

# MAYOR OF LONDON



## The Mayor's Economic Development Strategy for London

December 2018



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**Greater London Authority**  
**December 2018**

Published by  
Greater London Authority  
City Hall  
The Queen's Walk  
London SE1 2AA

**london.gov.uk**  
enquiries 020 7983 4000

**ISBN 978-1-84781-708-2**

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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 two in five 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 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, iconic public transport system, 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 for our future trading relationship would deal a hammer blow to our economy - hitting the poorest and most vulnerable the hardest. That's why, as Mayor, I will continue to press the Government 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.

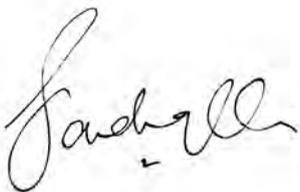
So this strategy sets out how we can achieve and foster 'good' economic growth that doesn't come at the expense of disadvantaged Londoners, our air quality, natural environment, employment standards or social integration. I want to continue to improve the conditions that allow businesses to flourish 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 wages and productivity across all business sectors.

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, while placing much more emphasis 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

London is a diverse and growing city - in terms of its people, and its economic make-up. Our city 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, openness, tolerance and diversity, we are able to attract talent and investment from across the world.

Yet, despite these strengths, many Londoners do not share in the proceeds of growth. Maintaining a good standard of living is becoming harder, with wage growth remaining flat, forcing many Londoners into poverty or debt. Many of our young people are growing up without access to the opportunities that the previous generation enjoyed.

The prospect of Brexit is causing uncertainty and anxiety for business and investors, as well as the million EU citizens who have made their home in our capital.

Meanwhile, London's environment, and especially its air quality, is under threat, putting people's health and wellbeing at risk. While London's economy continues to grow, it, like other economies, will need to make the transition to a low carbon circular economy in order to help address global environmental challenges including climate change, depleting natural resources, and pollution. The Mayor wants London to play a leading role in this transition and aims to ensure London's businesses and workers are able to live healthier lives and benefit from the growing market opportunities this represents.

The Mayor, Sadiq Khan, wants a prosperous and sustainable economy<sup>1</sup> that works for all Londoners – one in which neither opportunity nor achievement are limited by gender, ethnicity, sexuality, religion, disability, place of birth or background. He wants business 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 strategy sets out the Mayor's vision for London's economy and calls on everyone with a stake in London's future to help him make it a reality.

<sup>1</sup> For evidence relating to how sustainability relates to positive economic growth, see Viguie and Hallegatte (2012), '[Trade-offs and synergies in urban climate policies](#)'.

## 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 some evidence that more equal economies could do better in the long-term - with more stable and quicker growth over longer periods - than economies that have higher levels of inequality<sup>2</sup>. There is also evidence that they are safer, healthier and happier places<sup>3</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, and to ensure Good Growth, 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 schools, colleges and other partners to:

- increase the take-up and quality of early years education;
- develop a coherent and accessible careers information, advice and guidance offer;
- break down gender stereotypes and address other inequalities; and
- lobby for sufficient funding to continue to improve outcomes for all pupils and to meet local childcare needs.

Employers have a central role to play in defining what the economy needs and helping to prepare Londoners to take advantage of the opportunities our economy presents. You can read more in chapter 3.1 of this strategy.

<sup>2</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>3</sup> Wilkinson R. G. and Pickett, K, (2008) 'The Spirit Level: Why More Equal Societies Almost Always Do Better', London, Allen Lane, 2009.



## Opportunity for all Londoners

For all London's prosperity, unemployment and economic inactivity are 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 an opportunity to engage in well-paid, stable work. This means good jobs with good conditions, equal opportunities for progression and people being paid fairly and equally for their work.

The Mayor will work with partners, including businesses, skills providers, trade unions, boroughs and wider stakeholders to:

- promote the benefits of further learning and Continuing Professional Development (CPD);
- help address the perceived costs associated with further learning;
- increase employment rates for groups who are currently underrepresented in London's workforce – with a focus on BAME, women, and disabled people;
- support long-term unemployed people to re-enter work;
- promote training provision that meets the needs of disabled people;
- help make ESOL courses more suitable and accessible;



- set out priorities and outcomes for adult education;
- develop a digital inclusion strategy to help all Londoners benefit from digital technology; and
- conduct research into the reasons behind London's higher rates of non-continuation into higher education.

The Mayor wants to help young people and adults to overcome barriers to entering employment, participating in lifelong learning and progression in work through the creation of an all-age careers offer. An action plan for an all-age careers offer is being developed by City Hall with key partners and will be published in due course.

City Hall will also work with businesses to promote fair employment practices,

to help them develop their employees' skills, and to ensure there is support for Londoners from less advantaged backgrounds to start their own businesses. You can read more in chapter 3.2 of this strategy.

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

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.

To help address this, the Mayor will:

- work to increase the supply of genuinely affordable homes and help to make private renting more affordable;

- improve the accessibility and affordability of transport;
- support access to high quality early years education and childcare;
- address some of the key causes of financial exclusion and increase financial literacy; and
- encourage employers to engage with the Good Work Standard to offer affordable financial services to their employees.

You can read more in chapter 3.3 of this strategy, with further detail in the Mayor's [Housing Strategy](#) and the Mayor's [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.

The Mayor will work with London businesses, trade unions and other representative bodies to:

- recognise and celebrate employers that promote high standards;
- promote fair pay and good employment practices through the Good Work Standard, and increase take up of the London Living Wage;
- support more disabled people to find and progress in work, and keep older workers engaged in the workforce;
- review, refresh and relaunch the London Healthy Workplace Charter to help employers make their workplaces healthier and happier; and
- explore the role he can play in helping to signpost Londoners vulnerable to being exploited to trusted employment rights and advice providers.

By working collaboratively with employers, supporting them to adopt best practice and constantly raising standards, the Mayor seeks to address inequalities and improve productivity. The Good Work Standard will ensure that best practice on promoting diversity, inclusion and social mobility in recruitment approaches, as well as reskilling and in-work progression, is shared across London. You can read more in chapter 3.4 of this strategy.

### **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, energy 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.

Poverty is closely linked to poorer health outcomes. This is reflected in London's high levels of health inequalities – how long Londoners can expect to live in good health varies significantly between boroughs. The Mayor's Health Inequalities Strategy sets out in greater detail how he will work with partners to improve health and reduce health inequalities in London with a focus on five key ambitions: healthy children, healthy minds, healthy places, healthy communities and healthy living.

In addition to this, the Mayor will work with London's boroughs, NHS Trusts, businesses, charities, community groups, trade unions and civil society bodies to:

- help understand the effects of welfare changes and lobby for changes to government policy;

- deliver a benefit check service with referral routes for different groups;
- scope and deliver a pilot of the role of schools as sites of child poverty intervention;
- deliver his Fuel Poverty Action Plan;
- devise and implement solutions to food insecurity in London;
- improve access to healthy and affordable food and promote the benefits of healthy eating; and
- encourage more Londoners to train in mental health first aid.

You can read more in chapter 3.5 of this strategy, as well as in the Mayor's [Equality Diversity and Inclusion Strategy](#), and the [Mayor's Fuel Poverty Action Plan](#).

### **Inclusive and safe communities**

London's diversity and openness is one of our greatest strengths. It contributes hugely to our appeal to global business, investors, tourists and global talent. Now, more than ever, we cannot take it for granted. The Mayor's **#LondonIsOpen** campaign, was launched soon after the referendum, and is a message he will continue working tirelessly to share. In 2018 the Mayor launched 'All of Us', his [Strategy for Social Integration](#), and [Inclusive London](#), his [Equality Diversity and Inclusion Strategy](#). These set out in detail his role in creating a more

connected, inclusive and equal city. They highlight the role of economic development in promoting inclusion, integration and safety, especially through the design and creation of public spaces and neighbourhoods.

The Mayor is clear that keeping Londoners safe is his first priority. Through the Mayor's Office for Policing and Crime (MOPAC) and the London Fire Commissioner (LFC) the Mayor will continue to help make the city safe for all. To help create inclusive and safe communities, the Mayor will:

- promote the importance of well-designed public spaces, buildings and housing;
- enable the creation of more socially integrated places, which increase opportunities for Londoners to have positive shared experiences;
- maximise community participation, active citizenship and volunteering through growth and regeneration;
- implement his Equality, Diversity and Inclusion Strategy and Strategy for Social Integration;
- work with the Met Police to confront violence, extremism and terrorism; and
- deliver 'Vision Zero' through his Transport Strategy to help eliminate deaths and serious injury on London's transport system.

Further detail is set out in chapter 3.6 of this strategy, in the Mayor's [Equality, Diversity and Inclusion Strategy](#), his Strategy for [Social Integration](#), the Mayor's [Transport Strategy](#) and the Mayor's [Police and Crime Plan](#).

## **CREATING THE CONDITIONS FOR GROWTH**

London's economy is expected to continue to grow 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. Once the detail of the UK's future relationship with the EU becomes clear, the Mayor will review the need for additional, shorter term interventions to address the specific challenges posed by Brexit. 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 not only a growing, dynamic economy, but also one that is sustainable and inclusive, to drive future 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 must 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. In recent years, we have seen the loss 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.

As part of this strategy, and through the London Plan, the Mayor will:

- ensure there is sufficient supply of office accommodation and investment in transport and infrastructure;
- support vibrant local economies outside of central London, including successful town centres, markets, high streets and industrial areas;
- ensure that London retains sufficient industrial land to keep the economy working efficiently; and
- support the provision of affordable and flexible workspace.

You can read more in chapter 4.1 of this strategy and in the [London Plan](#).

### **Transport**

Through its airports, high speed rail links and the river, London has national and international connections that put it at the heart of the UK and global economy. However, our transport system faces major capacity constraints which need to be addressed urgently to ensure

London's long-term growth continues. There are growing levels of crowding on the rail network and congestion on the streets which has a huge cost for the economy. London's future success will depend on investing in the existing public transport network, new public transport capacity and a funding strategy for London's road network. Meanwhile, we must encourage more people to switch from private vehicles to walking and cycling to improve Londoners' health and livelihoods whilst encouraging the use of sustainable transport modes.

The Mayor will work with TfL, Government and other stakeholders to:

- create a healthy street environment where people choose to walk, cycle and use public transport;
- reduce car dependency and tackle congestion;
- invest in London's public transport capacity; and
- use new transport schemes to unlock homes and jobs across London.

London's transport network is 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 this strategy and in the Mayor's [Transport Strategy](#).

## Infrastructure

As well as transport, London relies on a wide range of other infrastructure. This includes major utilities like energy, water and waste, as well as digital infrastructure. The scale of growth means there are huge challenges in coordinating the required investment to accommodate growth, while ensuring that growth delivers environmental and social benefits.

Data and digital technologies are an 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 for and support London's growth.

The Mayor will bring together the key stakeholders to:

- improve the planning, co-ordination and delivery of infrastructure;
- tackle the barriers to the provision of fast, reliable digital connectivity;
- promote an integrated approach to water management;

- help create a smarter, more integrated energy system;
- protect and enhance London's natural capital to ensure London is a healthy, green and liveable city;
- promote the concept of green infrastructure and natural capital accounting;
- promote and enable the growth of the circular economy and support businesses that adopt circular economy business models; and
- help increase the flow of finance to address environmental challenges.

You can read more in chapter 4.3 of this strategy, with further detail in the [infrastructure work programme](#), the London [Environment Strategy](#) and in [Smarter London Together](#).

### **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.

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 empowering all Londoners to access the education and skills they need to participate in society and progress in a changing labour market.

### **The Mayor will:**

- promote the strengths of London's research base to business, investors and global partners;
- support knowledge transfer between universities and business;
- tailor adult skills provision to meet the changing needs of business and learners;
- promote the provision and take-up of high quality apprenticeships; and
- improve the quality of facilities for learning.

In addition, the Mayor needs Government to maintain clear and easy routes for international students, academics and technical staff to come to London. A flexible approach to migration is required to help ensure London continues to attract talent and skills - from both the EU and across the world. You can read more in chapter 4.4 and in the Mayor's [Skills for Londoners Strategy](#).

### **Enterprise and entrepreneurship**

London is home to some of the world's most creative and entrepreneurial people. Meanwhile, London's businesses operate internationally, exporting and importing goods and services around the world.

The Mayor will work with London & Partners and other key stakeholders to help:

- attract and retain investment in London;
- support start-ups and business growth;
- address the funding gaps facing high growth firms; and
- support more businesses to export.

The Mayor 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. You can read more in chapter 4.5 of this strategy.

### **SUPPORTING LONDON'S SECTORS**

Through the actions and priorities outlined above, the Mayor will support Good Growth across London's economy. Meeting the needs of London's economy and employer's now and in the future is a key priority for the Mayor.

The transformational impact of digital technology in particular is touching all sectors of the economy and will support productivity gains both in higher value sectors and in the 'Everyday Economy', in services such as retail, construction, hospitality and tourism. The Mayor will support businesses and Londoners to take advantage of the opportunities in digital technology and work with trade unions and skills providers to help mitigate any detrimental impacts. Businesses have a critical role to play in investing in new technologies and in a skilled, adaptable and diverse workforce.

In order to target support most effectively, the Mayor has identified some sectors that are key to achieving 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. These sectors are:

**Advanced urban services – helping London to work more efficiently as a city**

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. The Mayor wants London to lead in the development of smart city technology – as a global testbed for tech-driven solutions to public service challenges as well as global environmental challenges such as climate change. These technologies are also improving the way people access public services, and the Mayor wants to ensure that the development of smart technologies and digital services work for the benefit of all Londoners.

To achieve this, the Mayor will:

- help London's entrepreneurs to innovate with data and technology;
- improve the design of digital services to be inclusive and responsive to all Londoners' needs;
- support suppliers in this (and other) sector(s) to have a workforce that is more representative of the city's diversity;
- support investment in urban demonstrators;
- support the growth of the GovTech sector to help bring the best ideas to market; and
- establish new digital leadership with the Smart London Board and deliver [Smarter London Together](#).

You can read more in chapter 5.1.

**Cultural and creative industries – contributing to quality of life and wellbeing**

London's status as a leading creative capital plays a huge part in attracting business, talent, investment and tourism from across the globe. We have the world's third largest film industry, are 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 by:

- promoting and supporting the sector through agencies and trade bodies;
- publishing a Cultural Infrastructure Plan;
- working to secure investment in the development of the Thames Estuary Production Corridor;
- supporting the provision of affordable creative workspace;
- helping more Londoners to engage in culture;
- backing major cultural festivals to celebrate London's diversity;
- promoting the night time economy in line with the Mayor's vision for London as a [24-hour city](#); and
- encouraging employers to offer paid internships, become accredited as London Living Wage employers and sign up to the Good Work Standard.

You can read more in chapter 5.2 of this strategy and in the Mayor's Culture Strategy.

### **Financial and business services – underpinning the workings of London's economy**

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. However, London's status as a global financial hub is under threat from Brexit.

The Mayor will continue to support this vital sector by:

- lobbying for a Brexit deal which sustains mutual market access;
- helping to ensure London has sufficient office space;
- working with stakeholders to showcase London's strengths in sectors such as FinTech and carbon finance;

- continuing to leverage in risk capital to support London's most ground-breaking entrepreneurs; and
- encouraging financial and business services firms to be inclusive workplaces for women and BAME Londoners.

You can read more in chapter 5.3.

**Life sciences – helping to address the major healthcare challenges facing society**

London has a long history as a centre for advancement in medicine and biology and, together with Oxford and Cambridge, forms the 'Golden Triangle' - a global hub for life sciences. London is home to some of the greatest scientific minds, and is 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 sector is also tackling some of society's biggest health challenges like cancer, heart disease, diabetes and dementia. However, 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:

- promote London and the Wider South East as a pioneer of life science innovation;
- work with partners to explore options for the safe use of health and care data for both service delivery and research, supporting efforts to increase NHS uptake of innovation;
- support collaboration across different sectors to help meet healthcare challenges;
- help to increase the availability of long-term patient capital for the sector;
- secure the workforce London needs and support the career development of current and future employees;
- support the growth of new life sciences developments; and
- help improve workforce diversity in boardrooms, and other senior positions, in this and other sectors.

You can read more in chapter 5.4.

### **Low carbon and environmental goods and services – driving the transition to a low carbon circular economy**

The Mayor wants London to show the world how a successful and growing global city also means being clean, green and ready for the future, as London leads the way in the global transition to a low carbon circular economy. The [London Environment Strategy](#) sets out his environmental ambitions for London, for example in setting a target for London to be net zero carbon by 2050 and a zero waste city. The transition to a low carbon circular economy will require fresh approaches and responses from the business community as well as action from Londoners to reduce their carbon footprint. As we do this, it will create major new commercial opportunities. The Mayor will help businesses, especially from across London's innovative CleanTech community, to seize them.

#### **The Mayor will:**

- set clear environmental ambitions to catalyse London's transition to a low carbon circular economy;
- support households and businesses across all sectors and households to contribute to, participate in and benefit from London's transition to a low carbon circular economy;

- help to accelerate innovation and access to market across the CleanTech sector;
- establish a centre for CleanTech innovation;
- scope out the potential to establish 'a proving factory' - to enable firms to prototype their innovations;
- promote London's CleanTech proposition globally to attract investment;
- maximise the use of sustainable procurement approaches to help drive demand;
- help to leverage investment into innovative CleanTech businesses
- work with skills providers to help the sector to access the skills they need for future growth; and
- support opportunities to increase the participation of women in CleanTech and the growth of women-led CleanTech enterprises.

You can read more in chapter 5.5 of this strategy and in the [London Environment Strategy](#).

### **Tech and digital – driving innovation across the economy**

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 enable this by:

- driving more inclusive innovation across London
  - stimulating innovation across the technology sector to solve London's challenges – from inequality, to climate change and an ageing population – and supporting co-design with Londoners and the market;
  - engaging with industry and academia to develop London's strengths in areas such as AI, VR (virtual reality) and AR (augmented reality), exploring how businesses across different industries,

including across the 'Everyday Economy', can take advantage of the opportunities in digital technologies to drive innovation, productivity and increase wages; and

- monitoring the performance of London's labour market to consider the potential impact of new technologies on skills gaps in key sectors, including distributional impacts and exploitative behaviour;
- helping to ensure London has access to the tech talent it needs to grow;
- supporting the technology sector to champion the values of inclusivity and diversity;
- leveraging investment into the community through the Mayor's [TechInvest](#) programme;
- supporting firms to access best practice in cyber security and data protection;
- improving London's digital infrastructure;
- championing the sector across global markets to attract investment; and
- lobbying Government for continued UK influence over the shape of the Digital Single Market.

You can read more in chapter 5.6 of this strategy.

### **Tourism – giving London an international profile**

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, 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:

- support the implementation of the [Tourism Vision](#) with a focus 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; and
- improve the visitor experience, ensuring that London has the supporting infrastructure.

The Mayor will also help to address wider barriers to growth facing the sector, including:

- lobbying on behalf of the industry over recruitment from the EU;
- working with employers to help them engage with his Good Work Standard and improve pay, conditions and job quality in the sector;
- lobbying for continued visa free travel to the UK for European citizens and championing a flexible approach to migration to ensure the industry has the workforce it needs;
- enhancing Wi-Fi connectivity across London for the benefit of visitors;
- making it easier for tourists to walk, cycle or use public transport; and
- improving international connectivity.

You can read more in chapter 5.7 of this strategy and in the [Tourism Vision](#).

### **Potential further sectors of focus**

The Mayor will commission analysis of how skills provision in London currently matches up to labour market need across all of London's sectors, and will identify further occupational and sectoral challenges of significance to London's economy. In addition to the list of sectors outlined here, this work will help to inform skills provision funded by the devolved Adult Education Budget (AEB) and European Social Fund (ESF) more widely, the Mayor's work with employers and providers on other skills programmes to help realise the Mayor's ambition of fairer and more inclusive growth. The Mayor will also produce an Industrial Strategy for London, working closely with Government, businesses, institutions, boroughs, trade unions, UK-wide LEPs, cities and regions to maximise productivity nationally and locally.

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

The Mayor needs the support of public, private, voluntary, community and social enterprise sector organisations, trade unions - 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 and the Skills for Londoners Business Partnership, to engage and support businesses in tackling the challenges to growth and shared prosperity. The Mayor's approach will be innovative and will allow City Hall to engage business and employers more directly to inform London's skills and adult education offer, as well as 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, community and social enterprise sector, civil society groups and trade unions. 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 this 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 this strategy.

### **Leading by example**

The GLA group<sup>4</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 and performance of businesses. The Mayor and the GLA Group will use their Responsible Procurement policy 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, for example through TfL. You can read more in chapter 6.3 of this strategy.

### **Monitoring progress and delivery**

The progress of London's economy, as defined by this strategy, will be monitored using a number of different economic indicators. These will be published on the London Datastore and will be updated as and when new data becomes available in order to monitor progress towards the Mayor's ambitions. The Economic Development Strategy Implementation Plan will be published separately, and will set out in greater detail the actions that the Mayor will prioritise to take forward directly between 2018 and 2023 to help implement the proposals set out in the strategy.

<sup>4</sup> The Greater London Authority, Transport for London, the London Fire Commissioner, Mayor's Office for Policing and Crime, London Legacy Development Corporation and Old Oak and Park Royal Development Corporation.



# 1. Introduction

London's dynamic and diverse economy creates a huge range of opportunities: the chance to find a good job; to progress in a rewarding career; and enjoy all that the city has to offer in terms of culture. London attracts the best and the brightest people 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, sustainable economy** that works for all Londoners - where everyone can benefit from the city's success. As London's economy grows, its prosperity must be reflected in higher living standards for all Londoners, not just the wealthiest.

Average household incomes in London are significantly higher than the rest of the UK<sup>5</sup>, and London is home to some of the wealthiest individuals in the world. However, the gap between the incomes of the richest and poorest in London is the widest of all regions in England<sup>6</sup> and almost two in five Londoners are living in poverty<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. High levels of wealth inequality can contribute to other forms of inequality, such as the unacceptable gaps in healthy life expectancy in London.

Between some London boroughs, there is a 12 year difference in healthy life expectancy for men and a 14 year difference for women; the variations that exist between some neighbourhoods are even starker<sup>8</sup>.

We must do more to help the poorest and most disadvantaged groups in London and address these inequalities. Supporting more people into good work, or well-paid 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 good job where they are fairly paid and fairly treated, where they feel valued and are able to progress in their career. The Mayor wants London to be a city with model standards of employment, where more people are paid at least the London Living Wage, compensating them for the higher cost of living in the capital.

Creating a fairer, more inclusive sustainable economy also means **making the city more affordable**. Addressing London's housing crisis is one of the Mayor's top priorities. He wants people to live in locations that are well connected to employment and other opportunities, through walking, cycling and using an efficient and affordable public transport network. Our city must be a healthy city for all Londoners.

<sup>5</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>6</sup> The bottom 10% of households have gross incomes (before tax) below £231 per week, while the top 10% have gross income above £1,945 per week. See GLA Economics (2016) 'Economic Evidence Base for London'. Chapter 10, Table 10.1, p519.

If Londoners 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 global capital for trade and investment. For this to happen, London must remain open to entrepreneurs that want to start and grow their business here.

To be internationally competitive, 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, making London one of the most productive and innovative cities in the world.

To increase productivity, firms must be able to invest in new technologies, products and processes. This requires a stable business environment which provides business with the confidence to invest. Businesses must also be able to access financial capital and first-class infrastructure, including digital connectivity, and have the choice to be based in prime locations in the city. Businesses further need to be able to invest in the skills of their workforce and provide them with 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 perform 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**, in a system that also recognises and nurtures their talent. Learning must be a lifelong process where young people and adults are able to continue developing their skills through further and higher education and work-based learning. London's universities are already world class; they also have a key role to play as both providers of higher education and as a source of research and development.

At the same time as developing our own workforce, London must remain **open to the most talented workers from across the world**. London's arts, culture, history and its diverse people and places are what makes London great. It is why so many people choose to live, work and visit here over other international cities. Protecting and promoting London's diverse cultural offering is a vital component of the Mayor's economic vision.

<sup>7</sup> Poverty is defined as income below 60% of the median income.

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

The Mayor believes that this diversity is one of London's greatest economic assets 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 demographic and economic projections 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 **all 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, that improves the quality of life of Londoners and increases London's efficiency and resilience.

As a global city, London must lead the fight against climate change and move towards a **low carbon circular 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. These must be valued in the same way as other forms of capital in the economy. Without them, the ability of business to operate effectively could be compromised and the health and wellbeing of residents will be put at risk. London's natural capital must therefore 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 data 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 AMBITIONS 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 and training opportunities.
6. London has the most skilled and talented workforce in the world.
7. London is a global leader in innovation and creativity.
8. London remains 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 cleaner, greener and ready for the future.
12. London plays a leading role in the global transition to a low carbon circular economy.
13. London has higher productivity relative to other global cities.
14. London continues to contribute to the UK economy so that London and the UK grow together.

## 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 nearly a half of all service exports<sup>11</sup>. Against 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.

London's growth is vital to the economic growth of the rest of the UK<sup>12</sup>. London's international reputation for business has been established over centuries; it cannot be replicated or transplanted to another part of the country. London needs continued investment to maintain this. If resources such as funding for vital infrastructure were to be diverted from the capital, this could undermine London's international competitiveness and investors could look to other global cities. Any loss of investment would damage not just London's economy, but the national economy as well. The Mayor is keen to strengthen collaborations with other UK cities and regions to support continued national economic growth.

## 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

<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> GLA Economics (2017), '[An analysis of London's exports](#)'. Working Paper 91.

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

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

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>, and other projects such as Crossrail 2 and the Bakerloo line extension could have the same potential. Of the world's largest 250 companies, 40% have their European headquarters in London<sup>16</sup>. These, and other 'anchor' institutions, have supply chains that stretch right across the UK. Transport connections from London, such as the

London, Stansted, Cambridge, Peterborough growth corridor, are a crucial part of this value chain.

- 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 2017, the surplus in public sector revenue was equivalent to £3,697 per person. The only other regions to run surpluses were the south-east (£2,150 per head) and the east of England<sup>17</sup>. A successful London economy is therefore vital to the UK exchequer.

<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'.

<sup>17</sup> ONS (2018) 'Country and regional public sector finances: Financial year ending March 2016'. Experimental statistics.

**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% of visitors to London go to another UK location outside London, injecting around £641mn a year to the national economy<sup>18</sup>.

## THE MAYOR'S APPROACH

The Mayor has a vital role to play - not only helping the economy to grow, but helping it to grow in the right way. This Economic Development Strategy takes a fresh approach to growth. Inequality is not inevitable and growth does not need to be at the expense of our environment. In this strategy, the Mayor sets out how he will create a fairer, more inclusive and sustainable city with an economy that works for all Londoners. He will do this through creating the conditions for 'Good Growth'. That means helping to ensure London has the workspace for businesses, the supporting transport, social and wider (such as utilities and digital) infrastructure, the high quality natural environment, affordable housing

and skills that the economy needs to grow sustainably and productively. He will help to shape the direction of future innovation so that it better meets the needs of London and Londoners, increasing participation in innovation from more diverse groups and lower value sectors. He will help innovation to flourish across the whole economy by directing investment, enabling the right collaborations, and showcasing London's strengths to attract further investment. He will create a business environment that is not only friendly – in terms of helping investment and growth – but is also crucially fair, where all companies play by the rules and where all Londoners stand to benefit. This will bring benefits to all.

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



**AN INCLUSIVE  
ECONOMY FOR  
LONDON**

**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 sustainable city. Together, we can help maintain London's position as the world's greatest city for business, by adopting the Good Growth principles and ensuring that the proceeds of economic prosperity are distributed more fairly. The Good Growth visual illustrates how each of the Mayor's statutory strategies will collectively enable Good Growth.

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,
- **Transport** - through TfL, the Mayor invests around £10bn each year in running and improving London's transport network<sup>20</sup>. With investment, the delivery of the Mayor's Transport Strategy will help support growth in London's economy, encourage active travel and help to create high-density mixed-use places.
- **Housing and land** – the Mayor has responsibility for investing in new affordable homes through the [Homes for Londoners](#) team and will help to ensure all Londoners have access to good quality homes they can afford. 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.

<sup>19</sup> The London Legacy Development Corporation and the Old Oak and Park Royal Development Corporation.

<sup>20</sup> Total costs for 2017/18 including operating costs, new capital investment and renewals were estimated to be £10.2bn. See Transport for London (2017), 'Transport for London Budget 2017/18'.

- **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 Wider South East. He supports the creative industries too through his investment in [Film London](#), [British Fashion Council](#) and [London Design Festival](#).
- **Culture and heritage** – the Mayor works with partners to enhance, promote and protect London's culture and heritage and to ensure all Londoners can access it. 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>21</sup> (LEAP) the Mayor supports small businesses by funding the [London Growth Hub](#). This provides a single access point for business support in London, including access to finance, affordable workspace and workforce development.
- **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. From August 2019, he will gain control over the Adult Education Budget (AEB). This will mean he is able to ensure that the devolved AEB is tailored to meeting the needs of Londoners and London's changing economy.
- **Environment** – the Mayor works to ensure London's environment is protected and enhanced so that London remains a clean, green and healthy city for workers and residents.
- **Health** – the Mayor works to improve the health of all Londoners, including workers, and to reduce health inequalities. He coordinates and delivers a range of activities covering healthy schools and workplaces, healthy early years, mental health and the physical 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 Commissioner](#).

<sup>21</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.

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 taxation and spending decisions are made by central government<sup>22</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>23</sup>.

The rest of this strategy 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 and how progress against the strategy will be monitored.

<sup>22</sup> Approximately 74% of London's funding comes from centralised grants, compared to 31% in New York, 17% in Paris and 8% in Tokyo.

<sup>23</sup> See the arguments made by the London Finance Commission (2017), '[Devolution: a capital idea](#)'.



## **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>24</sup>, with the most up-to-date data monitoring of London's economy available from the London Economy Dashboard<sup>25</sup>. Drawing on this evidence, this 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, ahead of many major European nations including Belgium, Norway and Sweden<sup>26</sup>. Our economy reflects the character of our city – global, open, innovative, diverse and dynamic – and these characteristics help to make it one of the most prosperous cities in the world. London is a global economic centre and there are more people living and working in the capital than ever before<sup>27</sup>. This enables many people in London to enjoy a very high standard of living with average weekly household incomes higher than the rest of the UK<sup>28,29</sup>.

London is also a global financial capital, with a unique ecosystem that has built up around it. Today, there are more head offices of banks in London than in any other city in the world, and over 250 foreign banks have an office in London<sup>30</sup>. Other sectors like tech and the creative industries are also growing, with global leaders like Apple, Google, Amazon, Facebook and many others, investing in the city. 40% of the world's largest 250 companies now base their European headquarters in London<sup>31</sup>.

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

The gap in average incomes between the poorest and richest 10% of residents makes London the most unequal region in the UK<sup>32</sup>. Rising incomes have enabled the rich to accumulate assets like property<sup>33</sup>, with 10% of households estimated to own 50% of London's wealth<sup>34</sup>. These assets have increased in value at a faster rate than the economy as a whole, compounding London's inequalities<sup>35</sup>. While asset rich Londoners are getting richer, two in five

<sup>24</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016'.

<sup>25</sup> <https://data.london.gov.uk/gla-economics/gla-economics-dashboard/>

<sup>26</sup> Based on 2014 Eurostat data. See GLA Economics (2016), 'Economic Evidence Base for London 2016', Table 1, p.4.

<sup>27</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>28</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>29</sup> The three-year average for the period 2011/12 to 2013/14 was £679 compared to £568 in the UK.

<sup>30</sup> The CityUK (2017), 'UK-based financial and related professional services: Enabling Growth Across the UK'.

<sup>31</sup> Deloitte (2014), 'London Futures'.

<sup>32</sup> The lowest earning 10% of households have gross incomes below £231 a week, while the highest earning 10% have incomes above £1,945 per week.

<sup>33</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 mn. This measure incorporates net property wealth, physical wealth, net financial wealth and private pension wealth.

<sup>34</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', Chapter 10, p.558.

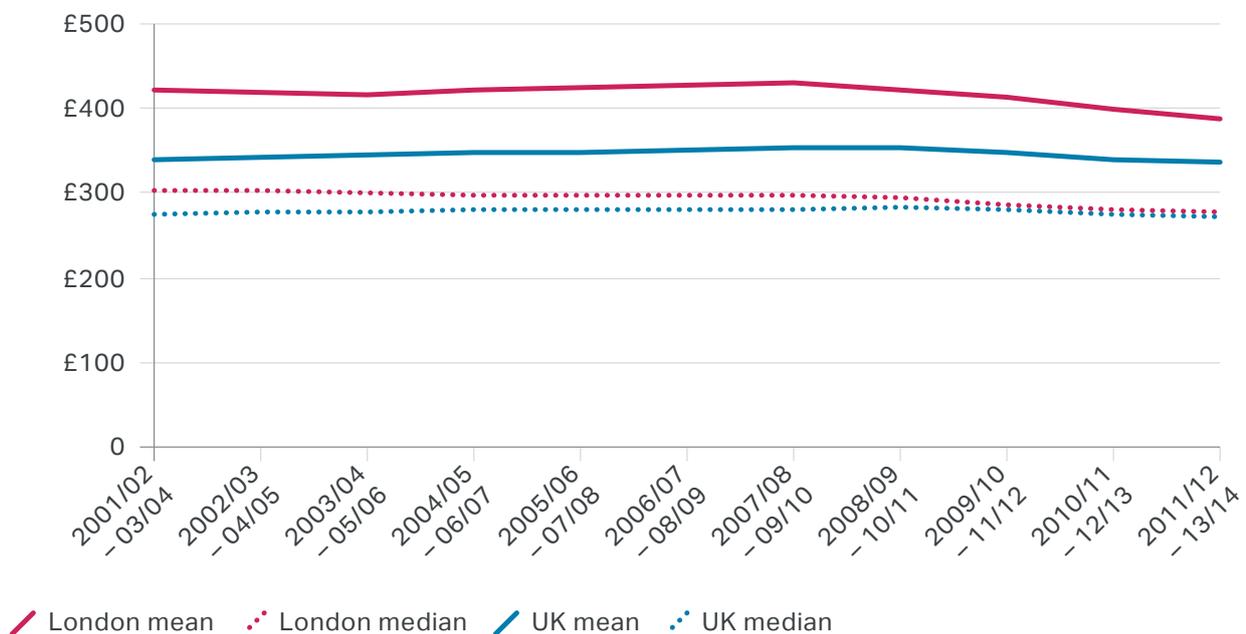
<sup>35</sup> For example, over the period 1997-2007, nominal GVA in London increased by a compound annual growth rate of 6.3%, compared to nominal annual house price growth of 11.7%. Source: GLA Economic (2015), 'House prices in London – an economic analysis of London's housing market', Working Paper 72, Table 3, p.20.

Londoners are living in poverty<sup>36</sup> – this is the highest poverty rate of all regions in the UK. Poverty and deprivation are 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 in many sectors<sup>37</sup>.

**...wages have struggled to keep pace with the rising cost of living...**

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 (inflation). After housing costs are accounted for, average incomes in London are very similar to those in the rest of the UK<sup>38</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>36</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>37</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', Chapter 9.

<sup>38</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, or their levels of anxiety, Londoners score lower than those living in all other UK regions<sup>39</sup>. Possible explanations for this include: longer commuter journeys, longer working hours<sup>40</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>41</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 some London boroughs is as high as 12 years for men and 14 years for women.

**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% 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>42</sup>. And there is also evidence that migration to the UK since 2000 has been of substantial net fiscal benefit<sup>43</sup>.

<sup>39</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>40</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>41</sup> Further detail on London's health inequalities is set out in the [Health Inequalities Strategy](#).

<sup>42</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>43</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 (EU) 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 2016, 14% of jobs in London were filled by people born in the European Economic Area (EEA), compared to just 6% in the rest of the UK. Sectors particularly reliant on labour from overseas include: accommodation and food services; administrative and support services; and construction. 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>44</sup>.

Around 43% of London's exports in goods and 37% of its exports in services go to the EU<sup>45</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, these changes could have a hugely detrimental knock-on effect on the London and wider UK economies.

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

The Mayor campaigned for the UK to remain in the EU 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 barrier-free trade with the rest of Europe, and access to European talent, that have allowed us 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 a leading global business capital. He has established a Brexit Expert Advisory Panel from across business and academia to support him in this mission.

<sup>44</sup> See GLA Economics (2018), 'EEA workers in the London labour market', Current Issues Note 56.

<sup>45</sup> GLA Economics (2017) 'An analysis of London's exports'. Working Paper 51.

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 the commitment to leave the single market.

In his response to the UK Government's White Paper on the UK's exit from the EU<sup>46</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; and
- 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>47</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 pushes for:

- a transitional arrangement with the EU which maintains the status quo of single market and customs union membership; and
- 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 these European funds.

<sup>46</sup> Mayor of London (2017), 'London's Global and European Future'.

<sup>47</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/worker or per hour – is often considered a key factor in determining economic prosperity; higher productivity is linked to higher wages and living standards<sup>48</sup>. London's productivity is more than a third higher than the rest of the UK<sup>49</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>50</sup>), technology, and the creative industries<sup>51</sup>;
- the openness of London's economy, which necessitates businesses having to be highly productive in order to compete, and enables the city to attract international investment;
- the concentration of firms in central London, which accounts for around 52% of London's economic output and 45% of the jobs<sup>52</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>53</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>54</sup>; and
- 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>48</sup> HM Treasury (2015), 'Fixing the foundations: Creating a more prosperous nation'.

<sup>49</sup> Based on GLA Economics (2018), 'Regional, sub-regional and local gross value added estimates for London, 1997-2016'. UK GVA per worker was £50,512 in 2016 and London GVA per worker was £68,742.

<sup>50</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>51</sup> GLA Economics (2017), 'London's Creative Industries – 2017 update', Working Paper 89.

<sup>52</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>53</sup> For a discussion of the benefits of agglomeration see: Nathan, M. and Overman, H. (2008), 'Agglomeration, Clusters and Industrial Policy'.

<sup>54</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', chapter 5.

**...but London compares less favourably to other global cities, and recent productivity growth has been weak.**

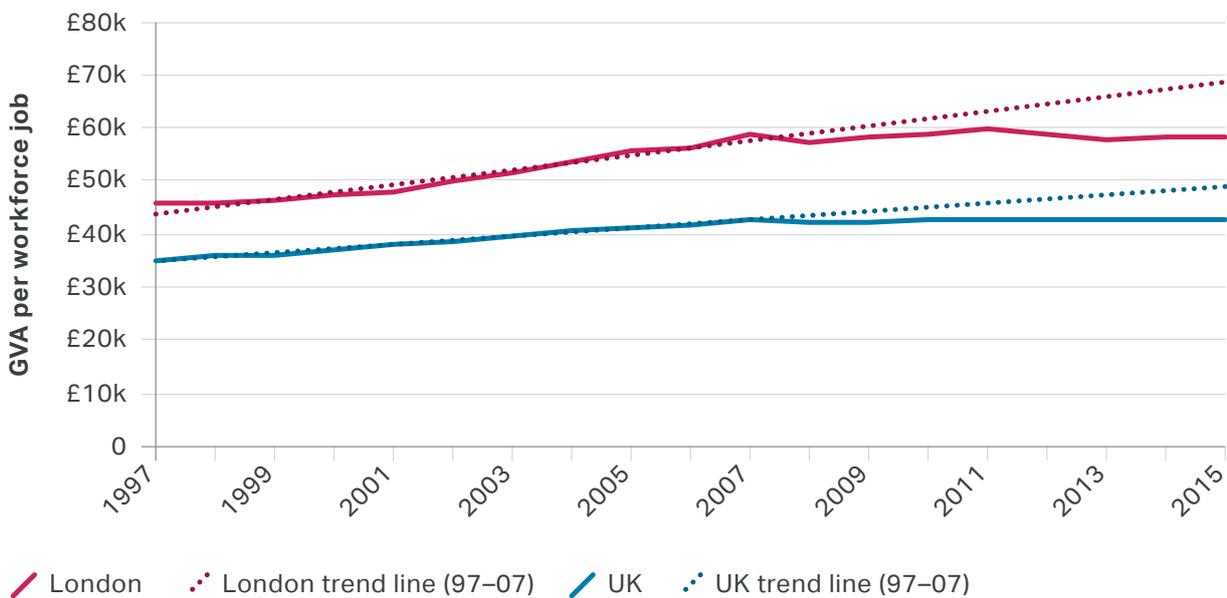
Productivity in London is below that of New York, Paris and Tokyo suggesting that at an international level there is still room for improvement<sup>55</sup>. Productivity performance is uneven in London with central areas performing stronger than outer areas<sup>56</sup>. Moreover, productivity

growth in London has slowed - as it has done for the whole of the UK and 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>57</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>55</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>56</sup> GLA Economics (2018), 'Regional, sub-regional and local gross value added estimates for London, 1997-2016'

<sup>57</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 particularly high among certain groups...**

While the gap has been closing, unemployment in London is still higher than the rest of the UK<sup>58</sup>. People from certain ethnic minority backgrounds and disabled people are less likely to be in employment (see Figure 4). The proportion of women of working age in employment is also lower than the rest of the UK<sup>59</sup>; this may be particularly

explained by the higher costs of living, notably childcare, and a lack of flexible working opportunities. Unemployment also varies spatially across the city; boroughs with higher levels of deprivation have higher unemployment rates<sup>60</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>61</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.

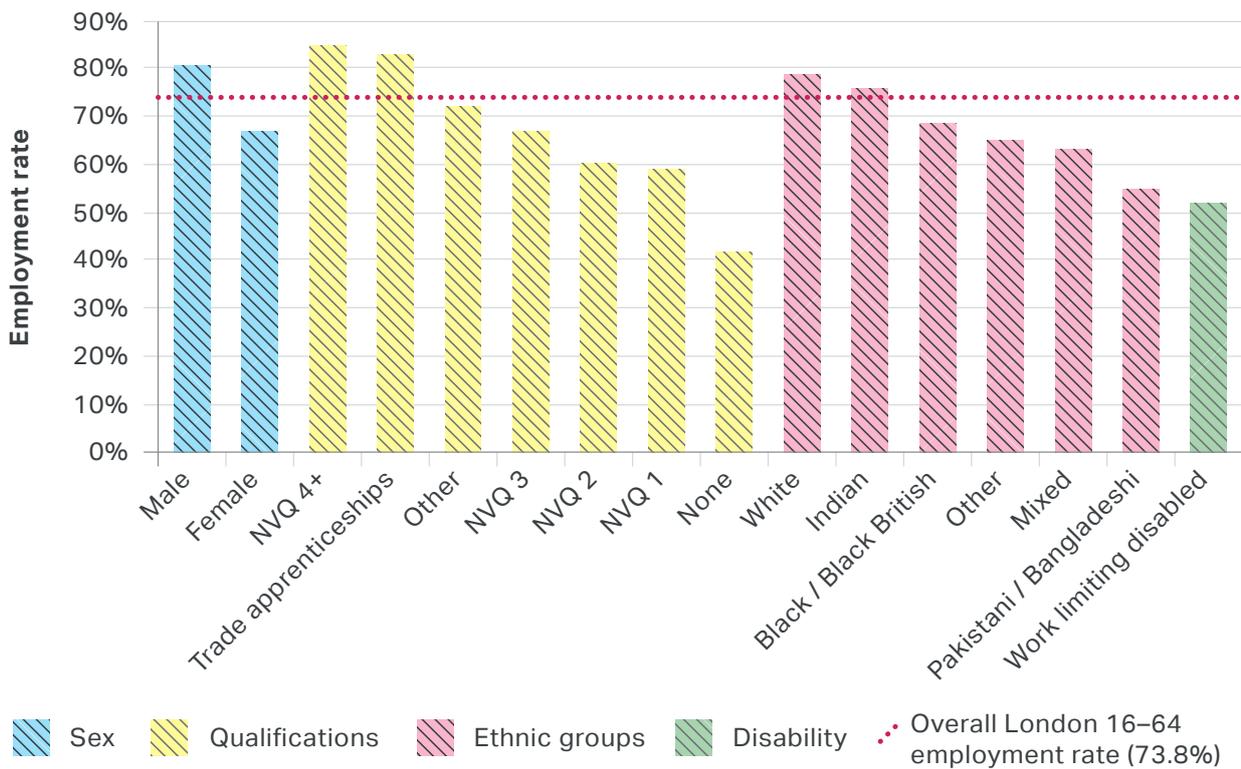
<sup>58</sup> Based on ONS Labour Force Survey data. See GLA Economics (2016), 'Economic Evidence Base for London 2016', p.428. This trend is generally statistically significant but not for all years.

<sup>59</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>60</sup> For example, the unemployment rate in Barking and Dagenham was 10.4% in 2016.

<sup>61</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 good job is generally considered the best way out of poverty, yet in London 21% of working families live in poverty and approximately 200,000 Londoners claim in-work benefits. There are also a growing number of people in lower-paid 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>62</sup> and lower paid occupations have seen the fastest rates of growth in self-employment. The number of Londoners on zero hours contracts<sup>63</sup> was five times higher in 2015, than it was in 2008. Close to 40% of these people are underemployed and want more hours, a second job or a new job with more hours<sup>64</sup>.

<sup>62</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', Chapter 9, Figure 9.6, p.418.

<sup>63</sup> Zero hour contracts are employment contracts that offer no guarantee of a minimum number of hours.

<sup>64</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 of children gaining five A\*-Cs including English and Maths is now higher in London than other regions of the UK.

### **...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 the lowest performing female ethnic group<sup>65</sup>. Looking at attainment levels among all ethnic groups 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>66</sup>. Gypsy, Roma and Traveller children have the lowest attainment levels at every key stage<sup>67</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% of London pupils have mathematics skills equal to the average child in Shanghai<sup>68</sup>. This gap threatens London's future international competitiveness.

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

Access to clean water, clean air and green space is often taken for granted – but these are essential to the health of workers and residents. Without them the economy cannot function sustainably; it is therefore important that these are not only protected but enhanced.

<sup>65</sup> The Sutton Trust (2016), 'Class differences: ethnicity and disadvantage'. Chapter 9, Figure 9.10, p.422.

<sup>66</sup> Equality and Human Rights Commission (2010), 'How fair is Britain, the first triennial review'.

<sup>67</sup> Department for Education 2016, National and Local Authority Tables.

<sup>68</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>69</sup>. Poor air quality is associated with many health problems including lung and heart diseases. It affects the health of all Londoners, but it is people in the lowest socioeconomic groups that are more likely to be exposed to poor air quality<sup>70</sup>. Nearly a quarter of London's primary schools are based in areas of the city that regularly exceed the legal limits for nitrogen oxides (NOx)<sup>71</sup>. Having a poor environment in which to live and work could make it harder to attract business and talent to the city.

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

Rising 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 (from seas, rivers and rainfall), heatwaves and droughts affecting peoples' health, wellbeing and the overall 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% of global GDP each year<sup>72</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>73</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>74</sup>. The capital's population is also expected to grow by 1.98 million to reach 10.78 million by 2041<sup>75</sup>.

<sup>69</sup> King's College London (2015), '[Understanding the Health Impacts of Air Pollution in London](#)'.

<sup>70</sup> Aether (2017), '[Updated Analysis of Air Pollution Exposure in London](#)', Report to Greater London Authority.

<sup>71</sup> Ibid.

<sup>72</sup> Stern, N. (2006), '[Stern Review on the Economics of Climate Change](#)'.

<sup>73</sup> In 2016, London accounted for 22.7% %of the UK's total GVA, up from 18.5% %in 1997 See GLA Economics (2018), 'Regional, sub-regional and local gross value added estimates for London, 1997-2016'

<sup>74</sup> GLA Economics' central projection shows employment increasing from 5.7mn jobs in 2016 to 6.9mn jobs in 2041, an increase of 1.2mn jobs. See GLA Economics (2017), '[London labour market projections 2017](#)'. The total number of employee jobs in Greater Manchester in 2015 was 1.21m according to ONS BRES data sourced from Nomis.

<sup>75</sup> Based on the central projection in GLA Intelligence (2017), '[2016-based Trend Projection Results](#)', Update 2017-09.

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

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 costs and making the city a less pleasant place in which to walk, cycle and spend time. London also 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, early years education and 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 EU, 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 (AI) and automation will revolutionise some sectors and industries and help to boost productivity, but could also put some 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. 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 across the public, private, voluntary, community and social enterprise sectors, including trade unions, to support Londoners and London businesses to adapt to this new economy. The Mayor will also commission research and convene groups of experts to develop a better understanding of the opportunities and risks facing London – including any potential distributional effects.

# 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
- 5 National devolution

## DISRUPTIVE TECH AND INNOVATION

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



## DEMOGRAPHIC AND SOCIAL CHANGE

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

## TRANSITION TO A LOW CARBON CIRCULAR ECONOMY

- 20** Climate change / Decarbonisation
- 21** Cost of natural resources
- 22** The need for greater resource efficiency
- 23** 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, trade unions, 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 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 active citizens 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 start with a world class education system which gives every child the best start in life. This means high quality early years education, 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>76</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. From 2018 new GCSE exams are graded with a new scale from 9 to 1, with 9 being the highest grade.

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 exam subjects is of concern particularly considering the importance of the creative sector for the London economy<sup>77</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 to raise awareness of the educational challenges, making sure all Londoners, employers and businesses get the skills they need to succeed in a fair, inclusive society and thriving economy. His [Skills for Londoners](#) strategy is the first dedicated post-16 skills and adult education strategy produced by a London Mayor. It sets out the skills challenges London faces, along with priorities and action required to make the London skills system the envy of the world and achieve the Mayor's vision. Working with a range of stakeholders including skills providers, trade unions, employers, boroughs, his Skills for Londoners taskforce, the Skills for Londoners Business Partnership and [LEAP](#) will help to realise his vision and deliver a city-wide approach to skills.

<sup>76</sup> Report of Professor Sir Adrian Smith's review of post-16 mathematics, July 2017.

<sup>77</sup> The Stage (August 2017), 'GCSE arts subjects in 'free fall' as results confirm 9% decline in entries'.

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

The earlier a child starts to learn the better they do in school and later on in life, which is why early years education is so important<sup>78</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>79</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>80</sup> and it is often children from disadvantaged backgrounds who are missing out. By the age of five, children eligible for free school meals are almost three months behind their more affluent peers. **The Mayor will work with stakeholders to help improve quality and access to early education in London, so families can find childcare that meets their needs. 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);
- including a requirement in the new draft London Plan for boroughs to identify and address local needs for childcare and identify sites for future provision in their Local Plans;
- helping to improve the skills of those working in the sector;
- improving parents' access to high quality early education and childcare by setting up new Early Years Hubs<sup>81</sup>;
- promoting the benefits of free school meals for eligible children; and
- improving early years learning environments by rolling out his Healthy Early Years programme<sup>82</sup>.

<sup>78</sup> Public Health England (2016), 'Health matters: giving every child the best start in life'.

<sup>79</sup> Cattán, S., Crawford, C., and Dearden, L. (2014), '[The Economic Effects of Pre-school Education and Quality](#)', Institute for Fiscal Studies, IFS Report R99.

<sup>80</sup> In 2016, 86% of 3 and 4 year-olds in London took advantage of their free part-time place, compared to 95% nationally.

<sup>81</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>82</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.



### **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% of state-funded schools are rated as 'good' or 'outstanding'<sup>83</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 to ensure that they can continue to raise pupils attainment. 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>84</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.

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>85</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>86</sup>.

### **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 and digital skills are becoming more important too.

<sup>83</sup> Mayor of London (2017), '[Annual Education Report 2017](#)'.

<sup>84</sup> Ibid.

<sup>85</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 %) and 105,000 places in the secondary sector (26.5 %) above current levels.

<sup>86</sup> See the [Getting Ahead London website](#) for further information.

The Mayor will help young people to develop these skills through volunteering and social action opportunities organised by [Team London](#)<sup>87</sup>, as well as 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% of entries to A-level Computing in London were from females and just a fifth of entries in Physics<sup>88</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, sixth form colleges, further education colleges and universities need to work with the business community to help pupils 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 framework developed jointly with London Councils and LEAP.

The London Ambitions goal is for every young Londoner to access independent careers advice and get at least 100 hours experience in the world of work before the age of 16. Programmes like the [Careers Clusters](#) programme and the [London Ambitions](#) portal help 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 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. Team London will continue to develop the [Enterprise Adviser Network](#) which connects businesses to schools with the help of business volunteers.

<sup>87</sup> Team London is the Mayor's volunteering programme.

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

The Mayor 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). The Mayor will host an equal pay conference to help tackle gender stereotyping from a young age and 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 and will fund 5,000 primary and secondary students underrepresented in STEM to undertake science projects and achieve the national CREST award.

The Mayor will also seek to address the under-representation of women and BAME Londoners in the construction sector and tech workforce, through programmes such as the [Mayor's Construction Academy](#) (MCA) and the [Digital Talent](#) programme.

### **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. 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. roll-out the Healthy Early Years programme across London and deliver the Early Years Hubs to improve the health and wellbeing outcomes of children under five, and upskill early years practitioners – 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 and women, 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; and

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 and colleges to cover actual costs, including for special educational and disability needs, and increases in teacher pay and National Insurance costs;
- government makes available adequate capital and revenue funding for local authorities to ensure they can provide sufficient childcare to meet local need;
- government helps childcare providers to make the most of any discretionary rate relief benefits they are entitled to and introduces a national rate relief for child care providers.
- government makes available school improvement funds in London to sustain teacher professional development 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 and support the expanding Enterprise Adviser Network with business volunteers; and
- London’s universities support student entrepreneurship across the education system.



### 3.2 OPPORTUNITY FOR ALL LONDONERS

London needs a diverse labour market to create jobs that are accessible to all. Opportunities need to 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 Londoners. Employment is vital for helping to lift people out of poverty, helping to improve their incomes and also their health and wellbeing<sup>89,90</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, working conditions and job security<sup>91</sup>.

Improving progression pathways into intermediate and higher-level skills is a key objective for the Mayor. City Hall will work with careers services, JobCentre Plus, further education providers, higher education institutions, trade unions

and employers in London to promote participation in learning, progression and raise awareness of the benefits and need for regular reskilling and up-skilling, particularly for older, low-paid and low-skilled Londoners. The Mayor will seek to do this as part of his ambition to create an all-age careers offer for London. Through the **Workforce Integration Network (WIN)**, he will also work with businesses in key growth sectors, trade unions and voluntary, community and social enterprise sector partners, to increase employment rates for groups who are currently underrepresented in London's workforce.

#### 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. The Mayor will conduct research into the reasons behind London's higher rates of non-continuation and degree transfer in higher education institutions. 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, the voluntary and community

<sup>89</sup> For example, see Waddell, G. and Burton, K. (2006), 'Is work good for your health and wellbeing?'

<sup>90</sup> ONS (2012), 'Analysis of experimental subjective wellbeing data from the Annual Population Survey', April to September 2011.

<sup>91</sup> Marmot, M. et al. (1985 onwards) 'The Whitehall II Study'.

sector 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).

As part of this, the Mayor will work collaboratively with further education providers and other key stakeholders to promote access to and raise awareness of entitlements and available sources of financial support for learning. This includes the Advanced Learner Loans and associated bursary funds as well as maintenance loans as these come on stream, to support the increase in the take up of learning at intermediate and higher-level skills.

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 to work), some of which fall under the Mayor's influence. The Mayor and LEAP have committed around £295mn from the European Social Fund (ESF) towards

skills, employment, enterprise 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, including up-skilling those already employed in low-paid and low-skilled occupations.

However, Brexit means this funding and the programmes are at risk. The Mayor will seek to expand the range of ESF programmes on offer that target the most disadvantaged groups, by utilising London's remaining uncommitted ESF funds 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. Most want to improve their English language proficiency, but often face barriers due to the limited availability, sufficiency and flexibility of **English for Speakers of Other Languages (ESOL)** in London. Demand frequently outstrips supply and sometimes the courses do not meet the needs of learners.

Through his Skills for Londoners strategy, ESOL Plus pilots<sup>92</sup>, devolved Adult Education Budget and remaining ESF, the Mayor will work with employers, trade unions, providers and local authorities to support the development of innovative approaches to the strategic planning and commissioning of ESOL alongside 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, trade unions and the business community, the Mayor will work to improve job opportunities for offenders and develop their skills to make them

more employable<sup>93</sup>. The Mayor will also work with the Ministry of Justice, London Councils and MOPAC on a refreshed memorandum of understanding (MoU), including exploring the potential for devolution of offender education and skills services that are currently the responsibility of a range of government departments.

### Adult Education

London needs good quality adult education to encourage people to continue their learning through life. This enables them to develop the skills needed to access employment, progress in work and respond to the changing demands of an economy that is becoming more automated, lower carbon and more **circular** in nature. It is important that this transition is just and fair so investing in people and their skills will be essential in the years ahead to ensure that Londoners are able to partake in and benefit from this transition.

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 and those lacking basic skills.

<sup>92</sup> The Mayor's ESOL Plus – Employer Partnership will work with partners to meet gaps in ESOL provision for workers. The Mayor is inviting employers, membership bodies or sector skills institutions to bid for up to £20,000 match-funding to improve the provision of ESOL to employees and evaluate this work to make the case for employer investment in ESOL. For more information see the Mayor's [Social Integration Strategy](#).

<sup>93</sup> Mayor of London (2017), 'A Safer City for All Londoners: Police and Crime Plan 2017-2021'.

The Mayor, working with the sub-regional partnerships, will set out the ambitions, priorities and outcomes for adult education in London through the Skills for Londoners Framework. 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. The aim is to create a skills and employment offer for London that pulls together all relevant investment to provide a more coherent and simplified system.

The devolved AEB will also continue to support levels of key basic skills such as literacy, numeracy, digital and core employability skills. The focus of support will be for disadvantaged and under-represented groups, be it within a classroom or community setting. This will help to ensure that many more Londoners can participate in, and benefit from, employment opportunities in London.

The Mayor recognises the importance of ensuring that learning is physically accessible and delivered at convenient times, to meet the needs of different groups, and will take this into account when commissioning provision through the devolved AEB, ESF and Skills for

Londoners capital funds. The AEB will support the needs of Londoners, particularly those facing barriers to employment and training, such as unemployed and economically inactive people, BAME women, care leavers, people with caring responsibilities, people with specific learning requirements, victims of crime and ex-offenders. Joint working with sub-regional partnerships, drawing in local borough-based networks, will be crucial to ensuring the needs of local communities are met. Through the devolved AEB, **the Mayor will develop flexible, inclusive and integrated skills and training provision** that prioritises improving progression outcomes and enterprise skills.

### **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 BAME population are also more likely to be digitally excluded<sup>94</sup>. Lack of confidence and the cost of digital technology partly explain why many are excluded<sup>95</sup>.

<sup>94</sup> ONS Labour Force Survey, 2015.

<sup>95</sup> ONS Home Internet and Social Media Usage, 2016.

Being able to access and understand health information is essential; as more and more health information is available online, we must act to prevent a digital divide, and equip all communities with the skills they need in modern life, including those with visual or sensory impairment.

To ensure all Londoners gain a basic level of digital skills so that they can fully participate in society, the Mayor will ensure the Government's new basic digital skills entitlement meets London's needs and will also support digital skills training through ESF funding.

The Mayor's £7mn [Digital Talent](#) programme will inspire and prepare more Londoners to join London's booming digital, tech and creative industries and ensure they have the digital skills needed by all sectors of the economy. It includes a focus on attracting more young women and Londoners from a range of backgrounds to work in the sector. The programme aims to increase the volume and quality of training in digital technology by funding new industry-approved courses for 16-24 year olds, ensuring that young people have the skills that employers are looking for. It supports collaboration between training providers, schools, further education colleges, higher education institutions and employers to ensure the curriculum is responsive to labour market needs.

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; and
- promoting the take-up of the basic digital skills entitlement which will be funded by the devolved AEB from 2020/21.

## SUMMARY OF ACTIONS

### The Mayor will:

1. work with trade unions, employers across key sectors and partners across the voluntary, community and social enterprise sector to increase employment rates for groups who are currently underrepresented in London's workforce;
2. work with London's further and higher education providers, trade unions and other key stakeholders to promote the benefits of further learning, and promote Continuing Professional Development (CPD) and succession planning;
3. 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;
4. 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;
5. promote training provision that meets the needs of disabled people, in line with the Special Educational Needs and Disability review;
6. help make ESOL courses more accessible so they meet the needs of different groups of learners in the capital, especially the unemployed;
7. set out priorities and outcomes for adult education in London through an annual skills statement for the devolved AEB from 2019/20;
8. develop a Digital Inclusion Strategy to help increase the number of Londoners benefiting from digital technology; and
9. conduct research into the reasons behind London's higher rates of non-continuation and degree transfer in higher education institutions.

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**The Mayor asks that:**

- government ensures London's funding settlement for the 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 or college; and
- businesses ensure that their employees with English as an additional language are supported to improve their English language skills, to encourage in-work progression and to improve social integration opportunities for all.

### 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>96</sup>. The poverty premium disproportionately affects single adult households especially older people, lone parents and disabled households<sup>97</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 for Londoners to rent and buy, including homes based on social rents, 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 the situation in 2014/15, when just 13% of homes granted planning permission were affordable. The Mayor's [Housing Strategy](#) and the draft [London Plan](#) set out a revised assessment of London's housing needs and proposals to address these needs, including by **increasing housing supply, boosting the supply of genuinely affordable homes**, and promoting better standards of and levels of affordability in the private rented sector, while also providing the transport links to support this new housing<sup>98</sup>.

<sup>96</sup> Tinson, A. (2014), 'Addressing the cost of living from a poverty perspective requires a multipronged approach'.

<sup>97</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>98</sup> The Mayor defines affordable housing in relation to his three preferred affordable housing products: homes based on social rent levels (including London Affordable Rent), homes for London Living Rent and homes for London Shared Ownership. The Mayor is promoting these through his current investment programme and his draft London Plan, as well as other types of affordable housing that are demonstrably affordable to Londoners with reference to the eligibility criteria for his three preferred tenures. For further details please see the Mayor's [Housing Strategy](#).

An important part of this, as set out in the London Housing Strategy, is supporting the growth and diversification of the homebuilding industry to speed up delivery. The Mayor will work with London boroughs and Government to provide a package of support for small and medium-sized builders. This will include:

- making more small sites available through the presumption in favour of development and the Mayor's new Small Sites, Small Builders programme, which will make small, publicly-owned sites available to small developers;
- setting out clearer policies, design guidance, and other support for small sites and small builders; and
- amending the Mayoral [Community Infrastructure Levy](#) (CIL) instalment policy so that small and medium-sized builders can pay less upfront and where local CIL instalment policies exist, encourage councils to do the same.

### **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.

As set out in the Mayor's [Transport Strategy](#), the Mayor has already frozen all TfL fares until 2020 to make them more affordable, and introduced a new Hopper fare, which in January 2018, was extended to 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 and improving connectivity with central London, particularly parts of south London. It is also important to strengthen local links and orbital transport links to support local jobs.

The Mayor has set out a number of actions in his [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 those with disabilities, those with young children 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 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>99</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.

<sup>99</sup> Family and Childcare Trust (2017), 'Childcare survey 2017'.



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>100</sup>. He is urging businesses and organisations across London to follow suit. 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>101</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>102</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% cut in income<sup>103</sup>. Half of households in the bottom half of the income distribution

<sup>100</sup> Devised by the single-parent charity Gingerbread.

<sup>101</sup> University of Birmingham (2015) 'Financial Inclusion Annual Monitoring Report 2015'.

<sup>102</sup> Centre for Social Justice (2014) 'Restoring the Balance: Tackling problem debt'.

<sup>103</sup> StepChange (2014), 'Life on the Edge'.

lack home contents insurance, compared with one in five households on average incomes<sup>104</sup>.

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>105</sup>.

A representative poll of young Londoners, conducted as part of the consultation on this strategy, identified that despite financial education becoming part of the national curriculum in 2014, less than half of respondents could identify having received any advice on how to manage money whilst at school<sup>106</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, the quality of financial education provided in school, 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; and
- **encourage innovators in the tech and financial services sectors to develop new tools** that can assist people to manage their money effectively.

<sup>104</sup> Rowlingson, K. & McKay, S., (2014). 'Financial Inclusion: Annual monitoring report 2014'.

<sup>105</sup> Money Advice Service (2016) 'A Picture of Over-Indebtedness'.

<sup>106</sup> Figures are from YouGov Plc, conducted on behalf of the Greater London Authority. Total sample size was 1,064 adults for fieldwork undertaken between 26th February–1st March 2018. The survey was carried out online. The figures have been weighted and are representative of all London adults (aged 18+).

## SUMMARY OF ACTIONS

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### 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 transport, providing a better experience for disabled and older people, and people with children;
3. help to enable access to more affordable and accessible, high quality early years education and childcare;
4. work with partners to address some of the key causes of financial exclusion and increase financial literacy among young people; and
5. encourage employers who engage with the Good Work Standard to offer affordable financial services to their employees like payroll deducted loans for rent and childcare deposits and membership of credit unions.

### 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;
- government supports local authorities to ensure they are able to meet their sufficiency duty and provide accessible and affordable childcare;
- government conducts a localised, representative annual survey of households on their activities and interactions with financial providers to help determine the scope and scale of financial exclusion in London; and
- government evaluates the effectiveness of financial education in schools.

### 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>107</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 inclusive employment and workforce development practices to 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% of London's workforce) across City Hall, the capital's transport network, police and fire services. The GLA Group spends £11bn 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). The [London Healthy Workplace Charter](#) is one of the key delivery arms of the Good Work Standard. The charter is an accreditation scheme which has been helping London's employers to create healthier workplaces. For example, to improve mental health, employers are encouraged to offer training and raise awareness of mental health and stigma. Over 200 organisations of every size and sector have already been accredited to the charter, benefiting more than 300,000 employees.

#### 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 £7.83 per hour – however, the London Living Wage at the time of writing stands at £10.55 per hour.

<sup>107</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>108</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>109</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% increase in the number of London Living Wage accreditations since the Mayor took office. The Mayor will also ensure that the GLA leads by example, and has tasked his Deputy Mayors and functional bodies to root out cases where the Group was not paying the London 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 trade unions and 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, trade unions 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 should be supported to understand and exercise their rights. Trade unions and collective bargaining enable the voice of workers in the workplace, which is an important route to better employment practices and fairer pay. 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>108</sup> London Economics (2009) '[An independent study of the business benefits of implementing a Living Wage policy in London](#)'.

<sup>109</sup> Trust for London (2012) '[Costs and Benefits of a Living Wage](#)'.

## SUMMARY OF ACTIONS

### The Mayor will:

1. recognise and celebrate employers that promote high standards in employment and procurement through the Good Work Standard;
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;
4. review, refresh and relaunch the London Healthy Workplace Charter in order to take into account new evidence, widen appeal and accessibility to a range of employers, especially the low paid sectors and SMEs, and align with the Good Work Standard; and
5. work with trade unions and civil society organisations to explore the role the Mayor can play in helping to signpost Londoners vulnerable to being exploited to trusted employment rights and advice providers.

### 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, and makes the regulatory changes necessary to improve the quality of work in the UK 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, representative bodies such as trade unions and local councils work with him to promote the principles of the Good Work Standard and the London Healthy Workplace Charter, and encourage engagement from employers across the capital;
- businesses monitor and publish their organisations' ethnicity pay gap as well as their gender pay gap, and take evidence-based action as a result to address inequalities in pay, treatment and representation; and
- 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, which are addressed earlier in this chapter. The Mayor 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.

Child poverty is a particular concern. London's child poverty rates remain the highest in the country. The Mayor will work with government, boroughs, early years and childcare providers and businesses to help **address the root causes of child poverty** – from helping with the cost of living to addressing low pay and lack of flexible working through the London Living Wage and the Mayor's

Good Work Standard. The Mayor will raise awareness and improve the take-up of the various forms of support for which low-income families are eligible, lobby government and work with others to monitor and mitigate against negative impacts of welfare changes, especially on children living in poverty or at risk of poverty. The Mayor will also explore what role schools can play in tackling the causes of poverty, for example, by addressing maternal unemployment or underemployment through the provision of wraparound childcare. He will co-design options and interventions with families and schools which will be piloted across London to test new approaches to addressing child poverty.

Poverty is also closely linked to poorer health outcomes<sup>110</sup>. For example, children living in cold, damp and mouldy homes are almost three times more likely to suffer from respiratory illnesses<sup>111</sup>. Fuel poverty is a particular concern facing disabled and older people as well as children. Through his [Fuel Poverty Action Plan](#) and [Energy for Londoners](#) programme – a package of measures targeted at Londoners struggling with their fuel bills - the Mayor will help to **reduce the levels and impact of fuel poverty** in the capital. This includes: measures designed to improve the

<sup>110</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>111</sup> Friends of the Earth and the Marmot Review Team (2011), '[The Health Impacts of Cold Homes and Fuel Poverty](#)'.

energy efficiency of homes and help Londoners get fair tariffs for their energy, whilst using energy more efficiently. The Plan also includes actions to help Londoners, particularly the long-term ill and disabled, through ensuring that they are getting access to all of the income support they are entitled to, and to target support to households in, or at risk of, fuel poverty, particularly vulnerable households, such as those with long-term illnesses or disabilities.

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 living. The Mayor will work with London's boroughs, the NHS, charities and community groups to realise these ambitions and continue to explore the transfer of powers, decision-making and resources closer to local populations<sup>112</sup>. He will also work with trade unions and employers across London to 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>113</sup>.

Poorer health outcomes make it harder for adults to access work and to be productive when they are working. Improving the physical and mental health, including workplace stress, of Londoners is therefore vital for the economy and to Londoners' wellbeing. The Mayor is committed to ensuring parity of esteem<sup>114</sup> between mental and physical health and is personally championing [Thrive LDN](#), a citywide movement focusing on mental health. The Mayor's Transport Strategy also details the Mayor's adoption of the [Healthy Streets Approach](#), which aims to make London a more attractive place to walk, cycle and use public transport, improving the health and lives of Londoners.

### **Healthy and affordable food**

Access to healthy and affordable food is vital to the health and wellbeing of Londoners. Promoting healthy eating will help to address health inequalities, reduce poverty and build more inclusive communities. Levels of child obesity in London, for example, are too high. The Mayor will convene a Child Obesity Taskforce to examine and address the complex factors which underlie the problem, and the draft [London Plan](#) will restrict the opening of new hot food takeaways near schools and ensure

<sup>112</sup> [London Health and Social Care Devolution: Memorandum of Understanding](#) (Nov 2017).

<sup>113</sup> The London Healthy Workplace Charter provides clear and easy steps for employers to make their workplaces healthier and happier.

<sup>114</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.

the provision and future management of free drinking water. The Mayor will also continue to promote initiatives and programmes such as [Healthy Early Years London](#) that support healthier habits and better outcomes for infants and children across the capital. As part of the draft London [Food Strategy](#), the Mayor has consulted industry and other stakeholders on a ban on advertising of food and drink that is not healthy across the whole TfL estate. A ban of this nature would be the largest intervention of its type in any city in the world.

Food insecurity is also 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:

- 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>115</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;
- promoting skills programmes to enable Londoners to undertake rewarding jobs in the food sector and hospitality industry, via apprenticeships and work placements;
- providing workspace for innovative food businesses and entrepreneurs;
- promoting the role of food markets in fostering entrepreneurship and for building vibrant places; and
- celebrating and promoting London's diverse food cultures and their contribution to London's economy.

<sup>115</sup> NHS Digital (2017) 'National Child Measurement Programme, 2016/17 school year', p11.

## SUMMARY OF ACTIONS

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### The Mayor will:

1. work with boroughs and civil society bodies to help understand the effects of welfare changes and push for changes to government policy;
2. deliver a benefit check service with referral routes for different groups;
3. scope and deliver a pilot of the role of schools as sites of child poverty intervention;
4. deliver his Fuel Poverty Action Plan;
5. work with partners to devise and implement solutions to food insecurity in London;
6. improve access to healthy and affordable food and promote the benefits of eating healthily; and
7. encourage more Londoners to train in mental health first aid, reaching out particularly to younger Londoners and employers.

### 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; and
- 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.



### 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. The city's extraordinary diversity, entrepreneurial spirit and cosmopolitan culture set it apart and are fundamental to the city's economic growth and success. Across the globe London is viewed as a beacon of progress, openness and acceptance. Londoners' ability to embrace change and celebrate diversity should rightly be a point of pride. However, unless there is social integration, diversity can become a source of division. Conversely, effective social integration means people can develop positive connections which ensures diversity remains a strength.

#### **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. By ensuring alignment with '[Secure by Design](#)' principles of 'designing out crime', businesses can also make themselves more secure and less likely to be the victim of crime.

Through [All of Us](#) - his Strategy for Social Integration - the Mayor will build a richer understanding of what it means to create socially integrated places. He will work to create the conditions that support Londoners to have shared experiences, to be active citizens and build positive connections across the city.

As set out in the [Mayor's Transport Strategy](#), the Mayor and TfL have adopted the Healthy Streets Approach to prioritise communities and their health in decision making and create a healthy, inclusive and safe city for all. 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.

### **Citizen-led regeneration**

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 recognises the need for systems which ensure that Londoners can play an active role in decisions that affect their lives. 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 or use collaborative economy models such as crowdfunding, 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. The Mayor will champion community involvement in all of City Hall's work to make sure policies and programmes are informed by Londoners, and better meet their needs and aspirations. He has introduced new approaches to collaborate more closely with the voluntary, community and social enterprise sector to engage with Londoners and promote citizen-led action. Together with LEAP he will fund projects through his [Good Growth Fund](#) and [Crowdfund London](#) programme that result in tangible improvements to quality of life and cater for London's diverse and changing population.

## CROWDFUND LONDON

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Through Crowdfund London, City Hall is exploring how many small projects, delivered by local people, can have a big impact, and how city government can catalyse a powerful mix of public, private and local collaboration.

For the last four years, City Hall has been developing a capital investment programme that uses civic crowdfunding to source grass-roots innovation, promote local engagement and empower communities to collaborate in regeneration. It has grown into an internationally recognised, pioneering tool for city government to work more directly with citizens and align local interventions with strategic investments.

By running crowdfunding campaigns, communities are demonstrating local buy-in, developing new networks of support, accessing a mix of funds and funders (who often contribute skills or

resource to make things happen) and developing local skills and experience for long term resilience and personal development. Participants are also learning about the conflicts at the heart of regeneration and gaining skills to contribute to debates around planning and development issues.

The programme has supported 77 successful campaigns to date, with over £1mn pledged by the Mayor and matched by over £1.5mn from a crowd of more than 9,000 people. Projects have revived historic markets, increased local access to training and skills development, brought underused spaces back to life and supported local economies with new social businesses, civic spaces and community resources that promote resilience. The programme will be scaled up with £4mn of investment by 2021.

To create more inclusive and socially integrated communities the Mayor will work with local authorities, the voluntary, community and social enterprise 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, that reflect Londoners' needs and aspirations drawing on local assets to develop tailored solutions;
- tackle barriers to integration, for example: addressing the decline in social and civic infrastructure, making sure growth creates opportunities for local people, and promoting regeneration which is beneficial to Londoners;
- promote the importance of well-designed, inclusive and high quality public spaces, buildings and housing; where opportunities for community participation, active citizenship and volunteering are maximised; and

- 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>116</sup>.

### **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 integration, 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

<sup>116</sup> Research shows that Employee Supported Volunteering (ESV) is growing in the UK with 70 % of FTSE 100 companies and 20 % 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 %. 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](#)'.

community infrastructure and its value to local people to inform planning at a city and local level. The new [London Plan](#) will provide guidance on how social infrastructure should be planned for in order to support 'Good Growth'.

### **A safer, more secure London**

The economy can only function effectively if people feel safe going about their daily business. Keeping young people in education, enabling progression, access to skills and training, and good quality jobs are all key to reducing the risk of Londoners turning to crime and are the best ways to improve life chances. London remains one of the safest cities in the world. However, safety and security is a serious concern for many people in London. New threats are emerging, including the threat of terrorism, cyber crime, hate crime, knife crime, gang related crime and sexual violence.

“Keeping young people in education, enabling progression, access to skills and training, and good quality jobs are all key to reducing the risk of Londoners turning to crime and are the best ways to improve life chances.”

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 is taking 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 has appointed a Chief Digital Officer for London who will work closely with the police and security services to develop a cyber security strategy that will better protect our digital infrastructure and ensure that Londoners and businesses have the information and resources they need to stay safe online (see chapter 5.6). In addition, MOPAC will continue to support the work of the [London Digital Security Centre](#), providing specialist cyber security advice to small businesses and organisations at an affordable price.

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. Since 2010/11, the Met's general grant funding from the Government has fallen by more than £700mn, or nearly 40% in real terms, on a like-for-like-basis. In recent years, the Met Police have had to find roughly £600mn of savings and the Mayor has found a further £150mn of savings since he took office. A further £325mn of savings are required by 2021/22. The Mayor is also adopting [Vision Zero](#) through his Transport Strategy, with the aim of eliminating all deaths and serious injuries on London's transport system. This can only be achieved through safe street designs and safe behaviours from all road users.

## 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 voluntary, community and social enterprise sector to enable the creation of more socially integrated places;
3. maximise and recognise the value of community participation, active citizenship and volunteering in the process of regeneration and growth through Mayoral programmes such as Crowdfund London;
4. implement the Mayor's Equality, Diversity and Inclusion Strategy and Strategy for Social Integration;
5. work with the Met Police and partners to make London a safer, more secure city confronting violence, extremism and terrorism and improving cyber security; and
6. deliver 'Vision Zero' through his Transport Strategy to help eliminate deaths and serious injuries on London's transport system.

### The Mayor asks that:

- the voluntary, community and social enterprise 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; and
- local authorities engage with communities in developing economic development strategies, Local Plans, town centre strategies and other growth plans.



## 4. Creating the conditions for growth

London's economy and the number of jobs it supports are expected to grow in the coming decades. The number of jobs in London is projected to increase from around 5.7 million in 2016 to 6.9 million in 2041<sup>117</sup>. This projection assumes that London's economic output continues to grow at between 2 and 2.5% 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>118</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 into the future. 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 transport, 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 good quality 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>117</sup> GLA Economics (2017), '[London Labour Market Projections 2017](#)'.

<sup>118</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, and balancing the competing demands for space.
- 2. Transport** – applying the Healthy Streets Approach to encourage 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 and support the transition to an inclusive, low carbon circular economy.
- 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 sustainable way. His approach is set out in the draft [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 over one third of London's jobs and generating almost 10% of the UK's output<sup>119</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 Isle of Dogs North (IODN), 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 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>120</sup>. In the coming years, the city will need a substantial amount of new office

<sup>119</sup> CAZ only. Source: GLA Economics (2016), 'Economic Evidence Base for London 2016'.

<sup>120</sup> GLA Economics (2016), 'Economic Evidence Base for London 2016', chapter 6.

<sup>121</sup> Ramidus Consulting & CAG Consulting (2017), 'London office policy review 2017'.

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>121</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 IODN will continue to be the main focus for office development in London, however Stratford and Old Oak could provide significant capacity to support CAZ type office functions in the future. The area around the new transport superhub in Old Oak will be transformed into a major commercial centre, contributing towards a minimum of 65,000 new jobs due to be delivered in the [Old Oak and Park Royal Development Corporation](#) (OPDC) area. Beyond central London the Mayor wants to **support viable office clusters in town centres** (including those in outer London) as part of creating **diverse local economies**. The Mayor's Transport Strategy also sets out the transport investment needed to support growth in outer London hubs through proposals such as orbital rail services and integrating existing rail services with bus services, walking and cycling routes.

In May 2013, the government made it easier to allow offices to be converted to housing through Permitted Development Rights<sup>122</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>123</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 IODN, 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>122</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>123</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 £1bn deal was announced to create a trade hub for Asian businesses to invest in the UK. In the same year, a £1.5bn 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. High streets are significant and growing places of employment. Forty seven percent of London businesses outside central London are on a high street and 1.45mn employees work on or within 200 metres of a high street. They offer local and accessible economic opportunities for an inclusive London. The social and economic infrastructure provided by high streets and town centres means they are well placed to help meet London's growth challenges.

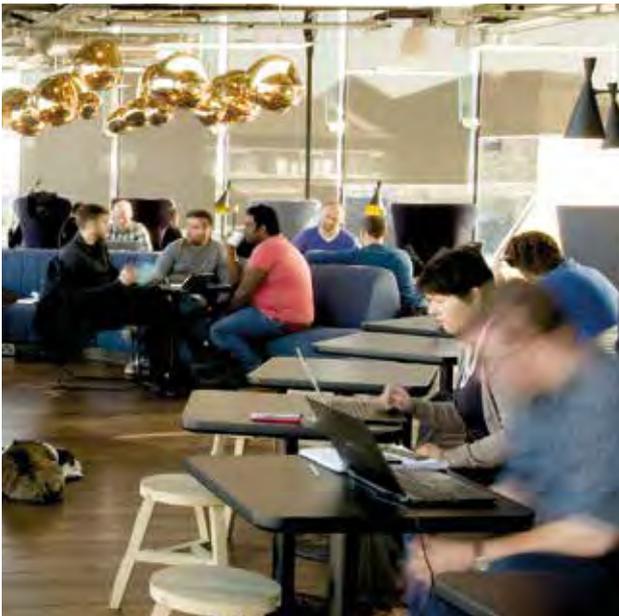
However, for a range of different reasons including the growth of online retail and large retail centres, many high streets are under threat. Investment is needed to develop high streets as destinations and investment in skills is needed to help the sector capitalise on the opportunities new technology presents.

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.

However, town centres and high streets have over and over again shown themselves to be flexible, adaptable and robust. They are inherently diverse, where retail, although prominent, is only one of a range of socio-economic functions. 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. Business Improvement Districts (BIDs) are also playing an increasingly important role in coordinating the revitalisation of town centres where they have been established. The Mayor will seek to **ensure the success of town centres and high streets** by:

- promoting the inclusive and diverse role that London's high streets can play in helping Londoners to improve their economic and social wellbeing;
- 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, street markets and industrial areas, 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;
- convening an annual summit of Business Improvement Districts in order to provide an opportunity to share best practice on the revitalisation of town centres;
- 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 (the draft London Plan will restrict the development of new hot food takeaways around schools); and
- 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 are struggling to survive. The Mayor will also promote the value of London's street markets by establishing a [London Markets Board](#) to provide a forum for addressing the strategic challenges they face.

### **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>124</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. This is possibly due to more customised micro-production and prototyping, particularly in fashion, product design, film and television, and specialist food businesses.

London has a large amount of industrial land especially in areas like Park Royal, which is London's largest industrial area, as well as 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>125</sup>.

<sup>124</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>125</sup> AECOM (2015), 'London industrial land supply and economy study 2015'.

This marked reduction, coupled with steady demand, is beginning to have implications with industrial rents rising faster than elsewhere in the UK.

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.

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; and
- 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. This mix will include affordable workspace - which maintains rent below market rate for specific socio-economic purposes - low-cost workspace, and secondary and tertiary business space available at low rent levels. The Mayor wants to ensure there is adequate business space at competitive rents across the capital, recognising the competing demands for space. He will therefore work with partners to identify innovative models that deliver genuinely affordable workspace through permanent and meanwhile spaces.

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. There is now a need to explore the opportunities for more co-working spaces in London's outer London boroughs, and Mayoral and LEAP funds will continue to support local partners to deliver **innovative workspace solutions** in these areas.

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.

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 also 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).

## LONDON MADE

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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. This dense network of supply and production is revealed in the film **London Made**, London's submission to the inaugural Biennale of Architecture and Urbanism.

While the loss of industrial space in London is a challenge, it has also spurred innovation in the sector. London is home to more than 40 '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.

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% 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;
- making the most of temporarily available space to deliver meanwhile uses, including workspace;
- exploring new approaches to how workspace can be provided that is genuinely affordable to businesses based on challenges faced by specific sectors or underrepresented groups;
- exploring new models for the delivery of sustainable and affordable workspace;
- promoting opportunities suitable for the workspace provider sector; and
- 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

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### 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, markets, high streets and industrial areas, providing funding opportunities to support innovative approaches;
3. help to ensure that London retains sufficient industrial land to keep the economy working efficiently; and
4. support the retention of low cost and affordable workspace using planning policy and enable the creation of new flexible 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; and
- 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 around, and opens up development opportunities. It supports London's businesses through high frequency Tube and rail services, bus connections and cycle routes, and national rail links. It supports international connections via air, water and rail. The road and rail networks play an especially important role in serving London's 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 and polluted in Europe, airport capacity is constrained, and crowding is a growing problem on the Tube and rail networks 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 six million to about 33 million per day by 2041<sup>126</sup>.

The 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 active, efficient and sustainable modes of transport. By 2041, the Mayor aims for 80% of all trips in London to be made on foot, by cycle or using public transport, **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 public 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 Mayor's [Transport Strategy](#) sets out how the Healthy Streets Approach will be applied to make London a better place for everyone through providing a good public transport experience and ensuring London achieves Good Growth.

<sup>126</sup> Mayor of London (2017), 'Mayor's Transport Strategy: Draft for public consultation'.

### Healthy Streets and healthy people

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. By improving London's streets, the following improvements can be achieved:

- enabling active, inclusive and safe travel, by providing accessible, well designed spaces for walking and cycling, the healthiest means of moving around London's streets.
- using street space more efficiently – reducing traffic levels through better managed freight and fewer car trips.
- improving air and environmental quality, and ensuring London's transport system is resilient to the impacts of severe weather and climate change.

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, crowding, 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 more efficient freight journeys to run more reliably, 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 in the city over the course of a month than motorists<sup>127</sup>. It has also been shown that communities living in socio-economically disadvantaged neighbourhoods in urban areas are disproportionately impacted by the negative effects of car dependency such as air pollution and road danger<sup>128</sup>. Moreover, good public transport options for accessing employment and leisure opportunities helps to avoid social and economic exclusion being suffered by people who cannot afford or are unable to drive<sup>129</sup>.

Through improvements to street environments, enhancement of the public transport experience and use of transport investment to unlock the delivery of new homes and jobs in

<sup>127</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'.

<sup>128</sup> UITP, Public Transport as an Instrument for Urban Regeneration, July 2018.

<sup>129</sup> UITP, Public Transport as an Instrument for Urban Regeneration, July 2018.

line with the transport principles of Good Growth, the negative effects of car dependency in London will be reduced and more Londoners will be better able to contribute to the city's economic success.

For individuals, congestion causes stress and frustration and limits the extent of people's travel because bus and other journeys can be slow and unpredictable. For businesses, congestion costs money as workers spend time queuing in traffic, it is difficult to make deliveries on time, and an unreliable road network harms the reputation of London. By 2041 the average Londoner could waste two and a half days a year sitting in congested traffic<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.

The success of London's economy outside central London is particularly dependent on making more efficient use of the streets. In these areas, buses are the main form of public transport, and most freight and servicing trips are made by van or lorry. As London grows,

the demand for freight activity will grow accordingly but, as with all travel, we must ensure that this need is met in a way that minimises its negative impact on the rest of the city. Between 2015 and 2041, van traffic is expected to increase by a quarter as a result of trends in e-commerce, an increase in just-in-time deliveries, and lengthening supply chains<sup>131</sup>. 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 and spend time in, 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% by 2041 (including 3 million fewer car trips per day and 250,000 fewer cars owned in London), addressing the congestion problem at its core, creating streets that cater better for space-efficient freight and servicing trips, that work for local business, and that support the vitality of town centres.

The full range of measures set out in the [Mayor's Transport Strategy](#) should be considered in making the most efficient use of road space.

<sup>130</sup> <http://content.tfl.gov.uk/mts-challenges-and-opportunities-report.pdf>

<sup>131</sup> <http://content.tfl.gov.uk/mts-challenges-and-opportunities-report.pdf>



“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.”

### **Public transport capacity improvements**

London has one of the most extensive public 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. 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>132</sup>.

The Mayor’s Transport Strategy sets out the public transport improvements which will:

- improve safety, affordability and customer service so the whole public transport network becomes easier and more convenient to use for more people;
- improve public transport accessibility so that disabled and older people can travel spontaneously and independently;
- shape and grow the bus network to provide convenient, reliable, accessible public transport options where they are needed; and
- make rail services the most efficient way for people to travel longer distances by tackling crowding and improving the reliability, comfort and appeal of rail travel.

<sup>132</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

## 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, the Wider South East and beyond. London is more dependent on rail than any other city in the UK; 70% of all rail travel (including Tube journeys) in the UK is to, from, or within London. Rail modes account for 80% of the 1.3 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 (which includes maintaining TfL's current assets), 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 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 the transfer of commuter rail services from the Department for Transport (DfT) to TfL in order to help deliver improved customer services more efficiently and more quickly, and to enable better integration with London's wider transport system. In the longer term, the ambition is to bring the simplicity and dependability of the Underground to the commuter rail network. With the right investment, a new London Suburban Metro could deliver reduced journey times and higher frequency services to support the strong economic centre that London is.

The size of the bus network and the affordability of bus services mean that it is the most accessible and most used type of public transport in London, carrying 2.3bn passengers per year. The bus plays a crucial role in the regional and local economy within London and its hinterland, enabling people from all walks of life to access jobs, leisure, education and training 24 hours a day, 7-days a week. TfL's analysis shows that 15% of Londoners use buses to commute to work, and the high level of accessibility means that 56% of disabled Londoners use it at least once a week.

As the city's population grows, demand for buses is expected to increase in outer London, which is where the potential for mode shift to buses is greatest. As set out in the Mayor's Transport Strategy, TfL will re-shape bus services, create new express services, bus transits and orbital routes, and the provision of bus priority measures in town centres.

### **Unlocking homes and jobs**

London's growth requires 66,000 additional homes each year. Transport can be used to help deliver homes and jobs in a way that will improve quality of life by:

- shaping the type of growth in London, using transport services to create high-density, mixed-use places where people can walk and cycle to local amenities, and use public transport for longer trips; and
- shaping the city, using transport to support and direct Good Growth, so the potential for new jobs and homes in underdeveloped parts of the city can be unlocked.

This will contribute to the London Plan priorities for Good Growth, which are to build strong and inclusive communities, to make the best use of land, to create a healthy city, to deliver the homes Londoners need, to grow a good economy, and to increase London's efficiency and resilience.

The draft London Plan shows that the city's growth potential is concentrated in the CAZ and within its town centres and Opportunity Areas, which together form Growth Corridors; there will also be growth potential from the managed intensification of suburban areas. This means maximising the capacity of the existing public transport network, extending the network to open up new areas for homes, optimising land use around stations and radically improving conditions for walking and cycling, supporting higher densities.

Investment in London's transport system to improve service frequency, capacity and provide new connections, is vital to unlock 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.

Along with investment on TfL's existing infrastructure, it will be important to secure funding to deliver new infrastructure to provide more capacity and unlock growth. Crossrail 2 is one of a series of major new regional rail projects that 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 across 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 the 2030s.

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 close to the city centre.

The use of the river Thames can also provide alternate means of passenger and freight travel, and the Mayor is working to provide better connections across the river through exploring new crossings that prioritise walking, cycling and public transport. The Mayor will also take full advantage of any surplus TfL land that could be used to deliver more housing and jobs.

The Mayor's Transport Strategy sets out in detail the level of jobs and housing growth that can be achieved through key projects like the London Suburban Metro, Crossrail 2, the Bakerloo line and DLR, Overground and Tram extensions. The Implementation Plan also sets out other measures that the Mayor and TfL will implement over the next 5 years. A more comprehensive list is set out in TfL's business plan, published annually.

### **Using technology to improve the transport network**

Advances in technology and data analytics provide exciting opportunities to improve London's transport system, including to support people and business to better plan their journeys, potentially helping to make more efficient use of transport capacity at different times of the day. Better data could also support more deliveries and servicing to be co-ordinated and enable greater use of last mile logistics and the use of consolidation centres, helping to ensure goods move around the city efficiently. The Mayor wants to support this innovation and through making TfL data available to developers, over 600

apps are currently available to benefit Londoners and London businesses. Policy 23 of the Mayor's Transport Strategy outlines the principles which guide the management of new transport services in London so that they support the Healthy Streets Approach.

Technology could potentially enable new forms of public transport to complement existing services, such as demand responsive bus services. Where there are opportunities to reduce car dependency and improve the lives of Londoners, the Mayor and TfL will work with developers and technology firms to make sure these are fully realised.

## **TRANSPORT FOR LONDON ACCELERATOR PROGRAMME**

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TfL supported 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 technology start-ups 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 offer a range of masterclasses, one-to-one sessions and networking opportunities to help start-ups better understand their market and public sector procurement processes. This will benefit TfL, 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 a significant number 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% capacity and full capacity during peak periods<sup>133</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 and risk placing London at a disadvantage compared to competitor cities served by less constrained airports.

Upgraded passenger and freight facilities and improved surface access links have an important role to play in making better use of the existing capacity in the London airports system. Nevertheless, 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 Mayor's draft [London Plan](#) sets out a detailed policy on aviation.

<sup>133</sup> Airports Commission (2015), 'Airports Commission: final report'.

## SUMMARY OF ACTIONS

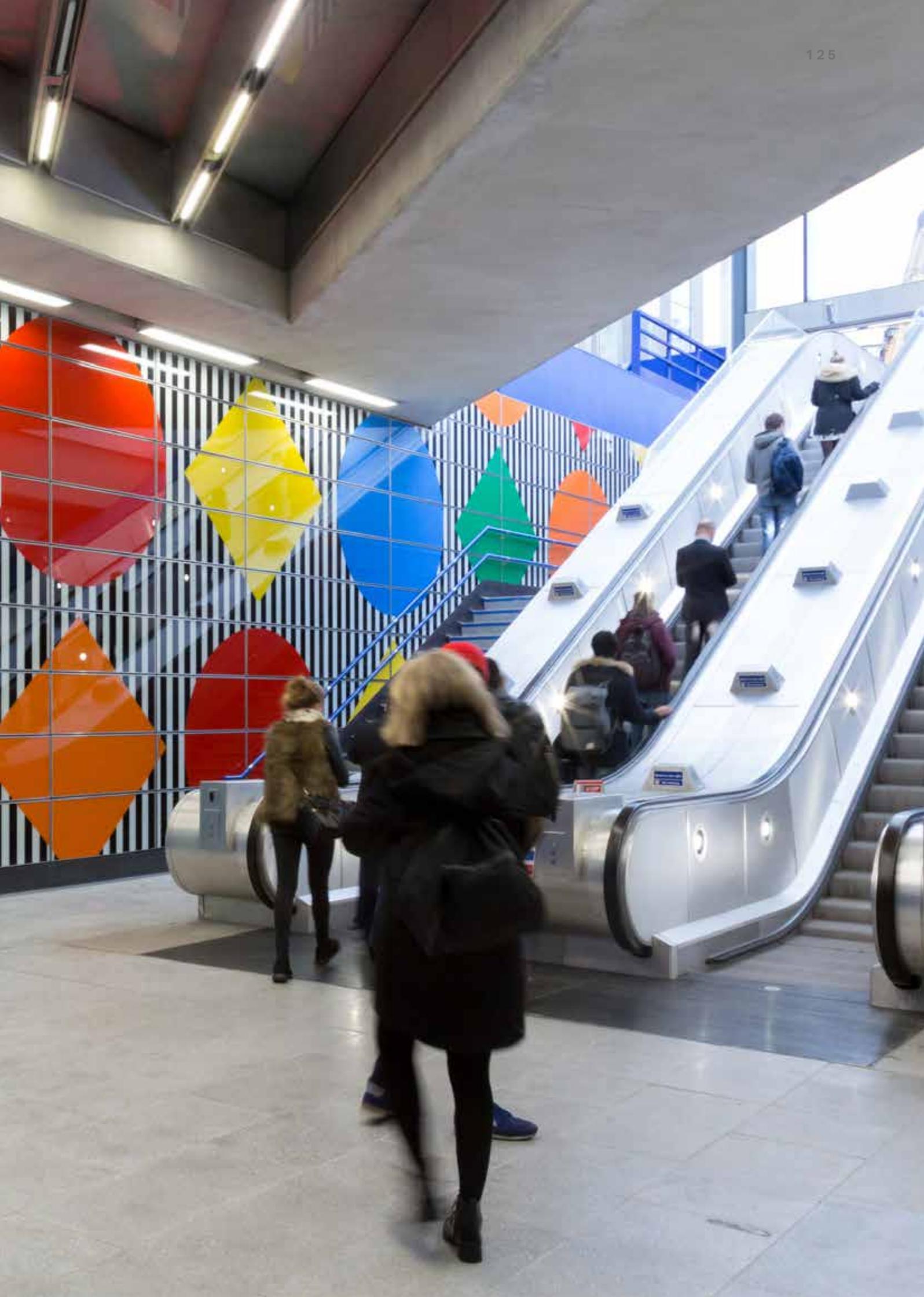
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### The Mayor will:

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; and
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 existing Tube upgrades and Crossrail 2, opening the scheme in the early 2030s;
- government ensures further rail franchises within London are transferred to the Mayor to provide improved service and better accountability; and
- government takes forward new aviation capacity in the South East without severe environmental impacts, notably through a second runway at Gatwick.



### 4.3 INFRASTRUCTURE

London's economy relies on a whole range of infrastructure, in addition to transport, to function effectively; including energy and water networks, sewerage and drainage systems, waste facilities and digital infrastructure. Green spaces also provide vital infrastructure services such as helping to improve air quality or to mitigate flood risk. Combined, this infrastructure is important for supporting economic activity, quality of life, and for achieving Good Growth.

London's growth and the impact of climate change mean its infrastructure is under growing pressure and needs to be maintained, upgraded or replaced through major new investment. This investment needs to be carefully planned and coordinated to minimise disruption to the economy and residents. Congestion caused by streetworks and roadworks is estimated to cost London's economy £750mn per annum<sup>134</sup>. There are opportunities to reduce these economic costs and to be more innovative in the way infrastructure is designed and delivered through better use of data, by sharing best practice and encouraging collaboration among infrastructure providers.

The Mayor will help to **improve the planning, coordination and delivery of infrastructure** in London working in partnership with his **Infrastructure High Level Group** of industry leaders. Across all the major forms of infrastructure, the Mayor will aim to:

- improve coordination and delivery through better sharing of data between developers, utility providers and planning authorities to improve the forecasting of demand and supply, address capacity imbalances, create smart integrated systems, make more informed planning decisions, and reduce disruption and waste caused by construction works;
- promote integrated solutions that use technologies to manage, shift and reduce demand;
- secure 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;
- prioritise strategic infrastructure 'packages' for specific growth corridors identified in [continuous assessments of their infrastructure requirements](#), which should address Mayoral priorities such as becoming net zero carbon by 2050; and

<sup>134</sup> Transport for London statistics, in Frontier Economics (2012) 'Systemic Risks and Opportunities in UK Infrastructure'.

- foster close collaboration with, and between, the utilities providers, regulators, the National Infrastructure Commission, national government, local authorities and developers.

There is a significant gap between the amount of funding London currently receives from central government for infrastructure and what is required if the capital grows at the scale and pace anticipated. The utilities companies will have to pay for much of the water and energy infrastructure needed using funding generated from customer bills. Broadband providers will need to do the same for the fibre broadband network. However, there will still be a large shortfall in some areas which will require new funding and financing solutions. For example, the Mayor is working with stakeholders from across the financial and environmental sectors to improve the flow of 'green finance' into different types of environmental infrastructure. More localised tax and spending powers would enable the Mayor and boroughs to do more to invest in London's infrastructure.

### **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 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 utilising digital and smart technologies to make London a fair and inclusive city, 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. 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 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. TfL will explore this and other options for using their assets to deliver improved digital connectivity and provide a high level of customer service to Londoners.

### **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 water 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>135</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 the sewer network, are required.

New infrastructure will also be required to manage future flood risk in London, due to more extreme weather events 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 (SuDS) in new and existing developments.

<sup>135</sup> Mayor of London (2018) 'London Environment Strategy', May 2018.

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

The Mayor's target for London to be net zero carbon by 2050 will require considerable investment in London's buildings to reduce energy demand and in London's energy system, including retrofitting existing building stock to reduce energy demand. It will also require investment in London's energy supply system to exploit opportunities for using local and renewable energy sources as part of creating a smart integrated energy system that can deliver secure, low carbon and affordable energy to London's citizens and businesses. More localised and renewable energy resources will need to be exploited and developed to create a smarter, more integrated energy system capable of supplying 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 significant new residential and commercial development. London needs an energy system capable of meeting

that demand in a timely and sustainable way, enabling development to happen at the required pace.

London and the UK will also require a far smarter and more integrated energy system to meet its future energy demands whilst continuing to reduce its greenhouse gas emissions. 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 are produced from London's homes, public buildings and businesses each year<sup>136</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 £2bn a year and rising<sup>137</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>136</sup> Mayor of London (2018) '[London Environment Strategy](#)' May 2018.

<sup>137</sup> Ibid.

The Mayor will promote the **'low carbon circular economy'** and the integration of circular principles into evolving business models. These principles promote a 'circular approach' to the use of resources in London, ensuring that materials stay in use for as long as possible, reducing the amount of virgin materials required and maximising recycling.

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. The integration of a more circular approach into business models across all sectors offers London's businesses an opportunity to become more resource efficient and profitable. Adopting a more circular approach will help businesses to become more resilient to price

fluctuations in commodities and future resource scarcity, and stimulating innovation and the adoption of new business models will help to ensure London's economy remains globally competitive.

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

London's parks, green spaces, and other components of green infrastructure such as rivers and ponds, 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 but are often taken for granted. They form part of London's environment and are as

important to the economy as human and physical capital. If London's natural capital continues to deteriorate, or is lost altogether, 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 London Environment Strategy](#) sets out how the Mayor will **protect and enhance London's natural capital**, 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**. The [Mayor's Transport Strategy](#) also sets out the importance of open spaces within new developments to improve the lives of Londoners by providing environments in which walking and cycling are the obvious choices.

"The Mayor will promote the 'low carbon circular economy' and the integration of circular principles into evolving business models."

## 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 and supporting appropriate water resource development, as well as managing rainwater close to where it falls to reduce the risk of flooding;
4. help to retrofit London's building stock and create a smarter, more integrated energy system that will help deliver zero carbon heat and power to meet consumer residual demand 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, and support businesses that operate, or want to adopt, circular economy business models; and
8. work with stakeholders from across the financial and environmental sectors to help increase the flow of finance to address environmental challenges.

### 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, the regulators and infrastructure providers work with him to improve the planning, coordination and delivery of infrastructure in London;

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- government and the regulators put in place regulatory frameworks that give due regard to the Mayor's strategic plans, and which promote data sharing and collaboration between infrastructure providers;
  - government works to encourage planning, coordination and funding in digital connectivity in London by enabling the GLA to have regional strategic and delivery responsibility as a gatekeeper for funding and resources for the improvement of digital infrastructure;
  - 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; and
  - businesses consider how low carbon circular economy business models can help make them more competitive and resilient.

#### 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, schools and national research centres. The diversity of London's university sector is its strength. These institutions have played a fundamental role in supporting London's economic growth – from the translation of world-leading research to the creation of new products and services; to supporting enterprise in education and creating a vibrant enterprise ecosystem supporting business growth (from R&D collaborations to accelerator programmes). This is in addition to the wider economic, social and cultural role London universities play as anchor institutions in their local communities. 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, the benefits of which spill over to the rest of the economy. 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).

Universities and further education colleges have strong local connections with businesses in London often in areas reflecting London's specialisms (such as finance, professional services, life sciences, digital and technology). The Mayor will work closely with universities and the further education sector in London to ensure that academic and technical education delivers for all Londoners and the economy. EU research funding helps our universities to thrive, enabling our researchers to collaborate with the best minds from across the Union 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 £1bn to GDP during 2014-15<sup>138</sup>). The Government

<sup>138</sup> Universities UK (2016), 'Economic Impact On The UK of EU Research Funding To UK Universities'. Report by Viewforth Consulting Ltd.

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.

### **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.

The Mayor's priority is for the Government to ensure a flexible, national system for non-EU nationals, while maintaining qualified freedom of movement for EEA nationals (the Single

Market)<sup>139</sup>. However, the risks of a hard-Brexit remain – both before and after the transition period. If this occurred, the [Mayor's response](#) to the Migration Advisory Committee (MAC) in December 2017, outlines which sectors are most exposed to restrictions in EU and non-EU labour (these include construction, tourism, the health and social care and the technology sector). This, along with his regular dialogue with business, universities, public services and other stakeholders, will inform the Mayor's recommendations to Government.

The Mayor believes that remaining in the Single Market, with qualified freedom of movement, should not mean a tightening of opportunities for non EEA-nationals. UK cities need a flexible immigration system for non-EU nationals, one 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 government's approach to immigration should allow talent from around the world to come to 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](#)) as well as the £422mn ESF, delivering a range of skills and employment programmes in London; and from 2019 the AEB will be devolved to the Mayor.

Using these new powers and working with stakeholders, the Mayor wants to make the London skills system the envy of the world and 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

<sup>139</sup> Mayor of London (2017), '[Immigration: a future approach](#)'

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. In particular, London's proportion of the Apprenticeship Levy should be ring-fenced and devolved to London's government allowing partnerships with business to support a wider range of skills and employment interventions in the capital.

To help boost London's productivity, all of the capital's employers and businesses need to have access to the

skills they need to be competitive. The creation of a more responsive and agile skills system is key to realising this, but the responsibility does not lie solely at the door of skills providers. There is a need for employers to increase levels of engagement with the skills system and to boost investment in workforce and work-based training. Trade unions play an important role here, in particular [Union Learn](#) and the [Union Learning Fund](#).

The Mayor believes that training opportunities need to be flexible enough to meet the ever-evolving needs of both employers and individuals. The Apprenticeship Levy has the potential to be used to upskill or reskill individuals who are seeking a career change, and the Mayor will work with employers and trade unions to consider whether more flexibility (e.g. part time working) can be built into apprenticeships to attract Londoners facing barriers to work and training, such as those entering the workforce after a break (e.g. women returners and army veterans) and carers.

The Mayor has set out in the [Skills for Londoners](#) strategy his vision and priorities for a City for all Londoners – making sure employers and businesses get the skills they need to succeed in a fair, inclusive society and thriving economy. 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. The Mayor will work with London's borough and sub-regional partnerships, trade unions, businesses and employers, skills providers, and the voluntary, community and social enterprise sector to make the London skills system the envy of the world and achieve this vision.

Alongside this strategy, the Mayor is publishing the **Skills for Londoners Framework**, which will set out funding priorities for the AEB in London as well as more detailed proposals for overcoming barriers to participation and achievement in adult education, including flexible and accessible provision for disadvantaged groups. The Mayor will work with boroughs and sub-regional partnerships to ensure that the devolved AEB prioritises support to meet need, including for the most disadvantaged groups facing complex barriers, such as BAME communities, women, the homeless and ex-offenders.

## THE MAYOR'S DIGITAL TALENT PROGRAMME

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London's economy is becoming increasingly digital and requires a workforce with a new set of skills. The Mayor's Digital Talent programme, which runs until 2021, 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% of their pay bill. The Mayor believes that London's proportion of the Apprenticeship Levy should be ring-fenced and 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 will continue to lobby for devolution of the levy and shape this into a Skills Levy.

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. The Mayor calls on government to provide flexibility on the 10% limit that levy-paying employers can direct from their levy account to non-levy paying employers to enable more SMEs to provide apprenticeships.

### **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 MAYOR'S CONSTRUCTION ACADEMY SCHEME

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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 and support future growth, as set out in the draft London Plan, the Mayor has pledged to establish a construction academy (MCA) 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. The MCA 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.

The MCA will build upon the impressive results achieved through TfL's **Tunnelling and Underground Construction Academy**. This was established to provide the skills training needed to carry out the Crossrail project and for the wider industry. It is Europe's only specialised soft ground tunnelling training facility, and has trained 20,000 people since opening in 2011.



## SUMMARY OF ACTIONS

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### The Mayor will:

1. promote the strengths of London's research base to businesses, investors and global partners, and support knowledge transfer between universities and businesses;
2. use the Adult Education Budget, once devolved, to tailor skills provision, including digital inclusion 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; and
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 participate 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; and
  - 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;
  - government provides flexibility on the 10% limit that levy-paying employers can direct from their levy account to non-levy paying employers to enable more SMEs to provide apprenticeships; and
  - 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 sectors like FinTech and CleanTech (see chapter 5). New firms spring up daily to take advantage of new opportunities in the economy. In a hyperconnected digital world, entrepreneurs are more easily able to target global markets. London also 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 business growth removed.

#### **Support for start-ups, microbusinesses, SMEs, social enterprises and growth businesses**

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, microbusinesses, SMEs, social enterprises 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. As well as simplifying and coordinating London's business support landscape, the London Growth Hub will supplement the existing business support offer through a range of initiatives. This will include support provided by the Mayor, local authorities, national government and the private sector, and will be delivered through business support programmes, triage and signposting, online tools and multimedia business support resources. The Growth Hub will also support businesses to employ people who face greater barriers to accessing employment, such as long term unemployed people and those from other disadvantaged backgrounds, as part of the Good Work Standard.

As part of the London Growth Hub offer, LEAP will fund a range of projects that will support London's start-ups, microbusinesses, SMEs, social enterprises and growth businesses in a range of topics that encourage their financial stability, sustainability and release their growth potential. This will include support tailored to the needs of people from BAME backgrounds, those with disabilities 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](#) (BGP) which works to help London SMEs, both indigenous and foreign-owned, to realise their growth ambition and expand in the capital through a bespoke 3-month programme of workshops, mentoring, and events.

Through the London Growth Hub and other business support initiatives within the GLA Group, the Mayor will support

start-ups, SMEs, social enterprises and growth businesses across all sectors to develop their leadership skills, be ready to respond to the challenges posed by Brexit (such as any future changes to trade agreements and import/export duties), and to introduce sustainable business practices, embracing the circular economy.

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, including through the GLA Group's procurement processes, such as opportunities for SME builders through developments on GLA and other publicly owned sites. This forms a key element of the Mayor's Responsible Procurement Policy and through implementation of this policy will deliver innovative approaches to break down barriers that restrict SMEs, community sector organisations and underrepresented groups from entering our supply chain.



### Sustainable business growth

Through the London Growth Hub and programmes such as [Advance London's](#) business support service, the Mayor will enable start-ups, SMEs, social enterprises and growth businesses in London to capitalise on the benefits of the circular economy. Advance London is a free business support service that is jointly funded by the London Waste & Recycling Board and ERDF for SMEs looking to scale their circular economy business or those looking to transition to a more circular business model. This is complemented by an investment programme that has been designed to offer support to circular economy SMEs at various stages of maturity.

### 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>140</sup>. Gaps include

micro loans, early and mid-stage venture capital, and debt and equity for established SMEs<sup>141</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 fund, called Greater London Investment Fund (GLIF). The GLIF will provide debt and equity finance to those businesses seeking to increase productivity and scale-up to achieve their growth ambitions and those aiming for long-term sustainability. It will focus on the key sectors outlined in chapter 5. The fund 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 social enterprises in London.

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.

<sup>140</sup> The unmet demand for finance from SMEs in London is estimated to be between £300mn and £1.1bn 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>141</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',

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 can be a significant running cost for small businesses. Under the current system business rates bills are based on the property's rateable value; periodic revaluations update these rateable values to reflect changes in the property market (the next is in 2021 and thereafter at three-year intervals). At the last revaluation in 2017, some businesses in London faced sudden large increases in their rates with further sharp rises in future years expected. Although various measures were introduced by the Government to reduce the initial impact of the revaluation for small businesses, the increase in rateable value bears no reflection of the performance of their business and can be difficult to manage.

The Mayor will continue to make the case to government for the **full devolution to London 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>142</sup>. These types of controls are standard tools for city governments in many European and global countries. The Mayor will urge Government to implement full business rates as soon as possible. When there is greater certainty about future levels of retention, he will be able to examine options with London Councils to reform the system, including designing a tax framework which recognises London's unique commercial property market and business make-up. And, in line with the London Finance Commission's recommendations, if further, more substantial, devolution was to occur, London's government, including local authorities and sub-regional partnerships, should explicitly **balance growth incentives with equity considerations** as part of the governance arrangements. 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

<sup>142</sup> London Finance Commission (2017) '[Devolution: a capital idea](#)'

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.

**The Mayor will develop a London Trade Plan** 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 continue to deliver his [International Business Programme](#) (MIBP) through London & Partners which supports companies to scale up and internationalise, as well as support 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, and attracting global entrepreneurial, freelance and academic talent to support innovation and growth.

## SUMMARY OF ACTIONS

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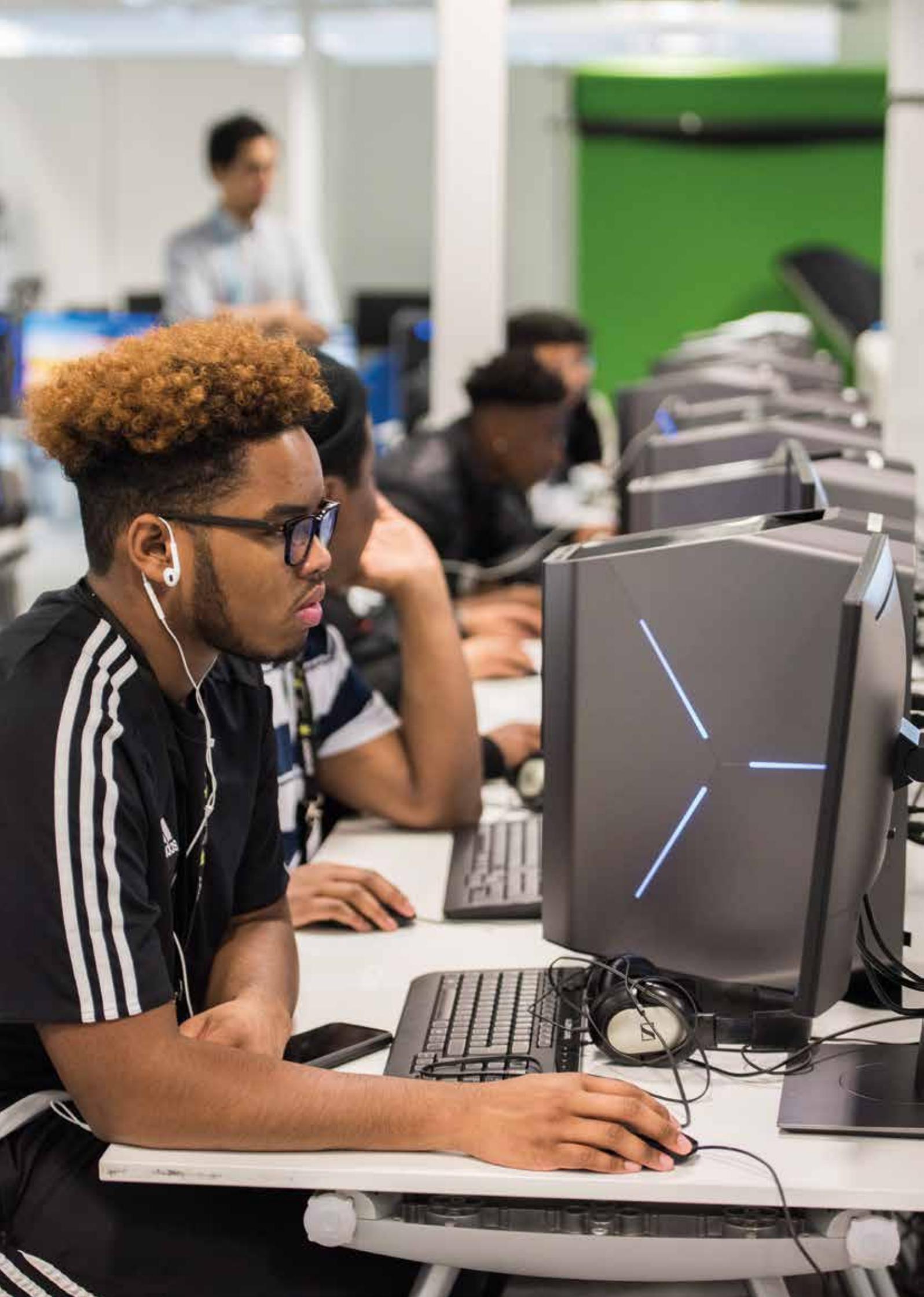
### The Mayor will:

1. work with London & Partners to attract and retain investment in London;
2. support start-ups and business growth across London through the London Growth Hub and delivery programmes such as the Business Growth Programme;
3. build on the successful MMC London Fund and the London Co-investment Fund by launching the £100mn Greater London Investment Fund that targets high growth enterprises and addresses the funding gap facing high growth firms; and
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 Trade Plan to support London's current and future 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 attracting global entrepreneurial, freelance, and academic talent to support innovation and growth;
- government provides additional funding to Growth Hubs as well as the current core grant to enable more targeted, intensive support for London's entrepreneurs, start-ups, SMEs, social enterprises and growth businesses;

- 
- business support providers and local authorities work with the London Growth Hub to help coordinate London's business support offer to ensure an easy-to-access, joined-up 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 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; and
  - government reviews the business rates system – to raise the threshold for the rateable value under which small businesses pay no rates, and offer greater flexibility over reliefs, for example reliefs for certain industries such as nurseries and childcare providers and reoccupation relief for empty retail premises.



## 5. Supporting London's sectors

The Mayor wants London's economy to continue to grow, but he also wants to shape the direction of that growth and what it delivers for London and 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 low carbon and circular in nature** to make London a greener, cleaner and more sustainable 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 and create good quality jobs in the future.

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>143</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, where London's CleanTech businesses are leading the way, driving the transition to a low carbon circular economy;
- the **tech and digital** sector, which is helping to drive innovation across all sectors of the economy and providing platforms for entire new industries, business models and services; and
- **tourism**, which gives London an international profile, attracting people from across the world, and showcases London as a diverse and open city.

London has developed an enviable global reputation in these industries. Businesses in the capital have specialised and traded globally in them.

<sup>143</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.

That is why securing strong trading relationships with the rest of the EU and the world after Brexit is vital. 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 and an ageing population<sup>144</sup>, through his [Civic Innovation Challenge](#) programme. The Mayor can also incentivise innovation in a number of other 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.

**Innovation and transformational change occur when different sectors collide so it is important that sectors are not considered in isolation**<sup>145</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 to maximise national productivity. This ambition will be set out in greater detail in the Mayor's forthcoming Industrial Strategy.

<sup>144</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>145</sup> Ibid.

## THE KNOWLEDGE QUARTER

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The Knowledge Quarter (KQ) is a partnership of over 90 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 AI and machine learning cluster to emerge.

## 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 advanced mobility sector;
- digital technology; and
- 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** - a centre of excellence for low carbon propulsion;

- **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;
- the **Smart Mobility Living Lab** - designed to operate as an open innovation environment to test the use and development of CAV (connected autonomous vehicle) technology across the Park; and
- **East Works**, which 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.

The Mayor's aim is to help shape the direction of innovation so that it leads to **fairer, more inclusive and sustainable growth**. This strategy has set out what the Mayor will do to enable **Good Growth** in sections 3 and 4. Private sector businesses have the most critical role to play - in investing in cleaner growth and technology, and in the skills and diversity of their workforce to create the future skilled and adaptable employees London's economy needs. Diverse workforces breed creativity and those businesses that embrace it will be at the cutting edge of developing the innovations that will change the world<sup>146</sup>.

#### **Potential further sectors of focus**

In relation to skills delivery, the Mayor will commission analysis of how skills provision in London currently matches up to labour market need across London's sectors, and will identify further occupational and sectoral challenges of significance for London's economy. This work, and the creation of a Skills for Londoners Business Partnership, will provide a focus, in addition to the list of opportunity sectors highlighted above, that will inform the Mayor's work with employers and providers to steer provision - helping to ensure that the devolved AEB and wider technical and vocational education system delivers fairer and more inclusive growth across sectors and meets business need. Employer engagement will be promoted to improve the relevance and quality of training in key sectors from construction and digital to the creative industries, and to address the under-representation of women, BAME and other under-represented groups working in STEM sectors in particular.

<sup>146</sup> McKinsey & Company (2018), '[Delivering Through Diversity](#)'.

## SUMMARY OF ACTIONS

### The Mayor will:

- produce an Industrial Strategy for London, working closely with Government, businesses, institutions, boroughs, trade unions, UK-wide LEPs, cities and regions to maximise productivity nationally and locally, and enable more inclusive growth;
- foster collaboration across different sectors and disciplines to shape the direction of innovation so that it better meets the needs of London and Londoners; and
- commission analysis of how skills provision matches up to labour market demand across London's sectors, to inform AEB/ESF interventions and the Mayor's work with employers and providers.

### The Mayor asks that:

- government supports London's collaboration with other UK cities and regions to help drive innovation where sector strengths align and maximise national productivity;
- businesses engage with London's challenges through the Mayor's Civic Innovation Challenge programme and innovate with technology and data to identify solutions; and
- businesses invest in the future of their workforce to enable a skilled, adaptable and diverse labour market that will support innovation and growth<sup>147</sup>.

<sup>147</sup> See the [Mayor of London's response to the Industrial Strategy](#).

## 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 Tube, 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 to utilise smart technologies to help London become a fairer and more inclusive city. 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', and deliver [Smarter London Together](#).

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

The Mayor is putting data at the heart of London's government. 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. 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, civil society 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. We will help boroughs to both use and preserve the security and privacy of sensitive data in areas from social care to housing - services that need new business models using data and digital technology to make them affordable to boroughs to provide at the quality all Londoners deserve. Collaboration between the boroughs, public service providers, civil society, 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 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 applications** and work to build trust with Londoners in **data privacy and security**. For example, we are supporting a programme to connect the record systems of different NHS and partner organisations to improve the care and support of people who move between the NHS and council services, from housing to social care and children's services (see Life Sciences section on p187).

## 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 will help to create more efficient and inclusive services for Londoners. Our Chief Digital Officer will bring boroughs together to create common digital applications and services that can be built and shared, 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, early years, schools, transport and wider infrastructure, and 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. The Mayor wants collaboration not just across London, but between London and other cities in the UK and across the world. 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.

The Mayor will champion a smarter, more capable public sector that works in partnership with the private sector in order to develop new technologies. For example, the draft London Plan states that new developments should be fitted with smart infrastructure, such as sensors, to enable better collection and monitoring of data in the performance of the built and natural environment,

including, for example, water and energy consumption, air quality, noise and congestion. Through the Horizon 2020 programme, the GLA has secured €25mn to support new digital technologies in transport and energy (see case study). As part of this work London boroughs are jointly procuring smart lampposts to collect standardised data on congestion, air pollution, potholes, and noise levels. The Mayor will support innovation through common standards and initiatives in smart infrastructure procurement, so that the industry can innovate at scale with confidence.

The public procurement power of the GLA Group, the boroughs and public services will create further demand and opportunities for co-investment in digitised public services and smart city technologies. In these ways, the Mayor can help to increase business investment in sustainable energy, transport and other areas. Through his [Responsible Procurement](#) Policy, the Mayor can also help to increase workforce diversity and fair employment practices in the advanced urban services sector. The Mayor will encourage suppliers to the GLA Group to have a workforce that is more representative of the city's diversity, including through monitoring the gender pay gap.

## BUILDING THE CITY'S RESILIENCE TO DISRUPTION

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)

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, electric bicycles and cars.

## SUMMARY OF ACTIONS

### The Mayor will:

1. identify key social, economic and environmental challenges and identify business cases that will enable London's entrepreneurs to innovate with data and technology to help create a fairer, more inclusive and sustainable economy;
2. work with the advanced urban services sector to improve the service design of digital services to be inclusive and responsive to the needs of users from different backgrounds;
3. support suppliers in this (and other) sector(s) to have a workforce that is more representative of the city's diversity, including through monitoring the gender pay gap across the GLA Group's key suppliers, as he implements his Responsible Procurement Policy;
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;
5. work with London boroughs and investors to support investment in urban demonstrators to showcase how digital technologies can be scaled to maximise these impacts; and
6. establish new digital leadership with the Smart London Board and deliver Smarter London Together, including:
  - 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; and
  - Making data safer and able to be used more effectively by better data sharing, and personal- or cyber- security.

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**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 that 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; and
- firms in the advanced urban services sector increase the diversity of their workforce and engage with the Mayor's Good Work Standard.



## 5.2 CULTURE AND CREATIVE INDUSTRIES

London is a leading creative capital, which attracts talent and enterprise from all over the world. London 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 £47bn for the economy<sup>148</sup>. It is also one of London's fastest growing sectors<sup>149</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>150</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>151</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 and need fit for purpose spaces to experiment. Creative businesses are concerned that the UK's departure from the EU could stem the flow of international talent and have an impact on creative service exports (see chapter 2 for the Mayor's position on Brexit) while arts subjects in schools are deprioritised, potentially damaging the future talent pipeline.

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>152</sup>. Up and coming talent is struggling to find places to perform as grassroots music venues are being lost<sup>153</sup>. The number of London's pubs continues to decline, though the number of jobs remains

<sup>148</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>149</sup> Between 2010-2015, Gross Valued Added in the Creative Industries grew by 5.5 % in nominal terms compared to an average of 4.6 % for all industries in London.

<sup>150</sup> Mayor of London (2015), 'Take a closer look: a cultural tourism vision for London 2015-2017'.

<sup>151</sup> See the [What Works Centre for Wellbeing](#) for evidence on the impact of sport and culture on wellbeing.

<sup>152</sup> Greater London Authority (2014), 'Artists' workspace study, report and recommendations September 2014'.

<sup>153</sup> Greater London Authority (2015), 'London's grassroots music venues: rescue plan'.

stable. Rising rents, business rates, or tensions with new developments over noise are common reasons given by owners forced to close.

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.

## **GAMES LONDON**

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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 £4.5bn 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 £25mn of potential business so far. Games London's wider business programme – which included outbound missions and in-bound 'familiarisation trips' – has delivered a further £10mn in signed business deals.

## **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.

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.

## 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>154</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 £26bn to the economy, accounting for one in eight jobs<sup>155</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>156,157</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>154</sup> Mayor of London (2017), 'From good night to great night: a vision for London as a 24-hour city'.

<sup>155</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>156</sup> Mayor of London (2017), 'Culture and the night time economy supplementary planning guidance: draft for public consultation'.

<sup>157</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.

### **Culture and Good Growth**

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 continue to be 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 help boroughs plan better for culture. This will cover places where culture is both 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 East Bank, and through planning policies.

The Mayor wants to make use of all of London's natural assets. For example, the Mayor wants to realise the full potential of the River Thames and will work with partners, including through the Thames and London Waterways Forum, to develop a new culture vision for the river.

More and more, however, 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 24-hour 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 the longer term the Mayor is seeking greater control over the administration of the business rates system, so these issues can be considered as part of a wider economic strategy.

In response to the pressures facing London's cultural and creative sector, the Mayor will also pilot the development of the UK'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 will help to set up a Creative Land Trust which will safeguard affordable creative workspace for the long-term. The [Creative Land Trust](#) will acquire property to lease to studio providers, and will support providers to acquire property directly, enabling them to participate more

proactively in London's dynamic property market to help stem the loss of permanent affordable workspace in the city.

East Bank at the Queen Elizabeth Olympic Park will be home to internationally renowned culture and education institutions, including the London College of Fashion, the BBC, University College London (UCL), the Victoria and Albert Museum, the Smithsonian, and Sadler's Wells.

This new hub will promote innovation and collaboration and is set to become one of the largest cultural destinations in Europe. The relocation of the London College of Fashion to the Queen Elizabeth Olympic Park will mean over 5,000 fashion students studying in East London. Building on the area's rich fashion and craft heritage, and focusing on innovative new fashion products and services, there is potential for a fashion cluster to emerge which could transform the sector.

## FASHION DISTRICT

Initiated by London College of Fashion, University of Arts: London (UAL) and supported by the Mayor of London, a number of organisations united around a shared ambition to retain and strengthen London's status as a global fashion capital. The Fashion District brings together LLDC, Poplar HARCA, the Trampery, Fashion Enter, Newham College, Westfield, UK Fashion & Textiles Association (UKFT), British Fashion Council (BFC) and the London Boroughs of Hackney, Newham, Tower Hamlets and Waltham Forest.

The Fashion District 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 relocation of the London College of Fashion to East Bank.

The partnership has developed a broad-ranging Action Plan to support the sustainable and inclusive growth of the sector. It aims to tackle a range of structural issues, ranging from access to finance, affordable space and skills, as well as to boost the capacity for innovation across the value chain, harnessing the potential of fashion and technology to create new products and processes, generate IP and foster new talent.

There is significant capacity and potential for growth in East London to strengthen London's creative and cultural productivity and innovation. In partnership with North Kent, South Essex, the [South East Local Enterprise Partnership and the South East Creative Economy Network](#), the Mayor has launched a bold vision for a [Thames Estuary Production Corridor](#).

The Thames Estuary 2050 Growth Commission report has strategically endorsed the vision and stated that 'there is a real potential to ensure that its ambitions are realised'. 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 production facilities of scale, primarily repurposing strategic industrial land, dispersed along 200 miles of land lining the River Thames. It will 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. In partnership with higher and further education partners across the Corridor, the state-of-the-art facilities will create hundreds of jobs and apprenticeships, training and work experience opportunities for local people along the Thames Estuary. It will also pilot a

blueprint for technical education, putting skills and local talent development at the heart of the vision. As set out in the Mayor's Transport Strategy, transport infrastructure will need to support the Corridor.

The Royal Docks Enterprise Zone will be a focal point of the Corridor (see chapter 4.1). The Mayor and Newham Council are working together to embed culture at the heart of the plans for the area, with a focus on artist workspace for creative, cultural and tech companies. Next door, [City Island](#) will be the new home of the English National Ballet's company and school, offering training and rehearsal facilities. Dagenham is another area of opportunity. A study commissioned by Barking and Dagenham Council and the Mayor has shown that Dagenham East is an ideal location to build a world-class film and television production complex, with the potential to generate around 780 full time jobs in the local area and £35mn each year for the economy. The Council's Regeneration company, Be First, has selected Los Angeles-based film and TV production facilities company Pacifica Ventures, working with Media Content Capital, as preferred partners to deliver the studios on a 20 acre site.

The Mayor is working with a wide range of stakeholders to turn the vision for the [Thames Estuary Production Corridor](#) into reality. A case for investment



study is currently being undertaken in partnership between the GLA, the South East Local Enterprise Partnership, the Royal Docks Enterprise Zone and the London Boroughs of Bexley and Lewisham.

**Old Oak and Park Royal**, London's largest regeneration project, is another area with significant future potential. The Old Oak and Park Royal area is transforming, creating more than 25,500 homes, 65,000 jobs and a transport super hub bringing HS2, national rail and the Elizabeth Line together. The Mayor will work with the Old Oak and Park Royal Development Corporation to create a new commercial centre and cultural quarter around the planned Old Oak Common station, which will be the UK's largest sub-surface station.

### **Creative Londoners**

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 as technology advances<sup>158</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.

This must start at school, but the Mayor is concerned that the arts have been downgraded in response to growing pressures on school budgets, changes in how schools are rated in league tables, and difficulties in teacher recruitment and retention. As well as the opportunities for young people across the many programmes in his draft **Culture Strategy**, Culture for all Londoners, like the Fourth Plinth Schools Awards, Gigs and the London Music Fund, he also supports culture through the London Curriculum. Together, these programmes will increase opportunities for young people to engage with culture and develop their creative talents.

The Mayor will work with creative industry leaders to develop **skills plans for the creative industries**, initially by scoping a London Screen Industries Skills Plan, exploring how existing and future skills policy and programmes can better support creative skills development in the capital. This may include programmes and projects funded via the devolved AEB, ESF and the **Skills for Londoners Capital Fund**, as well as promoting the industry as an opportunity sector with the planned expansion to the **London Enterprise Adviser Network** and apprenticeships pilot activity.

<sup>158</sup> According to research by Nesta, 87 % 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](#)'.

The Mayor will also strive to achieve a step change in the **diversity and inclusivity** of the creative workforce. He will partner with a range of industry bodies and trade unions to look at practical ways to open creative employment up to people from every background, engaging with them on his Good Work Standard, encouraging employers to offer paid internships and to become London Living Wage accredited.

### **Love London**

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>159</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. He will deliver the **London Borough of Culture** programme in Waltham Forest and Brent in 2019 and 2020 respectively, as well as activities from six Cultural Impact Awards across six boroughs and a new creative leadership programme for young people from diverse backgrounds, investing in the next generation of creative leaders.

The Mayor has launched **Culture Seeds**, a £1mn micro-grants programme to fund grassroots culture. It will fund individuals and community arts organisations that often miss out because they are too small to qualify for many grant funds, and provide access to resources, advice and networks so these groups can make the most of their grant.

He is also launching two pilots to increase cultural engagement among Londoners, including a cultural offers and discounts package for families and young people and a scheme to reward volunteering.

<sup>159</sup> GLA Intelligence, Headline Insights, December 2016 You Gov Poll

## SUMMARY OF ACTIONS

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### The Mayor will:

1. work to secure investment in the development of the Thames Estuary Production Corridor and explore a new blueprint for technical education;
2. publish a Cultural Infrastructure Plan which will be the first city-wide evidence base of cultural infrastructure;
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 through establishing a Creative Land Trust, Creative Enterprise Zones and his Good Growth Fund;
6. help more Londoners to engage in culture through the London Borough of Culture competition, Culture Seeds and engagement pilots;
7. promote the night time economy in line with the vision for London as a 24-hour city; and
8. encourage a step change in the diversity and inclusivity of the creative workforce - encourage employers across the sector to offer paid internships, become accredited as London Living Wage employers and sign up to the Good Work Standard; working with trade unions to further diversify the sector.

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**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 the role of London's cultural industry in generating £47bn per annum to the economy, attracting inward investment and acting 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;
- boroughs work with him to embed culture in planning and local places, collaborating to deliver programmes including the London Borough of Culture and Creative Enterprise Zones; and
- employers across the sector sign up to the principals of the Good Work Standard and London Living Wage, and invest in the skills and diversity of their workforce.

### 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>160</sup> and has one of the most competitive financial ecosystems globally<sup>161</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>162</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 £59.7bn in 2016, equivalent to 15.1% of the London total<sup>163</sup>. The business services sector accounts for a further £174.9bn<sup>164</sup>. Financial and professional services in London are also vital for the UK's exports. It is estimated that London exported £28.3bn of financial services in 2015 - more than half of the UK's financial services exports<sup>165</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 £72.1bn in 2016/17, which represents 11% of the Government's total tax receipts<sup>166</sup>. Around half of the economic output generated by the UK's financial services sector is generated in London<sup>167</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>168</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>160</sup> TheCityUK (2016), 'Key facts about the UK as an international financial centre'.

<sup>161</sup> Z/YEN (2018), 'The Global Financial Centre Index 24'.

<sup>162</sup> Legal Business (2017), 'The Global 100'.

<sup>163</sup> Based on GVA(I) from: GLA Economics (2018), 'Regional, sub-regional and local gross value added estimates for London, 1997-2016', Current Issues Note 57.

<sup>164</sup> GLA Economics (2018), 'Regional, sub-regional and local gross value added estimates for London, 1997-2016', Current Issues Note 57162 ONS Regionalised estimates of UK service exports

<sup>165</sup> ONS Regionalised estimates of UK service exports



<sup>166</sup> PWC for City of London Corporation (2017), 'Total tax contribution of UK financial services', tenth edition.

<sup>167</sup> GLA Economics (2018), 'Regional, sub-regional and local gross value added estimates for London, 1997-2016', Current Issues Note 57162 ONS Regionalised estimates of UK service exports

<sup>168</sup> All jobs figures sourced from GLA Economics (2017), 'Labour Market Projections 2017'.

## FINTECH

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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>169</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 tech such as big data, analytics, cognitive computing, and distributed ledger technology<sup>170</sup> – which are 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>171</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>172</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>173</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>174</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. Once the detail of the UK's future relationship with the EU becomes clear, the Mayor will review the need for additional interventions to help the sector address the specific challenges posed by Brexit.

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'

<sup>169</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>170</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>171</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>172</sup> FCA: New Regulated Payment Services: AIS and PIS

<sup>173</sup> The CityUK (2017), 'Key Facts about the UK as an international financial centre'.

<sup>174</sup> London First (2017), 'An Agenda for Jobs and Growth'.

“The Mayor has set up a number of funds to improve access to finance, and will explore the potential for more funds to help London firms reach scale.”

(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.**

To the sector's advantage, the capital's bankers, lawyers and accountants represent many of the nationalities and communities that have made London the global city it is today. Nevertheless, despite these strengths, the sector is still far from reflecting the true diversity of London. There are too few women and BAME people in leadership roles, and recent gender pay gap audits reveal wide inequalities across the sector. Furthermore, the Square Mile, Canary Wharf, and many of the city's business quarters sit alongside some of London's most deprived communities, where young people face greater barriers to pursuing city-based careers.

Many city-based firms have started to make progress in raising awareness of and addressing these issues through initiatives such as the joining up to the [HMT Women in Finance Charter](#) and the [City of London Social Mobility Index](#). The progress the sector can make over the next decade in improving its diversity will be crucial to winning its battle for the best talent with other global cities.

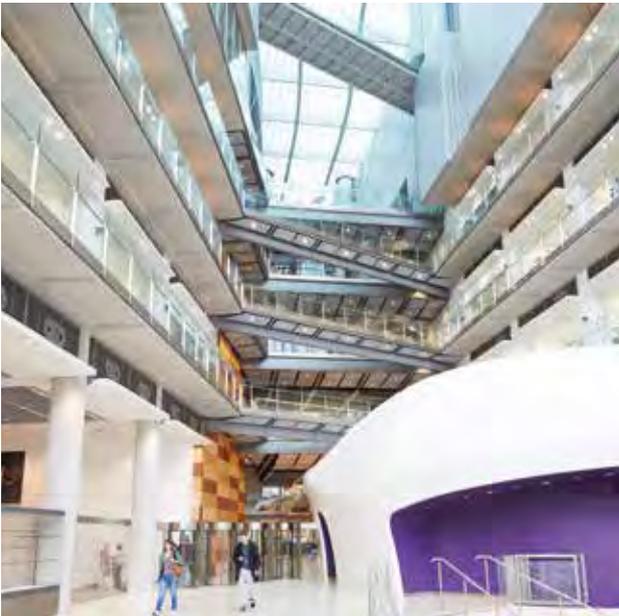
## SUMMARY OF ACTIONS

### 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; and
5. encourage financial and business services firms to support inclusive workplaces for women and BAME Londoners through the Good Work Standard when it is launched by end 2018.

### 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; and
- financial services firms provide inclusive workplaces for women and BAME Londoners through adhering to the Good Work Standard.



## 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. The Golden Triangle is a springboard for innovation and growth nationally.

### 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:

- 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 Institute](#) (UKDRI) at UCL; and
- [Care City](#) – a ground breaking research, education and innovation site based in Barking, which has received funding to be an innovation test bed.

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 £38.4bn in turnover for the UK<sup>173</sup>.

<sup>172</sup> Figures from [medcitymap.com](#).

<sup>173</sup> Ibid.

## THE FRANCIS CRICK INSTITUTE

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 2016, the Crick moved into its new £650mn 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, Imperial College London and King's College London. 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 is a beacon for world-class research and development, some of our most entrepreneurial science and tech companies need more 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 EU, and the ability to attract the global talent the sector needs, including international scientists; and
- NHS adoption of innovation.

<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.

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 medical technology where there is significant potential for innovation in areas like robotics and artificial intelligence.

In order to support firm scale-ups across the life sciences and other higher tech sectors, the Mayor will explore opportunities to increase the availability of **patient capital**, including scoping potential research on pension fund investment. The Mayor will continue to support the growth of new life sciences developments, working with London boroughs, MedCity, universities and research institutions, the NHS and other stakeholders, with a focus on the provision of **affordable workspace**. The Mayor will also work with partners to support efforts to increase NHS adoption of innovation, including through his support for organisations such as MedCity and [DigitalHealth.London](#), which help companies to navigate the NHS by providing specialist support and guidance.

The Mayor strongly supports the life-sciences sector in Brexit-related engagement with Government. He has [published a report](#)<sup>175</sup> on the impact on

patients and the NHS of the UK leaving the Customs Union and Single Market. The Mayor will continue to support the sector in the negotiations ahead. Working with London & Partners and MedCity, the Mayor will continue to promote the region's expertise around the world, to attract **inward investment** and develop further **trade opportunities**.

The Mayor has consistently called for London to be open to talented people from around the world, in sectors such as life sciences. At the same time, the Mayor recognises that the health and social care sector is an important gateway to entry level jobs and from there into a varied range of fulfilling careers. He is committed to enabling upskilling and access to opportunities - such as higher apprenticeships - in this and in other sectors. The Mayor will continue to work with partners across health, local and central government, education, and trade unions - including through a London Workforce Board - to develop new roles, secure the workforce London needs and support the career development of current and future staff<sup>176</sup>. The London Workforce Board is looking at integrated employment across the health and care sector (including clinical, carer, administrative and other roles), recognising that as care is delivered closer to home in primary care and community settings, new roles and closer working are vital to meeting Londoners' needs. The Mayor will also

<sup>175</sup> GLA (2018) Post Brexit Access to Medicines and Medical Technologies, GLA: London

<sup>176</sup> London Health and Social Care Devolution, Memorandum of Understanding, November 2017

work with partners to help address the current under-representation of women in the STEM sector, with a focus on helping the life sciences sector to improve **diversity** in boardrooms and other senior positions.

### **MedCity**

In 2014 [MedCity](#), part-funded by the Mayor, was created to promote and grow 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;
- fostering an environment that supports and encourages entrepreneurialism; and
- raising awareness globally of the region's rich life sciences ecosystem.

Over the period 2015-17 MedCity supported approximately £8mn of inward investment. MedCity has also built a community of investors enabling firms to raise £3.4mn, through the 'Angels in MedCity' programme, contributing to a total of over £17mn including follow on funding from all investors.

From inception, MedCity has supported over 500 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>177</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' NHS Foundation Trust 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.

<sup>177</sup> Office for Life Sciences (2017), 'Life sciences industrial strategy – a report to the Government from the life sciences sector'.

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.

The Mayor will also support the development of technological solutions to some of the biggest challenges around healthcare in London by supporting small tech companies through his [Civic Innovation Challenge](#).

## **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 £15.1mn of new investment, and set up 50 new contracts and pilots with the NHS. The programme receives £1.7mn of match funding from the ERDF.

For more than a century, London has led the way in medical research and innovation by supporting collaboration between the talented clinical and academic researchers within our hospitals, our world-class universities and our vibrant life sciences sector. Safely accessing and using health and care information is a vital additional tool to further the knowledge, technologies and wider economic benefits that these teams generate. The Mayor will work with partners to explore further options to support joined up health and social care data for research, where use of this information creates public benefit. By working with Londoners, statutory partners and industry he will set out important opportunities and safeguards which will sustain and grow this important clinical-academic sector whilst producing direct and indirect benefits for Londoners.

Beyond this, London will play a role as part of a national learning community, sharing our learning and preparing for a future where data is increasingly important in both research and healthcare.

The Mayor will continue to provide oversight, through his London Health Board, of the work of the recently established London Digital Partnership Board for health and social care. This Board will play a key role in shaping the digital and data strategy and vision for health and care in London.

The Mayor will work in partnership with the NHS, local authorities and other partners, to develop a city-wide 'One London' local health and care record exemplar (LHCRE) programme, using £7.5mn from NHS England, to connect the record systems of different NHS and partner organisations to improve the care and support of people who move between the NHS, council social care and third sector services.

The Mayor also supports the growth of the wider medical technologies sector<sup>178</sup>, as part of a collaboration with MedCity and the South East Health Technologies Alliance. This collaboration – '[MedTech London](#)', funded by the Mayor - has responded to the sector's growth needs through providing networking opportunities, support in accessing

<sup>178</sup> MedCity (2017), '[The London MedTech review and directory 2017](#)'.

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. MedTech London is currently piloting an approach to supporting business-to-business collaboration across the sector through linking SMEs up with corporate partners around key challenge areas.

“London has led the way in medical research and innovation by supporting collaboration between clinical and academic researchers within our hospitals, our world-class universities and our vibrant life sciences sector.”

## SUMMARY OF ACTIONS

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### The Mayor will:

1. promote London and the Wider South East as a pioneer of life science innovation internationally;
2. work with Londoners and partners to explore options for the safe use of health and care data for both service delivery and research, supporting efforts to increase NHS uptake of innovation;
3. continue to support collaboration across different sectors (such as digital health and MedTech) and the adoption of innovative technology to meet healthcare challenges;
4. help to increase the availability of long term 'patient' capital for the sector;
5. work with partners across health, local and central government, education, and trade unions – including through a London Workforce Board – to secure the workforce London needs and support the career development of current and future staff;
6. work with London boroughs, MedCity, 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; and
7. work with MedCity and partners to help employers improve diversity in boardrooms, and other senior positions, in this and other sectors.

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**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 help solve London's health challenges by: identifying innovative data-driven solutions, and increasing the adoption of innovation;
- investors, including pension funds, take a more patient approach to deploying capital in the life sciences sector, where drug development for example can take over ten years;
- boroughs and other relevant partners work with the Mayor from the earliest opportunity in the development of physical infrastructure for life sciences and other high-tech sectors; and
- employers increase workforce diversity in boardrooms.



## 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 the functioning of the city. In the [London Environment Strategy](#), the Mayor has set a bold vision to transform London's environment, including the following aims:

- air quality: London will have the best air quality of any major world city by 2050, going beyond the legal requirements to protect human health and minimise inequalities;
- climate change mitigation and energy: London will be a zero carbon city by 2050, with energy efficient buildings, clean transport and clean energy;
- adapting to climate change: London and Londoners 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; by 2026, no biodegradable or recyclable waste will be sent to landfill, and by 2030, 65% of London's municipal waste will be recycled;
- green infrastructure: London will be the world's first National Park City, where more than half of its area is green, where the natural environment

is protected, and where the network of green infrastructure is managed to benefit all Londoners; and

- noise: Londoners' quality of life will be improved by reducing the number of people adversely affected by noise, and promoting more quiet and tranquil spaces.

### Transitioning to a low carbon circular economy

There are tremendous opportunities for London's businesses and entrepreneurs in the growing market for low carbon and environmental goods and services that will support the transition to a low carbon circular economy. By setting these strategic environmental objectives and backing them up with robust policies for delivery, the Mayor will help to stimulate demand across all business sectors for these new products and services. Businesses have a critical role to play in finding and developing innovative solutions to how cities and societies can grow in a sustainable way 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 £30.4bn in sales to London's economy in 2014/15<sup>179</sup>. The Mayor will also promote the use of 'smarter' approaches to the delivery of

<sup>179</sup> kMatrix (2015), 'The London low carbon market snapshot 2015'.

services, using data and technology to improve the efficiency and operation of city infrastructure, such as energy and transport systems<sup>180</sup>.

The transition to a low carbon circular economy will create both opportunities and challenges for businesses and their workers as existing business models evolve and our approach to economic development changes from a linear to a more circular approach. This transition needs to be just and fair, and consider workers' jobs and livelihoods, as well as the challenges that businesses, especially SMEs, will face as the economy makes this transition. The Mayor will support London's businesses and workers to develop the skills, knowledge, technology and expertise to be competitive in an increasingly low carbon circular economy. For example, he will work with London's further and higher education providers and other key stakeholders to promote the benefits of further learning, and promote Continuing Professional Development (CPD) and succession planning. The Mayor will also continue to support diversity across STEM sectors, with a focus on supporting opportunities to increase the participation of women in CleanTech and the growth of women-led CleanTech enterprises, and other underrepresented groups.

### **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 and as natural resources become increasingly scarce, those cities that actively transition to a low carbon circular economy and maximise resource efficiency will enjoy a growing competitive advantage. Cities can integrate these circular principles into their approach to economic development. For example, public sector procurement and supportive policy frameworks can incentivise demand for low carbon and resource efficient goods and services.

These principles promote a 'circular approach' to the use of resources in London, ensuring that materials stay in use as long as possible, reducing the amount of virgin materials required and maximising recycling. The Mayor wants to prevent materials from becoming waste in the first place by promoting more sustainable, circular business models that design out waste and ensure materials can be easily reused and recycled.

Recent research has suggested that there are five key circular economy business models, which could be used singly or together to help companies achieve large resource productivity gains:

<sup>180</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.

- products as services - sell access to products while retaining ownership of products and assets. This could include leasing products instead of selling them;
- sharing economy - share assets, for example cars, rooms, appliances, via sharing platforms;
- prolong product life - through maintenance, designing for durability, re-use and remanufacture of products and components;
- renewable inputs - shift to using secondary materials as the inputs for products; and
- recover value at end of life - through effective recycling and composting or anaerobic digestion.

The integration of this approach into existing and developing businesses across all sectors, offers London's businesses an opportunity to become more resource efficient and profitable. Adopting a more circular approach will help businesses to become more resilient to price fluctuations and future resource scarcity, and will stimulate innovation and new business growth. Analysis of the potential benefits from the circular economy in London shows that, with the right investment, by 2030 it could: create 12,000 net new jobs in the areas of re-use, re-manufacturing, repair and maintenance; contribute £7bn each year by 2036 to London's economy

in the areas of the built environment, food, textiles, electrical goods and plastics; and save £5bn in avoided waste infrastructure costs through to 2050 whilst freeing up land previously needed for waste management for other uses<sup>181</sup>.

The Mayor will support businesses to adopt the principles of the circular economy as part of the transition to a low carbon circular economy, for example through the ERDF funded [Advanced London](#) Programme being led by the London Waste and Recycling Board (LWARB). The programme supports small businesses looking to scale their circular economy business or those looking to transition to a more circular business model.

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 continue to **support Londoners and businesses to adopt the principles of the circular economy**<sup>182</sup> and to reduce their carbon footprint. The [London Environment Strategy](#) sets out in further detail how he aims to do this (see also chapter 4.3 of this strategy).

<sup>181</sup> London Waste and Recycling Board (2015), [Towards a circular economy – context and opportunities](#).

<sup>182</sup> See LWARB (2017), ['London's Circular Economy Route Map'](#).

### **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% 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.

To further support the sector the Mayor will work closely with the GLA Group, whilst engaging with other public sector organisations and stakeholders, to maximise the use of sustainable procurement approaches, such as the Mayor's [Responsible Procurement Strategy](#), to drive demand and opportunities for innovative low carbon circular goods, services and solutions.

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 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 £1.6mn 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 \$120mn of investment and

created more than 500 jobs. Amongst those graduates are:

- Naked Energy, which is manufacturing and selling a technology that converts 90% 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; and
- 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

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### The Mayor will:

1. set a clear ambition for London to transition to a low carbon circular economy that will be catalysed by the Mayor's environmental ambitions for London, as set out in the London Environment Strategy, and the ambitions of central Government, including its Clean Growth strategy;
2. support households and businesses across all sectors to actively contribute to, participate in and benefit from London's transition to a low carbon circular economy;
3. help to accelerate innovation in the CleanTech sector by assisting start-ups to test, prototype and commercialise their innovation in London and gain greater access to both public and private sector markets;
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 nationally and internationally with London & Partners and other stakeholders to increase access to markets and attract new anchor business investment;
7. work with the GLA Group and engage stakeholders across London to maximise the use of sustainable procurement approaches to help drive demand for low carbon circular goods, services and solutions across all business sectors;

8. work with London's further, higher education and other skills providers to promote the benefits of further learning, and promote Continuing Professional Development (CPD) and succession planning to help the sector to access the skills they need;
9. work with stakeholders in the financial services sector to accelerate investment into innovative CleanTech business to drive the transition to a low carbon circular economy; and
10. identify and support opportunities to increase the participation of women in CleanTech and the growth of women-led CleanTech enterprises, and other underrepresented groups.

**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 helping to address London's environmental challenges by procuring or providing innovative solutions; and
- the business and finance community reviews their practice to enable more women, and other underrepresented groups, to participate in CleanTech entrepreneurship and secure funding.

## 5.6 TECH AND DIGITAL

### Europe's technology capital

London is Europe's technology capital. More than a third of Europe's tech unicorns (businesses valued at \$1bn or more) are based in London and in 2017, digital tech turnover reached £64bn, up from £56bn in 2016<sup>183</sup>. Digital tech represents 318,480 jobs in the capital, and brings £36bn GVA to the economy<sup>184</sup>.

Global corporates continue to make 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 London's tech talent 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 \$100mn in funding for London's innovators.

London is also home to the next generation of global tech giants, having produced companies such as Deepmind, a world leader in AI acquired by Google, and Improbable, a world leader in virtual reality which raised one of the largest venture capital investments in UK tech history with a £502mn investment led by Softbank.

London's thriving tech community is driving much of the innovation in Europe. Cutting-edge technologies such as AI, robotics, virtual and augmented reality<sup>185</sup>, and distributed ledger technology<sup>186</sup> are among the fastest growing areas for investment. London has become a global leader in areas such as FinTech<sup>187</sup>, AI and machine learning, as well as digital health,<sup>188</sup> with emerging expertise in areas such as EdTech<sup>189</sup>, CleanTech<sup>190</sup> and FashionTech<sup>191</sup>.

Much of this success is down to London's supportive and innovative start-up ecosystem, as well as the fundamental social and economic strengths of the city: London rates highly on measures such as market access, openness, talent, access to finance, number of start-ups and the start-up 'experience'<sup>192</sup>.

<sup>183</sup> Tech City UK (2017), 'Tech Nation 2018'.

<sup>184</sup> Ibid.

<sup>185</sup> Augmented reality is a technology that superimposes a computer-generated image on a user's view of the real world.

<sup>186</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>187</sup> According to research by [FinTech Week London \(2016\)](#), UK FinTech firms secured \$5.4bn of the \$49.7bn of global investment in financial tech between 2010 and 2015, compared with the total \$4.4bn raised across the rest of Europe

<sup>188</sup> Taking MedTech and digital health firms together (reflecting the convergence) turnover is almost £1bn (see [www.medcitymap.com](http://www.medcitymap.com)).

<sup>189</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>190</sup> See below for more on London's CleanTech sector.

<sup>191</sup> BOP Consulting (2017), 'The East London Fashion Cluster: strategy and action plan'.

<sup>192</sup> Startup Genome (2017), '[Global startup ecosystem report 2017](#)'.

All of this has been possible because of the city's diverse talent pool. London is home to some of the best creative and tech minds from across the world, and it is important that we continue to champion the values of openness, inclusivity and diversity across the tech community.

In order to continue the growth in the digital technology sector which we have seen over the last decade, London must continue to be open and outward-looking. 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 £118bn a year, and 43% 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.

### **Digital innovation that benefits all Londoners**

The transformational impact of digital technology touches all sectors of the economy. 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, and it is likely that this disruption will continue as more of the economy and the public sector embrace digital innovation.

The Mayor wants to see the benefits of digitisation shared by all Londoners and businesses, 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, particularly where it impacts on job security.

Technological innovation can support productivity gains both in higher value sectors such as London's financial services sector as well as in the 'Everyday Economy', in sectors such as retail, construction, hospitality and tourism<sup>193</sup>. Helping digital innovation to benefit all Londoners and businesses means prioritising investment in skills and training, improved management practices, and supporting firms to invest in R&D.

<sup>193</sup> IPPR (2018), *Charting a Course For the Future*

## AUTOMATION AND AI

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 AI could increase productivity by up to 40% and be worth \$814bn to the UK economy by 2035<sup>194</sup>. In 2018, the Mayor commissioned expert AI research house CognitionX to map AI innovation across London. The key findings were:

- London is the AI capital of Europe, with more than double the AI vendor count of Paris and Berlin combined. London has a large and growing AI supplier base of over 700 companies, of which over 450 have a London headquarters;
- Investment in London's AI sector is growing, exceeding £200mn in 2017, and there is considerable excitement among global investors for London's AI suppliers, reflected in rising international investment into the capital;

- AI is driving innovation and growth across the insurance, finance, legal and tourism industries, where London is in touching distance of the San Francisco Bay Area in terms of AI vendor count; and
- London has a strong USP – the city's demand for AI technologies is fuelling growth across the AI supplier base. This leading edge demand is innovative, working in collaboration with the AI supplier base to develop cutting-edge applications. 70% of AI suppliers in London ranked the city as the best or better than other global AI hubs with respect to access to clients.

The research also found that London's AI sector is diverse, and that the sector ranks the capital higher than any other global AI hub on tolerance and diversity:

- Some 48.5% of London's AI companies have non-UK founders; and
- Some 31.9% of London's AI founders are BAME.

<sup>194</sup> Accenture (2016), 'Why Artificial Intelligence Is the Future of Growth'.

New technologies are most visibly disrupting sectors such as finance, insurance, professional services, and London's creative sector. To ensure that the capabilities enabled by technologies such as AI, augmented reality, blockchain and others can benefit all, the Mayor will work with industry partners to help new technologies to raise productivity and wages across all sectors. This makes it all the more important that Londoners have the education and skills they need to change roles in a flexible labour market.

Distributed ledger technology also has the potential to cause significant disruption in some of London's key industries<sup>195</sup>. London is a world leader in this technology, thanks to the size of the FinTech sector and the interest from traditional financial services.

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 technology areas such as AI and machine learning, augmented and virtual reality technologies, and determine the best ways to take advantage of the opportunities these developments present. At the same time, working with businesses, representative bodies such

as trade unions and through his Skills for Londoners Business Partnership, the Mayor will continue to carefully monitor the performance of London's labour market and consider the potential impact of automation on skills gaps in key sectors – including any potential distributional impacts and exploitative behaviour.

<sup>195</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.

## CYBER SECURITY

Issues such as data protection and cyber security are business risks across all sectors. The cost and risk associated with cyber security 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 % fall in share value – equivalent to a permanent £120mn market capitalisation loss for a FTSE100 company<sup>196</sup>. As more of the city's infrastructure becomes digitally connected, it is vital that this infrastructure is secure and protected from cyber-attacks.

The Mayor will raise awareness amongst firms and the public sector

of the risks and **share best practice in cyber security** and data protection from established technology companies across London. This will begin with an examination of cyber security and resilience across the GLA family, and will look at how London can best incubate new innovative cyber security companies who are vital to the arms race in digital security and are an important growth sector. He will also continue to work with partners to support the Digital Security Centre. Founded as a joint venture by the Mayor, the Metropolitan Police Service and the City of London Police, the **Digital Security Centre** provides simple, measurable and effective digital security solutions to businesses to enable firms to operate in a secure digital environment.

<sup>196</sup> CGI and Oxford Economics (2017), 'The Cyber-Value Connection'.



### **Addressing barriers to growth**

For all London's strengths, the technology sector still faces barriers to growth. 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 the Mayor's [TechInvest](#) programme he will bring together entrepreneurs with expert investors in the sector. He will continue to work with partners to improve London's digital infrastructure, helping to address 'not spots' and provide affordable access to high bandwidth digital connectivity. And will continue to promote the sector at home and abroad with [London & Partners](#), and support London's tech companies to export through the Mayor's International Business Programme.

The Mayor will also work through his Skills for Londoners Business Partnership to shape skills provision funded by the devolved AEB, through the delivery of his '[Digital Talent](#)' programme, and through supporting the establishment of Institutes of Technology in digital skills, life sciences and higher-level construction skills as broader STEM provision; in addition to championing a flexible immigration system.

The Mayor aims to drive more inclusive tech innovation across London. He will set out the challenges facing Londoners and support technology innovators to find solutions through his [Civic Innovation Challenge](#) programme, helping the most innovative firms to co-design solutions with Londoners and the market.

The Mayor also wants to increase participation in innovation. He will engage with industry and academia to develop London's strengths in areas such as AI, virtual and augmented reality, to explore how businesses across different industries, including across the 'Everyday Economy', can take advantage of the opportunities in digital technologies to drive innovation and productivity and increase wages.

The Mayor will work with business, representative bodies, and the Skills for Londoners Business Partnership, to monitor the performance of London's labour market and consider the potential impact of new technologies on skills gaps in key sectors, including any potential distributional impacts and exploitative behaviour.

## CIVIC INNOVATION CHALLENGE

Creating challenges to meet local or city-wide needs are an increasingly effective way for cities to mobilise the science and technology community to meet pressing urban problems.

The Mayor's **Civic Innovation Challenge** is a mission-led business support programme which supports London's tech companies to co-design and test solutions directly with both public and private sector markets to help solve some of the big challenges facing London.

Part-funded through LEAP, TfL and Climate-KIC, the 2018/19 Civic Innovation Challenge will focus on three areas:

- Inequality;
- Climate change; and
- London's ageing population.

By linking tech SMEs directly with public and private sector markets and seed funding early testing and co-design, the Mayor will help innovation to better meet the needs of Londoners.

Future Civic Innovation Challenges will directly involve Londoners in the direction setting and focus of future challenges, which could be in areas such as housing or education where the Mayor has a strategic role.

## TECHINVEST

The Mayor of London's TechInvest programme seeks to ensure a connected and effective finance ecosystem for tech firm growth. The programme 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. TechInvest brings

together key leaders from the investment community including angels, venture capitalists and equity crowdfunding platforms to meet London's cutting edge innovators from fields such as AI, augmented reality and virtual reality, Smart Cities, GovTech, CleanTech, and MedTech. By 2020, 200 businesses will have had the opportunity to pitch to at least £4 billion of deployable capital.

## SUMMARY OF ACTIONS

### The Mayor will:

1. drive more inclusive tech innovation through his Civic Innovation Challenge programme, supporting the most innovative firms to co-design solutions with Londoners and the market;
2. engage with industry and academia to develop London's strengths in areas such as AI, virtual and augmented reality, exploring how businesses across different industries, including across the 'Everyday Economy', can take advantage of the opportunities in digital technologies to drive innovation and productivity and increase wages;
3. work with business, representative bodies, and the Skills for Londoners Business Partnership, to monitor the performance of London's labour market and consider the potential impact of new technologies on skills gaps in key sectors, including any potential distributional impacts and exploitative behaviour;
4. help to ensure London has access to tech talent through steering skills provision funded by the devolved AEB to ensure Londoners have basic digital skills, through to delivering the Mayor's 'Digital Talent' programme to align skills supply with business demand, and supporting the establishment of Institutes of Technology (IoTs);
5. support tech firms and companies adopting digital business models, to access best practice in cyber security and data protection;
6. work with partners to improve London's digital infrastructure, helping to address 'not spots' and 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. maximise investment opportunities through the Mayor's 'TechInvest' programme, attracting finance and helping innovative businesses to scale up; and
9. 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.

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**The Mayor asks that:**

- businesses in the technology sector actively champion the values of inclusivity and diversity through investing in the skills and diversity of their workforce to create the future skilled and adaptable employees London's economy needs;
- businesses across all sectors engage in the opportunities new advances in digital technology bring, such as AI and machine learning, and draw on the strengths of London's R&D base;
- boroughs are open to trialling innovative tech, and use responsible procurement practices to purchase innovation from digital SMEs;
- 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; and
- 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% since 2011. In 2017, international visitor numbers hit record levels, at 19.8 million overseas arrivals<sup>197</sup>. The combined spend by international and domestic visits was estimated to be £16.2bn. Add to this the 328 million domestic day-trips that were taken to London in 2017 and it adds up to a staggering amount. Every year visitors come in their millions to enjoy the breadth and depth of all London has to offer. Regardless of whether they are first time or repeat visitors, they come to experience London's outstanding cultural offering, history and heritage, world-class museums, architecture, nightlife, parks and waterways. This might include a visit to London's internationally recognised theatres in the West End or other London boroughs. Events are also a big draw, with the most popular being a trip to a museum or art exhibition, followed by a live football match. Shopping is among the most popular activities, with two thirds of London's visitors visiting shops, including the city's renowned shopping districts, and half shopping at markets during their visits.

Increasingly, London's visitors 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 food offering. Some also embark on a unique British experience such as an afternoon tea or visit a royal attraction/ ceremony. 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>198</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.

<sup>197</sup> ONS International Passenger Survey

<sup>198</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.



### 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% higher compared to 2016, meaning 40.4mn international and domestic visits and £22bn in expenditure annually, an increase of £7.1bn on 2016<sup>199</sup>. But this growth and the associated economic benefits is not a given. The projection assumes:

- 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; and
- 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 themselves 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

<sup>199</sup> London & Partners (2017), '[A tourism vision for London](#)'.

them to locations where there is more capacity; showcasing the range and depth of London's cultural offer including heritage, arts and events, the retail offer and the city's green spaces and waterways;

**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 and retain its reputation as a safe destination; protect and preserve London's cultural offer, improve the quality of London's visitor amenities, and improve access to them using digital technology; and

**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 and championing a flexible migration approach that can help industries, including tourism, access the talent they need. He will also recognise the call to improve the visa application process for Chinese visitors;
- 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; and
- 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 employers across the tourism sector to help them engage with his Good Work Standard and improve pay, conditions and job quality; and
3. 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; and
  - 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, signing up to the Good Work Standard;
- 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; and
- London boroughs work with London & Partners to help showcase outer London to international visitors, including the London Boroughs of Culture.



## **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, community and social enterprise sector, including trade unions 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 and civil society 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 support 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](#). The Mayor will also establish a Skills for Londoners Business Partnership, with business/employers, sector-skills councils and other employer representative bodies to advise on how to improve and align skills provision, including specialist and higher-level skills provision (considering progression routes to higher education), and support London-based industry to deal with workplace change and adapt to the demands of the global economy. This will include a focus on planning relevant policy in response to the anticipated impact of automation, as well as the impact of Brexit on skills requirements. The Mayor will also work with businesses and organisations to promote the role of trade unions, the use of constructive industrial relations practices and collective bargaining to provide a voice for workers in the workplace, enable better employment practices and fairer pay.

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 and recognise 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. The Mayor recognises his need to support a vibrant civil society in London. This includes connecting businesses and civil society to help build stronger communities in London. 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 the priorities set out in this and other strategies. This will include lobbying central government for the resources, freedoms and powers the city needs.

“A successful  
London economy  
benefits the whole  
of the UK.”

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 and their respective Skills and Employment Boards. 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 both champion and challenge the NHS to deliver high quality healthcare for Londoners when and where they need it, through a more integrated health and social care workforce and the best use of digital technologies, data, research and innovation. The Mayor will also be working with national Government and boroughs, alongside industry, on the development of London’s [Industrial Strategy](#)<sup>200</sup> and with other UK cities to identify, and capitalise on, opportunities for growth.

<sup>200</sup> HM Government (2017), '[Building our Industrial Strategy](#)', Green Paper January 2017.

### **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 and transport networks. 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, social enterprises, trade unions and others – all work with him to shape and deliver the ambitions of his Economic Development Strategy;
- UK cities work with London to maximise opportunities for UK-wide growth; and
- government recognises the role of the Wider South East, including London, and supports our strategic partnership work which enables further growth and employment across the UK.

## 6.2 MAKING THE CASE FOR DEVOLUTION

Devolution is about London's government – that is the Mayor and the boroughs – controlling the financing and delivery of a range of services and infrastructure projects, and being able to shape this provision around local priorities for Londoners, business and future generations. Devolution allows a more holistic approach to budgeting; for example, addressing long term unemployment requires health, housing, transport, skills and other support; and strengthens the use of resources.

The UK has a heavily centralised system of government compared to its international peers. 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, some of London's transport 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. In 2018-19, London Government will retain 100% of the growth in business rates revenues in the capital – under its business rates retention pilot. The GLA's share of this additional growth is 36% reflecting the impact of the transfer of TfL's £1 billion annual capital grant and the GLA's revenue support grant into the rates retention system from April 2017. The GLA is working with London Councils and Central Government for a continuation of the pilot into 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>201</sup>.

The Mayor will continue to work with London Councils to ensure an integrated approach to devolution; one that demonstrates the benefits of local control to Good Growth, tackling inequality and investing in the future of all Londoners.

<sup>201</sup> HM Treasury, Department for Communities and Local Government, Mayor of London, and London Councils (2017), ['Memorandum of Understanding on further devolution to London'](#).

The Mayor believes, however, that London needs a more radical package of measures to maintain its status as a global city including devolution of:

- the full suite of property taxes<sup>202</sup>; a modest assignment of income tax and VAT; London's contribution to the apprenticeship levy; and permissive powers to establish other smaller taxes. 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;
- 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; and
- 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 and will work with London's boroughs and sub-regional partnerships, businesses and employers, skills providers, community, voluntary and civil society groups, social enterprises and other local stakeholders to further develop proposals for a devolved employment, skills and adult education offer.

#### 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.

<sup>202</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](#)'.

### 6.3 LEADING BY EXAMPLE

The GLA Group<sup>203</sup> employs around 80,000 people – 1.4% 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 £11bn 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>204</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:

- establish the Good Work Standard with employers as a key part of our dialogue with suppliers, encouraging them to join the scheme;
- 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;
- encourage innovative and creative approaches from suppliers that advance London's competitiveness as a world leading city and promote equality and fairness;
- create skills and employment outcomes on GLA Group contracts and projects, with a particular focus on people from disadvantaged backgrounds and underrepresented groups;
- play a 'market making' role in the procurement of clean technologies, promote the efficient use of resources and accelerate the transition to a low carbon circular economy;
- preserve and enhance the natural environment;
- demonstrate leadership on food issues to improve the healthiness and sustainability of food that their staff consume; and
- engage with London boroughs and other public bodies in London, the UK and internationally to capture, disseminate and promote best practice in the area of responsible procurement.

<sup>203</sup> The Greater London Authority, Transport for London, the London Fire Commissioner, Mayor's Office for Policing and Crime, London Legacy Development Corporation and Old Oak and Park Royal Development Corporation.

<sup>204</sup> GLA (2017), 'The GLA Group Responsible Procurement Policy', February 2017.

City Hall is reviewing the Mayor's Responsible Procurement guidelines with a view to strengthening apprenticeship requirements. This is likely to include consideration of apprenticeship metrics as well as other skills, training and employment measures.

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>205</sup>. This, and a number of other background economic indicators which provide a general overview of London's economy, are available in the [London Economy Dashboard](#)<sup>206</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.

In order to measure progress towards the Mayor's vision, as set out in this strategy, a more extensive set of indicators will be monitored. These will be available on the [London Datastore](#) and will be updated as and when new data becomes available. These indicators should be viewed in conjunction with the indicator frameworks that accompany the Mayor's other statutory strategies. This strategy also has links with the UN Sustainable Development Goals (SDGs), which can aid international comparisons. More information about each of the indicators is available on the London Datastore.

To accompany this strategy, the Mayor has published an Economic Development Strategy Implementation Plan. The Implementation Plan will set out in greater detail the actions that the Mayor will prioritise to take forward directly between 2018 and 2023, alongside the indicators against which progress will be reported.

<sup>205</sup> Gross Domestic Product (GDP) in the case of national output and Gross Valued Added (GVA) when measured by region or more locally.

<sup>206</sup> <https://data.london.gov.uk/gla-economics/gla-economics-dashboard/>



# Glossary A – Z

## Glossary A – Z

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### A

**Affordable homes/affordable housing**

Homes for households whose needs are not met by the market - which means they cannot afford the 'going rate'. 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 for households who are eligible for social rented housing. These are generally provided by housing associations and subject to rent controls (requiring a rent of no more than 80% of the local market rent - including service charges, where applicable).

**Agglomeration economies**

The benefits that come when firms and people locate closely 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 that can perform tasks normally requiring human intelligence. For example, visual perception, speech recognition, decision-making, and translation between languages.

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### B

**Business Rates**

The common 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 on top of 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; and

- 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. This maximises value and reduces waste. It is clear move 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 forums.

### **CleanTech**

Clean technology (CleanTech) describes products, processes or services that use technology to directly reduce the environmental impact of their activities and ultimately contribute to the transition to a low carbon circular economy.

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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 four weeks and/or are unable to start work within the next two 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.

### **Everyday Economy**

The 'Everyday Economy' is the combination of private, public and social sectors in every region of the country whose services, production and social goods sustain all our daily lives.

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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 in fuel poverty if the fuel costs required to heat and power their home properly are above average (the national median level) and if they were to spend that amount, they would be left with a residual income below the official poverty line. It is caused by the combination of three factors: low incomes; the poor energy efficiency of homes; and high energy prices.

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## G

### **GLA functional bodies/GLA group**

The Mayor is responsible for appointing members to, and setting budgets for, five organisations: Transport for London (TfL), London Legacy Development Corporation (LLDC), the London Fire Commissioner, Mayor's Office for Policing and Crime (MOPAC), and Old Oak and Park Royal Development Corporation (OPDC).

### **Good Growth**

Growth that is socially, environmentally and economically inclusive and benefits all Londoners. Good Growth brings the best out of

existing places, helps existing communities and involves citizens in the way their city changes. It also minimises environmental impact, maximises environmental opportunity and makes London healthier, greener, safer, cleaner and more prosperous for everyone.

### **Grant**

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.

### **Green Finance**

Green finance is investment in environmental technologies, infrastructure and services to support the transition to a low carbon circular economy.

### **Green infrastructure**

A network of green spaces – and features such as street trees, green roofs and blue spaces – that is planned, designed and managed to deliver a range of benefits. These include mitigating flooding, cooling the urban environment and enhancing biodiversity and ecological resilience, as well as providing more attractive places for people.

### **Gross Domestic Product (GDP)**

The total value of goods produced and services produced in a country.

### **Gross Value Added (GVA)**

GVA measures the value of goods and services produced in an area, industry or sector.

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## 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. They are mostly due to differences in people's homes, education and childhood experiences, their environments, their jobs and employment prospects, their access to good public services and their lifestyles.

### Healthy Streets Approach

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.

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## I

### Inclusion

Inclusion is removing barriers and taking steps to create equality. Being inclusive means harnessing diversity and creating safe, welcoming communities and cultures. By so doing, it encourages fresh ways of thinking and allows 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. It avoids separation or segregation and is made up of places and spaces that acknowledge diversity and difference. As such, it meets the needs of everyone in society.

### Inclusive neighbourhoods

Neighbourhoods that are welcoming, barrier free and inclusive for everyone, regardless of a person's characteristics.

### Innovation

The creation of new products and services, technologies, processes, or business models.

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## L

### 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**

An organisation that represents London's 33 local authorities, and lobbies on their behalf. London Councils also runs several pan-London services.

**London Finance Commission**

The Commission that has made recommendations on the additional tax and spending powers that should be devolved to London.

**London Fire Commissioner**

The London Fire Commissioner is responsible for providing London's fire and rescue service, ensuring that it is effective and efficient.

**London Legacy Development Corporation (LDDC)**

A Mayoral Development Corporation responsible for delivering development in 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 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.

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**M****Mayor's Office for Policing and Crime (MOPAC)**

Part of the wider GLA group. MOPAC is responsible for overseeing the Metropolitan Police Service.

**Minority-led business**

Businesses where over 51% 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.

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## N

**Natural Capital**

London's natural capital is the set of environmental resources (open land, air, water, wildlife) that provides services - such as flood protection or cleaner air. Natural capital benefits both the wellbeing of Londoners and the city's economy. Alongside other forms of capital - such as human knowledge and skills, manufactured goods, buildings and products - natural capital is an asset that must be managed sustainably to secure and improve these benefits.

**Isle of Dogs (North) (IODN)**

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 and Park Royal areas.

**Older people**

Refers to people over 50. It also recognises that those above retirement age and those over 70 may have certain requirements to address

**Opportunity Area**

London's principal areas of opportunity with room for large scale development to provide many new jobs and homes. Each typically has more than 5,000 jobs and/or 2,500 homes, with a mixed and intensive use of land, assisted by good public transport accessibility.

**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 parts which are produced using modern and technologically-driven methods of manufacture. Production often takes place offsite and the components are 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.

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## **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.

### **Sustainable development**

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

### **Sustainable Drainage System (SuDS)**

Measures and techniques to help capture, use, delay the dispersal of, discharge or absorb surface water. London's approach is set out in the Sustainable Drainage Action Plan.

---

## **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.

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## **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 help the region prosper. Read more on our website: [www.london.gov.uk/about-us/organisations-we-work/policy-and-infrastructure-collaboration-across-wider-south-east](http://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.

### **Other formats and languages**

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