Innovation and skills** – investing in skills and enabling innovation to improve productivity.
5. **Enterprise and entrepreneurship** – supporting start-ups, small and medium-sized businesses; and attracting international investment.

“Good growth... means providing more affordable, accessible and high quality housing for Londoners. It means creating attractive places to live...It means development that is carefully planned, designed and coordinated.”

#### **4.1 SPACE FOR BUSINESS AND WORK**

Land in London is needed for housing, employment, transport, community and civic uses – all of which are important for the economy. As more people live and work in London, pressure on land will increase. The Mayor will try to manage these competing needs so that London can accommodate as much growth as possible in the most environmentally sustainable way. His approach is set out in the [London Plan](#).

##### **Central London: a global hub for business**

Central London is one of the world's most competitive business locations in the world, accommodating one third of London's jobs and generating almost 10 per cent of the UK's output<sup>122</sup>. This area is known as the [Central Activities Zone \(CAZ\)](#). It contains the seat of national government and has an international reputation for its culture, tourism, shopping and heritage. The CAZ is characterised by a diverse mix of places and functions. It is fundamental

to London's status as a dynamic and successful world city. Together with the Northern Isle of Dogs (NIOD) (the area around Canary Wharf) it supports a concentration of globally competitive businesses.

Central London is also a shopping destination of global significance. It includes international centres like the West End (including Oxford Street, Regent Street and Bond Street) and Knightsbridge and specialist clusters like Hatton Gardens (jewellery), Savile Row (tailoring) and St James's (art/antiques). Central London draws shoppers and tourists from across the world.

The evidence suggests that central London will continue to be the engine of London's economy. Major investment in public transport and other forms of infrastructure will be needed to accommodate this growth. Without it there is a risk that central London becomes increasingly congested, polluted, and expensive. Businesses could then look to other global cities

<sup>122</sup> CAZ only. Source: GLA Economics (2015), 'Work and life in the Central Activities Zone, north part of the Isle of Dogs and fringes', Working Paper 68.

to base their operations. Through the London Plan, the Transport Strategy and the Mayor's other strategies, **the unique functions of the CAZ will be protected** and enhanced to maintain London's status as a **global economic centre**.

### **Office space to support the growth in services**

London has some of the most expensive office rents in the world<sup>123</sup>. In the coming years, the city will need a substantial amount of new office space to accommodate the growth of the services sector. The London Office Policy Review 2017 identifies a need for between 4.7 million sq.m and 6.1 million sq.m by 2041<sup>124</sup>. This space needs to be accommodated through new sites, redevelopment or intensification, otherwise rents could rise to uncompetitive levels and growth could be constrained. The CAZ and NIOD will continue to be the main focus for office development in London. Stratford and Old Oak could provide significant capacity to support some office functions in the future. Beyond central London the Mayor wants to support viable office clusters in town centres as part of creating diverse local economies.

In May 2013, the government made it easier to allow offices to be converted to housing through Permitted Development Rights<sup>125</sup>. There is evidence that as a result of this, London has lost a large amount of office space, a significant proportion of which was occupied or part occupied at the time of conversion<sup>126</sup>. There is a risk that further viable and strategically important office space could be lost at a time when significant additional capacity is needed. The CAZ, the NIOD, Tech City, the Royal Borough of Kensington & Chelsea and the Royal Docks Enterprise Zone have been exempt from these Permitted Development Rights, but this protection will end in May 2019. After this time the relevant planning authorities will need to have their own protection in place through an Article 4 direction.

Through the London Plan and his Development Corporations, **the Mayor will work with London boroughs to ensure there is sufficient office space capacity to meet future needs**. He will support the boroughs with the implementation of Article 4 directions where office space is at risk, especially in London's nationally significant office locations and in other viable office locations where supported by local evidence.

<sup>123</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', chapter 6.

<sup>124</sup> Ramidus Consulting & CAG Consulting (2017), 'London office policy review 2017'.

<sup>125</sup> Permitted Development Rights allows conversion of business premises for residential use without the need for the normal planning procedures, instead requiring a 'lighter touch' prior approval from local planning authorities.

<sup>126</sup> Approximately 58 per cent of business floorspace was either occupied or part occupied at the time the prior approvals were sought. See Greater London Authority (2017), 'London development database', March 2017.

## THE ROYAL DOCKS ENTERPRISE ZONE

Through LEAP and in partnership with the London Borough of Newham and the private sector, the Mayor is helping to develop the [Royal Docks Enterprise Zone](#) in East London. The vision is to create an international business district and a centre for global trade.

In 2013, a £1 billion deal was announced to create a trade hub for Asian businesses to invest in the UK. In the same year, a £1.5 billion deal with the Silvertown Partnership was announced to transform part of the Enterprise Zone into the world's first cluster of purpose-built pavilions for

product innovation, where top brands will be able to exhibit their latest products and interact with potential customers. There are also plans to build Britain's first 'floating village' at Royal Victoria Dock.

Qualifying businesses in the Enterprise Zone will be able to benefit from business rate relief, enhanced capital allowances and a simplified planning framework. LEAP will retain business rates growth generated within the zone for at least 25 years which will be reinvested into the local economy.

### Successful town centres and high streets

London's town centres and high streets are places that many Londoners relate to the most. They are vital to London's local economies. However, for a range of different reasons, many are under threat. Retail is an important element of high streets and town centres, but with the growth in online retail and large retail centres, people have far greater choice over where and when they do their shopping. Changes in the way people shop and how large retailers operate are having knock-on implications for the amount of retail space needed in London's town centres and high streets.

Employment in office-based services in some town centres and high streets is also under threat as office space is being converted into housing. Unlike out-of-town retail or shopping centres most high streets aren't managed as a whole and fragmented property ownership and management make strategic action more complex and challenging. This limits the ability to create a coherent or comprehensive offer either through incremental change or through comprehensive regeneration.



Given the right support, the Mayor believes that London's town centres and associated high streets can reinvent themselves. New forms of retail will need to emerge, supplemented by the introduction of a wider range of food and leisure, affordable workspace, housing, and civic functions.

The Mayor will seek to ensure the success of town centres and high streets by:

- Working with boroughs and other stakeholders to support a successful, competitive and diverse retail sector.
- Supporting communities to develop an understanding of the economic, social and physical condition of their town centres and high streets, encouraging stewardship from local residents and businesses in order to maximise local economic opportunities.
- Targeting Mayoral and LEAP funds to stimulate local economic activity which creates attractive and welcoming high streets that draw in visitors and considers alternative uses for empty shops, disused buildings, vacant land and underused spaces.
- Working with boroughs to prevent the loss of viable office space and other low cost business space which is under threat from housing development.
- Supporting the role of high streets within local economies as places of employment, cultural activity, enterprise and innovation, and for business.
- Managing the introduction, or further intensification, of housing and jobs in town centres to maintain vibrant and healthy high streets.
- Improving public transport connections and the public realm, making walking and cycling to and around town centres more appealing and reducing car dependency.
- Promoting connectivity and innovation, including better public wifi and embedded technologies (the Internet of Things).
- Encouraging healthy catering commitments from food outlets and encouraging new healthy food businesses.
- Ensuring they are places that foster social integration and provide opportunities for Londoners to mix and meet with people of different backgrounds.

London's street markets are an integral part of many town centres and high streets. They have a long history and play an important role in the community, bringing variety, diversity and character.



However, many of London's markets are struggling to survive. The Mayor will promote the value of London's street markets by establishing a London Markets Board to provide a forum for addressing the strategic challenges faced by markets.

### **Industrial areas to meet London's needs**

Industrial areas help to keep London's economy working effectively. They accommodate many essential functions such as food preparation and processing, repair services, warehousing and storage operations, logistics and distribution (deliveries), construction, and maintenance activities<sup>127</sup>. They also provide space for utilities, waste processing, and recycling, essential for the operation of the capital. Without sufficient industrial land to accommodate activities that are not easily located elsewhere there is a risk that London's growth could be constrained.

Industrial areas also provide valuable local employment and act as a reservoir of lower cost space for businesses. Projections indicate that demand for activities serving London's economy are expected to grow with an increasing

population. Following a long period of steady decline, the loss of jobs in manufacturing has slowed in recent years and has even seen a small increase in some sectors, possibly due to more customised micro-production and prototyping, particularly in fashion, product design, film and television, and specialist food businesses.

London has a significant amount of industrial land especially in areas like Park Royal, Heathrow, the Wandle Valley, the Lea Valley, and the Thames Gateway. However, in recent years, industrial land in London has been lost at almost three times the benchmark set by the London Plan, and in central London at around eight times the benchmark<sup>128</sup>. This marked reduction coupled with steady demand is beginning to have implications with industrial rents rising faster than elsewhere in the country.

If the industrial infrastructure to service London's economy is not provided within London, it could result in longer journeys and greater congestion on roads, leading to higher costs for business and damaging the environment. London's business base could also become less diverse if businesses in industrial areas are forced to move elsewhere or to close.

<sup>127</sup> The Park Royal Atlas provides a case study of the range of activity that takes place on industrial areas. See Greater London Authority (2014), '[The Park Royal atlas: an employment study of London's largest industrial area](#)'.

<sup>128</sup> AECOM (2015), '[London industrial land supply and economy study 2015](#)'.

The Mayor wants to ensure that **London retains sufficient industrial land to keep the economy functioning efficiently**. To that end, he will:

- Set out detailed policies in the London Plan to maintain a sufficient supply of land and premises to meet current and future demand for industrial and related functions.
- Make more efficient use of industrial land (for example, through intensification) so that it can continue to support London's economy.
- Work with landlords, developers, and occupiers to look at intensifying the way London's industrial land is used, through more multi-storey industrial buildings with associated shared yard space or co-location alongside residential development.
- Help to enhance the physical condition of London's industrial estates by supporting the creation of Industrial Business Improvement Districts (IBIDs).

### **Affordable workspace and low cost business space**

A range of different types of workspace will be needed to accommodate the growth in London's businesses from those just starting up to those that are growing and in need of new premises. The Mayor wants to ensure there is adequate business space at competitive

rents across the capital, recognising the competing demands for space.

The high rate of business start-ups and the diversity of London's economy means there needs to be a supply of flexible and affordable workspace to cater for a range of different sectors. In central and inner London, the market has responded to demand with co-working spaces that provide shared facilities for entrepreneurs and small businesses. There is also a growing range of accelerator and incubator spaces specifically set up to support start-ups or firms with high growth potential often with some form of public support.

Creative workspace for makers and artists are less likely to be provided by the market. These types of occupiers often take advantage of older stock of a lower specification which is more affordable. However, with residential land values increasing, this older stock is particularly susceptible to redevelopment pressure, not least as a result of Permitted Development Rights. Such space is often not easily re-provided in new mixed use developments at affordable rates. Growing businesses seeking to move on can find it difficult to secure conventional space and have limited knowledge of lease terms, which are not typically covered in business support services.

## LONDON MADE

London's industrial estates, warehouses and factory buildings are home to a highly diverse range of businesses. Businesses within these spaces tend to be small, nimble and increasingly specialised. They service the everyday needs of the city and its residents, such as next day delivery of groceries, modern waste and recycling facilities, or specialist fabrication for London's theatres.

While the loss of industrial space in London is a challenge, it has also spurred innovation in the sector. London is home to nearly 60 'makerspaces'. Spanning a variety of sectors, these are spaces where members have shared access to otherwise expensive or space intensive tools and machinery. Examples include the community interest company [Building Bloqs](#), which provides affordable, flexible

open workshops and shared machines on a pay-as-you-go basis to its membership of independent makers, designers and creative entrepreneurs. This helps to remove the barriers facing start-ups and lower running costs as well as creating opportunities for collaborative working.

Working in a very different urban context, [Makerversity](#) is building a new community of makers in central London. Provided with an eight-year lease by the Somerset House Trust, Makerversity have created a long-term project by re-purposing unused space in the lower floors of the iconic Grade 1 listed building. The space is now home to more than 90 businesses, covering a huge range of activity including industrial design, architects, coders, fine artists, furniture makers and fashion designers.

The London Plan will set out policies to improve provision of affordable workspace for start-ups, artists, creative industries, charities, social enterprises, and other organisations. Policies will also seek to retain a stock of more conventional low cost business space. Creative Enterprise Zones will be established to keep artists and creative businesses in London and ensure that local economies benefit in the long term from what creative businesses bring to an area. The Mayor is exploring options for a Creative Land Trust, a dedicated fund to acquire buildings for use as affordable workspace for artists in perpetuity (see chapter 5.3).

Working with LEAP, the Mayor will encourage applications to the Good Growth Fund for loans or grant funding to create affordable workspace. He will work with the emerging affordable workspace providers sector, and with the advice of the London Workspace Providers Board, to encourage better and more consistent monitoring of the achievements and contribution of these spaces, and coordinate other public authorities in offering space for workspace providers. The Mayor will also press the government to reform existing rating legislation to ensure all businesses using flexible and open workspaces are made eligible for small business rate

relief in the same way as there would be if they were renting conventional workspace. Those set up with charitable and social purpose should also benefit from the 80 per cent charitable relief discount.

The Mayor will work with the boroughs and other stakeholders to support the retention and development of open and affordable workspace by:

- Providing loans and grants for affordable workspace through LEAP's Good Growth Fund.
- Developing planning policy on affordable workspace and low cost business space.
- Encouraging the emerging workspace provider sector to adopt more consistent monitoring of economic and social value.
- Promoting opportunities suitable for the workspace provider sector.
- Supporting small and growing businesses with a property advice service to aid understanding of lease terms and the relationships between flexibility, security, rent and rent reviews, and other rights and obligations.

## SUMMARY OF ACTIONS

The Mayor will:

1. Help to protect London's role as a global hub for business, ensuring there is sufficient supply of office accommodation and investment in transport and infrastructure.
2. Work with communities to create vibrant local economies outside central London, including successful town centres, high streets and industrial areas.
3. Help to ensure that London retains sufficient industrial land to keep the economy working efficiently.
4. Support the retention of low cost and affordable workspace using planning policy and enable the creation of new space through the Good Growth Fund.

The Mayor asks that:

- Government reviews permitted development rights that affect offices, light industrial premises and other employment uses, to ensure that they do not undermine the availability of viable low cost workspace.
- Operators and developers of industrial and distribution premises work closely with the Mayor to explore innovative solutions to workplace demand, such as multi-storey development and co-location with residential uses.
- Workspace providers develop a system of accreditation, which encourages more consistent monitoring of economic and social value to demonstrate the contribution that these workspaces make to London.
- Government formalises a way for small businesses who use large open plan environments (such as co-working spaces) to benefit from the small business rate relief they would be eligible for if they worked in a small self-contained unit.

## 4.2 TRANSPORT

The transport system is vital to the day-to-day workings of London's economy and to the city's international competitiveness. It connects communities to employment, moves goods and services around, and opens up development opportunities. London's transport system provides businesses with international connections via air, water and high speed rail connections. The rail network plays an especially important role serving the London economy, providing businesses with access to a pool of skilled labour from across Greater London, the wider south-east and further afield.

However, London's transport system faces a number of pressures. The capital's roads are some of the most congested in Europe, airport capacity is constrained, and crowding is a growing problem on the rail network at peak times. The projected growth in London's population and employment means that the number of trips made each day in London is expected to increase by over five million to about 32 million per day by 2041<sup>129</sup>.

The draft Mayor's [Transport Strategy](#) sets out how, through TfL and working with the boroughs and other stakeholders, the Mayor will create a transport system that meets the current and future needs of Londoners. At the heart of the strategy is a move towards



<sup>129</sup> Mayor of London (2017), '[Mayor's Transport Strategy: Draft for public consultation](#)'.





ever-more sustainable and efficient movement of people and goods – reducing car dependency in favour of walking, cycling and public transport. By 2041, the Mayor aims for 80 per cent of all journeys in London to be conducted by these efficient and sustainable modes, making the city work better for both people and businesses.

### **The Healthy Streets Approach**

The Mayor has adopted the Healthy Streets Approach to planning the city, which means that streets and the wider transport network will be designed around the needs of people rather than motor vehicles. Car dependency is the fundamental cause of London's congestion problem. It is bad for Londoners' health, the environment and the economy. The draft [Transport Strategy](#) sets out how the Healthy Streets Approach will be used to make London a better place for everyone.

A healthy street environment, where people choose to walk, cycle and use public transport, helps to attract investment, and is a vital part of London's wider offer to support its position as a leading global city. Major international employers have cited London's emerging walking, cycling and public realm improvements as important

factors in persuading them to locate in the city. New office developments now boast of their high-quality facilities for people who want to walk, run and cycle to the office because employees are increasingly demanding them. Without tackling congestion, overcrowding, health and environmental concerns, London risks becoming less attractive to both businesses and people. A move away from car dependency, towards more walking, cycling and public transport use, is the only way to tackle London's congestion problem, free up space for essential freight journeys to run more smoothly, and keep the city functioning for people and businesses alike.

At a more local level, evidence shows that streets that work well for people also work well for local businesses. Studies in a number of cities, including London, have shown that people accessing a town centre by bus, cycle or on foot spend more money over the course of a month than motorists<sup>130</sup>. **Using the Healthy Streets Approach to enhance the attractiveness of the public realm for walking and cycling will strengthen the economic vitality of town centres** across London, reducing shop vacancy rates, increasing footfall and providing a more diverse use of the streets.

<sup>130</sup> See Accent (2013), 'Town Centres 2013'; Lawlor, E. (2014), 'The pedestrian pound: the business case for better streets and places'; and Clifton, K. et al. (2013), 'Consumer behaviour and travel choices: a focus on cyclists and pedestrians'.

The success of London's economy outside central London is particularly dependent on making more efficient use of streets. In these areas, buses are the main form of public transport, and most freight and servicing trips are made by van or lorry. Car use is also high, causing congestion and poor air quality, particularly in town centres. Longer trip distances outside central London mean that congestion is more of a threat to the local economies of these areas.

A new London-wide network of strategic cycling routes will transform the convenience and experience of cycling for all types of trips. TfL will work with boroughs to develop traffic reduction strategies across London. Streets will be made more appealing places to walk, reducing the use of cars for short, local trips. Public transport services will be enhanced and new services provided, to make public transport the first choice for longer trips. These measures are expected to reduce overall traffic levels by 10-15 per cent by 2041 (including 3 million fewer car trips per day), addressing the congestion problem at its core, creating streets that are more efficient for essential freight, that work for local business, and that support the vitality of town centres.

### **Public transport capacity improvements**

London has one of the most extensive transport networks in the world and this has been a major factor in the city's economic success. Providing brand new public transport links, service improvements and extensions to existing lines will continue to support growth, ensuring that London remains a successful city. It will also provide an appealing and efficient alternative to private car use, allowing many of the Mayor's other aims for transport and public space to be achieved<sup>131</sup>.

**Crossrail 2** is one of a series of major new regional rail projects which will support the future success of both London and the wider UK economy. The project is expected to unlock 200,000 new homes and support 200,000 new jobs, having an impact on a region-wide scale. It will link National Rail networks in Surrey and Hertfordshire via new stations and tunnels between Wimbledon and Tottenham Hale. This major new line will help London to meet future transport capacity challenges by allowing an additional 270,000 people to travel into and across central London each morning, reducing overcrowding on the network. The Mayor, through TfL, will work with Government and stakeholders to get full backing for the scheme and secure the necessary powers, opening it in 2033.

<sup>131</sup> This includes promoting and encouraging the use of the River Thames safely, in particular for the provision of passenger transport services and for the transportation of freight

“London has one of the most extensive transport networks in the world and this has been a major factor in the city's economic success.”

The **extension of the Bakerloo Line to Lewisham** and beyond will unlock thousands of new homes and jobs in the Old Kent Road and Lewisham, Catford and New Cross Opportunity Areas. It will provide extra capacity on the tube for 65,000 journeys during the morning peak and improve public transport connectivity between south-east London and central London, while transforming an underdeveloped area of the city.

In addition, there are a number of other projects underway to support London's growth. The **Elizabeth line** is due to open in full in 2019 and **High Speed 2 (HS2)** is scheduled for delivery in 2033. The new Old Oak Common station due to be completed in 2026 will eventually connect to both these lines, making it one of the most connected parts of the capital. Options are currently being analysed to improve public transport connectivity to Thamesmead and surrounding areas.

To complement new infrastructure, TfL is undertaking an **extensive programme of modernisation of existing Tube lines**, with major stations, trains, track and control systems being updated or replaced to increase capacity, frequency and reliability.

## RAIL'S CRITICAL ROLE IN SUPPORTING THE CENTRAL LONDON ECONOMY

The TfL and national rail networks help to underpin the economy in central London, facilitating access to a uniquely wide and diverse talent pool across London and beyond. Rail modes account for 80 per cent of the 1.2 million trips made to central London in the average weekday morning peak.

The infrastructure and services that support daily travel to and from central London cannot easily be replicated and only a handful of cities worldwide are capable of offering this type of hyper-connectivity. It is therefore vital that London's transport network receives the investment that is needed, to protect and enhance the city's competitive advantage - for the long term benefit of London and the UK.

Crowding on much of the Tube in central London at peak times can

make it difficult to board trains, in some cases delaying journeys. If the current planned investment programme (which excludes Crossrail 2) is implemented, crowding on the Tube and rail networks is expected to increase to well in excess of tolerable levels on some services in the morning peak by 2041. A step-change in capacity is needed. The draft Mayor's Transport Strategy sets out a programme of rail capacity improvements that are needed to support central London's continued growth and prosperity. This includes seeking **devolution from the Department for Transport to the Mayor of the responsibility for local stopping rail services in London** in the interest of providing improved customer services more efficiently and more quickly, and to enable better integration with London's wider transport system.

**Unlocking homes and jobs**

The investment in London's transport system to improve service frequency, capacity and provide new connections, will create opportunities for new homes and jobs across the capital. Bus services will also be enhanced to support regeneration and new development, including pilots of new types of high capacity, high-frequency routes and demand-responsive services. New river crossings that prioritise walking, cycling and public transport will be developed to connect communities, such as Rotherhithe to Canary Wharf bridge. The Mayor will also take full advantage of any surplus TfL land that could be used to deliver more housing and jobs.

**Using technology to improve the transport network**

Advances in technology and data analytics provide exciting opportunities to improve London's transport system, from the way people plan or navigate their journeys to the method of transport they then take. Technology promises to make essential motorised journeys cleaner and safer, for example through ultra-low emission vehicles. The Mayor wants to support this innovation. He will continue to make TfL data available to developers so they can build more useful services, as well as supporting start-ups through the tech accelerator programme, helping them to get their products ready for market.

**TRANSPORT FOR LONDON ACCELERATOR PROGRAMME**

Transport for London is supporting an initiative led by Nitrous London to help UK and international start-ups with their ideas to reduce congestion and overcrowding. TfL are working with start-ups from artificial intelligence to 'smarter' cycling to reduce congestion on the public transport network and/or across London's roads, and lowering levels of pollution.

The programme is designed to help start-ups better support public sector

innovation. It will provide the start-ups with a range of masterclasses, one-to-one sessions and networking opportunities, and help start-ups better understand their market and public sector procurement processes. This will benefit Transport for London, City Hall, and the development of future public services, and support more successful collaborations between the public sector and start-ups in the longer term.



**Better international connections**

As a global hub for business, international connectivity is vital for London's economy. London's airports provide essential connectivity for passengers and freight, support vital trade, inward investment and tourism, and provide significant numbers of jobs.

Passenger numbers at London airports have increased significantly in recent years. Heathrow has been at full capacity for many years while Gatwick is operating at 85 per cent capacity and full capacity during peak periods<sup>132</sup>. Capacity constraints have knock-on impacts in terms of delays and reliability, making London's airports less resilient to disruptions such as adverse weather. They also mean higher fares, fewer routes and less frequent flights compared to competitor city airports.

The Mayor recognises the need for **additional runway capacity in the south-east of England**, but this should not be at the expense of London's environment or the health of its

residents. Hundreds of thousands of Londoners are already exposed to illegal levels of air pollution and significant noise pollution as a result of Heathrow airport's current operations.

Airport expansion should only be taken forward where it meets the needs of London and the UK, the environmental impacts are fully acknowledged and the aviation industry fully meets its external and environmental costs, particularly in respect of noise, air quality and climate change. Any airport expansion proposals would also need to show that surface transport networks are able to sustainably accommodate the additional trips generated, offering enhanced capacity and connectivity for onward journeys. The Mayor believes that expansion at Gatwick could deliver significant benefits to London and the UK more quickly, at less cost, and with significantly fewer adverse environmental impacts. The draft London Plan will set out a detailed policy on aviation.

<sup>132</sup> Airports Commission (2015), 'Airports Commission: final report'.



## SUMMARY OF ACTIONS

### The Mayor will:

1. Implement the Healthy Streets Approach to create a healthy street environment, where people choose to walk, cycle and use public transport.
2. Help to make more efficient use of London's streets by reducing car dependency and tackling congestion.
3. Invest in London's public transport capacity with TfL and make the case to government for the transport investment needed to enable economic growth, such as Crossrail 2.
4. Use new transport schemes to unlock homes and jobs across London, with developments planned around walking and cycling for local trips and public transport use for longer journeys.

### The Mayor asks that:

- Government works with the Mayor and Transport for London to secure the necessary powers to deliver Crossrail 2, opening the scheme in 2033.
- Government ensures further rail franchises across the South East are devolved to the Mayor to provide improved service and better accountability. Government develops aviation capacity in the South East without severe environmental impacts, notably through a second runway at Gatwick.

### 4.3 OTHER INFRASTRUCTURE

In addition to transport, London needs a whole range of other infrastructure to enable growth. A growing world city requires modern infrastructure including: water, flood protection and drainage infrastructure, waste, energy, and seamless digital connectivity. New approaches to the management of green spaces are also needed to recognise the essential infrastructure services these can provide. London has substantial new infrastructure requirements to sustain its growth. Meeting this demand will require a mix of approaches – including effective prioritisation, coordination of delivery, investment in low carbon infrastructure, and better use of data and technology. Greater devolution of fiscal powers would enable the Mayor to do more to invest in new infrastructure. London also needs a regulatory system that is responsive to the city's needs and enables investment.

The Mayor will help to improve the planning, coordination and delivery of infrastructure in London by establishing an **Infrastructure High Level Group** of industry leaders. Across all the major forms of infrastructure, the Mayor will seek to embed the following principles:

- Better coordination and sharing of data between developers, utility providers and planning authorities to improve the forecasting of demand and supply, address capacity imbalances, support better planning decisions, and reduce disruption caused by construction works.
- Integrated solutions that use technologies to manage, shift and reduce demand.
- Strategic investment 'ahead of need' - in agreement with the relevant regulators - to help unlock large strategic development areas allowing them to come forward in an effective and timely manner.
- Prioritisation of strategic infrastructure 'packages' for specific growth corridors identified in the [continuous assessments of infrastructure requirements](#).
- Close collaboration with, and between, the utilities providers, regulators, the National Infrastructure Commission, national government, local authorities and developers.

## THE LONDON INFRASTRUCTURE MAPPING TOOL

[London's Infrastructure Mapping Application](#) is a database of over 12,000 development and infrastructure projects. Developed by the GLA with support from utility companies and TfL, the tool aims to improve decision-making by the private and public sectors facilitating

a more strategic approach to infrastructure planning and delivery in London. The Mayor encourages parties to share data that can contribute to savings to individuals, organisations and to the overall economy.

### The data economy

In today's digital economy, data and data analytics are the fuel for future innovation in business and across London's public services. For example, when TfL opened up its data and services to software developers, hundreds of applications were developed, helping Londoners and visitors to move around the city more easily, and assisting with infrastructure planning. Following this example, the Mayor wants to put open data at the heart of London's government. Through the London Datastore, the GLA will continue to make more of its data accessible to the public.

A very significant amount of data is collected and processed through a wide array of technology systems and services by the GLA, London's local authorities, the NHS and other public bodies but not always on a consistent or computable basis, making it hard to analyse and use to greatest effect. The Mayor will work with boroughs, NHS trusts and other public service providers to help improve data-sharing and analytics through projects such as the [London Office for Data Analytics \(LODA\)](#), and work to seed the future application of machine learning and Artificial Intelligence (AI). The Mayor will also work to build strong foundations in data governance, privacy and security to improve innovation and resilience in this crucial area.



Common standards in infrastructure and digital services, such as the [Local Government Digital Service Standard \(LGDSS\)](#), are needed for the design, creation and scaling of products created by the tech community. The Mayor has commissioned research into the creation of a [London Office for Technology & Innovation \(LOTI\)](#). Co-funded by the Mayor and London Councils, this will for the first time scope a collaborative model to promote agreed standards, develop better digital capabilities and improve procurement between participating boroughs to enable public services to meet London-wide challenges, like improving air quality, improving the public realm or tackling homelessness.

Data and analytics benefits urban development because it allows us to plan better and create new digital services to meet the objectives of the London Plan and other city strategies. As more infrastructure and buildings use embedded technology to collect data ('the Internet of Things') it is important that these smart technologies and digital services work for the benefit of Londoners. To achieve the Mayor's aim of making London the smartest city in the world, in the future smart infrastructure should conform to agreed common standards in order for data to be both secure and shareable.

### **Digital Infrastructure for a digital economy**

The Mayor wants to ensure London has world class digital connectivity. Fast, reliable digital connectivity is essential for digital and creative companies, and increasingly all areas of the economy. Achieving this in London means not only resolving areas that are currently underserved, but anticipating growing areas of need, and promoting innovation in delivery. The different requirements of residential and business connections should be met, as well as the needs of a future 5G network.

The Mayor will work with providers, developers, councils and Government to **develop guidance which will also support the strengthened digital connectivity policy in the London Plan**. This guidance will identify key considerations for all those involved in the delivery of digital connectivity, share good practice to increase awareness and capability amongst boroughs and developers of the effective provision of digital connectivity and to support the delivery of policy requirements. The Mayor will **promote the use of standardised access agreements** and aid strategic bodies to **improve access to public sector owned property** so that providers can make use of them. Boroughs should encourage the delivery of high-quality world-class digital infrastructure as part of their digital strategies.

The Mayor will also appoint a dedicated team in City Hall to **help to identify spatial gaps in connectivity and overcome barriers** to delivery to address this form of digital exclusion. With this identification and his oversight across boundaries, he will be encouraging planning, coordination and funding in digital connectivity by seeking to align projects and maximise their impact on improving cross-border provision in London.

The London Underground is one of the most high-profile 'not spots' in the city. As part of the improvements in communication technology for the emergency services, **4G mobile communications** will be provided on the Underground and this provides an opportunity to offer public cellular services at the same time. Transport for London will explore this and other options for using their assets to deliver improve digital connectivity.

### **Meeting London's water infrastructure needs**

Water is a vital resource for any city and one that is often taken for granted. As London's population grows, greater stress will be put on both the city's supply of water and on its wastewater system – requiring creative approaches to demand management along with new capacity. The quality of London's watercourses and the threat of flooding, meanwhile, also needs to be managed.

New water resources are needed to meet future demand. Even with projected water efficiency gains, London is forecast to have a water resource gap of over 100 million litres per day by 2020, rising to a deficit of over 400 million litres per day by 2040<sup>133</sup>. This means that there won't be enough water to meet London's needs. To address the gap, various supply and demand-side measures will be needed such as improving the water efficiency of existing and new developments, better leakage detection and repair, and encouraging people to become more water efficient through smart meters and better public information. Thames Water, the GLA and Environment Agency are examining long-term water supply options for London, given the challenges presented by growth and a changing climate.

London's Victorian combined sewer system, built over 100 years ago, was designed for a smaller, more permeable city. Many parts of London have sewer capacity issues that are projected to get worse as London grows. A major new sewer known as the Thames Tideway Tunnel will reduce the problem of sewer overflows into the River Thames. But the tunnel will do little to free up capacity in the wider drainage network and so other approaches, such as managing surface water at source, to prevent it draining to sewer, are required.

<sup>133</sup> Mayor of London (2017) 'London Environment Strategy: Draft for Public Consultation August 2017'.

New infrastructure will also be required to manage future flood risk in London, due to more extreme weather and as London becomes more densely populated. The necessary upgrades to London's tidal flood defences will need timely planning and delivery, and new approaches to managing and funding surface water flood risk reduction will be required. Developers and landowners will also need to look at how they can support the delivery of green infrastructure, and provide more sustainable drainage systems in new and existing developments.

### **More localised and renewable energy**

If the Mayor's target for London to be net **zero carbon by 2050** is to be met, it will require considerable investment in London's buildings to reduce energy demand and in London's energy system, including retrofitting existing building stock. More localised and renewable energy resources will be needed to supply low, and ultimately zero, carbon energy to London's homes and businesses in a reliable, secure, clean and affordable way.

As London's population and economy grows it will place increasing pressure on the energy system, especially the electricity network as a greater proportion of transport and heating will become electrified. This will be particularly challenging in Opportunity

Areas where there will be large amounts of new residential and commercial development. London needs an energy system capable of meeting that demand in a timely way, enabling development to happen at the pace that is required.

London and the UK will require a far more integrated energy system to meet future energy demands. One where heat, power, storage and smart technologies combine together at both the national and city level to allow the most effective use of energy resources.

### **Reducing waste**

Waste has a big impact on the environment both locally and globally. Around 7 million tonnes is produced from London's homes, public buildings and businesses each year<sup>134</sup>. Of this, only around half is currently recycled. Landfill and incineration are undesirable, costly and an inefficient use of resources. London's waste bill is now in excess of £2 billion a year and rising<sup>135</sup>.

The capacity of landfills accepting London's waste is expected to run out by 2026 and no new capacity is currently planned. To deal with this London needs to firstly reduce the waste produced, and secondly ensure it has access to sufficient capacity to recover value from more of its waste and remove the reliance on landfill.

<sup>134</sup> Mayor of London (2017) 'London Environment Strategy: Draft for Public Consultation August 2017'.

<sup>135</sup> Ibid.



The Mayor will promote the **'circular economy'** approach to the use of resources in London – an approach which designs out waste, keeps materials in use at their highest value for as long as possible, and minimises the environmental impact.

The Mayor, through the new London Plan, will set policies for the identification and safeguarding of waste sites in London to enable all of London's municipal waste to be managed within London by 2026. The Mayor wants to see London's waste sites optimised to support circular economy activities like reuse and repair in the process creating new

jobs and apprenticeships. This will be supported by the London Waste And Recycling Board's [Advance London](#) work programme which provides support and funding to businesses that use circular economy business models.

### **Protecting and enhancing London's environment and green infrastructure**

London's parks and green spaces are often seen as a counterpoint to the city, rather than as an integral part of the urban environment upon which the prosperity and viability of the city depends. As a result, the potential services and benefits they can provide have been largely under-appreciated.





The Mayor wants to change this by reconsidering the roles and purposes of many of our urban green spaces. Just as we regularly upgrade or modify other forms of infrastructure, it will be necessary to plan, design, and manage the network as a green infrastructure that is integrated into the wider public realm and built environment.

Clean air, clean water, and access to green and open spaces are all needed by residents and workers which are often taken for granted. They form London's natural capital and are as important to the economy as human

and physical capital. If London's natural capital continues to deteriorate as it has done, or is lost all together, there is a risk that people will no longer want to live or work in the city and those that do will see their quality of life suffer. The Mayor's Environment Strategy sets out how he will **protect and enhance London's natural capital and its green infrastructure**, including through improving air quality and enhancing London's ecology. A new way of valuing London's natural assets is needed and to that end the Mayor will promote the concept of **natural capital accounting**.

## SUMMARY OF ACTIONS

The Mayor will:

1. Establish an Infrastructure High Level Group, with the aim of improving the planning, coordination and delivery of infrastructure in the capital.
2. Tackle the barriers to provision of fast, reliable digital connectivity through a comprehensive programme including: appointing a dedicated team in City Hall, promoting best practice and innovation, developing guidance, advocating the use of public sector assets for digital connectivity and championing the use of standardised agreements.
3. Promote an integrated approach to water management - reducing demand, supporting appropriate water resource development, and managing rainwater close to where it falls, to reduce the risk of flooding.
4. Help to retrofit London's building stock and energy systems to help deliver zero carbon heat and power by 2050.
5. Protect and enhance London's Natural Capital - its green spaces,

air, water and other natural resources to ensure London is a healthy, green and liveable city.

6. Promote the concept of green infrastructure and natural capital accounting.
7. Promote the circular economy approach to resource and material management.

The Mayor asks that:

- Government devolves stronger fiscal powers from Whitehall to help address the UK's underinvestment in infrastructure and incentivise economic growth.
- Government and the regulators consider the wider public good implications of utility providers' capital investment programmes, going beyond the current focus on how they impact on consumer bills.
- Government collaborates with the Mayor in helping to address knowledge gaps amongst consumers, developers, local authorities and other key stakeholders by sharing their experience, guidance and good practice.

- Government works to encourage planning, coordination and funding in digital connectivity in London by enabling the GLA to have regional strategic responsibility as a gatekeeper to funding and resources for the improvement of digital infrastructure.
- Digital infrastructure providers communicate effectively with the GLA and London boroughs of their infrastructure plans and work with them to identify and address current and future underserved areas.
- Government actively supports London's work to develop a 'Natural Capital Accounting System' that allows the full value of green infrastructure to be quantified and investigate how it could ultimately be incorporated into formal accounting practices in a future low carbon circular economy.
- Government introduces a long-term regulatory and financial framework to speed up the rate of energy efficiency in buildings to help reduce energy costs.
- Businesses look at how they can support the delivery of green infrastructure across London and help to reduce flood risk - developers and landowners should provide sustainable drainage systems in new and existing developments.
- Businesses consider how they can adopt a 'circular approach' to their use of resources, ensuring that materials stay in use as long as possible, reducing the amount of virgin materials required and maximising recycling.

## 4.4 INNOVATION AND SKILLS

### World class universities and research

London already has some of the world's leading universities and a diverse mix of higher education institutions. These range from traditional universities through to specialist colleges and schools and national research centres. London's universities and research institutions attract talented students, lecturers and researchers from across the world, supplying businesses with a pool of highly skilled people. They are cradles for the formation of new ideas and innovation through their research and development activities. The benefits of this spill over to the rest of the economy as new ideas and technologies become more widely adopted. The Mayor wants London to remain the world's **leading city for learning, research and innovation**. He will harness the strength of London's research base, supporting collaboration between business and academia, including specific initiatives in sectors around life sciences, cultural and creative industries and the low carbon sector (see chapter 5).

EU research funding helps our universities to thrive, enabling our researchers to collaborate with the best minds from across the EU in order to tackle global problems, from cancer to

climate change. EU research funding also benefits our economy, boosting growth and creating jobs both directly and indirectly in a range of sectors (EU research funding contributed more than £1 billion to GDP during 2014-15<sup>136</sup>). The Government needs to commit the UK to continued participation in European research networks, beyond the current Horizon 2020 programme. If unsuccessful, the Government must ensure equivalent **research funding opportunities** for our higher education institutions.

It will also be critical that there are clear and accessible routes for international academic and technical staff to come and work in the capital (from the EU and further afield). And after graduating, international students should be able to apply for work here so they do not have to leave after their course finishes. When they return home or work abroad, international students are the UK's ambassadors. The Mayor wants the government to reintroduce a clear **post-study work visa route** that can be part of the offer to prospective international students. The Mayor also believes that international students should not be included in the government's net migration target until they move into work or start a business after their studies, and he will lobby accordingly.

<sup>136</sup> Universities UK (2016), 'Economic Impact On The UK of EU Research Funding To UK Universities'. Report by Viewforth Consulting Ltd.

### **Open to talent from across the world**

The Mayor believes workers of all levels – from the highest skilled through to those carrying out relatively low paid but economically vital work - should be welcomed to London. As should international entrepreneurs, academics and students. He is determined that London will remain open to talent after Brexit. London's economy benefits enormously from its diverse population. Migrant workers help to fill skills gaps and shortages in the economy at different levels, from highly skilled technical occupations to mid-skilled and lower-skilled occupations in sectors like construction, nursing, social care, tourism and hospitality. If the supply of migrant workers were to be constrained it could lead to severe shortages in these areas, affecting the quality of care or the ability to meet housing needs.

UK cities need a **flexible immigration system** that responds to demand, not one that places additional costs and burdens on employers. These costs often fall disproportionately onto SMEs with limited resources to recruit. The Mayor believes that the UK needs to continue its membership of the Single Market and welcome EU workers under qualified free movement of labour. This should not mean a tightening of opportunities for non-EEA nationals. The government's approach to immigration

should allow talent from around the world to come and work and study in London. If the government is unable to provide this flexibility, then the Mayor is calling for cities such as London to have greater influence over the immigration system so business have access to the international workers the economy needs.

### **Meeting the skills needs of business**

The Mayor has historically had relatively little influence over the skills system in London, but that is changing. Together with LEAP, he has access to capital funding from the government to improve the facilities and equipment of colleges and other providers of Further Education (via the [Skills for Londoners Capital Fund](#)); and from 2019/20 the **19+ Adult Education Budget (AEB)** will be devolved to the Mayor.

Using these new powers and working with stakeholders, the Mayor wants to develop a new, world-class skills and education system that meets the long-term needs of businesses and London's economy. This will include addressing skills gaps and shortages, low levels of productivity in some sectors and occupations, and helping Londoners to adapt to structural changes in the jobs market such as the need for digital skills (see the Digital Talent Programme case study), up-skilling and re-skilling.

Devolution of these new powers is welcome, but London needs a comprehensive approach to ensure that every Londoner has access to high-quality learning responsive to the needs of London's economy now and in the future. To achieve this, local leaders need more powers and greater control over 16-18 funding, apprenticeships and careers. The Mayor and London's boroughs are calling on government to devolve these powers to London government.

The Mayor will set out in the **London Skills Strategy** his vision and objectives for a world-class skills and adult education offer in London. The strategy focuses on education and skills for people aged 16 and over, with a particular focus on technical (vocational) skills, as well as progression pathways from school into Further and Higher Education and employment. He has established the [Skills for Londoners \(SfL\) taskforce](#) to oversee the development of the strategy. He will work closely with employers, organisations in the skills and employment sector, London's boroughs and Londoners themselves to identify skills and employment needs to create a more responsive system.

## THE MAYOR'S DIGITAL TALENT PROGRAMME

London's economy is becoming increasingly digital and requires a workforce with a new set of skills. The Mayor's Digital Talent programme will inspire and prepare more young Londoners for the digitally-skilled occupations needed by all sectors of the economy. The programme will increase the volume and quality of training in digital technology by funding new courses designed by industry. It will support 16-24 year

olds and have a strong focus on addressing the under-representation of women and BAME Londoners in the tech workforce. This programme will support collaboration between training providers, Further Education colleges, Higher Education Institutions and employers to ensure the curriculum remains responsive to labour market needs. For more information see the [Mayor's Digital Talent Programme](#).

### **High quality apprenticeships**

Apprenticeships provide an opportunity for people to train on the job and to achieve a nationally recognised qualification at intermediate, advanced, higher or degree level. Apprenticeships are now funded by a levy on large employers equivalent to 0.5 per cent of their pay bill. The Mayor believes that the apprenticeship levy should be devolved to London's government in order to fund a wide range of skills and employment initiatives in the capital, as decided by London's government. In the longer term, it should be for London's government to decide whether or not to retain such a levy, at what rate and how it should be spent, in consultation with business. More immediately, the Mayor calls for any unspent levy raised by London's employers to be ring-fenced for the benefit of London and for a proportion of the unspent levy raised by London based employers to be devolved to London government for more flexible Apprenticeship delivery and wider skills and employment initiatives.

The Mayor will work with levy paying employers to ensure their contributions have maximum impact, helping employers to create apprenticeships which offer opportunities to all, including

individuals from underrepresented groups; and provide the types of skills required by London's economy. Across all sectors there is a need to ensure **high quality apprenticeships** are developed in partnership with business, and to encourage the provision and take up of higher and degree level Apprenticeships which will help to improve productivity.

### **Better quality learning environments**

The quality of the learning environment can make a difference to students in their learning, helping with their engagement, motivation to learn, sense of belonging and personal safety. The Mayor will use the **Skills for Londoners Capital Fund** to help improve the quality of facilities and spaces for learning in London. These need to be responsive and adaptable to current and future requirements of employers and learners. Facilities should support progression to the highest levels of vocational and technical study (including apprenticeships) and demonstrate collaboration with employers, schools, other education providers and local authorities. The fund will also support the implementation of recommendations from the national government-led Area Review of the Further Education sector in London.

## THE MAYOR'S CONSTRUCTION ACADEMY SCHEME

If London is to address its shortage of homes, a major programme of house building will be required. However, the construction sector doesn't have enough people with the necessary skills to deliver the scale of homes now needed. As part of a wider strategy to address London's housing crisis, the Mayor has pledged to establish a construction academy scheme with the housebuilding industry, to address the need for more skilled construction workers

in London. This will include capital funding to develop better quality environments for training provision supported by the construction academy scheme. The scheme will create opportunities for many more Londoners to find work and progress their careers in the construction sector and will include a focus on those groups who are currently under-represented in the sector such as women and BAME communities.

## SUMMARY OF ACTIONS

The Mayor will:

1. Promote the strengths of London's research base to businesses, investors and global partners.
2. Use the Adult Education Budget, once devolved, to tailor skills provision to meet the needs of businesses and learners, and to support progression into and within work.
3. Promote the provision and take-up of high quality (including higher level) apprenticeships by employers and providers, and investment in workforce progression.
4. Use the Skills for Londoners Capital Fund to improve the quality of facilities for learning.



The Mayor asks that:

- Government commits the UK to participation in European research networks, beyond the current Horizon 2020 programme, including the prestigious **European Research Council (ERC)** grants. If unsuccessful, the Government must ensure equivalent research funding opportunities for our higher education institutions.
- Government prioritises a flexible immigration system – one that strengthens London’s international competitiveness, and which includes:
  - A clear post-study work offer to international students, one that can support start-up and SME innovation and growth.
  - Removal of international students from the annual net migration target.
  - Wider opportunities for freelance talent, in particular in tech and creative industries, to work as self-employed.
  - Adoption of a pro-active approach to bringing global talent to the UK by reforming the current non-EU visa system.
- Government devolves the Apprenticeship Levy to the Mayor to fund skills and employment initiatives in the capital. In the longer term, it should be for London’s government to decide whether or not to retain such a levy, at what rate, and how it should be spent, in consultation with business.
- Businesses engage with providers to help inform the planning of future education provision and increase investment in workforce development.



#### 4.5 ENTERPRISE AND ENTREPRENEURSHIP

One of London's greatest strengths is the creativity and entrepreneurial spirit of Londoners. This can be found across the city from new pop-up shops or market stalls opening in town centres to businesses harnessing the latest disruptive technologies in emerging sectors like FinTech and CleanTech (see chapter 5). New firms spring up daily to take advantage of new opportunities in the economy. In a hyper connected digital world, entrepreneurs are more easily able to target global markets. London attracts investors from across the world who come to build or expand their business here.

Being in the capital gives entrepreneurs the best opportunity to find the skills, the funding, the networks and institutions they need to get their business idea off the ground. The Mayor wants businesses of all sizes and stages in their development to grow. Some start-ups and small businesses still face barriers to their growth, and the Mayor is determined to help break these down. He wants the whole environment in which to do business to be as pain free as possible, with barriers and obstacles in the way of entrepreneurs and growth removed.

#### Support for start-ups and SMEs

The **London Growth Hub**, funded through LEAP, London's Local Enterprise Partnership, is the business gateway to a range of support on offer to start-ups, SMEs and growth businesses. The online portal signposts to support and advice about: starting a business, accessing finance, finding the right people and premises, managing a business, and expanding into new markets. **Through the Growth Hub the Mayor will support a range of initiatives to help small businesses start, sustain and grow.** This will be done through a range of tools including online content, one-to-one support and masterclasses.

As part of the London Growth Hub offer, LEAP will fund a range of pilot projects that will support London's start-ups, SMEs and growing businesses in a range of topics that encourage their financial stability and release their growth potential. This will include support tailored to the needs of people from BAME backgrounds and women who often have particular difficulties in accessing finance for entrepreneurial activities.

The Mayor is keen to support propositions to attract businesses to outer boroughs, where there are opportunities for growth and physical expansion. He will continue to support schemes such as London & Partners' [Business Growth Programme](#) which supports SMEs to grow including firms looking to expand in the outer boroughs and across London. The programme provides tailored advice to firms with less than 250 employees in the life sciences, digital/tech, creative, media and telecoms sectors.

Through LEAP, the Mayor will explore ways in which he can support small businesses to connect with larger businesses, and for smaller businesses to connect with the public sector. These partnerships can help inform the services provided by all parties, as well as ensure small businesses gain better access to business opportunities.

### **Access to finance**

Businesses need access to capital to support their growth ambitions and external sources of finance are particularly important for a significant proportion of SMEs. London's banks, venture capitalists, angel investors and

its vast financial ecosystem all help to support enterprise in the city. Alternative forms of finance are also emerging, such as peer-to-peer business lending, invoice trading and debt-based securities. But some opportunities in the SME market are being missed. This is partly because banks and investors remain cautious since the financial crisis<sup>137</sup>. Gaps include micro loans, early stage venture capital, and debt and equity for established SMEs<sup>138</sup>. SMEs also need access to long-term, patient capital if they are to grow to become successful, mature UK companies.

To help **address the SME finance gap** in London, the Mayor will work with partners such as the European Investment Bank to establish a new [SME Fund](#). The fund will focus on those businesses seeking to scale-up and achieve their growth ambitions and those aiming for long-term sustainability. This will build on other GLA access to finance initiatives such as the [London Co-Investment Fund](#) that provides seed funding for fast-growing tech, science and digital start-ups; and the [CAN Early Intervention Fund](#), which provides affordable loans to socially minded social enterprises in London.

<sup>137</sup> The unmet demand for finance from SMEs in London is estimated to be between £300 million and £1.1 billion per year, assuming that between 10% and 40% respectively of the businesses seeking and unable to secure finance are viable. Based on research by Regeneris Consulting and European Investment Bank (2015).

<sup>138</sup> Regeneris Consulting and European Investment Bank (2015) 'Using Financial Instruments for SMEs in England in the 2014-2020 Programming Period: A study in support of the ex-ante assessment for the deployment of EU resources',

Certain groups, such as women, disabled people and people from BAME communities also face barriers in accessing finance. The Mayor will promote access to finance initiatives to raise awareness amongst under-represented groups and increase take up.

Over the coming years it will be critical that **Government increases the British Business Bank's role in London and in particular, commits to replacing the lost European Investment Fund (EIF) guarantees** as a result of the UK's departure from the EU. This funding is often the cornerstone investment when London's venture capital firms are raising funds to invest in businesses.

### **Business rates – a fairer system**

Business rates are a significant running cost for small businesses. Under the current system the rates paid by businesses are periodically revalued, usually every five years, to reflect changes in the property market. Rising property values in London mean that at the revaluation in 2017 some businesses faced sudden large increases in their rates with further sharp rises in future years expected. This is unfair on businesses for whom the increase in rateable value bears no reflection of the performance of their business.

The Mayor will continue to make the case to government for the **full devolution both of business rates revenues and also the local administration of the tax** including decisions over setting the multiplier, the determination of policies on reliefs and discounts and the revaluation process - as recommended by the London Finance Commission<sup>139</sup>. These types of controls are standard tools for city governments in many European and global countries. The Mayor will encourage the government to fully implement 100 per cent business rates retention by no later than April 2020. Following that, he would be able to examine options with London Councils to reform the system, designing a tax framework which recognises London's unique commercial property market and business make up. In the meantime, the Mayor will continue to lobby for reforms which can be introduced immediately.

### **Supporting more businesses to export**

As a nation, we import more than we export. London is, however, the counterbalance to this due to the exceptionally high value of service exports from the capital. Therefore, ensuring this continues is crucial to the whole country's trade balance. As the UK leaves the EU, it will be even more important for businesses to explore new global trading opportunities, such as in emerging markets like China and India.

<sup>139</sup> London Finance Commission (2017) '[Devolution: a capital idea](#)'

**The Mayor will develop a London Trade Strategy** with the UK government and London & Partners to strengthen global trading opportunities. He will aim to build stronger partnerships with cities in Europe and across the globe in order to foster trade links. The Mayor will create an export programme tailored to the needs of London's businesses. He will continue to deliver his [International Business Programme](#) (MIBP) through London & Partners which supports companies to scale up and internationalise, as well as the **Business Growth Programme** which provides business support for foreign owned SMEs to grow.

#### **Attracting and retaining international investment**

The Mayor's promotional agency – [London & Partners](#) - promotes London internationally as the best city in the world to work, invest, start and scale a business, trade and study. This investment relies on London remaining open to international talent and international markets, on having a strong cultural offer and a competitive business environment.

The Mayor will continue to work with London & Partners to communicate London's offer to the world. He will lead international trade missions and campaigns, such as **#londonisopen**, to attract new foreign direct investment and forge stronger ties with other global cities to develop mutually beneficial trading links and expand business opportunities. As well as attracting firms to come to London, the Mayor and London & Partners will engage directly with businesses and develop targeted campaigns to retain businesses in the run up to the UK's departure from the European Union.

The Mayor funds a variety of organisations with a sector focus such as [MedCity](#), [Film London](#), [Games London](#), the [British Fashion Council](#) and the [London Design Festival](#). These sector organisations and other trade bodies all have a key role in promoting London's strengths at home and abroad, but rely on access to international talent (see chapter 5). Government must maintain a flexible approach to migration, prioritising remaining in the Single Market with qualified freedom of movement and reform of the UK's non-EEA visa system, including the Tier 1 Entrepreneur route to support sector growth.



## SUMMARY OF ACTIONS

### The Mayor will:

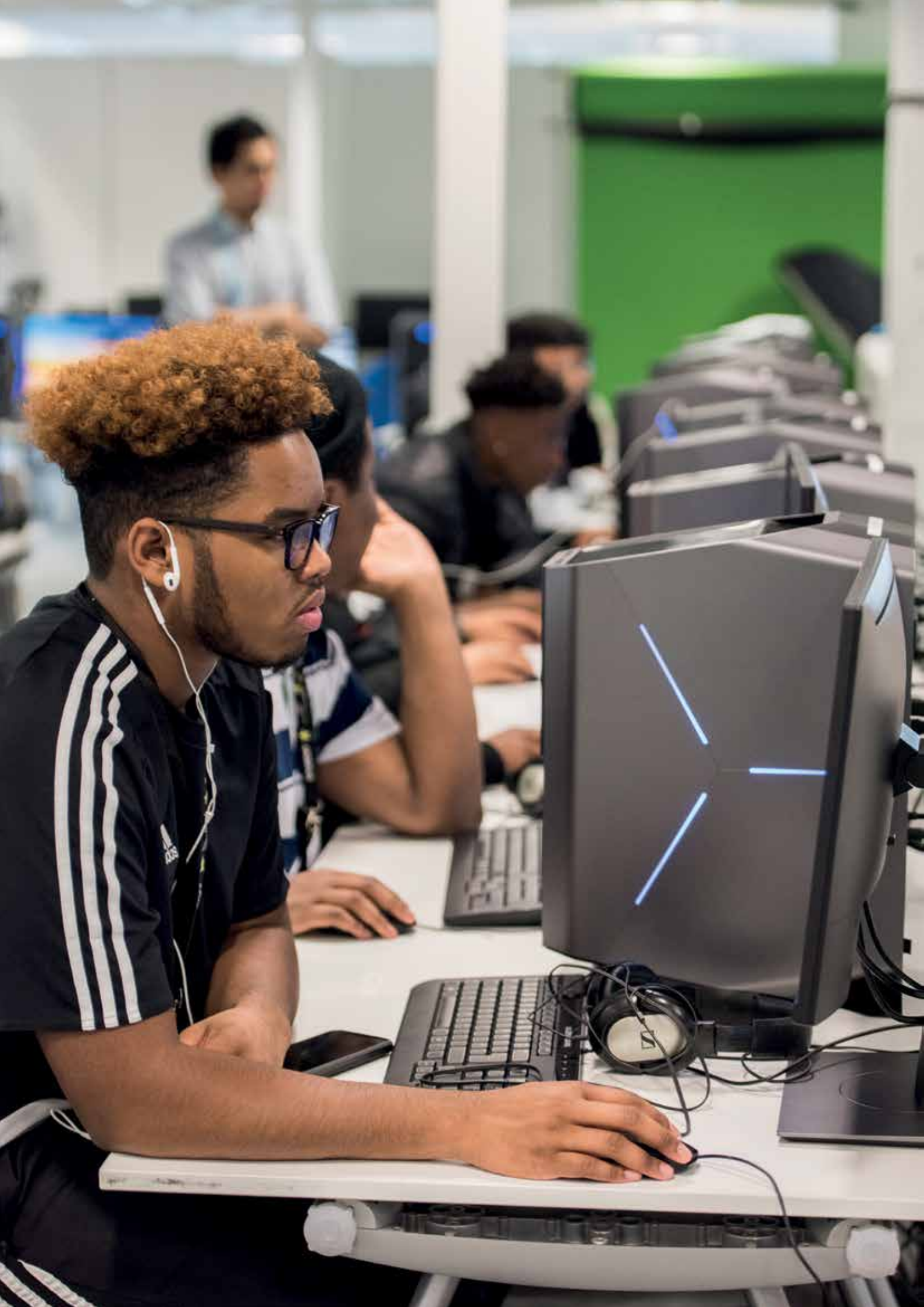
1. Work with London & Partners to attract and retain investment in London and support foreign-owned firms to expand through the Business Growth Programme.
2. Support start-ups and business growth across London through the Growth Hub and other initiatives.
3. Build on the successful London Co-investment Fund model by launching another early stage venture fund that targets high growth enterprises and addresses the funding gap facing high growth firms.
4. Support more businesses to export through the International Business Programme delivered by London & Partners and their private sector partners.

### The Mayor asks that:

- Government works with the GLA and London & Partners to develop a joint export strategy to support London's current exporters to succeed in overseas markets and develop the appetite and capacity of more businesses to export.
- Government maintains a flexible approach to migration, prioritising remaining in the Single Market with qualified freedom of movement and reform of the UK's non-EEA visa system, including the Tier 1 Entrepreneur route.
- Government provides additional, multi-year funding to support the further development of London's Growth Hub to deliver face-to-face triage and advice to London's entrepreneurs and growing businesses.



- Business support providers work with the London Growth Hub to help coordinate London's business support offer to ensure an easy-to-access offer is available for businesses in the capital.
- Government increases the British Business Bank's role in London and in particular, commits to replace the lost European Investment Fund (EIF) guarantees lost as a result of the UK's departure from the EU.
- Government ensures that current European Structural Funds dedicated to supporting business growth are continued to at least the same level and devolved to the Mayor.
- Government reviews the business rates system – to raise the rateable value at which small businesses pay no rates, offer exemptions for certain industries such as nurseries and childcare providers; and legislates to hold more frequent business rates revaluations.



## 5. Supporting London's sectors

The Mayor wants London's economy to continue to grow, but he also wants to shape the direction of growth and what it delivers for Londoners. He wants growth that is **more inclusive**, with less inequality and better health outcomes and wellbeing for all, as set out in chapter 3. And he wants growth that is **more sustainable** to make London a greener and cleaner city, as set out in chapter 4. He also wants growth that is **innovation-led** where London's businesses are leading the field in developing new products, services and technologies that will boost productivity.

Helping innovation to flourish requires putting in place a supportive environment for businesses across the whole economy, from investment in skills, research and infrastructure to providing finance and business support for entrepreneurs<sup>140</sup>. While it is important that all businesses are able to innovate and grow in London, the Mayor has identified a number of sectors that have an especially important role to play in helping to deliver his vision for the economy. These are sectors that bring wider benefits to London's economy and Londoners. They include:

- The **advanced urban services** sector, which is helping London to work more efficiently as a city.
- The **cultural and creative industries**, which contribute to the quality of life and wellbeing of Londoners and give the city a global stage.
- The **financial and business services** sector, which helps to underpin the workings of London's economy as well as the national and global economy.
- The **life sciences** sector, which is helping to address the major healthcare challenges facing society.
- The **low carbon and environmental goods and services** sector, which is supporting the transition to a low carbon economy.
- The **tech and digital** sector, which is helping to drive innovation across the economy and provides platforms for entire new industries, business models and services.
- **Tourism**, which gives London an international profile, attracting people from across the world, and showcases London as a diverse and open city.

<sup>140</sup> See Mazzucato M. and Perez C. (2014), '[Innovation as growth policy: the challenge for Europe](#)', Science Policy Research Unit Working Paper Series 2014-13.

London has developed an enviable global reputation in these industries. Businesses in the capital have specialised and traded globally in them. That is why securing strong trading relationships with the rest of the EU and the world after Brexit is so fundamental. They are sectors that are often complementary, cluster together, and have significant potential for further growth.

They are also sectors where the Mayor can have a strategic impact by providing leadership and setting out a clear vision. The Mayor will identify the strategic challenges facing London and encourage entrepreneurs and innovators to respond, incentivising them to provide innovative solutions to the issues global cities across the world face, such as climate change<sup>141</sup>. The Mayor can incentivise innovation in a number of ways: using his powers around regulation and planning; opening up data and establishing common standards; and through responsible procurement and investment by the GLA Group. For example, he will take all possible steps to divest the London Pension Fund Authority of its remaining investments in fossil-fuel industries and make more socially and environmentally responsible investments.

The Mayor will also support these sectors by addressing the specific 'market failures' or barriers that they face, such as a lack of coordination or information, which may be holding back collaboration or investment in R&D and skills. In all cases, the basis for the Mayor's interventions will be to make things happen that would otherwise not.

**Innovation and transformational change occur when different sectors collide so it is important that sectors are not considered in isolation**<sup>142</sup>. The interplay between different sectors is evident across London, such as in London's [Knowledge Quarter](#) and the [Queen Elizabeth Olympic Park](#). In these areas, the Mayor can help to provide the spaces, infrastructure and the right governance structures for different sectors to work side-by-side, and use his power of convening to bring the right partners together. The Mayor is keen to foster collaboration not just across different sectors and disciplines within London, but also across different cities in the UK and globally. In order to support this activity across and within cities the Mayor has lobbied for a proportion of innovation funds to be devolved to enable cities to respond in a more agile way to emerging opportunities, to more proactively support business growth needs, and maximise collaboration within and between different sectors and regions.

<sup>141</sup> For a discussion of the theory behind this challenge-led approach, see Mazzucato M. and Perez C. (2014), 'Innovation as growth policy: the challenge for Europe', Science Policy Research Unit Working Paper Series 2014-13.

<sup>142</sup> Ibid.

## SUMMARY OF ACTIONS

The Mayor asks that:

- Government devolves a proportion of its innovation funds directly to London, and other UK cities, to enable cities to respond in a more agile way

to emerging economic opportunities, to more proactively support business growth needs, and maximise collaboration within and between different sectors and regions <sup>143</sup>.

## THE KNOWLEDGE QUARTER

The Knowledge Quarter (KQ) is a partnership of 92 academic, cultural, research, scientific and media organisations located in a one-mile radius around King's Cross, Euston and Bloomsbury. Partners include the British Library, British Museum, Google, UCL, the Wellcome Trust and Springer Nature. Collectively, the geographic area of the Knowledge Quarter contains one of the greatest knowledge clusters anywhere in the world. Between them, these organisations collectively contain 580 research groups, 13,700 academic and research staff and 180 million catalogued items in museums, galleries and libraries.

There is no single dominant sector in the Knowledge Quarter. It contains leading clusters of activity in the fields of technology, architecture, audio-visual broadcasting, higher education, publishing, and scientific research and development. Activity spans a multitude of sectors which are

constantly evolving and converging. The Francis Crick Institute for example is creating a new focal point for medical and life sciences research whilst the arrival of the Alan Turing Institute is creating a new national hub in data sciences.

The KQ partnership was formed to foster collaboration between different organisations and shape the area as a world-class innovation district. It has established links between: universities and cultural organisations, research institutes and businesses, businesses and cultural organisations, and universities and start-ups. It has quickly become a national epicentre for multi-disciplinary collaborations. Examples include the British Museum and Google in the area of digital curation and the Wellcome Trust and Springer Nature in pioneering open access to research data. These interactions are supporting a thriving artificial intelligence and machine learning cluster to emerge.

<sup>143</sup> See the [Mayor of London's response to the Industrial Strategy](#).

## QUEEN ELIZABETH OLYMPIC PARK INNOVATION DISTRICT

The Queen Elizabeth Olympic Park is developing into an innovation district that is home to a cluster of academic institutions and businesses engaged in research, design, development and manufacture. These organisations are coalescing around a number of modern industrial sectors, including:

- Construction and the built environment.
- The automotive industry, including autonomous vehicles, low carbon engines and energy storage.
- Digital technology.
- Fashion and related creative businesses.

A cluster of expertise around the future of cities is emerging, comprising:

- The Digital Engineering and Test Centre – which is using virtual engineering tools and techniques to accelerate the development of automotive systems, helping to cut emissions.

- The Advanced Propulsion Centre - looking at electric drive chain development.
- UCL robotics – researching the application of autonomous systems in life sciences, healthcare, manufacturing and creative industries.
- The High Speed Sustainable Manufacturing Institute - looking at localised and circular economy value chains.
- The Future Living Lab – planned at Here East, centred around UCL's world-leading research in the design, development and operation of smart, sustainable cities.

**East Works** will work across the local community to develop the technical skills east Londoners need to be able to work in and to lead businesses in these sectors.

### **5.1 ADVANCED URBAN SERVICES**

London is a world leader in services such as architecture, urban design, planning, engineering, property development, energy and transport. London's architects and engineers have designed and built some of the most iconic buildings and infrastructure across the globe. The application of new technologies such as the 'internet of things', big data and predictive analysis to these disciplines is creating new advanced urban services. These services have the potential to make cities work better, or 'smarter', so they become more productive, sustainable and liveable.

New technologies also promise to radically improve the services governments provide to citizens, helping to make them more inclusive. Over half of Londoners today navigate the tubes, buses, and trains using one or more of the 400 mobile apps made using TfL's open data. In the future, technologies like immersive virtual reality will be used to engage Londoners in how they want their city to work, and in some cases to co-design, deliver and manage city spaces making them more accessible, efficient and responsive to the needs of Londoners.







The Mayor has set out his ambition for London to become the smartest city in the world. To this end, he will work with his Chief Digital Officer and the [Smart London Board](#) to help secure London's position at the forefront of innovation in advanced urban services and 'smart cities', starting by publishing a **Smart London Plan**.

#### **Open data and common standards**

When TfL opened up its data and services to software developers it stimulated a wave of innovation. Hundreds of smartphone apps were developed helping Londoners move around the city more easily and efficiently. Following this example, the Mayor has put open data at the heart of London's government. Through the London Datastore, the GLA continues to make more of its data accessible to the public.

A significant amount of data is collected and processed by London's local authorities and other public bodies but not always on a consistent basis, making it harder to analyse and use. The Mayor will help to develop common standards for data collection and digital platforms between public agencies. These common standards are needed so the public sector can take on new and innovative digital products to make London a leader in new digital public services. Collaboration between the boroughs, public service providers, central government departments and the Government Digital Service, including the new GovTech Catalyst, will be required to make this a success. Bringing data together from across different agencies and opening it up will enable better services, more efficient government, and greater transparency. As a priority, the Mayor will **launch challenges** around data held by public organisations, **co-invest with London boroughs in secure data sharing** and work to build trust with Londoners in **data privacy and security**.

### **THE LONDON DATASTORE**

The [London Datastore](#) is a free and open data-sharing portal where anyone can access data relating to the capital. In July 2015, the Datastore won the prestigious Open Data Publisher Award from the International Open Data Institute. The Datastore

provides over 700 datasets on many different aspects of London's economy and society. It is widely used by nearly 70,000 citizens, businesses, researchers and developers each month.

Effective and secure ways of sharing data are needed to create more efficient and inclusive city services. Moving to city-wide cloud computing will help to create common digital applications and services that can be built and shared by all boroughs, enabling significant savings. It will also make it easier for services to be made available on a consistent basis throughout London and open up greater opportunities for innovation.

#### **The city as a testbed for new ideas**

London's growth will continue to put a strain on its housing, healthcare, transport and wider infrastructure. It also threatens the environment. Applying data and technology-driven solutions to urban services will help London to manage these challenges better. The Mayor wants to work with businesses and academia in the advanced urban services sector to find innovative solutions to London's growth challenges. He will **support the creation of 'GovTech' incubators** and accelerators to bring the best ideas in digital public services to market, and he will support investment in urban demonstrators to showcase these solutions across the city, which if successful will be exported to other global cities.

It will take patient, committed finance to fund technologies that improve city infrastructure. The Mayor will champion a smarter, more capable public sector that is willing to share risk with the private sector in order to develop new technologies. Through the Horizon 2020 programme, the GLA has secured €25 million to support new digital technologies in transport and energy (see case study). The public procurement power of the GLA Group, the boroughs and public services will create further demand and opportunities for co-investment in digitalised public services and smart city technologies. In these ways, the Mayor can help to increase business investment in sustainable energy, transport and other areas.

## BUILDING THE CITY'S RESILIENCE TO DISRUPTION

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Adapting quickly to disruption is important for managing all of the city's infrastructure from transport to energy and mobile networks. To investigate this, the Lloyd's Register Foundation and The Alan Turing Institute have partnered on a major initiative in data-centric engineering. Researchers are building software that learns from past events how people adapt when a disruption occurs. This has the potential to improve the resilience of

the system, informing how different communication strategies may help users respond. For example, the Institute is working with UCL and Harvard University to analyse the structure of passenger movement in the London Underground. Similar initiatives are underway in partnership with the National Grid to analyse the gas network and with telecoms providers to analyse mobile phone networks.

## SHARING CITIES (HORIZON 2020 PROGRAMME)

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The Mayor is delivering [Sharing Cities](#), a European Commission initiative that aims to develop, deploy and integrate smart solutions in three demonstrator cities of London, Milan and Lisbon. A range of smart technology is being piloted such as smart lampposts, Sustainable Energy Management Systems (which promote the self-

supply of energy from renewable sources and energy efficiency initiatives), and infrastructure for electric vehicles. A Digital Social Bond is also being designed that will put money in the hands of Londoners and community groups that use new energy systems and electric bicycles and cars.

## SUMMARY OF ACTIONS

The Mayor will:

1. Identify key social, economic and environmental challenges and call on London's entrepreneurs to innovate with data and technology to help solve them.
2. Support investment in urban demonstrators to showcase digital technologies across the city, and work with London boroughs and investors to bring these to market for the benefit of Londoners.
3. Establish new digital leadership with the Smart London Board and publish a new Smart London Plan to make London the smartest city in the world. This will include:
  - Using the London Plan to enable smart technology to be incorporated into new developments and infrastructure.
  - Enabling common standards and open approaches to data and procurement for digital services enabling products and services to scale.

- Making data safer and able to be used more effectively by better data sharing, and personal- or cyber- security.

4. Support the creation of GovTech incubators to bring the best ideas to market in digital public services, helping London's residents and businesses to access and use public services and information more easily.

The Mayor asks that:

- Government departments, including the Government Digital Service and GovTech Catalyst, collaborate with the Mayor and the Boroughs to improve digital public services and smart city technologies.
- Local Authorities develop data sharing agreements and common data standards so businesses can more easily develop and scale digital public services.
- Businesses engage with the public sector to understand the challenges London is facing and innovate with data to identify solutions.



## 5.2 CULTURE AND CREATIVE INDUSTRIES

London is a leading creative capital, which attracts talent and enterprise from all over the world. London now has the third largest film industry globally. It is home to internationally recognised fashion labels and is a centre for product design excellence. Across these and many more creative industries like publishing and advertising, London's businesses are leaders in their field. The creative economy is estimated to provide one in six jobs in London and the creative industries generate around £42 billion for the London economy<sup>144</sup>. It is also one of London's fastest growing sectors<sup>145</sup>.

Culture and heritage are part of the capital's identity. London has internationally recognised museums and theatres including the West End theatre district, music venues and clubs, four UNESCO world heritage sites, and non-traditional cultural offerings like pubs, skate parks, and street art. These play a huge part in the city's global appeal - four out of five tourists say culture is the main reason for their visit to London<sup>146</sup>, and it plays a huge part in bringing people to London to work, study or invest. Culture matters not just to London's international profile

but because it makes people healthier and happier<sup>147</sup> so it is important that all Londoners can enjoy it.

The city's status as a creative and cultural capital cannot be taken for granted and in some areas it is under threat. London lacks larger state-of-the-art facilities for production meaning investment can get turned away. Emerging technologies such as virtual and augmented reality and 3D printing are growing at pace in their own right and need fit for purpose spaces to experiment. Creative businesses are also concerned that the UK's departure from the EU could stem the flow of international talent (see chapter 2 for the Mayor's position on Brexit) while arts subjects in schools are deprioritised.

London's cultural offer is also being eroded. Artists and creatives are being pushed out of the capital by rising rents and the shortage of workspace<sup>148</sup>. Up and coming talent is struggling to find places to perform as grassroots music venues are being lost<sup>149</sup>. London's pubs are also being lost at an alarming rate<sup>150</sup>. Rising rents, business rates, or tensions with new developments over noise are common reasons given by owners forced to close.

<sup>144</sup> Data for 2015. For the statistical definition and calculations, see GLA Economics (2017), '[The creative industries in London – 2017 update](#)' Working Paper 89.

<sup>145</sup> Between 2010-2015, Gross Valued Added in the Creative Industries grew by 5.5 per cent in nominal terms compared to an average of 4.6 per cent for all industries in London.

<sup>146</sup> Mayor of London (2015), '[Take a closer look: a cultural tourism vision for London 2015-2017](#)'.

<sup>147</sup> See the [What Works Centre for Wellbeing](#) for evidence on the impact of sport and culture on wellbeing.

<sup>148</sup> Greater London Authority (2014), '[Artists' workspace study, report and recommendations September 2014](#)'.

<sup>149</sup> Greater London Authority (2015), '[London's grassroots music venues: rescue plan](#)'.

<sup>150</sup> GLA Economics (2017), '[Closing time: London's public houses](#)', Current Issues Note 53.

Investment and coordinated action is needed to sustain London's position as a creative capital. The Mayor's plans will be set out in detail in his Culture Strategy.

### **A creative world city**

The Mayor will **support London's creative and cultural sector to continue making and exporting the best products and services in the world.**

[British Fashion Council](#), [Film London](#), [London Design Festival](#) and [Games London](#) deliver major promotional and trade events showcasing London's talents to the world. As part of his creative industries investment programme, the Mayor will continue to fund these activities, however there is scope to do more to promote London's music industry and heritage.

## **GAMES LONDON**

The video games sector in London is a vibrant part of the creative economy. There are over 500 companies creating mobile games, virtual reality experiences, augmented reality content, PC/console entertainment and e-sports. UK consumer spending on games was almost £4.5 billion in 2016.

The Games Finance Market takes place every year as part of the [London Games Festival](#), delivered by Games

London. It is the only market event in the UK that connects content creators in the video games and interactive sectors with investors and publishers. The Market is estimated to have unlocked over £25 million of potential business so far. Games London's wider business programme – which included outbound missions and in-bound 'familiarisation trips' – has delivered a further £10 million in signed business deals.



The Mayor wants to see more creative businesses engaged in his International Business Programme. He will work through London & Partners to broker these new relationships with creative entrepreneurs and businesses to showcase the best of London's creativity.

There is significant capacity and potential for growth in East London to strengthen London's creative and cultural offer. In partnership with the [South East Local Enterprise Partnership](#), the Mayor has launched a bold vision for a [Thames Estuary Production Corridor](#) stretching from East London through to north Kent and south Essex. The vision is for this area to become a world-class centre for production, developing talent and building infrastructure to support digital, creative and cultural businesses. The Corridor will be a network of large-scale production facilities and clusters, dispersed along 200 miles of land lining the River Thames to support creative production, manufacturing and innovation. The aim is for it to be

underpinned by a digital highway which will test and promote the newest and fastest digital connectivity that creative enterprises require. It will also pilot a blueprint for technical education, putting skills and local talent development at the heart of the vision.

Within London a centrepiece of the corridor will be the [Culture and Education District](#) at the Queen Elizabeth Olympic Park. This area will be home to internationally renowned culture and education institutions, including the London College of Fashion, University College London (UCL), the Victoria and Albert Museum, the Smithsonian, and Sadler's Wells theatre. The relocation of the London College of Fashion will mean over 5,000 fashion students studying in this area. Building on East London's rich fashion and craft heritage and focusing on innovative new fashion products and services there is potential for a cluster to emerge which could transform the sector.

## EAST LONDON FASHION CLUSTER

Initiated by London College of Fashion, and supported by the Mayor of London, a partnership consisting of UKFT (UK Fashion & Textiles Association), BFC (British Fashion Council), LLDC, and Poplar HARCA has united around a shared ambition to retain and strengthen London's status as a global fashion capital.

The East London Fashion Cluster (ELFC) partnership aims to capitalise on east London's historic and re-emerging status as a centre for fashion innovation, design,

manufacture and retail, as well as the opportunities presented by the imminent relocation of the London College of Fashion to Stratford Waterfront.

The partnership has developed a broad-ranging Action Plan to support the sector. It aims to tackle a range of structural issues facing the sector, including access to finance, affordable space and skills. The aim is to create a more resilient fashion sector in London with the capacity to innovate across the value chain.

The Royal Docks Business Enterprise Zone will be another focal point of the corridor (see chapter 4.1). The Mayor and Newham Council are working together to embed culture within the plans for the zone. Next door, [City Island](#) will soon be the new home of English National Ballet's company and school, offering training and rehearsal facilities. Dagenham Riverside is another area of opportunity where the potential for a film studio is being explored. The Mayor will work with stakeholders to turn the vision for the Thames Estuary Production Corridor into reality.

### Hardwiring culture into the capital

The Mayor believes that London should have a wide range of cultural infrastructure embedded within the city so that artists, Londoners, and visitors to the city are surrounded by the best culture in the world. The new London Plan will be the most **pro-culture London Plan** ever, offering greater protection for cultural venues and facilities in London. Through a new Cultural Infrastructure Plan, the Mayor will map London's cultural assets for the first time to identify what is needed to support the sector. This will cover both places where culture is consumed and produced,

such as theatre production spaces and recording studios. These are two equally important interrelated aspects of culture and the creative industries in London.

The Mayor will protect and strengthen London's cultural assets through strategic investments in facilities like the Museum of London and through planning policies. The new London Plan will be the most pro-culture London Plan ever, offering greater protection for cultural venues and facilities in London.

More and more, the Mayor hears from creative Londoners who must relocate due to rising rents and business rates, or whose workspaces are being converted into housing. The Mayor is calling on the Valuation Office Agency to review its valuation policy for businesses linked to London's night time economy including pubs, restaurants, clubs, live music venues and other licensed premises. The Mayor is concerned, following the 2017 revaluation, that many ratepayers within these sectors – particularly in central London – have seen disproportionately large increases in their valuations.

In response to the pressures facing London's cultural and creative sector, the Mayor will also pilot the development of

London's first ever **Creative Enterprise Zones**. Working with local authorities, creative businesses and cultural organisations, the Mayor will help artists and creative businesses to put down roots in these areas, ensuring that they can sustain their businesses, continue to grow and support the local economy.

Alongside this, the Mayor is exploring options for a **Creative Land Trust** which will safeguard affordable creative workspace in the long-term. The Creative Land Trust will acquire property to lease to studio providers, and will support providers to acquire property directly, supporting them to participate more proactively in London's dynamic property market and ensuring a significant increase in permanent affordable workspace in the city.

### **Creative Londoners**

London is home to world famous museums, galleries and music venues but only a third of Londoners feel they make the most of the culture on their doorstep<sup>151</sup>. The Mayor wants every Londoner to feel able to access London's arts and culture. He will work with all those who share his vision to engage more of London's communities by:

<sup>151</sup> GLA Intelligence, Headline Insights, December 2016 You Gov Poll

- Establishing a **London Borough of Culture competition** so that every year a different borough is the focus of a celebration of the city's arts and culture.
- Launching a **Love London** campaign to help more Londoners access arts and culture.
- Backing major cultural festivals to celebrate London's diverse population.
- Establishing a Culture Seeds fund providing micro grants to grassroots communities and social entrepreneurs to turn their ideas for cultural activity into reality.

London's cultural and creative industries will be a major source of future jobs in the capital. The nature of these jobs means they cannot easily be automated or replaced through robotics<sup>152</sup>. The Mayor wants all Londoners to be able to access employment opportunities in the creative and cultural industries and for businesses to be able to find the talent they need. As well as continuing to lobby for a Brexit deal in Londoners' interests, the Mayor will develop a Creative Industries Skills Plan, starting with the screen industries. He will also promote culture in education. For example, the Mayor is Patron of the London Music Fund, which gives talented children from low income families the chance to learn musical instruments.

<sup>152</sup> According to research by Nesta, 87 per cent of creative occupations are at very low risk of automation in the next 50 years. See Nesta (2015), '[Creativity vs robots: the creative economy and the future of employment](#)'.





## A 24-HOUR CITY

London's night time economy is a vital part of its offer as a 21st century global city. The city's diverse night time offer, from theatres and pubs, to restaurants, music venues and nightclubs is second to none. The Mayor believes London's night time economy can offer even more. He has published his vision for London to become a truly 24-hour city<sup>153</sup>, one which is welcoming and accessible for all. This encompasses a whole range of activities and services, from museums and theatres opening later, to late night shopping, and round-the-clock health services. When all these are considered, London's night time economy is estimated to contribute around £26 billion to the economy, accounting for one in eight jobs<sup>154</sup>.

There is significant potential to strengthen London's night time offer. The launch of the Night Tube has made it far easier for people to travel for leisure or work on Friday and Saturday nights. Working patterns are also changing. Increasingly, people want to be able to access services, whether that's gyms, libraries or health services, outside regular hours. Those employed in hospitals, call centres,

transport or policing may work at any time of day or night and need access to services during different hours. Using the full 24-hour cycle could help to relieve pressure on the city at peaks hours. For example, moving freight later into the night could help to reduce congestion and improve air quality during the day.

As the city grows, the night time economy needs to be carefully and positively planned. The Culture and Night Time Economy Supplementary Planning Guidance is designed to ensure that planning policy is used as effectively as possible to promote, protect and manage London's nightlife<sup>155,156</sup>. Through their planning, licensing, culture, regeneration, community safety and economic powers, local authorities have a powerful role to play in shaping London at night. The Mayor is encouraging London's borough councils to write their own night time economy and culture visions so that actions can be coordinated from a pan-London to a local level. Businesses, the police, the NHS, and residents are also vital partners in making London a truly 24-hour city.

<sup>153</sup> Mayor of London (2017), 'From good night to great night: a vision for London as a 24-hour city'.

<sup>154</sup> London First and EY (2016), 'London's 24 hour economy: the economic value of London's 24 hour economy'. London's night-time economy contributed between £17.7bn and £26.3bn in Gross Value Added (GVA) to the economy in 2014.

<sup>155</sup> Mayor of London (2017), 'Culture and the night time economy supplementary planning guidance: draft for public consultation'.

<sup>156</sup> This includes mitigation measures to minimise the noise and vibration levels caused by the night time economy, increased development and transport activity through the Mayor's Environment Strategy.

## SUMMARY OF ACTIONS

The Mayor will:

1. Work to secure investment in the development of the Thames Estuary Production Corridor and prepare a blueprint for technical education.
2. Publish a Cultural Infrastructure Plan to identify what London needs to retain its world leading status as a creative capital and ensure Londoners have access to culture.
3. Promote and support the sector through agencies and trade bodies like the British Fashion Council, Film London, London Design Festival, Games London and London & Partners.
4. Protect London's heritage and culture through a pro-culture London Plan.
5. Support the provision of affordable creative workspace exploring options for a Creative Land Trust and piloting Creative Enterprise Zones.
6. Help more Londoners to engage in culture through the London Borough of Culture competition, Love London campaign and the promotion of culture in education.

7. Continue to back major cultural festivals to celebrate London's diverse population.
8. Promote the night time economy in line with the vision for London as a 24-hour city.

The Mayor asks that:

- Government recognises London's global position as a creative capital and invests in its world leading creative and cultural industries, reflecting London's role as a gateway to the rest of the UK.
- Government creates an immigration system that supports and safeguards the future success of the creative industries, including enabling wider opportunities for non-EEA creative freelance talent to work as self-employed.
- The Valuation Office Agency reviews its valuation policy for businesses linked to London's night time economy including pubs, restaurants, clubs, live music venues and other licensed premises.

### 5.3 FINANCIAL AND BUSINESS SERVICES

London is a truly global hub for financial and professional services. It is the largest exporter of financial services in the world<sup>157</sup> and has the most competitive financial ecosystem in the world<sup>158</sup>. The finance sector handles huge flows of capital, playing a critical role underpinning the workings of London's economy and the wider national and global economy. London is home to anchor institutions like the Bank of England, the Financial Conduct Authority, global headquarters of large international banks, and insurance houses.

London also has a diverse range of professional and business services companies. These include legal services, accounting services and management consultancy firms for example. Five of the world's ten largest law firms by revenues are headquartered here<sup>159</sup>, and it is the busiest international market for legal services. London is also home to some of the biggest accounting firms globally, who between them handle the majority of audits for public and private sector companies in the UK.

Financial and professional services make a huge contribution to London's economy and also the UK's. The

economic output generated by the finance and insurance sector alone in London was worth £61.7 billion in 2015, equivalent to 16.3 per cent of the London total<sup>160</sup>. The business services sector accounts for a further £65.6 billion<sup>161</sup>. Financial and professional services in London are also vital for the UK's exports. It is estimated that London exported £28.3 billion of financial services in 2015 - more than half of the UK's financial services exports<sup>162</sup>. They are also a major source of tax revenue for the Government. The City of London estimated that the total tax contribution of the UK's financial services sector was £71.4 billion in 2015/16, which represents 11.5 per cent of the Government's total tax receipts<sup>163</sup>. Around half of the economic output generated by the UK's financial services sector is generated in London<sup>164</sup>.

Business services (including real estate) provided 1.5 million jobs in London in 2016, just over a quarter of all the jobs in the capital<sup>165</sup>. A further 370,000 jobs in London are based in the financial and insurance sector. Business services are expected to be the main source of jobs growth in London over the coming years. Around 600,000 net additional jobs are expected in the sector by 2041, around a third of the jobs growth expected in London.

<sup>157</sup> TheCityUK (2016), 'Key facts about the UK as an international financial centre'.

<sup>158</sup> Z/YEN (2017), 'The Global Financial Centre Index 21'.

<sup>159</sup> Legal Business (2017), 'The Global 100'.

<sup>160</sup> GLA Economics (2017), 'Regional, sub-regional and local gross value added estimates for London, 1997-2015', Current Issues Notre 52.

<sup>161</sup> GLA Economics (2017), 'Regional, sub-regional and local gross value added estimates for London, 1997-2015', Current Issues Notre 52.

<sup>162</sup> ONS Regionalised estimates of UK service exports

<sup>163</sup> PWC for City of London Corporation (2016), 'Total tax contribution of UK financial services', ninth edition.

<sup>164</sup> GLA Economics (2017), 'Regional, sub-regional and local gross value added estimates for London, 1997-2015', Current Issues Notre 52.

<sup>165</sup> All jobs figures sourced from GLA Economics (2017), 'Labour Market Projections 2017'.



## FINTECH

Technology is transforming the financial sector from the way trades are made to mobile banking services, inter-bank transfers and payments, and peer-to-peer lending. FinTech is the application of digital technologies to create, record, transfer and manage financial value and risk.

In the US, Silicon Valley boasts digital innovation, New York offers financial services and Washington DC is the centre for policymaking and regulation. In London, all these functions are concentrated in one city – making it a global test bed for FinTech innovation.

London has therefore emerged as a world-leader in FinTech. It provides access to more software developers than Stockholm, Berlin and Dublin combined. It is also home to Europe's largest FinTech accelerators like Barclays RISE and Level 39, and the FinTech Innovation Lab<sup>166</sup>. Another competitive advantage is a world-leading FinTech policy environment, which stems from supportive regulatory initiatives that promote innovation, tax incentives offered to investors that encourage investment, and regional and national government support programmes such as the Catapult centres or the Mayor's business programmes that foster collaboration and build networks.

FinTech start-ups are increasingly working on technologies that tap into disruptive technologies such as big data, analytics, cognitive computing, and distributed ledger technology<sup>167</sup> – which are all changing the face of one of the capital's largest sectors. The increasing volume of open source material available to start-ups has enabled them to focus on technological advances to improve customer experiences. Banks have been quick to embrace the AI revolution. For example, the launch of voice-activated assistants have opened up possibilities for making online banking easier for customers. The industry is at the start of what is being described as a robot revolution, making use of machine learning and big data applications to take on many of the less skilled tasks currently performed by humans in finance, while cutting costs and improving product offerings.

The move towards Open Banking<sup>168</sup> will mean that individuals will soon be able to instruct their bank to securely share standardised transactional and balance data from their accounts, with third party service providers<sup>169</sup>. This new market in data is expected to provide the catalyst for an explosion in FinTech services which could change the way Londoners experience banking entirely.



### **Sustaining London's position as a global financial services hub**

For London and the UK to continue to prosper, the financial services industry must continue to prosper too. But the city's status as a global hub for financial and business services cannot be taken for granted. London's competitors include New York, Hong Kong, Tokyo and Singapore, with Asian centres gaining in recent years. At the next level, Shanghai and Toronto are being joined by the likes of Istanbul and Dubai<sup>170</sup>. Greater competition provides the incentive for companies to innovate and improve services. Other pressures affecting the sector include the global decline in profitability, and the uncertainties and implications flowing from Brexit<sup>171</sup>.

The Mayor will do all he can to sustain London's position as a global financial hub. Through the actions and investments set out in chapter 4 he aims to create a competitive environment for the sector to operate in. This includes investing in infrastructure and skills, and **helping to ensure London has sufficient office space** available in the right locations and at competitive rents to enable growth of the sector. Together with London & Partners, the City of London Corporation and TheCityUK,

the Mayor will help to showcase and promote London's strengths to the world in financial and business services.

The Mayor will continue to **lobby government for a Brexit deal which enables London's financial and business services sector to continue to access skilled labour from Europe and to trade within the Single Market.**

If the proper agreements aren't reached, a number of financial institutions have made it clear they may need to move some of their operations. This could have serious knock-on impacts in terms of lost jobs and revenue – something that would impact on the entire country, not just London.

For all the advantages of having such a deeply specialised and globally successful financial industry, some entrepreneurs still report that they struggle to find the 'patient capital' (long-term investment) they need to support their growth. The Mayor has set up a number of funds to improve access to finance (see chapter 4.6), such as the [London Co-investment Fund](#), and will **explore the potential for more funds to help London firms reach scale.**

<sup>166</sup> The FinTech Innovation Lab is managed by Accenture in collaboration with London's financial service institutions, angel investors and venture capital firms to help start-ups directly test their FinTech proposition with world leading financial firms.

<sup>167</sup> A distributed ledger is a database shared between independent, often competing, organisations or banks where mutual access is required. Each party has a copy of the same ledger, which means that none can individually alter the record in their own interests.

<sup>168</sup> Open Banking is an initiative of the Competition and Markets Authority which is intended to foster greater competition in retail banking, and will allow customers to access and spend their money through a host of new apps and services.

<sup>169</sup> FCA: New Regulated Payment Services: AIS and PIS

<sup>170</sup> The CityUK (2017), 'Key Facts about the UK as an international financial centre'.

<sup>171</sup> London First (2017), 'An Agenda for Jobs and Growth'.

## SUMMARY OF ACTIONS

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### The Mayor will:

1. Lobby on behalf of the sector for a Brexit deal which sustains mutual market access for UK and EU financial services companies.
2. Help to ensure London has sufficient office space in the right locations to support the growth of the sector.
3. Work with London & Partners, the City of London Corporation, TheCityUK, London First, the London Stock Exchange and other business leaders and stakeholders to showcase London's global strengths and support growth, including in FinTech and carbon finance.
4. Explore opportunities to build on the London Co-investment Fund and continue to leverage in venture capital for promising start-ups.

### The Mayor asks that:

- Government recognises and reflects the importance of the financial services sector to London and the UK in Brexit negotiations.
- The financial services sector works with FinTech firms to continue to innovate with new products and services to ensure London remains the financial services capital of the world.
- The financial services industry, including pension funds, corporate and private wealth managers take a bolder and more patient approach to deploying capital to take advantage of London's emerging expertise in new industries, supporting firms to scale up and grow.

## 5.4 LIFE SCIENCES

An ageing and growing population in London with more complex health needs means that the development of new products and services in life sciences is vital. Scientific research is the foundation of the life sciences sector and London has world class expertise and institutions which are helping to tackle some of the big health challenges in society including cancer, heart disease, diabetes and dementia. London, together with Oxford and Cambridge, form the '**Golden Triangle**' – a world-leading hub for life sciences with a rich network of renowned research centres, healthcare providers, medical charities, innovative SMEs and large industry players.

### World leading scientific research

The Golden Triangle is home to: four of the world's top ten universities; five out of seven of the UK's academic health science centres; leading medical research institutes and organisations such as the Francis Crick Institute, the Wellcome Trust, the Medical Research Council, the Institute of Cancer Research, and the national Cell and Gene Therapy Catapult. A number of new and planned investments are expanding the research capabilities of the sector. In London alone, these include:

- Queen Mary University of London's plans for a Life Sciences campus in Whitechapel, East London.
- The Institute of Cancer Research and London Borough of Sutton's plans for the London Cancer Hub campus in south London.
- King's College London's Advanced Therapies Centre - bringing together expertise in cell and gene therapy.
- The Headquarters for the UK Dementia Research (UKDRI) at UCL.

London and the wider region also offer an ideal base for clinical trials, with a highly diverse population of almost nine million, served by the National Health Service – a large single healthcare system that can facilitate access to extensive data.

It is vital that the science research and development base is supported to innovate and grow, both to improve health outcomes and boost the economy. London's life sciences industry now boasts over 1,300 life sciences companies in London alone, with a further 2,000 companies in the wider south-east<sup>172</sup>. In 2017, the sector in London and the wider south-east was estimated to generate £38.4 billion in turnover for the UK<sup>173</sup>.

<sup>172</sup> Figures from medcitymap.com.

<sup>173</sup> Figures from medcitymap.com accessed September 2017.

## THE FRANCIS CRICK INSTITUTE

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The Francis Crick Institute is a world-leading centre of biomedical research and innovation, with the scale, vision and expertise to tackle the most challenging scientific questions underpinning health and disease. In the second half of 2016, the Crick moved into its new £650 million purpose-built research centre in central London (next to St Pancras International), housing some 1,250 researchers and 250 support staff – making it the biggest single biomedical laboratory in Europe.

The Institute's work is helping to understand why disease develops and to find new ways to treat, diagnose and prevent illnesses such as cancer, heart disease, stroke, infections, and neurodegenerative diseases. It has applied for a license to be the first

in the world to edit the genomes of embryos for research purposes.

The institute is a unique partnership between the Medical Research Council (MRC), Cancer Research UK, the Wellcome Trust, UCL (University College London), Imperial College London and King's College London, and GlaxoSmithKline. The Crick's strategy is to collaborate openly in the early stages of research, bringing together the complementary approaches and expertise of the pharmaceutical industry and academia to the understanding of biological systems underlying disease. It will also help drive commercial activity in the UK through a strategy of 'translation', designed to move scientists' discoveries from the lab to the patient.

While London is home to some of the greatest scientific minds on the planet and a beacon for world-class research and development, some of our most entrepreneurial science and tech companies need support in order to transform their ideas into products that can help to tackle disease and save the NHS valuable resources. Some of the barriers facing the sector include:

- The need for greater provision of 'patient capital' (long-term investment, which is critical to growth in the life sciences sector, when drug development for example can take over 10 years).
- The need for affordable workspace to enable companies to grow and scale up in London, including 'wet' lab space<sup>174</sup>.
- Uncertainty over the future regulatory framework for the sector following the UK's planned departure from the European Union, and the ability to attract the global talent the sector needs, including international scientists.

The Mayor will help to create an environment that encourages life sciences firms to grow, supporting collaboration between research institutions and firms, and helping to commercialise the ideas being generated. This includes advances in digital health where there is significant potential for innovation in areas like robotics and artificial intelligence. Working with London & Partners and MedCity, **the Mayor will promote the region's expertise around the world.**

### MedCity

In 2014 [MedCity](#) - a collaboration between London, Cambridge and Oxford Academic Health Science Centres, co-funded by the Mayor - was created to address the core growth challenges facing the sector. MedCity promotes and grows the life sciences cluster across the wider south-east through:

- Providing a single front door and concierge service for industry and investors looking for partners, infrastructure and expertise.
- Facilitating and supporting collaboration across all parts of the sector to turn innovations into commercial products and services.

<sup>174</sup> Wet laboratories are laboratories where chemicals, drugs, or other material or biological matter are handled in liquid solutions or volatile phases, requiring direct ventilation, and specialized piped utilities.





- Fostering an environment that supports and encourages entrepreneurialism.
- Raising awareness globally of the region's rich life sciences ecosystem.

Over the period 2015-17 MedCity brought in approximately £6 million of investment and has built a community of investors across the wider south-east, enabling firms to raise £2.6 million, with follow-on funding contributing to a total of £12 million through the 'Angels in MedCity' programme<sup>175</sup>. From inception, MedCity has supported 350 customers to connect to partners, expertise, resources and workspace across the Golden Triangle.

### **Medical technology and digital health**

Technological advances and more sophisticated use of data offer the potential to revolutionise the healthcare sector. Everything from patient records, X-rays, pathology, images, genomics, healthcare management tools, and the input from a wide range of digital monitoring devices will soon be available

to healthcare providers digitally and will fundamentally change the way we think about human disease and how best to manage it<sup>176</sup>. New innovations are also likely to transform the way health systems operate. Growing pressures on the NHS mean the need for innovation in health services to make them more efficient and accessible to people has never been greater.

London is leading the way in many aspects of digital health innovation. For example, surgeons at Guy's and St Thomas' have pioneered the world's first use of 3D printing to support the successful transplantation of an adult kidney into a child. And the world's first operation to be broadcast via virtual reality was carried out at Bart's hospital.

To help exploit the potential of digital health, the Mayor will continue to support [DigitalHealth.London](#). Launched in 2016, the programme aims to speed up the development and scale up of digital innovations across health and care, and pioneer their adoption by the NHS.

<sup>175</sup> GVA (cumulative) of additional direct life sciences jobs resulting from the MedCity project, based on Year 1 FDI jobs - figure subject to review.

<sup>176</sup> Office for Life Sciences (2017), 'Life sciences industrial strategy – a report to the Government from the life sciences sector'.

## DIGITALHEALTH.LONDON ACCELERATOR

The DigitalHealth.London accelerator programme is delivered through London's Academic Health Science Networks, MedCity and [CW+ charity](#). Running over three years, the programme provides tailored support to around 80 SMEs. It helps these businesses to engage with clinicians and healthcare experts in the NHS, deepening their understanding of the health system in order to develop their products and services, refine their business models and support them in bringing them to market.

The Accelerator aims to seek out and support digital health start-ups and businesses with the greatest potential and the greatest relevance to the demands of the NHS. During its first year, it created 120 new jobs, attracted £15.1 million of new investment, and set up 50 new contracts and pilots with the NHS. The programme receives £1.7 million of matched funding from the European Regional Development Fund (ERDF) as part of the European Structural and Investment Funds Growth Programme.

Recognising the importance of **facilitating the safe use of NHS data for research**, the Mayor will support developments to the London Datastore (see chapter 5.1), to enable the progression from publishing open data to the secure storage and sharing of confidential data for research.

The Mayor also supports the growth of the wider medical technologies sector<sup>177</sup>, as part of a collaboration with MedCity and the South East Health Technologies Alliance. This collaboration – 'MedTech London', funded primarily by the Mayor - has responded to the sector's growth

needs through providing networking opportunities, support in accessing the market and training workshops. The foundations of this endeavour are the health technology companies, particularly SMEs, and the need to enable greater collaboration across the sector to spur further innovation and bring new products and services to market. London MedTech is currently piloting an approach to supporting business-to-business collaboration across the sector through its BigB2SME innovation programme, which will link SMEs up with corporate partners around key challenge areas.

<sup>177</sup> MedCity (2017), 'The London MedTech review and directory 2017'.

## SUMMARY OF ACTIONS

### The Mayor will:

1. Promote London and the wider south-east as a pioneer of life science innovation internationally.
2. Work with partners to explore options for the safe use of NHS data for research.
3. Continue to support collaboration across different sectors (such as digital health and MedTech) to meet healthcare challenges.
4. Help to increase the availability of long term 'patient' capital available to the sector.
5. Work with London boroughs, universities and research institutions, the NHS and other stakeholders to support the growth of new life sciences developments - from directly funding new innovation and workspace provision, to making the best use of publicly owned land, and using the Mayor's planning policy levers to facilitate future development.

### The Mayor asks that:

- Government supports industry to thrive post-Brexit through ensuring access to talent, close regulatory alignment with the EU and supporting firms to reach new international markets.
- Government supports MedCity to promote the sector internationally, as part of the national clusters approach, to lever the inward investment that will support UK wide growth.
- The NHS works with firms to identify innovative data-driven solutions to help solve London's health challenges.
- Investors, including pension funds, corporate and private wealth managers take a more patient approach to deploying capital in the life sciences sector, where drug development for example can take over 10 years.

## 5.5 LOW CARBON AND ENVIRONMENTAL GOODS AND SERVICES

Toxic air, noise pollution, the loss of green spaces and the adverse effects of climate change, all pose major risks to the health and wellbeing of Londoners and their city. In the draft [London Environment Strategy](#), the Mayor has set a bold vision to transform London's environment, including the following objectives:

- Air quality: London will have the best air quality of any major world city by 2050.
- Climate change and energy: London will be a zero carbon city with a zero emission transport network and zero carbon buildings. The city will be resilient to severe weather and longer term impacts such as flooding, heat risk and drought.
- Waste: London will be a zero waste city; 65 per cent of London's municipal waste will be recycled and the rest turned to energy.
- Green infrastructure: more than half of London's area will be green, and tree canopy cover will increase by 10 per cent.
- Noise: the number of people adversely affected by noise will be reduced, and more quiet and tranquil spaces will be promoted.

### Transitioning to a low carbon economy

There are tremendous opportunities for London's businesses and entrepreneurs in the market for low carbon and environmental goods and services. By setting these strategic environmental objectives and backing them up with robust policies for delivery, the Mayor will help to stimulate demand for these new products and services. Businesses have a critical role to play in finding innovative solutions to how cities and societies can grow sustainably and reduce their environmental footprint. There are opportunities to build on London's existing strengths in areas such as carbon finance, geothermal, wind energy, building technologies, alternative fuels, photovoltaics and waste management. London's low carbon and environmental goods and services sector was estimated to be worth £30.4 billion in sales to London's economy in 2014/15<sup>178</sup>.

The Mayor will support London businesses to develop the skills, knowledge, technology and expertise to be competitive in an increasingly low carbon economy, and promote the use of 'smarter' approaches to the delivery of services, using data and technology to improve city infrastructure, such as energy systems<sup>179</sup>.

<sup>178</sup> kMatrix (2015), 'The London low carbon market snapshot 2015'.

<sup>179</sup> Examples include encouraging the use of smart energy meters to manage and reduce energy use, smart heat networks capable of optimising their operating costs and carbon intensity by controlling their use of available heat sources, and smart 'lampposts' that can charge electric cars, locate a parking space, and supply Wi-Fi.

### **Making London a more resource efficient city**

London's businesses and households consume large amounts of energy, water, food and materials. With the scale of growth that is forecast it is vital that the consumption of finite natural resources is considerably reduced and that these resources are used more efficiently. The Mayor will promote the principles of the 'circular economy' where resources, materials and products are kept in the production cycle for as long as possible, extracting the maximum value from them whilst in use, then recovering and regenerating products and materials at the end of their life. The Mayor will support businesses to adopt the principles of the circular economy - reducing waste, improving resource recovery and reuse.

New technologies are making it easier for people to share products and services rather than having to buy them outright meaning goods and services can be used more efficiently during their lifecycle reducing waste. The Mayor, working with the [London Waste and Recycling Board \(LWARB\)](#), waste authorities and other stakeholders, will support Londoners and businesses to adopt the principles of a circular economy<sup>180</sup> and to reduce their carbon footprint. The Mayor's Environment Strategy sets out in further detail how he aims to cut waste and increase the rate of recycling (see also chapter 4.3 of this strategy).

### **Innovation and growth across London's CleanTech sector**

CleanTech includes a broad range of technology related to addressing the environmental impacts of our activities including recycling, renewable energy, water, green transportation, and more. London and the South East represent 42 per cent of the UK's CleanTech sales and the UK is second only to the USA in its sales of these technologies. Small CleanTech clusters are emerging across London, but the sector is fragmented, and growth has been driven by local need and advantage, rather than by a coherent strategy. The Mayor aims to provide strategic leadership to **bring the sector together, understand its needs and support its growth**. The Mayor will help to ensure the CleanTech sector operates in an environment where innovation can flourish, where collaboration is enabled – both across different sectors and disciplines, as well between different clusters nationally - and where ideas can be turned into products, services and business growth.

In West London, there is a unique opportunity for a new CleanTech cluster to emerge. The development of a major innovation campus by Imperial College at White City and the simultaneous long term redevelopment of Old Oak and Park Royal into a smart and sustainable district mean that CleanTech research and expertise will be both nurtured and put to use in this area. Bringing together

<sup>180</sup> See LWARB (2017), 'London's Circular Economy Route Map'.

Europe's top technical university and Europe's largest urban redevelopment opportunity has the clear potential to provide a home of global significance for the CleanTech sector.

Once the Elizabeth Line and HS2 are complete along with the links to Heathrow and the motorway system, this cluster will be positioned in the middle of the best communications and transportation infrastructure in the UK. The area could provide an international showcase not just for London's CleanTech sector, but through linking up with the UK's other CleanTech strengths, for the whole of the UK. The Mayor is supporting the regeneration and development of this area through the [Old Oak and Park Royal Development Corporation \(OPDC\)](#). Ideas for developing this opportunity include creating a **Centre for CleanTech** Innovation which would provide office, meeting and social space, and run joint UK city collaboration programmes to tackle city challenges, and link innovators with buyers. **The Mayor will also explore the potential to establish 'a proving factory'** - an early stage manufacturing facility to enable firms with growth potential to prototype their innovations.





## BETTER FUTURES

The Mayor of London has launched a £1.6 million incubator 'Better Futures', part-funded by the European Regional Development Fund, which will support over 100 London-based CleanTech small businesses with leadership and management support, access to co-working space and business support in areas such as marketing, supply chain and product development.

Some of the start-ups will also be offered the opportunity to collaborate on research with Imperial College London, via its Centre for CleanTech Innovation. The centre aims to support the development of a new economy based on low-carbon and resilient businesses. This activity will build on the work of the Climate-KIC Accelerator, which is run from Imperial College London. This programme of support takes promising teams with an excellent CleanTech idea and speeds up their transformation into a business ready for investment.

Over its first five years, the programme has graduated 35 CleanTech businesses who have won over \$120 million of investment and

created more than 500 jobs. Amongst those graduates are:

- Naked Energy, which is manufacturing and selling a technology that converts 90 per cent of the sun's energy into heat and electricity, replacing fossil fuel energy.
- Econic, which converts air into plastic using low energy catalysis, creating plastics that avoid the use of petroleum.
- ET Index, who have developed a stock market index that shows investors the climate change impact of their stocks.
- Open Utility, which has developed a system for allowing individuals to trade energy with other individuals, something that will allow us all to become renewable energy providers.
- Powervault, which manufactures a battery storage device that plugs into a photovoltaic system, thereby allowing you to generate electricity during the day and use it at night.



## SUMMARY OF ACTIONS

The Mayor will:

1. Set clear environmental ambitions for London and a roadmap for delivering them.
2. Support businesses and households to become more resource efficient.
3. Help to accelerate innovation in the CleanTech sector by assisting start-ups to test, prototype and commercialise their innovation in London.
4. Establish a Centre for CleanTech Innovation in West London – to provide workspace, collaboration space and business support.
5. Scope out the potential to establish 'a proving factory' - an early stage manufacturing facility to enable firms with growth potential to prototype their innovations.

6. Promote London's CleanTech proposition internationally with London & Partners to attract new anchor businesses and investment.

The Mayor asks that:

- Government works with cities to create a policy and regulatory framework that supports innovative firms to provide creative solutions to the environmental challenges cities face.
- Investors back London's CleanTech innovation, supporting start-up growth and helping to make the capital more liveable.
- Businesses engage in London's environmental challenges and provide innovative solutions.

## 5.6 TECH AND DIGITAL

As this chapter has shown, the transformational impact of digital technology touches all sectors of the economy. As more jobs and companies fall under what has been historically considered tech and digital, so the norms and best practice of those sectors need to be better understood.

The Mayor wants to see the benefits of digitisation shared by all Londoners, and for that process to take place in a way which protects London's citizens, consumers, companies and economic interests. This means sharing best practice across sectors, leading by example, and 'horizon scanning' for the opportunities and the social and economic impacts presented by new technologies and business models.

Digital technology has transformed the way information is generated, processed and shared, and the way transactions are made. It has created whole new industries and revolutionised existing ones. Advances in technology can help to boost productivity and growth in the economy when they become adopted more widely<sup>181</sup>, but they can also impact on working practices and job security.

Issues such as data protection and cybersecurity are now business risks across all sectors.

London has a thriving tech community which is growing rapidly and driving much of the innovation in Europe. Cutting-edge technologies such as artificial intelligence, robotics, virtual and augmented reality<sup>182</sup>, and distributed ledger technology<sup>183</sup> are among the fastest growing areas for investment and are driving the next generation of digital business. London has become a global leader in areas such as FinTech<sup>184</sup>, artificial intelligence and machine learning (see case study below), and digital health<sup>185</sup>. It also has emerging expertise in areas such as EdTech<sup>186</sup>, CleanTech<sup>187</sup> and FashionTech<sup>188</sup>. The number of new industries springing up shows the impact that digital technology is having right across the economy.

London is Europe's technology capital. More than a third of Europe's tech unicorns (businesses valued at \$1 billion or more) are based in London and in 2016, digital tech turnover reached £56 billion, a 106 per cent increase over five years<sup>189</sup>. Much of this success is down to London's supportive and innovative

<sup>181</sup> See Rubin, H. et al. (2016), '[Why the technology economy matters](#)' for a discussion of the impacts of technology on the economy.

<sup>182</sup> Augmented reality is a technology that superimposes a computer-generated image on a user's view of the real world.

<sup>183</sup> A distributed ledger is a database shared between independent, often competing, organisations or banks where mutual access is required. Each party has a copy of the same ledger, which means that none can individually alter the record in their own interests.

<sup>184</sup> According to research by [FinTech Week London \(2016\)](#), UK FinTech firms secured \$5.4 billion of the \$49.7 billion of global investment in financial tech between 2010 and 2015, compared with the total \$4.4 billion raised across the rest of Europe

<sup>185</sup> Taking MedTech and digital health firms together (reflecting the convergence) turnover is almost £1 billion (see [www.medcitymap.com](#)).

<sup>186</sup> EdTech is an emerging sector with over 200 EdTech start-ups and SMEs based in the city. See EdTech UK (2016), '[EdTech: London capital for learning technology](#)'.

<sup>187</sup> See below for more on London's CleanTech sector.

<sup>188</sup> BOP Consulting (2017), '[The East London Fashion Cluster: strategy and action plan](#)'.

<sup>189</sup> Tech City UK (2017), '[Tech Nation 2017](#)'.

<sup>190</sup> Startup Genome (2017), '[Global startup ecosystem report 2017](#)'.

start-up ecosystem. London rates highly on measures such as market access, talent, funding secured, number of start-ups and the start-up 'experience'<sup>190</sup>.

Global corporates too are making significant investments in London, demonstrating their confidence in the city as a technology hub, with major recent investments announced or completed by companies such as Apple, Facebook and Google. Meanwhile, many corporates are creating accelerator programmes to take advantage of the talent of tech innovators such as Microsoft Ventures which opened in London in 2015. Telefonica, owner of the O2 network, has created the Wayra accelerator which has raised more than \$100 million in funding for London's innovators.

We must continue the UK's involvement in shaping and ultimately participating in the **Digital Single Market**, which aims to break down the regulatory barriers hindering the trade in digital services and products across the EU. The UK digital sector is currently worth £118 billion a year, and 43 per cent of UK digital exports go to the EU. Losing access to these markets for digital content could impede the ability of London's digital industries to trade internationally.

"The Mayor wants to see the benefits of digitisation shared by all Londoners."

## THE IMPACT OF AUTOMATION

Automation has the potential to help businesses make and do things faster, cheaper and better. It is ushering in what some have termed a second machine age. As an example, financial services firms have started exploring how to benefit from Robotic Process Automation (RPA) which uses software to mimic the actions a human would perform on a PC. A report by Accenture found that artificial intelligence could increase productivity by up to 40 per cent and be worth \$814 billion to the UK economy by 2035<sup>191</sup>.

Over the past five years, London's artificial intelligence (AI) & machine learning companies have attracted over £207 million in venture capital investment. London also has strong research expertise in AI, including:

- The Research Centre for Machine Learning, City University.
- Applied Machine Learning Lab, QMUL.
- Centre for Computational Statistics and Machine Learning and the Gatsby Computational Neuroscience Unit, UCL.
- Machine Learning Group, Imperial College.
- GATEway (Greenwich Automated Transport Environment), Transport Research Foundation.

Automation and Artificial Intelligence (AI) have the potential to be an important source of innovation for London's economy. However, it could also put a significant number of jobs at risk. This makes it all the more important that Londoners have the education and skills they need to change roles in a flexible labour market.

<sup>191</sup> Accenture (2016), 'Why Artificial Intelligence Is the Future of Growth'.

Distributed ledger technology also has the potential to cause significant disruption in some of London's key industries<sup>192</sup>. London is a world leader in this technology, thanks to the size of the FinTech sector and the interest from traditional financial services, and there is significant investment and expertise amongst London's business services, accountancy, notary and legal service industries. These industries stand to make huge productivity gains from the removal of intermediaries and the automation of paper-based tasks. Moreover, these are markets which have not historically

been open to competition or new business practices, but which can now be accessed by London's thriving start up and tech economy.

The Mayor will consult with industry and academia to explore London's strengths in areas such as AI and machine learning, and determine the best ways to take advantage of the opportunities this growing sector presents. At the same time he will continue to carefully monitor the performance of London's labour market and consider the potential impact of automation on it.

For all London's strengths, the technology sector still faces barriers to growth, which need to be addressed. Some technology firms report challenges in accessing the finance and the talent they need to grow, and although London leads Europe on many measures of broadband connectivity, parts of London still suffer from slow and unreliable broadband (see chapter 4.3).

The Mayor will work with the sector to address these challenges. Through his **Investment Showcase** (see box below) he will bring together entrepreneurs with investors in the sector. And he will continue to **promote the sector at home and abroad with London & Partners**.

<sup>192</sup> Because it does not rely on a trusted third party to 'OK' changes to the ledger, this technology potentially means the automation of previously paper-based tasks and disruption in industries which provide trusted intermediary services – for instance clearing banks and settlement banks in financial services. This could have a potentially significant impact on the shape and size of the labour markets in certain sectors.

## INVESTMENT SHOWCASE

The Mayor of London's Investment Showcase seeks to ensure a connected and effective finance ecosystem for tech firm growth. The Showcase is being delivered in partnership with UK Business Angels Association, the trade body for angel and early stage investing, and connects London's innovating tech businesses with key sources of

investment. The Showcase brings together key leaders from the investment community including angels, VCs and equity crowdfunding platforms to meet London's cutting edge innovators from fields such as artificial intelligence, augmented reality and virtual reality, GovTech, CleanTech, digital health and MedTech.

### Cyber security

The cost and risk associated with cybersecurity continues to grow year-on-year with new threats and new targets across the public and private sectors. The cost of data breaches to the UK economy is escalating. A company which has been hacked experiences an average 1.8 per cent fall in share value – equivalent to a permanent £120m market capitalisation loss for a FTSE100 company<sup>193</sup>.

Alongside the business risk posed by hacking is the legal risk presented by data protection legislation. The Information Commissioner's Office,

the independent body set up by the government to uphold information rights, has been granted new powers to fine companies up to four per cent of global turnover, should they fail to adequately protect their customers' personal data<sup>194</sup>.

The Mayor will develop a Cyber Security Strategy, raising awareness amongst firms of the risks and **sharing best practice in cybersecurity** and data protection from established technology companies across London. He will also continue to work with partners to support the Digital Security Centre.

<sup>193</sup> CGI and Oxford Economics (2017), 'The Cyber-Value Connection'.

<sup>194</sup> Information Commissioner's Office: Overview of the General Data Protection Regulation.

## LONDON DIGITAL SECURITY CENTRE

The [London Digital Security Centre](#) is a not for profit organisation, founded as a joint venture by the Mayor of London, the Metropolitan Police Service and the City of London Police. The Centre provides simple,

measurable and effective digital security solutions to businesses to enable firms to operate in a secure digital environment. The centre also supports victims of cyber crime and helps to prevent repeat victimisation.

## SUMMARY OF ACTIONS

The Mayor will:

1. Set out the challenges facing London and Londoners and work with technology innovators to find solutions.
2. Engage with industry and academia to develop London's strengths in areas such as artificial intelligence, virtual reality and augmented reality, exploring how businesses across different industries can take advantage of the opportunities in digital technology.
3. Maximise investment opportunities through the Mayor's 'Investment Showcase', attracting finance and helping innovative businesses to scale up.
4. Help to ensure London has access to tech talent through the Mayor's 'Digital Talent' programme and through championing a flexible immigration system.

5. Support tech firms and companies adopting digital business models, to access best practice in cybersecurity and data protection.
6. Work with partners to improve London's digital infrastructure, helping to provide affordable access to high bandwidth digital connectivity.
7. Work with London & Partners to champion London's technology sector at home and abroad and attract inward investment.
8. Lobby government on behalf of the sector for continued UK influence over the shape the future Digital Single Market takes, and a Brexit deal that guarantees British companies will have access to it.

The Mayor asks that:

- All businesses engage in the opportunities new advances in digital technology bring, such as artificial intelligence and machine learning, and draw on the strengths of London's R&D base.
- Investors back London tech firms at all stages of growth and development to ensure London continues to be a world leader in technology innovation.
- Businesses fully understand the risks posed by cyber crime, are aware of the changes made in data protection regulation, and invest in appropriate cyber security to ensure they operate in a secure digital environment.
- Government influences the future shape of the Digital Single Market, and ensures a Brexit deal that guarantees British companies will have access to it; as well as access to the global talent they need to innovate and grow.



## 5.7 TOURISM

London is one of Europe's most popular visitor destinations and the third most visited city in the world. Overseas visitor numbers have increased steadily, growing 25 per cent since 2011. In 2016, international visitor numbers hit record levels, at 19.1 million overseas arrivals<sup>195</sup>. The combined spend by international and domestic visits was estimated to be £14.9 billion. Add to this the 280 million domestic day-trips that were taken to London in 2016 and it adds up to a staggering amount. Tourists come to experience London's outstanding cultural offering, history and heritage, world-class museums, architecture, nightlife, parks and waterways. But increasingly they also come to explore what it is to be a Londoner, to find London's hidden gems, to explore our varied and unique neighbourhoods, and to experience our distinctive and diverse retail and food offering.

The benefit visitors bring to the city is huge – around 700,000 people - one in seven of London's workforce are employed directly or indirectly by the tourism sector<sup>196</sup>. This is an industry that provides opportunities to people at every stage of a career, from entry-level

jobs to senior management. Our visitors also spend millions of pounds in our restaurants, venues, hotels, attractions and shops, helping to animate the city and sustain our businesses and culture institutions. But equally important are the less tangible benefits where tourism contributes to making London such a diverse and open city. The industry is a key contributor to London's diverse cultural and retail offer as well as the night time economy, and benefits both visitors and Londoners.

### Challenges facing the industry

Despite this growth, London's tourism industry faces a number of challenges: Brexit is causing uncertainty over recruitment from the EU, the visa application process is limiting growth from Asia, and accommodation and airline capacity need to scale up to meet demand projections.

Visits to the capital in 2025 are projected to be 30 per cent higher compared to 2016, meaning 40.4 million international and domestic visits and £22 billion in expenditure annually, an increase of £7.1 billion on 2016<sup>197</sup>. But this growth and the associated economic benefits is not a given. The projection assumes:

<sup>195</sup> ONS International Passenger Survey

<sup>196</sup> Deloitte and Oxford Economics (2013), 'Tourism: jobs and growth, the economic contribution of the tourism economy in the UK'. Note that figures for the night time economy and the cultural and creative industries quoted earlier in the document will include jobs that could also be counted as tourism.

<sup>197</sup> London & Partners (2017), 'A tourism vision for London'.

“Visits to the capital in 2025 are projected to be 30 per cent higher compared to 2016, meaning 40.4 million international and domestic visits and £22 billion in expenditure annually.”

- An ongoing focus on markets with significant growth potential, namely the US, France and China.
- Continued strong growth from London's core visitor markets in Europe, for example Spain, Italy and Germany.
- An increase in the visitor 'repeat rate' as a result of attracting first-time visitors earlier and improving the visitor experience.

It is therefore vital that London continues to develop its tourism offer.

#### **The Tourism Vision**

[London & Partners](#), the Mayor's official promotion agency, has collaborated with industry partners to define a new vision for London's tourism sector. The vision is that visitors will be able to unlock the best version of London for them by tailoring their experience. They will be provided with better online and offline information to help them navigate the city more effectively and make more informed choices. They will be encouraged to do and see more of London, which will increase their satisfaction and likelihood of returning. The tourism industry will work together to manage the expected significant visitor growth in a sustainable way. It will be achieved by balancing the needs



of both Londoners and visitors. This includes more Londoners recognising the importance of the visitor economy and benefiting from its social and economic impact.

The tourism sector believes that this vision can only be achieved through collaboration and by investing in four areas:

1. **Pre-visit promotion** - convincing more visitors to choose London by attracting more first-time visitors; drawing more visitors to London during off-peak seasons and directing them to locations where there is more capacity; showcasing the range and depth of London's cultural offer.
2. **Visitor experience and information** – providing visitors with information to help them do more and see more in London; improving information to help them find rewarding food experiences and encouraging visitors to explore areas beyond central London and connect with Londoners.
3. **Infrastructure and amenities** – ensuring London can sustain and accommodate growing numbers of visitors; protect and preserve London's cultural offer, improve the quality of London's visitor amenities, and improve access to them using digital technology.

4. **Business visits and events** - strengthening the meetings and events proposition by understanding the drivers for growth in this sector and reviewing capacity constraints; creating a world-class business visitor experience through greater coordination across the city; and addressing regulatory constraints that make London less attractive for delegates.

The Mayor endorses this vision and will support its implementation. He will also help to address wider barriers to growth facing the sector, including:

- Lobbying on behalf of the industry over recruitment from the EU.
- Lobbying for continued visa free travel to the UK for European citizens.
- Enhancing Wi-Fi connectivity across London for the benefit of visitors (see chapter 4.3).
- Making it easier for tourists to walk, cycle or use public transport.
- Improving international connections (see chapter 4.2) including continued membership of the European Common Aviation Area.

## SUMMARY OF ACTIONS

### The Mayor will:

1. Support London & Partners to raise awareness of the Tourism Vision to those with a stake in London's international promotion.
2. Work with London & Partners to implement the Tourism Vision focusing on:
  - Convincing more visitors to choose London by showcasing the range and depth of London's cultural offer, attracting more first time visitors and boosting off-peak travel.
  - Improving the visitor experience and access to information.
  - Ensuring London has the infrastructure and amenities to sustain and accommodate growing numbers of visitors.
  - Working with industry to develop the infrastructure to support increasing numbers of business visits and events.

### The Mayor asks that:

- Government guarantees continued visa free travel to the UK for European citizens and adopts a flexible approach to migration to help address the skills shortages in the sector.
- Government favours a Brexit deal that enables the UK's continued membership of the European Common Aviation Area.
- Businesses raise the profile of the sector to attract and retain talent.
- Businesses work collectively with London and national government to bid for and host major sporting, cultural and business events that build London's reputation globally.



## **6. Working together to achieve the Mayor's vision**

## 6.1 STRENGTHENING PARTNERSHIPS

The Mayor's policies set out in this strategy are intended to protect the capital's competitiveness and ensure that all Londoners can benefit from its success. He cannot achieve these ambitions alone and needs the support of public, private, voluntary and community organisations, and everyone with a stake in London's economy. He is asking businesses to support him by signing up to the London Living Wage and his new 'Good Work Standard'. He is asking developers and housing associations to support him to deliver more affordable housing. He is asking community groups to work with him to plan the growth of new communities and the regeneration of existing ones. He is asking residents to change the way they travel to improve air quality. In all these ways and many more, achieving the Mayor's vision will be a collective effort.

### Working with business

The Mayor will listen to business voices to refine his policies and seek to influence business behaviour in line with this strategy. [London & Partners](#) welcomes businesses and investors to the city. The Mayor's [Business Advisory Board](#) and [LEAP](#) bring together business representatives to share ideas, offer

constructive feedback on the Mayor's activities and – in the case of LEAP – formally advise on the use of funds to promote economic development and regeneration in London. In addition, a number of policy-specific groups have been convened to channel expertise into all relevant thinking at City Hall such as the Mayor's [Brexit Expert Advisory Panel](#), the Mayor's [London Food Board](#), the [Skills for Londoners Taskforce](#) and the [Infrastructure High Level Group](#).

But business engagement goes much further than City Hall and requires an outward-facing approach. Business representative groups in London offer a valuable source of intelligence about the views and concerns of private-sector firms, and their extensive membership enables the Mayor to disseminate his calls for change to a huge network and diverse range of companies. Indeed, communicating as widely as possible with London's hundreds of thousands of businesses will increasingly rely on digital platforms to get the Mayor's message out. And by building strong relationships with business leaders in all of these ways, the Mayor hopes to cultivate an active network of ambassadors who can influence the behaviour of other businesses, leading by example.



### **Communities and civil society**

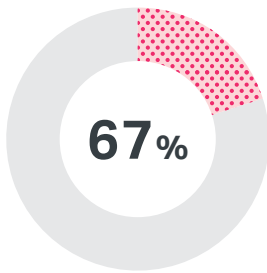
The Mayor will be creative in his approach to working with communities and civil society groups, using a diverse range of engagement methods (from new technology such as film and social media, to participative, community based events), with a particular focus on active participation and reaching out to groups who are often underrepresented in the economy. The Mayor will reach out to Londoners of all ages and backgrounds to encourage active citizenship, and to support a thriving civil society in London. For example, his London Borough of Culture programme actively promotes the role of communities in getting involved in cultural thinking and decision making at a local level with the long-term goal of informing neighbourhood and Local Plans.

The Mayor is proud of the strength and diversity of London's community, voluntary and social enterprise sector. These organisations provide an essential range of services and support to London's diverse communities. By working with Trade Unions, the Mayor will ensure workers in London have a voice and act on their concerns, for example through the development of the Good Work Standard.

### **Working with the boroughs and the wider public sector**

The Mayor will continue to work in partnership with London's 32 boroughs and the City of London Corporation individually and collectively through [London Councils](#) to deliver on his priorities. This will include lobbying central government for the resources, freedoms and powers the city needs. As many of the challenges and opportunities facing London transcend local administrative boundaries, the Mayor strongly supports partnership-based, cross-border working, such as through London's sub-regional partnerships. The Mayor also welcomes closer collaboration with the Higher and Further Education sector and other key institutions of the knowledge economy (such as the members of the [Knowledge Quarter](#)) to maximise their impact on innovation and growth. The Mayor will be working with national Government on the development of the [Industrial Strategy](#)<sup>198</sup> and with other UK cities to identify, and capitalise on, opportunities for growth.

<sup>198</sup> HM Government (2017), '[Building our Industrial Strategy](#)', Green Paper January 2017.



**of business rates revenues in the capital will be retained by the London Government**

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**of business rates retention will be fully piloted by London no later than April 2020.**

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### **Collaboration across the UK**

A successful London economy benefits the whole of the UK – not only through London's fiscal contribution, but through the supply chains that begin here, the jobs and incomes that are generated, the people that are trained here and the businesses that are born here – activities that then expand and develop across the rest of the UK.

The wider south-east as a whole is the most productive region in the UK accounting for nearly half its output and making by far the biggest net contribution to the national exchequer. The wider south-east has overlapping and closely integrated housing markets, labour markets and supply chains. The Mayor will build stronger partnerships, in particular with authorities which are keen to explore mutual benefits arising from strategic growth opportunities and the realisation of corresponding employment opportunities. The Mayor will also look for such opportunities further afield in the Midlands Engine and the Northern Powerhouse so that London and the UK can successfully grow together. The Mayor will take the lead in bringing together UK (and global) cities, business leaders and institutions to maximise opportunities for innovation, business growth and market expansion.

The Mayor asks that:

- Everyone with a stake in London's economy – UK cities, businesses and institutions, communities, voluntary organisations and others – all work with him to shape and deliver the ambitions of the Economic Development Strategy.

## 6.2 MAKING THE CASE FOR DEVOLUTION

The UK has a heavily centralised system of government compared to its international peers. This means the Mayor and the boroughs are unable to use the bulk of tax revenues generated in the capital to invest in the lives of Londoners and London's infrastructure. Central government continues to maintain control over funding for the welfare system, employment support, Further Education, schools, the health service and over much of housing and innovation policy. This limits the Mayor's ability to deliver his vision for a fairer, more inclusive economy. This concentration of power in Whitehall is holding back London's economy, and will put the capital at a competitive disadvantage as we leave the EU. City governments need to be able to manage their own budgets, to support local opportunities for innovation and business growth, to integrate different public services; and to plan and build the infrastructure they need.

Progress is being made, albeit incrementally. From April 2017, London Government will retain 67 per cent of business rates revenues in the capital – including over £3 billion for the GLA Group - following the transfer of Transport for London's annual capital grant into the rates retention system along with the GLA and LFEPA's revenue support grant. The GLA is working with London Councils to ensure that London is able to fully pilot 100 per cent business rates retention by no later than April 2020. And in a number of other areas like skills, employment support, criminal justice, and health, the Government has agreed in principle to devolve some modest powers and funding to London and the Mayor will be pushing for the implementation of these plans as soon as possible<sup>199</sup>.

The Mayor believes that London needs a more radical package of measures to maintain its status as global city including devolution of:

- The full suite of property taxes<sup>200</sup>; a modest assignment of income tax and VAT; London's contribution to the apprenticeship levy; and permissive powers to establish other smaller taxes such as a tourism levy. Devolving these in the right way would incentivise London government to sustain a broad and stable tax base for the long-term investment in London's infrastructure and public services.

<sup>199</sup> HM Treasury, Department for Communities and Local Government, Mayor of London, and London Councils (2017), '[Memorandum of Understanding on further devolution to London](#)'.

<sup>200</sup> Council tax, business rates, stamp duty land tax, annual tax on enveloped dwellings and capital gains property disposal tax. The proposals are set out in the London Finance Commission's report '[Devolution: a capital idea](#)'.

- A range of budgets including adult skills, 16-18 funding, all age careers advice service, health and social care and employment support.
- A proportion of innovation funding to create a flexible fund that will enable London and other cities to be more agile in their response to emerging opportunities, working in partnership with businesses and research institutions.
- All business support including for exports and inward investment.

The Mayor will continue to lobby Government for more powers to be devolved to enable him to achieve his vision for the economy.

The Mayor asks that:

- Government devolves a broader set of fiscal powers, in line with the London Finance Commission's report, **Devolution: a capital idea**, to ensure London can invest in the infrastructure and public services it needs to stay internationally competitive and contribute to UK wide growth.

### 6.3 LEADING BY EXAMPLE

The GLA Group<sup>201</sup> employs around 80,000 people – 1.4 per cent of London's workforce – which means the Mayor can lead by example in adopting the recommendations in this strategy, such as those around exemplary employment standards and fair pay. As well as being a large employer, the Mayor spends around £11 billion each year on products and services sourced from suppliers and contractors across the country. The scale and diversity of this buying power creates opportunities to improve the economic, social and environmental wellbeing of communities. The GLA Group's Responsible Procurement Policy<sup>202</sup> sets out how the Mayor will use responsible procurement policies to help to deliver his vision for London. Built into this policy is a commitment to:

- Promote fair employment practices with suppliers to ensure that their employees receive fair employment terms and pay, including the London Living Wage to the extent permitted by law.
- Break down barriers that restrict SMEs, community sector organisations and underrepresented groups from entering our supply chain to generate employment, skills and training opportunities.

<sup>201</sup> The Greater London Authority, Transport for London, the London Fire and Emergency Planning Authority, Mayor's Office for Policing and Crime, London Legacy Development Corporation and Old Oak and Park Royal Development Corporation.

<sup>202</sup> GLA (2017), 'The GLA Group responsible procurement policy', February 2017.

- Encourage innovative and creative approaches from suppliers that advance London's competitiveness as a world leading city and promote equality and fairness.
- Play a 'market making' role in the procurement of clean technologies and to promote the efficient use of resources.
- Preserve and enhance the natural environment.
- Demonstrate leadership on food issues to improve the healthiness and sustainability of food that their staff consume.

The Mayor will encourage other public sector organisations such as the NHS and large private sector organisations to adopt similar principles.

The Mayor asks that:

- Public and private sector organisations across London use their buying power to drive improvements to the economic, social and environmental wellbeing of Londoners.

#### **6.4 MONITORING PROGRESS**

Traditionally economic performance is measured in terms of the value of economic output produced in the economy<sup>203</sup>. However, the Mayor believes that a broader range of indicators are needed to assess social and economic welfare, taking account of how the proceeds of growth are distributed and how different groups are benefiting from it. As the policies in this strategy are developed, a wider range of indicators will be considered and monitored. A set of indicators to measure progress will be included in the final strategy.

<sup>203</sup> Gross Domestic Product (GDP) in the case of national output and Gross Valued Added (GVA) when measured by region or more locally.



## 7. Next Steps

## **CONSULTATION**

The Mayor is asking for your support: in the first instance to help him to refine and develop this Economic Development Strategy, and then to implement it.

This consultation draft provides an opportunity to share your views on what you believe are the major challenges facing London's economy, whether you agree with the Mayor's vision for the economy, and how the strategy could be improved. Some guide questions are provided below, however, you do not need to answer all these questions or be limited by them in your response. The final strategy will be published in 2018 after the responses to this consultation have been analysed.

### **Consultation questions:**

1. Do you agree with the Mayor's vision to create a fairer, more inclusive economy?
2. Are there any other trends and drivers of change which you feel should be addressed, and how should the Mayor be responding to these?
3. What additional support could be offered to increase work-based learning?
4. What more could the Mayor do to achieve his economic fairness goals?
5. What additional business support (if any) do you think will benefit London's SMEs?
6. How should the Mayor work with partners (businesses, universities, Londoners, communities, local authorities, other public sector bodies, UK and international cities) to make London the most innovative global city?
7. How should the Mayor lever London's tech innovation to help solve the challenges facing London and Londoners?
8. What should the Mayor focus on to strengthen London's attractiveness on the international stage?



9. How can the Mayor incentivise greater coordination when infrastructure investments are made?
10. What other funding options should be explored to invest in new infrastructure assets?
11. How can we best manage the intensification of residential and employment uses in town centres and along high streets whilst ensuring that they continue to serve existing as well as new communities, and retain their character?
12. How can you or your organisation contribute to the Mayor's vision for the economy and pledge to support the final strategy?
13. Are there additional significant objectives/aims that should be considered in the final strategy (and what evidence can you provide to support this)?

## Glossary A – Z

### A

#### **Affordable homes/affordable housing**

Homes for households whose needs are not met by the market. The definition used in this draft strategy is the same as the one set out in the National Planning Policy Framework.

#### **Affordable Rent**

A type of affordable home. Homes for households who are eligible for social rented housing, generally provided by housing associations and subject to rent controls that require a rent of no more than 80 per cent of the local market rent (including service charges, where applicable).

#### **Agglomeration economies**

The benefits that come when firms and people locate near one another together in cities and industrial clusters.

#### **Apprenticeship Levy**

A levy on UK employers to fund apprenticeships.

#### **Artificial Intelligence**

The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.

### B

#### **Business Rates**

The commonly used name for national non-domestic rates, a tax on the occupation of industrial and commercial properties, payable via local authorities.

#### **Business Improvement District**

A defined area in which a levy is charged on all business rate payers in addition to the business rates bill. This levy is used to develop projects that will benefit businesses in the local area.

### C

#### **Central Activities Zone**

The area of central London in which planning policy promotes finance, specialist retail, tourist and cultural uses, and activities.

#### **Central, Inner and Outer London**

These definitions can vary depending on the context in which they are being used. For the purposes of analysis, this strategy has used the following definitions:

- central London: an area broadly equivalent to the Central Activities Zone (CAZ), as defined by the London Plan
- inner London (excluding central London, as appropriate): the boroughs of Camden, City of London, Hackney, Hammersmith & Fulham, Haringey, Islington, Kensington & Chelsea, Lambeth, Lewisham, Newham, Southwark, Tower Hamlets, Wandsworth and the City of Westminster, as defined by the Office for National Statistics
- outer London: the boroughs of Barking and Dagenham, Barnet, Bexley, Brent, Bromley, Croydon, Ealing, Enfield, Greenwich, Harrow, Havering, Hillingdon, Hounslow, Kingston upon Thames, Merton, Redbridge, Richmond upon Thames, Sutton and Waltham Forest, as defined by the Office for National Statistics

**Circular economy**

An economic model in which resources are kept in use at the highest level possible for as long as possible in order to maximise value and reduce waste, moving away from the traditional linear economic model of 'make, use, dispose'.

**Community Engagement**

A process that involves communities in deliberation, decision making and practical action. Community engagement can be done using a wide range of methods, and can include both face to face and online engagement.

**CleanTech**

Clean technology (CleanTech) is a general term used to describe products, processes or services that reduce waste and require as few non-renewable resources as possible.

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**D****Disability**

As defined by the Equality Act 2010, a physical or mental impairment that has a 'substantial' and 'long-term' negative effect on a person's ability to do normal daily activities. The social model of disability defines disability as the effect of the barriers, discrimination and disadvantages faced by disabled people, not the impact of their specific impairment.

**Disruptive innovation/technology**

An innovation that creates a new market and eventually disrupts an existing market, displacing established market leading firms, products, and alliances.

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**E****Economic Inactivity**

People not in employment who have not been seeking work within the last 4 weeks and/or are unable to start work within the next 2 weeks.

**EdTech**

Computer software and other technology used to support or enable the education sector.

**Enterprise**

In the context of this strategy, enterprise is the process of creating a new business.

**Enterprise Zones**

Areas identified by Government to support businesses to grow. Businesses locating in these areas are offered tax relief and other Government support.

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**F****FashionTech**

Computer software and other technology used to support or enable the fashion sector.

**FinTech**

Computer software and other technology used to support or enable banking and financial services.

**Fuel poverty**

A household is considered to be in fuel poverty if the cost to heat and power their home adequately is higher than the national median level, and, if they were to spend that amount, their residual income would fall below the official poverty line.

## G

### **GLA functional bodies/GLA group**

The Greater London Authority (GLA), London Fire and Emergency Planning Authority (LFEPA), Transport for London (TfL), Mayor's Office for Policing and Crime (MOPAC), London Legacy Development Corporation (LLDC) and Old Oak and Park Royal Development Corporation (OPDC).

### **Good Growth**

Growth that is socially, spatially and economically inclusive, and which brings the best out of existing places, benefits existing communities, involves citizens in the way their city changes, and makes London healthier, safer and more prosperous for Londoners.

### **Grant**

Generally refers to public subsidy provided by the Mayor in the form of a one-off financial transfer.

### **Greater London Authority (GLA)**

The top-tier administrative body for Greater London, consisting of a directly elected executive Mayor of London and an elected 25-member London Assembly with scrutiny powers.

### **Gross Domestic Product (GDP)**

The total value of goods produced and services produced in a country during one year.

### **Gross Value Added (GVA)**

Gross Value Added (GVA) measures the value of goods and services produced in an area, industry or sector, commonly used as an indicator of the health of the economy.

## H

### **Health inequalities**

Health inequalities are systematic, avoidable and unfair differences in mental or physical health between groups of people. These differences affect how long people live in good health and are mostly a result of differences in people's homes, education and childhood experiences, their environments, their jobs and employment prospects, their access to good public services and their habits.

### **Healthy Streets**

The Mayor and TfL's approach to making London a more attractive place to walk, cycle and use public transport, and reduce the dominance of motorised transport.

### **Homes for Londoners**

The Mayor's team to increase the number of new homes in London by working with local councils, housing associations and developers. The Homes for Londoners' Board is chaired by the Mayor and oversees work to deliver more homes.

### **Housing association**

An independent, not-for-profit company set up to provide affordable homes for people in housing need.



### **Inclusion**

Removing barriers and taking steps to create equality, harness diversity and produce safe, welcoming communities and cultures that encourage innovative and fresh ways of thinking and allow people to speak up, especially to suggest where things could be done better.

### **Inclusive Design**

Environments which everyone can use to access and benefit from the full range of opportunities available; confidently, independently, with choice and dignity, which avoids separation or segregation and is made up of places and spaces that acknowledge diversity and difference, meeting the needs of everyone in society.

### **Inclusive neighbourhoods**

Neighbourhoods that are welcoming, barrier free and inclusive for everyone, regardless of individuals' characteristics.

### **Innovation**

The creation of new products and services, technologies, processes, or business models.



### **LEAP / London Economic Action Partnership**

The Local Enterprise Partnership for London. Local Enterprise Partnerships are voluntary partnerships between the public and private sector set up in 2011 by the Government to help to determine local economic priorities and to lead economic growth and job creation in their area.

### **Londoners**

Permanent and temporary residents of London and, where also applicable, commuters from outside London, visitors and tourists.

### **London Affordable Rent**

A type of affordable home. Introduced by the Mayor, homes aimed at low-income households, with rents generally set close to social rent levels.

### **London Councils**

A cross-party organisation that represents and works on behalf of London's 32 councils and the City of London.

### **London Finance Commission**

The Commission that has made recommendations on the additional tax and spending powers that should be devolved to London.

### **London Fire and Emergency Planning Authority (LFEPA)**

A functional body of the GLA, with the principal purpose of running the London Fire Brigade.

### **London Legacy Development Corporation (LDDC)**

A Mayoral Development Corporation responsible for delivering development in the Queen Elizabeth Olympic Park.

### **London Living Rent (LLR)**

A type of affordable home. Introduced by the Mayor, homes that offer Londoners on average incomes a below-market rent, enabling them to save for a deposit.

### **London Living Wage**

The London Living Wage is an hourly rate of pay calculated to give a worker in London and their family enough to afford the essentials and to save.

### **London & Partners**

The Mayor of London's official promotional agency which promotes London internationally as the best city in the world to work, invest, trade and study.

### **London Plan**

The Mayor's Spatial Development Strategy for London.

### **London Shared Ownership**

A form of affordable housing home. Introduced by the Mayor, homes in which home buyers can purchase a share and pay a regulated rent on the remaining, unsold share. There is a particular focus on making service charges for shared owners fairer and more transparent.

### **Low Emission Zone (LEZ)**

A charging zone across most of Greater London for vehicles that do not meet emissions standards for particulate matter.

---

## **M**

### **Mayor's Office for Policing and Crime (MOPAC)**

A functional body of the GLA responsible for overseeing the Metropolitan Police Service.

### **Minority-led business**

Businesses where over 51 per cent of the senior management team or owners are from a minority ethnic community.

### **Mixed-use development**

Development for a variety of activities on single sites or across wider areas such as town centres.

---

## **N**

### **Natural Capital**

The world's stocks of natural assets which include geology, soil, air, water and all living things. From this natural capital humans derive a wide range of services.

### **Northern Isle of Dogs (NIOD)**

A commercial area around Canary Wharf in east London.

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## **O**

### **Old Oak Common and Park Royal Development Corporation (OPDC)**

A Mayoral Development Corporation responsible for delivering development in the Old Oak Common and Park Royal areas.

### **Older people**

Refers to people over 50, but also recognises that those above retirement age and those over 70 may have particular requirements that need to be addressed.

### **Opportunity Area**

A significant spatial opportunity to accommodate large scale development to provide a substantial number of new jobs and homes.

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### **Opportunity Area Planning Framework**

Strategic spatial plans for Opportunity Areas in London, as designated in the London Plan.

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## **P**

### **Permitted Development Rights**

These allow certain building and development works to be carried out without the need for a full planning permission.

### **Precision manufactured homes/housing**

Homes built using a high proportion of components which are produced using modern and technologically-driven methods of manufacture, with this production often taking place offsite and the components then assembled onsite.

### **Private rented sector**

Where homes are owned by companies or individuals and rented out to tenants at market rents.

### **Productivity**

A measure of how efficiently production inputs, such as labour and capital, are being used in an economy to produce a given level of output.

### **Public realm**

Publicly accessible space between and within buildings, including streets, squares, forecourts, parks and open spaces.

---

## **S**

### **Sharing economy**

An economic system in which assets or services are shared between private individuals, either for free or for a fee, typically by means of the internet.

### **Small to medium sized business (SME)**

The usual definition of small and medium sized enterprises (SMEs) is any business with fewer than 250 employees.

### **Social infrastructure**

Covers facilities for health, early years, education, community, cultural, recreation and sports, places of worship, policing, criminal justice, play and informal recreation.

### **Social integration**

The building of strong communities where all Londoners can lead interconnected lives and play an active part in their city and the decisions that affect them.

### **Social mobility**

The movement of people within or between different social classes or income brackets.

---

## T

### **Thames Gateway**

A corridor of land on either side of the Thames extending from east London through to north Kent and south Essex. The London part of the area extends eastwards from Deptford Creek and the Royal Docks and includes parts of the lower end of the Lee Valley around Stratford. It also includes parts of the boroughs of Barking and Dagenham, Bexley, Greenwich, Havering, Lewisham, Newham and Tower Hamlets as well as limited parts of Hackney and Waltham Forest.

---

## U

### **Ultra-Low Emission Zone (ULEZ)**

Charging zone in which vehicles that do not comply with emissions standards for air pollutants will be subject to a daily charge.

### **Unemployment**

Under International Labour Organisation (ILO) guidelines, anybody who is without work, available for work and seeking work.

---

## W

### **Wider South East (WSE)**

The wider south-east comprises 156 authorities and 11 Local Enterprise Partnerships within London, the south east and the east of England. Collaboration arrangements are in place to coordinate strategic policy and infrastructure investment to underpin economic prosperity across the region. Further details are available on the GLA website: <https://www.london.gov.uk/about-us/organisations-we-work/policy-and-infrastructure-collaboration-across-wider-south-east>

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## V

### **Viability / viability assessment**

A measure of whether a proposed development would be economical for a developer to carry out.

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## Z

### **Zero carbon**

Activity that causes no net release of carbon dioxide and other greenhouse gas emissions into the atmosphere.





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020 7983 4000

City Hall  
The Queen's Walk  
More London  
London SE1 2AA

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