

FINDINGS AND RECOMMENDATIONS OF THE **LONDON STANSTED CAMBRIDGE CORRIDOR GROWTH COMMISSION**

THE NEXT GLOBAL KNOWLEDGE REGION:
SETTING THE AMBITIONS AND
DELIVERING THE VISION

Growth Commission

London Stansted Cambridge Corridor

objective + evidence-based + independent

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The LSCC Growth Commission aims to provide independent analysis and advice to raise the global economic potential of the London Stansted Cambridge Corridor, setting out a vision for transformational change.

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FOREWORD

The London Stansted Cambridge Corridor represents a unique opportunity to build the next global knowledge region in the UK. The capability and track record of tech and life sciences industries in the Corridor is second to none in the UK. Growth has occurred at twice the national average rate over the past decade.

While the Corridor certainly has the R&D, science and technology and entrepreneurial capability to become the next global knowledge region, it needs to build further collaboration between businesses and local stakeholders, and secure the resources for effective place-making (which is a 'whole place' approach to development, integrating economic development, skills, land use planning, infrastructure, transport and communities). During our four inquiry events, it was clear that the lack of workforce skills, housing and transport capacity was hindering further business investment and growth. These drawbacks limit individuals' and communities' opportunities to fully benefit from the Corridor's strengths. Another striking finding from our research programme was that all of our international competitor regions are promoting or have established comprehensive place-making strategies and cross-jurisdictional collaboration.

The Growth Commission arose out of the ambitions and desires of partners from the London Stansted Cambridge Consortium. We can build on this successful joint working, and other successful collaborations such as the West Anglia Task Force. This report sets out our final findings and recommendations.

The outcome of the recent EU referendum in our view only reinforces the need to take these initiatives to underpin and build on the competitive position of the Corridor.

Our 20-year vision is for the London Stansted Cambridge Corridor to become one of the top five Global knowledge regions, alongside San Francisco – Silicon Valley, Boston Route 128, and The Triangle. We highlight five priorities that will drive this ambition. The good news is that we could make substantial progress over the next five years, and we articulate a series of actions which we think are both necessary and feasible over this time period.

A stylized, handwritten signature in blue ink, appearing to read 'Harvey McGrath'.

Sir Harvey McGrath

Chair of the London Stansted Cambridge Corridor Growth Commission

THE GROWTH COMMISSIONERS

Sir Harvey McGrath (Chair)

Sir Harvey has had a long and distinguished career in the international financial services industry and is the former chair of Prudential plc, the London Development Agency, London First and Man Group plc. His current roles include co-chair of the Mayor of London's Enterprise Panel, Chair of Governors of Birkbeck College and Chair of Big Society Capital. Sir Harvey is the Chair of the Growth Commission.

Dr Cathy Garner, Executive Director, The Work Foundation

Cathy is the Executive Director of The Work Foundation, which provides leading analysis and policy advice on work, skills and the labour market. Cathy is an expert in innovation and previous roles include Strategic Director of London Creative and Digital Fusion and Chief Executive of Manchester: Knowledge Capital. Previously she served on the Strategic Advisory Board for Intellectual Property between 2008 and 2010, was a member of the UK Cabinet Office Innovators' Council in 2009.

Alexandra Jones, Chief Executive, Centre for Cities

Alexandra has led the Centre for Cities since 2010. She has played a leading role in shaping the increasingly high profile cities agenda and is regularly called upon to advise senior policymakers in national and local government. Alexandra has been a member of the City Finance Commission, the London Finance Commission and the London Stansted Cambridge Corridor Commission, as well as an advisor to the City Growth Commission led by Jim O'Neill.

Gerard Lyons, Economist

Gerard Lyons is acting as a Growth Commissioner in a private capacity. He is the former Chief Economic Advisor to the Mayor of London, as well as Chief Economist and Group Head of Global Research at Standard Chartered Bank. Gerard regularly appears in the media, often writing in the Telegraph and The Times.

Professor Ron Martin, The University of Cambridge

Professor Ron Martin is Professor of Economic Geography at the University of Cambridge. He has published some 35 books and monographs, and 200 articles, on these and related themes. He has been involved in a number of major policy-orientated research projects for the UK government as well as the European Commission.

Ian Mather, Chair, Cambridge Ahead.

Ian Mather is the Chairman of Cambridge Ahead which was formed in 2013 to provide a business focus for the long term development of Cambridge. Members include ARM, AstraZeneca, Marshall Group, Cambridge University and Addenbrookes hospital. Ian is a Partner and heads the office of national law firm Mills & Reeve which has 300 staff based in Cambridge.

INTERNATIONAL EXPERT ADVISORS

Juliette Morgan, Partner, Cushman & Wakefield.

Juliette is Head of Property at Tech City and a Partner within Cushman & Wakefield's London Markets team. She is an urban tech specialist with more than 12 years international experience in developing and managing property for tech and bio tech companies. As Head of Property at Tech City UK, Juliette is responsible for advising the UK Government on its property strategy and policy initiatives to accelerate growth in tech start-ups in East London.

Professor Michael Enright, The University Of Hong Kong And Enright, Scott & Associates.

Professor Enright's research has focused on international competitiveness, regional clustering of industry, and economic development. He has directed or co-directed major reviews of economies in 20 countries on five continents and has co-authored ten books on competitiveness and numerous papers on regional clustering.

Professor Pete Tyler, The University Of Cambridge.

Professor Peter Tyler is an urban and regional economist with an extensive track record in consulting for the public and private sector. He has an established reputation in the field of urban and regional economics with a particular emphasis on the evaluation of policy. Besides his work in the United Kingdom he has also undertaken research for the European Commission and the Organisation for Economic Co-operation and Development on urban, regional and industrial policy.

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EXECUTIVE SUMMARY

BUILDING THE NEXT GLOBAL TECH AND LIFE SCIENCES REGION: THE LONDON STANSTED CAMBRIDGE CORRIDOR

In this Final Report, The London Stansted Cambridge Corridor Growth Commission sets out its main findings from evidence, and a vision for transformational change to become the next global tech and life sciences region

The Growth Commission was established to provide independent analysis and advice to boost the global economic potential of the London Stansted Cambridge Corridor

The London Stansted Cambridge Corridor Growth Commission, established by the London Stansted Cambridge Consortium, provides independent analysis and advice to enhance the global economic potential of the London Stansted Cambridge Corridor. In this report, we set out a vision for transformational change.

We are the leading region in the UK for ideas, innovation and entrepreneurship

London and the East of England are the two fastest growing regions in the UK, and the London Stansted Cambridge Corridor forms a link that combines their strengths and potential.

The London Stansted Cambridge Corridor has the hallmarks of a national asset: a fast-growing population, vibrant economy, and presence in globally traded economic activities. The Corridor shares a set of advanced industries characterised by rapid growth and high productivity supported by a global centre for business and financial services. Productivity is 16 per cent higher than the national average, and growing.

The number of jobs in the Corridor increased at more than twice the national rate in the last ten years and if the right policy actions are taken it is likely that future job growth will be equally impressive in coming decades. The Corridor is driving technology and bioscience-led economic growth in the UK, and is the chosen location of major firms including Microsoft Research, ARM Holdings, AstraZeneca, GSK, Pfizer and Illumina.

We have the professional, finance and business services expertise to turn ideas and innovation into competitive advantage and wealth

Voted the world's most competitive city, London offers expanding international companies leading talent and transport links, light-touch business regulation and huge opportunities for growth. London is first choice for international headquarters and a critical location for the next generation of entrepreneurs and innovators in ICT and digital and life sciences.

Cambridge has developed an outstanding record of business success, with 4,500 knowledge-intensive companies located within 25 miles of the city. Cambridge ranks as the top UK city for innovation, with 102 patents per 100,000 residents, more than the next seven best-performing cities put together. More than 25 of the world's largest corporations operate within the city.

If an inward investment project decides not to locate in the corridor, it is more likely to go to another technology region overseas than elsewhere in the UK

London and Cambridge are in the top 10 of the European Foreign Direct Investment (FDI) league. London is listed as the most attractive city in Europe for investors by fDi Intelligence, a specialist inward investment publication. Cambridge is ranked 10th which is a significant achievement, given that the list includes much larger cities including national capitals. Firms investing in new locations outside the Corridor will tend to choose another country rather than a different part of the UK. London competes with 'world cities' such as New York, Tokyo and Paris. The Corridor (including Greater Cambridge) competes with major technology regions such as Silicon Valley; Route 128-I95 in Massachusetts; New Jersey; The Triangle in North Carolina; Greater Munich and Singapore.

There are major development opportunities between London and Cambridge. In addition to the significant development and regeneration potential of London (including Enfield, Hackney, and Haringey) and Cambridge, there are major development sites in Broxbourne, Harlow, Peterborough, South Cambridgeshire and Stevenage. These include the three Enterprise Zones at Alconbury, Harlow and Cambridge Compass. Developing these sites is critical in supporting and enhancing the Corridor's tech and life sciences economy.

The Corridor is critical to the future of the UK economy

The Corridor provides a national innovation and knowledge hub, driving UK growth and economic dynamism. All the economic evidence confirms that the London Stansted Cambridge Corridor economy has outpaced national economic growth, significantly drives UK productivity gains, is strongly entrepreneurial and is a major location for knowledge-based jobs and innovation.

We have the capability and potential to compete as a global tech region

The Corridor is Europe's leading life sciences cluster. There are 635 life sciences businesses in the Corridor, accounting for 24,700 jobs, and contributing 11 per cent of all national employment in this sector. This success is built on 37 research institutes and notable firms and organisations, including Amgen and AstraZeneca in Cambridge, GlaxoSmithKline in Stevenage, and Public Health England in Harlow.

The Corridor also contains the UK's largest cluster of ICT and digital firms and talent, concentrated particularly in London and Cambridge. There are 91,000 IT and telecommunications professionals and technicians in the LSCC area, 12.8 per cent of the total for England, and 12,400 businesses in the ICT and digital sector. The Corridor is bookended by Microsoft's European R&D headquarters and ARM in Cambridge and by Google's Campus and Tech City in London, with leading firms such as Arrow in Harlow in-between.

But we are falling behind in terms of quality of place, infrastructure, scaling-up businesses and workforce skills

London, Cambridge and the Corridor compete for international investment and jobs that would otherwise go to an overseas knowledge region. Firms investing in new locations outside the Corridor will tend to choose another country rather than a different part of the UK. London vies with 'world cities' such as New York, Tokyo and Paris. The Corridor

(including Greater Cambridge) competes with major technology regions such as Silicon Valley, Boston Route 128 in Massachusetts, New Jersey, The Triangle in North Carolina, Greater Munich and Singapore.

All our global competitor regions are working to improve the quality of place for knowledge industries and promote greater regional integration. Our competitor regions all pursue place-making strategies and policies to enhance their competitiveness for knowledge-based industries, and are delivering or advocating greater cross-jurisdictional working to achieve this. This includes regional transport authorities that cover functional economic and market areas as well as aviation capacity. These approaches have been integral to the long term strategies of locations such as Boston's Route 128 or Greater Munich, and are the prime concern of the Bay Area Economic Forum, which leads the business community in San Francisco-Silicon Valley.

The outcome of the recent EU referendum in our view only reinforces the need to underpin and build on the competitive position of the Corridor

The technology and knowledge-based industries that are so strong in the Corridor compete and operate globally and rely on global talent. It is clear that the technology and knowledge – based industries that are strong in the Corridor and offer such potential for the future are dependent on: access to global markets and integration with supply chains and other global parents/subsidiaries; and securing talent and skills from around the world. It is also clear that we would need to ensure the continued support for R&D activities, particularly in research and higher education institutions, particularly if there is the need to transition funding arrangements from EU based research grants.

The Corridor is well placed to create new opportunities from global trade. The UK is an internationalised economy that relies on global trade and economic relationships. We suggest that building on the Corridor's potential would present a quick win for the UK economy, and that addressing immediate needs (such as infrastructure) will give confidence about what lies ahead.

There is a need to ensure all communities benefit from economic growth and knowledge industries. We have pointed out in our report that the benefits from the success of the technology, knowledge-based and professional business services industries could be more widely shared. This is a significant challenge for the corridor, and other knowledge regions around the world. Indeed, the EU referendum result once more emphasises the need for

us to work harder to ensure that all communities benefit from global trade and growth industries.

Over the next few years, there is a need to ensure that infrastructure, property and housing developments proceed. The market and economic environment is uncertain immediately after the EU referendum. We must plan for the contingency that infrastructure, property and housing developments may well be impacted by this in order to maintain the ability of the Corridor to remain competitive as a location.

Effective collaboration will be required to deliver the improvements required to achieve this vision

Important objectives can be more effectively achieved through coordinated actions at the Corridor level. There are clear benefits from collaboration and cooperation on priorities and activities that require:

- One voice: to campaign for shared priorities and for the local powers and resources to deliver change
- Scale viability: initiatives such as a Corridor infrastructure fund, which would require a sufficient flow of deals and variety of revenue sources to be viable
- Scale economies where delivery can be more feasible or effective due to its size: proposals such as a Corridor STEM careers or job entry initiative that would provide significant benefits by increasing employer participation
- Value from combining assets: such as better transport integration to improve travel times, user benefits and journey experience
- Risk management: sharing and removing risks by building common agendas and buy-in – such as a shared vision for land use and housing

Building on successful collaboration

The Corridor has a track record in successful collaboration through the work of the London Stansted Cambridge Consortium and the West Anglia Task Force. The Growth Commission itself sprang from the ambitions of Consortium members.

There are five main risks if we fail to develop high quality business locations, workforce skills, vibrant new communities to live in and the transport infrastructure to connect them

Risk 1: A deteriorating location offer. Failure to develop high quality business locations, attractive new communities to live in and the transport infrastructure to connect them will result in a poorer locational offer with higher costs due to demand pressures,

congestion and skills shortages. This will eventually erode the Corridor's advantages, investment profile and productivity.

Risk 2: Labour market shortages, which will reduce business investment. Talent is the number one location factor for knowledge and technology based industries. Failure to invest in measures to improve labour market and skills supply will result in a continued increase in workforce and skills shortages, restricting business performance and forcing firms to expand overseas rather than here.

Risk 3: Increased housing pressures could reduce skills supply. Failure to invest in measures to boost housebuilding, such as road and rail transport improvements, will lead to further rises in house prices and worsening affordability. This has major implications for employers and their ability to recruit and retain talent.

Risk 4: Continued polarisation of the workforce and communities. Failure to invest in measures to increase access to jobs and opportunities for all residents, including those from deprived communities, will result in continued polarisation between the communities and individuals who can access jobs and routes to progression in the labour market, and those who are less able to do so. It will increase detachment and disaffection from the changing economy.

Risk 5: Growth in London exerts greater challenges and pressures on localities within the Corridor. The likely potential growth in London is already known. Failure to plan for and manage this growth in ways that benefit local areas within the Corridor could create significant additional challenges and risks such as labour shortages, transport use and congestion, house prices and housing demand, and land prices and land use pressures. Failure to plan outside London may also constrain London's own potential.

The status quo is not an option

There are potential Corridor effects and benefits which are waiting to be unleashed. Currently the economic links in the Corridor are growing stronger. The Corridor has the potential to be a functional economy with all the right capabilities to be globally successful.

The Corridor is already globally competitive in innovation and technology, but future growth depends on the place-based policies that can develop and support a high quality location for business and work.

Not taking action does not mean success will continue. The danger is a lack of action would erode the competitive advantage of this region and send the wrong message particularly as the competition is taking a long term strategic view.

THE VISION AND DELIVERY PLAN

Our 20-year ambition: to become a competitive global tech and life sciences region

FIVE PRIORITIES WILL DRIVE OUR AMBITION

1) New powers and financial vehicles for infrastructure, housing and place-making

We need the investment funds to deliver our plans for place-making. High-growth economies such as the London Stansted Cambridge Corridor have the potential and viability to successfully use private finance vehicles to develop infrastructure and other assets.

The London Stansted Cambridge Consortium should:

- Study the feasibility of new investment vehicles, examining how private and institutional finance could fund infrastructure, transport, housing and employment sites. This feasibility study could outline the integrated transport, infrastructure and development needs within the Corridor and the type and phasing of finance required. Then the study would explore the likely size, returns and repayment methods available or necessary to make such a fund viable. The potential use of vehicles and revenues from business rates retention should form part of this study
- Explore the case for a Corridor Transport Authority to take control of all major strategic routes and public transport assets, and to develop and implement an integrated transport plan

HM Government should:

- Fully commit to devolving powers that enable the use of private finance and local tax, user charging and innovative methods of repayment
- Pass enabling legislation to create new regional transport authorities
- Put in place contingency plans and financial vehicles to deal with any market uncertainties that may emerge in the short-term after the EU referendum

2) Place-making for tech and life sciences

Tech and life sciences industries thrive in attractive places and well connected, vibrant communities. Our competitor regions have put place-making at the heart of their future strategies and policies.

The London Stansted Cambridge Consortium should:

- Improve our understanding of what tech and life science businesses and employees need and want, and the attributes of global 'best in class' workplaces and communities
- Produce shared place-marketing materials and information, particularly to attract inward investment
- Explore the potential for a new 'brand' for our tech and life sciences clusters
- Advocate for and raise the profile of growth areas and sites, ensuring that regeneration and new developments meet the location requirements of technology – and knowledge – based industries and their workers

3) Building talent and ensuring everyone can benefit

To meet the workforce needs of tomorrow, industries and employers need to engage with young people today. We cannot continue to rely disproportionately on our ability to attract skilled labour from the rest of the UK and overseas. We need to support the development of sustainable and inclusive communities by ensuring they are involved in, and benefit from, our vision for an economy founded on tech and life sciences.

The London Stansted Cambridge Consortium should:

- Develop better links between employers, educational institutions and young people across common skills and capabilities – particularly for STEM and IT skills and careers
- Provide information and guidance materials for careers information and job entry that reflect the needs of tech, engineering and life sciences industries across the Corridor

- Encourage the sharing of ideas and best practice within the Corridor and from international leaders in the field

HM Government should:

- Allow local authorities and partnerships to use funds from the proposed training levy (Apprenticeship Levy) to finance careers and learning resources and tools for young people and educational institutions

London Stansted Cambridge Consortium, the business community HM Government, educational institutions and other local interest groups should:

- Respond to the risks and challenges posed by the recent EU referendum result by clarifying and communicating the position of workers and residents from the EU and beyond, and to put in place a stable, workable solution that, in the short-to-medium term, minimises the risk of a flight of talent from the Corridor and rest of the UK
- Mobilise the business community, industry associations, local government, trade unions, colleges and universities to work with communities, schools and other organisations in deprived communities to increase access to opportunity into careers in science, technology, engineering and manufacturing industries, and professional business services firms

4) London Stansted Airport as a dynamic source of growth and development

Our vision is for an airport that acts as a dynamic driver of growth and local business performance

and that provides the services and routes that local tech and life sciences businesses need. London Stansted Airport has the capacity to expand and could be a big part of the solution to the aviation needs of the Corridor, London and the Greater South East.

The London Stansted Cambridge Consortium should:

- Produce a joint public-private economic development strategy for London Stansted Airport and its surrounding area, with the aim of developing the Airport zone as a growth node in the Corridor. The strategy would articulate how international connectivity can support the vision to be a competitive global tech and life sciences region, and how the Airport can contribute to the aviation needs of London, the Corridor and the Greater South East

HM Government should:

- Develop an 'airport economic development zone' strand to the work of the National Infrastructure Commission, in which economic development and growth potential should be considered alongside passenger and international aviation demand

5) Deepening the partnership with London

Building on existing relationships and partnerships to work more closely with London would help to develop new and more effective responses to our shared challenges and opportunities.

The London Stansted Cambridge Consortium, the Greater London Authority, London Boroughs and HM Government should:

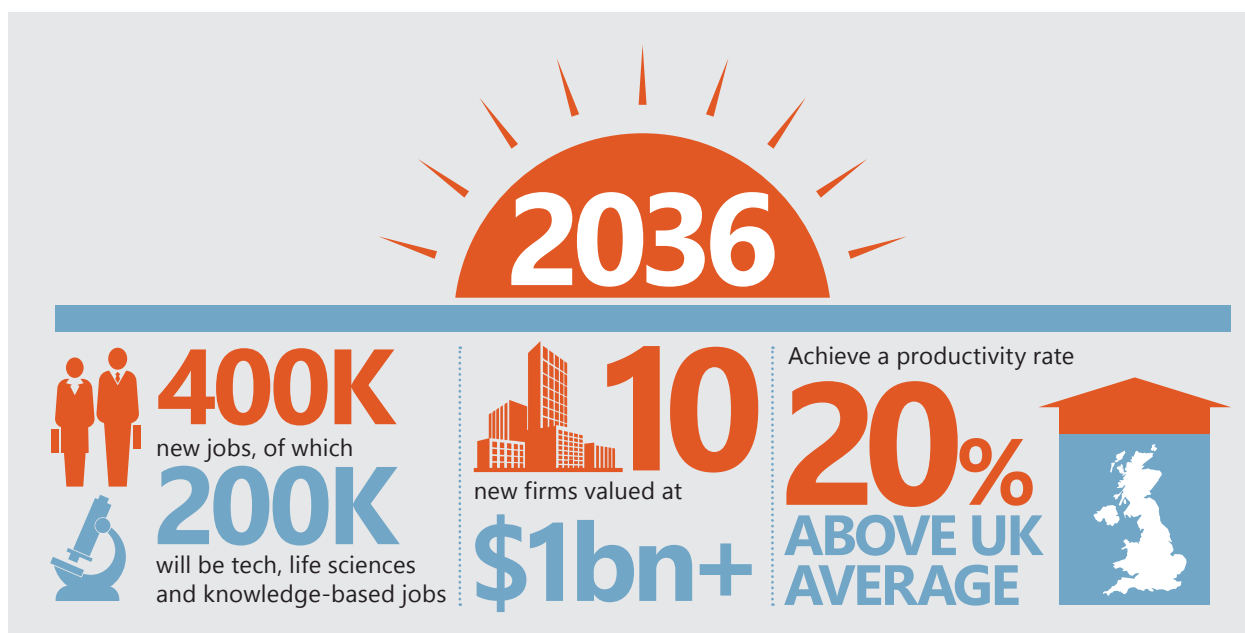
- Develop a deeper shared understanding of the challenges and potential responses by building on existing relationships and the successful track record of joint working.
- Establish a joint initiative to undertake economic and policy research to inform future strategic choices across all major areas of shared policy, including transport, infrastructure, health, business competitiveness, international connectivity, housing, education and skills.

The London Stansted Cambridge Consortium, the Greater London Authority, London Boroughs and HM Government should:

- Articulate clearly how North London's economy can benefit from both its links to the rest of London and to the Corridor, in particular the labour market opportunities and knowledge based industries and institutions.

We propose the following actions for HM Government, and joint advocacy from The London Stansted Cambridge Consortium and London authorities and partnerships in response to the EU referendum:

- Ensure that the interests of key growth industries and their trade relationships with European Union members are maintained
- Joint advocacy to minimise disruption from the EU referendum result to R&D programmes, activities and capabilities



If we deliver our vision, by 2036...

The London Stansted Cambridge Corridor will be one of the top 5 Global knowledge regions, alongside San Francisco – Silicon Valley, Boston Route 128, and The Triangle. It will be the prime location choice for tech and life sciences firms looking to locate in the UK

- The Corridor could generate 10 new 'unicorns' (new firms reaching valuations above US \$1 billion, of which three will be FTSE100 companies, and all will be global technology leaders)
- 400,000 new jobs could be created between 2016 and 2036, of which 200,000 are tech, life sciences and knowledge jobs

The Corridor will continue to lead productivity growth in the UK, with GVA per hour 20 per cent above the UK average

- The Corridor will match the technological capability of emerging tech regions from Asia, and will out-compete them on quality of business location, quality of life, and the depth of collaboration between firms, research institutes, entrepreneurs, higher education and government

The London Stansted Cambridge Corridor will offer a high quality and vibrant location for talent, characterised by:

- An extensive, deep and well connected labour market for science and technology related skills and jobs, with many avenues for career progression and entrepreneurship
- An education and skills system that provides a skilled, qualified workforce with the ability to be flexible and adapt and upgrade skills throughout a career

- A range of high quality housing options close to workplaces
- Vibrant, diverse communities
- The London Stansted Cambridge Corridor will offer major benefits to UK plc by:
- Accounting for a significant share of R&D, innovation and commercialisation activity
- Acting as the heart of a dynamic technology-based UK economy
- Substantially increasing rates of productivity and productivity growth
- Providing innovative products and services and new entrepreneurial models that compete effectively in global markets
- Directly building on the advantages of London as a global professional and financial services hub

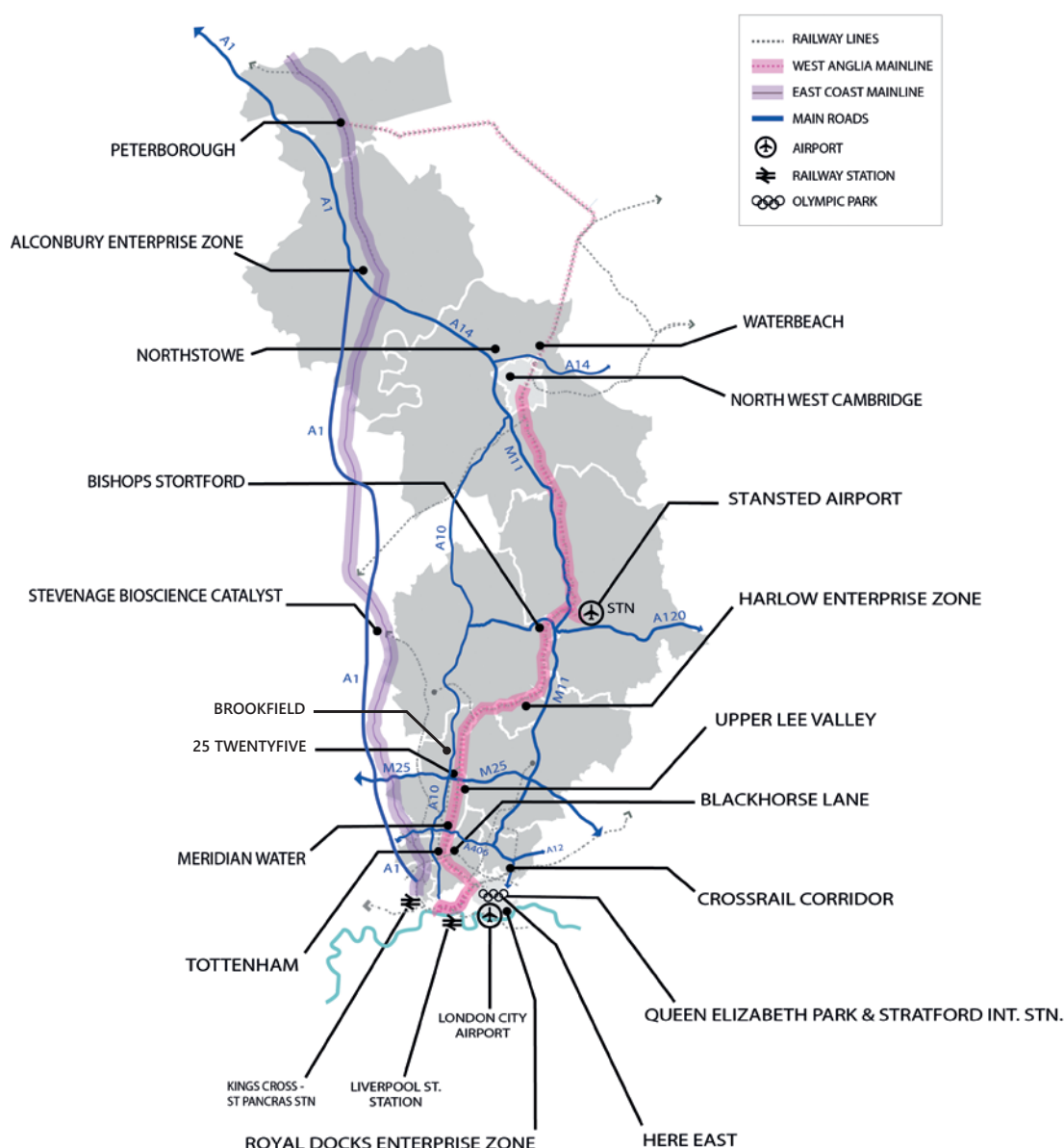
The Corridor already has the capability to be a global knowledge region and this can be unleashed over the next five years – we do not have to wait 30-40 years

Evidence from our international case studies suggests that it takes 30 to 40 years to develop the capabilities to be a global knowledge region.

The Corridor is already well on the way to developing this global capability. It is our view that with some concerted actions and collaborative working we could make significant progress over the next five years. We do not need to wait 40 years. Given the prospective challenges for the UK economy post-EU referendum, we suggest that we take action now to secure this growth and potential.

1. INTRODUCTION

THE LONDON STANSTED CAMBRIDGE CORRIDOR



LONDON AND THE EAST OF ENGLAND ARE THE TWO FASTEST GROWING REGIONS IN THE UK, AND THE LONDON STANSTED CAMBRIDGE CORRIDOR COMBINES THEIR STRENGTHS AND POTENTIAL

Nearly one in seven of the UK's jobs are within a 10km radius of the corridor and a higher proportion of these jobs are in high-skill, high-growth sectors than nationwide. The Corridor has 2.7 million residents and a workforce of 1.8 million people.

The London Stansted Cambridge corridor is home to a highly productive economy, with the region's productivity 16 per cent above the UK average. The Corridor supports 303,000 jobs in knowledge-based industries.

THE CORRIDOR HAS THE POTENTIAL TO BE THE NEXT GLOBAL KNOWLEDGE REGION

The Corridor shares a set of fast growing and highly productive advanced industries supported by a global centre for business and financial services. These are underpinned by a shared housing market, labour market, and infrastructure system. The London Stansted Cambridge Corridor could become a global tech and life sciences region if it can provide a high quality environment for business and talent, offering the space and infrastructure for growth.

ESTABLISHING THE GROWTH COMMISSION

The Growth Commission was established to provide independent analysis and advice to boost the global economic potential of the London Stansted Cambridge Corridor

ABOUT THIS REPORT

The LSCC Growth Commission, established by the London Stansted Cambridge Consortium*, aims to provide independent analysis and advice to enhance the global economic potential of the London Stansted Cambridge Corridor and set out a vision for transformational change. This report presents the Commission's final findings and recommendations.

TERMS OF REFERENCE

The Growth Commission was established in October 2015 to be **independent**, and to be **challenging** by raising the global ambitions of the London Stansted Cambridge Corridor through **improved delivery**. Through the use of **expert evidence** over the past six months, the Commission has debated and considered how increased growth could be fostered and accommodated while enhancing the Corridor as a high quality, sustainable location for businesses and communities. This Final Report concludes the work of the Growth Commission, summarising its findings and recommendations.

DEFINING THE CORRIDOR

The main definition used to focus the Growth Commission's work and analysis is the **LSC Corridor**, reflecting the membership of the London Stansted Cambridge Consortium, and including the London Borough of Islington:

- London Boroughs of Enfield, Hackney, Haringey, Redbridge and Waltham Forest;
- Cambridge City and South Cambridgeshire;
- Peterborough City;
- Broxbourne, East Hertfordshire, Stevenage
- Epping Forest, Harlow, Uttlesford

THE GROWTH COMMISSIONERS

Sir Harvey McGrath (Chair)

Dr Cathy Garner, Executive Director, The Work Foundation

Alexandra Jones, Chief Executive, Centre for Cities

Gerard Lyons, Economist

Professor Ron Martin, The University of Cambridge

Ian Mather, Chair, Cambridge Ahead

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Professor Michael Enright, The University of Hong Kong and Enright, Scott & Associates

Professor Pete Tyler, The University of Cambridge

EXECUTIVE SUPPORT

Glenn Athey, Secretariat and Programme Manager

CONTRIBUTORS AND SPEAKERS

The Growth Commission would like to thank all the contributors, speakers, sponsors, local authorities and stakeholders who took part. A full list is provided in the Appendix at the end of this report.

*The London Stansted Cambridge Consortium is a partnership of public and private organisations. The partnership was formed to organise and promote what is a clear economic area, with strong interconnections, patterns of commuting to work and learn, clusters of industries and supply chains.

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THE WORK OF THE GROWTH COMMISSION

The Growth Commission's work programme delivered robust economic analysis and a series of incisive events with expert presentations and debates.

This report represents the findings of a programme of work over the six-month lifespan of the Growth Commission to July 2015. All reports are available on the Growth Commission's website at: www.lscgcommission.org.uk

Expert paper

Professor Michael Enright, the world-renowned expert on corridor economies, knowledge regions and clusters, identified a number of critical issues and priorities for the Growth Commission.

Major economic review

This report was completed in January 2016 and provides an analysis of the London Stansted Cambridge Corridor economy.

Four inquiry events

- **Inquiry 1:** "Understanding the potential": Cambridge – 21 January 2016.
- **Inquiry 2:** "Building potential": Stansted Airport – 11 February 2016.
- **Inquiry 3:** "Quality of place": Harlow – 5 April 2016
- **Inquiry 4:** "Implementing change": Hackney – 12 May, 2016

Interim report

An interim report was launched on 8 March 2016 to summarise the main findings and emerging issues mid-way through the Growth Commission's work.

Skills workshop

On 29 April 2016 the LSCC Growth Commission held a skills workshop, chaired by Cathy Garner, and hosted by Andy Forbes, Principal & Chief Executive at the College of Haringey Enfield and North East London.

Six international case studies

The international case studies were conducted in order to explore the challenges and opportunities facing other global tech regions, and to understand more about their policy and strategy responses. The international case studies included:

- North Carolina – The Triangle (USA)
- Greater Copenhagen and Skåne – The Øresund (Denmark/Sweden)
- San Francisco-Silicon Valley (USA)
- Boston Route 128, Massachusetts (USA)
- New York City Metropolitan Area (USA)
- Greater Munich (Germany)

National case study

A case study was also made of the Thames Valley Corridor from West London to Oxford.

Public involvement and debate

All the Growth Commission inquiry events were open to the public. All events, reports and event proceedings have been published on the Growth Commission website. Partners have been encouraged to submit views and evidence to be published on the website, alongside the reports authored by the Growth Commission.

2. FINDINGS

Findings from evidence and inquiry events

ECONOMIC EVIDENCE

Knowledge based industries and high productivity fuel rapid growth in the Corridor

THE UNIQUE OPPORTUNITY

The London Stansted Cambridge Corridor has the hallmarks of a national asset: rapid population growth, a vibrant economy, and presence in globally traded economic activities.

THE CORRIDOR IS CRITICAL TO THE FUTURE OF THE UK ECONOMY

The Corridor provides a national innovation and knowledge hub, driving UK growth and economic dynamism. All the economic evidence confirms that the London Stansted Cambridge Corridor economy has grown faster than the economy nationally, is strongly entrepreneurial and is a major location for knowledge-based jobs and innovation.

The Corridor's productivity is 16 per cent higher than the UK average and innovation rates are high. With 303,000 jobs in knowledge-based industries, the Corridor is a leading knowledge economy and a showcase for tech industries and firms. Jobs in knowledge-based industries increased by 18 per cent in the Corridor over the five years to 2014, far above the national growth rate of 10 per cent.

Voted the world's most competitive city, London offers expanding international firms first-class talent and transport links, light-touch business regulation and huge opportunities for growth. London is first choice for international headquarters and a critical location for the next generation of entrepreneurs and innovators in ICT and digital and life sciences.

Cambridge has developed an outstanding record of business success, with 4,500 knowledge-intensive companies located within 25 miles of the city. Cambridge ranks as the top UK city for innovation, with 102 patents per 100,000 residents, more than the next seven best performing cities put together. More than 25 of the world's largest corporations operate within the city.

THE GROWTH CORRIDOR

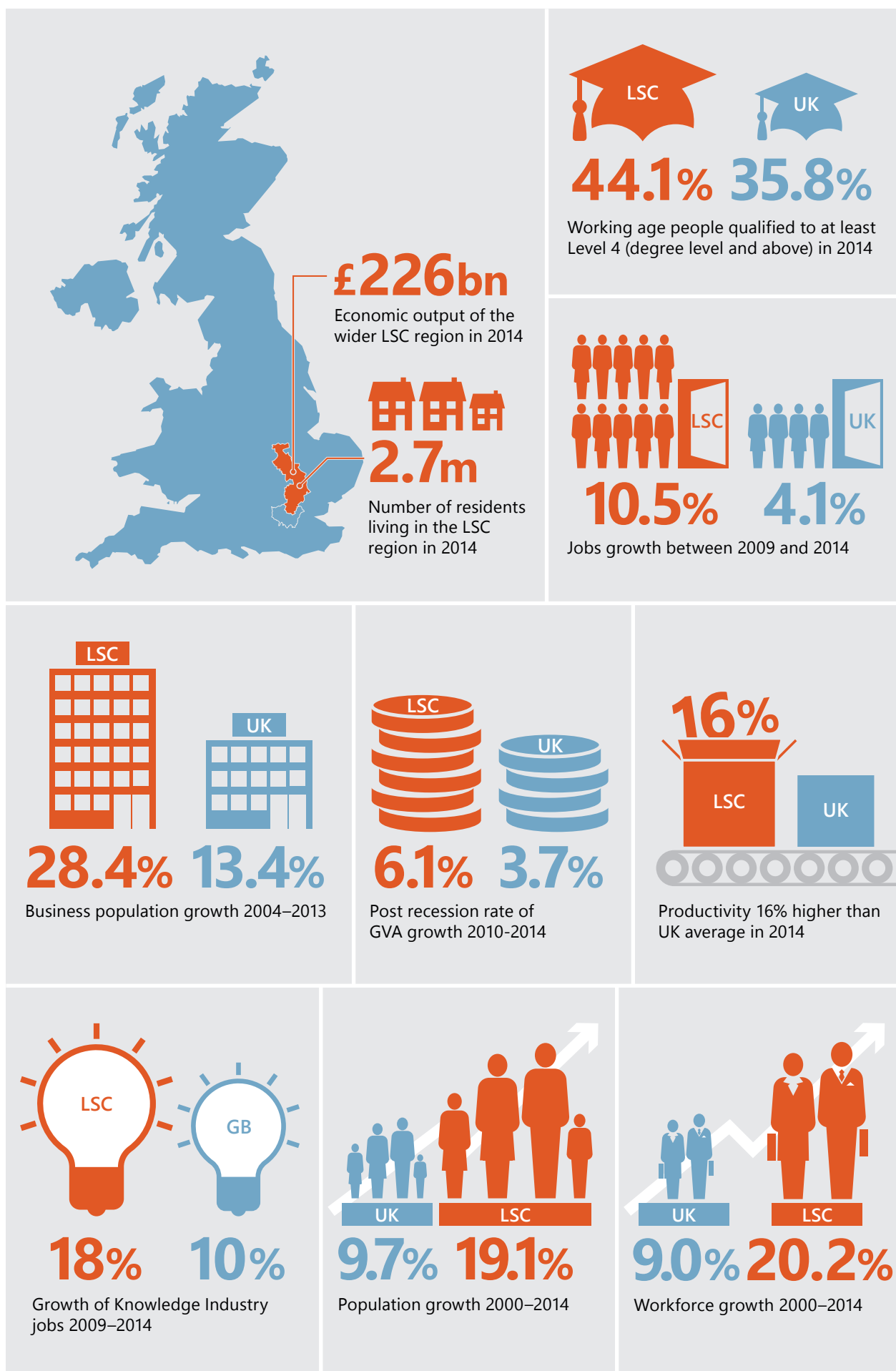
Growth rates have raced ahead of the national average. The Corridor's historic (1997 to 2014) rate of economic growth is 20 per cent above the national average. Since the recession it has forged ahead, and growth between 2010 and 2014 has been 65 per cent higher than the national average.

Jobs growth is more than double the national trend, at 153 per cent. The number of employee jobs grew by 10.5 per cent between 2009 and 2014, against 4.1 per cent nationally.

The business population grew significantly faster than the national average. The number of enterprises in the Corridor increased by 28.4 per cent from 2004 to 2013, against the UK average of 13.4 per cent.

Population growth is twice the national rate. The Corridor's population grew by 19.1 per cent between 2000 and 2014, compared with a national average growth rate of 9.7 per cent.

A growing workforce. The workforce (working-age population) grew by 20.2 per cent in 2000-2014, which was over double the UK average of 9 per cent.



THE IMPORTANCE OF THE LONDON STANSTED CAMBRIDGE CORRIDOR TO THE UK ECONOMY

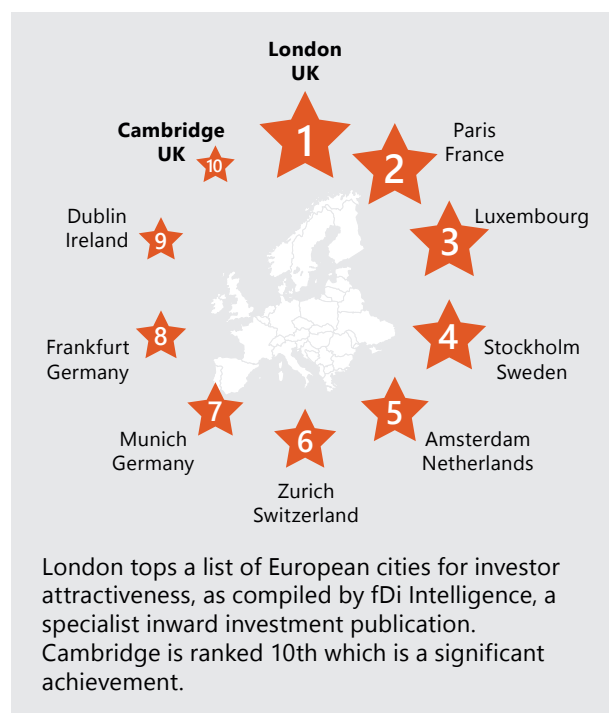
EMPLOYMENT IN INTERNATIONALLY TRADEABLE SECTORS HAS GROWN AT THREE TIMES THE NATIONAL RATE

In total, it is estimated that 148,400 employees worked in 'export intensive' industries in the LSC Corridor in 2014. Employment in export intensive industries grew by 11 per cent (+16,400 employees) between 2009 and 2014 in the Corridor, against national average growth of 3.6 per cent. Growth was especially high in Hackney (+67.3 per cent, +6,600 employees), Haringey (+56.2 per cent, +2,900), and Cambridge (+29.6 per cent, +2,700).

EXPORTS CONTRIBUTED AN ESTIMATED £20 BILLION TO GVA IN 2014

Based on the value of average GVA final demand per employee for each industry in the UK, it is estimated that the LSC Corridor's exports contributed £20 billion in GVA in 2014. This is almost as high as the North East of England's export GVA values, where the estimated value is £21.6 billion, and above Greater Manchester's estimated £19.5 billion in GVA from exports.

THE CORRIDOR IS CRITICAL TO ATTRACTING FOREIGN INVESTMENT, PARTICULARLY IN HIGH-TECHNOLOGY AND PROFESSIONAL SERVICES INDUSTRIES



THE CORRIDOR IS HOME TO A SIGNIFICANT NUMBER OF FIRMS AND HQ FUNCTIONS THAT SUPPORT OPERATIONS AND JOBS ELSEWHERE IN THE UK

Examples of firms and their links to other UK locations

ARM

Global microprocessor design leader

Global HQ in Cambridge, supports employment of 1400 in the UK across 5 locations

RAYTHEON UK

Aerospace and defence manufacturing and services

UK R&D HQ in Harlow, employs 1300 in the UK across 7 locations

ASTRAZENECA

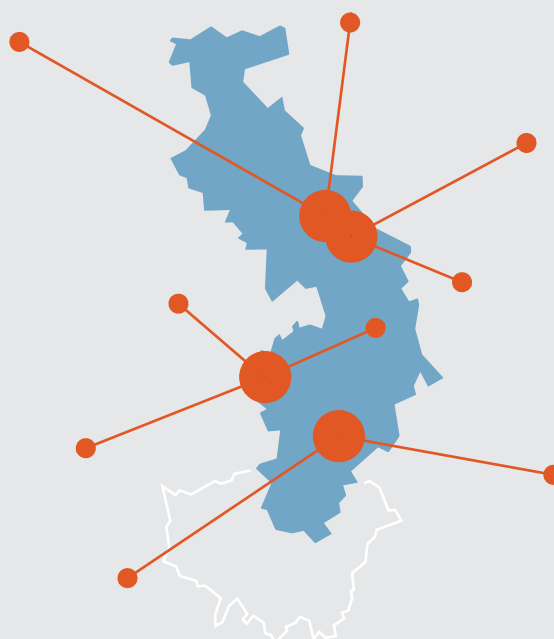
Global Pharmaceutical research and manufacturing

Global HQ in Cambridge, employs 6,700 in the UK across 7 locations

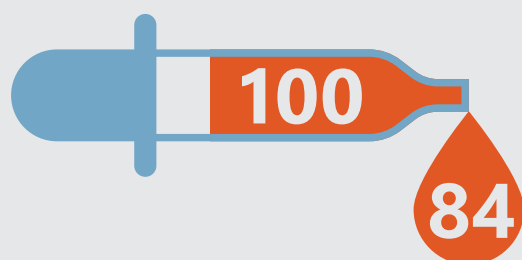
GLAXOSMITHKLINE

Global Pharmaceutical research and manufacturing

European R&D HQ in Stevenage, employs 16,000 in the UK across 18 sites



KNOWLEDGE INDUSTRIES CONTRIBUTE SIGNIFICANTLY TO THE UK ECONOMY



For every 100 jobs that are in biosciences, 84 jobs are supported in supplier and other activities



For every £100 million in GVA generated directly by the bioscience industry, £70 million is generated through supply chain and other activities

THE KNOWLEDGE CORRIDOR

The Corridor is Europe's leading life sciences cluster. It hosts 635 life sciences businesses, accounting for 24,700 jobs, and contributing 11 per cent of all national employment in this sector. This success is built on 37 research institutes and notable firms and organisations, including Amgen and AstraZeneca in Cambridge, GlaxoSmithKline in Stevenage, and Public Health England in Harlow.

The corridor contains the largest cluster of ICT and digital firms and talent in the UK, concentrated particularly in London and Cambridge. There are 91,000 IT and telecommunications professionals and technicians in the LSCC area, 12.8 per cent of the England total, and 12,400 businesses in the ICT and digital sector. The Cambridge pole of the Corridor is home to Microsoft's European R&D headquarters and ARM, while Google's Campus and Tech City anchor the London pole. Firms such as Arrow in Harlow show the potential of the area between them.

IF AN INWARD INVESTMENT PROJECT DECIDES NOT TO LOCATE IN THE CORRIDOR, IT IS MORE LIKELY TO GO TO ANOTHER TECHNOLOGY REGION OVERSEAS THAN ELSEWHERE IN THE UK

London and Cambridge are in the top 10 of the European Foreign Direct Investment (FDI) league. London is listed as the most attractive city in Europe for investors by fDi Intelligence, a specialist inward investment publication. Cambridge is ranked 10th which is a significant achievement, given that the list includes much larger cities including national capitals.

London, Cambridge and the Corridor compete for international investment and jobs that would otherwise go to a knowledge region outside the UK. Firms investing in new locations outside the Corridor will tend to choose another country rather than a different part of the UK. London competes with 'world cities' such as New York, Tokyo and Paris. The Corridor (including Greater Cambridge) competes with major technology regions such as Silicon Valley; Route 128-I95 in Massachusetts; New Jersey; The Triangle in North Carolina; Greater Munich and Singapore.

More than one third (34.6 per cent) of South Cambridgeshire's private sector employees were in 'export intensive' industries in 2014, against 19.7 per cent nationally. Export intensive employment also accounts for a high share of total private sector employment in Stevenage (26.9 per cent), East Cambridgeshire (25.8 per cent) and Islington (24 per cent). In total, it is estimated that 148,400 employees worked in 'export intensive' industries in 2014 in the LSC Corridor. Employment in export intensive industries in the LSC Corridor grew by 11 per cent (+16,400 employees) between 2009 and 2014, while national average growth lagged at 3.6 per cent.

The Corridor is already globally competitive in innovation and technology, but future growth depends on the place-based policies that can develop and support a high quality location for business and work.

SUPPORTING LONDON'S GROWTH

London's growth has been outstanding, and it has contributed an increasing share of national economic output over recent years. In 2013 London's GVA accounted for 22.2 per cent of the UK's total, up from 18.9 per cent in 1997 and 20.9 per cent in 2008. Economic growth rates are much stronger than nationally. Between 2008 and 2013, London's GVA had risen by 18.2 per cent in nominal terms (i.e. without taking account of inflation), against 11.4 per cent for the UK.

London hosts 5.5 million jobs, with employment growing faster than nationally. This figure, from 2014, represents a 5 per cent increase on 2013 and 12 per cent above the pre-recession peak in 2008. It compares with a UK-wide rise of 3 per cent from 2013, around 4 per cent above the pre-recession peak.

London has with 8.6 million residents living in the capital in 2016 and many more commuting in for work from across the wider south east and beyond. In an international context, the capital will grow faster than New York between now and 2020, increasing by almost one million people.

£12 billion of new office development is planned in London over the next few years. London attracts three times more headquarters than any other city in Europe, and is repeatedly voted Europe's best city to do business in.

London is projected to create an additional 850,000 jobs by 2036. Of these, 800,000 will require degree-level qualifications, but London is only forecast to provide 560,000 additional suitably qualified workers over this period.

THE CORRIDOR PROVIDES CAPABILITIES AND ADVANTAGES THAT COMPLEMENT CAN BENEFIT LONDON

The London and non-London parts of the corridor make similar economic contributions and have similarly high rates of growth.

The London part of the Corridor (Inner London East and Outer London East and North East) generated a total of £85.3 billion in GVA in 2014, while the rest of the Corridor (Peterborough, Cambridgeshire, Hertfordshire and Essex) generated £140.6 billion. The long-term economic growth rate in the London part of the Corridor was 4.1 per cent annually between 1997 and 2014, compared to 5.4 per cent for the non-London part of the Corridor.

Jobs have increased rapidly in both parts of the Corridor. Since 2010, employment in the London part of the Corridor increased by 96,000 jobs (+15.5 per cent), compared with 58,000 (+10.8 per cent) in the non-London part of the Corridor. Both parts of the Corridor support a substantial number of knowledge economy and high and medium technology manufacturing jobs: The London section supports 172,700 jobs in these industries while the non-London part supports 154,000 jobs. Both parts of the Corridor have experienced similar increases in knowledge-based and high and medium technology manufacturing jobs: +22,900 and +18,700 respectively.

UNEVEN GROWTH AND ACCESS TO OPPORTUNITY AND PROSPERITY

The local economies in the Corridor are not uniform in terms of rates of economic growth.

Employment in the knowledge economy and high/medium technology manufacturing accounts for 45.1 per cent of total employment in Cambridge but only 10.3 per cent in Waltham Forest. There were 60.5 patents per 100,000 residents in Cambridge; and 11.7 per 100,000 in Essex.

Economic participation and the incidence of deprivation varies significantly between localities. Access to jobs is a significant issue for young people across the Corridor and for Black and Black British males. Hackney, Haringey, Islington, Enfield and Waltham Forest all ranked within the 10 per cent most income-deprived of the 326 English districts. In 2011, 14.9 per cent of households with dependent children in the LSC Corridor had no parent in work, with the highest incidences in Islington (25.6 per cent) and Hackney (24.6 per cent) – the second and third highest rates in England. Child poverty and child income deprivation are also high in the Corridor's London boroughs.

Labour market conditions are much weaker for young people within the LSC Corridor than nationally. The higher rate of youth unemployment highlights that it is harder for young people living in the area to find work than across the rest of the UK. The labour market for young people has deteriorated significantly during and since the recession.

THE POTENTIAL FOR GLOBAL SIGNIFICANCE: FIRMS, INSTITUTES AND CAPABILITIES

ICT & DIGITAL: THE CORRIDOR IS WHERE THE CENTRE OF THE UK ICT INDUSTRY IN CAMBRIDGE MEETS EUROPE'S FASTEST GROWING ICT HUB, TECH CITY IN LONDON

The Corridor is the source of 'home grown' major ICT and digital companies: ARM, Cambridge Silicon Radio, Imagination Technologies, Jagex, and Xaar.

It is the tech start-up capital of Europe: 3,000 technology businesses have been formed or are located in Tech City, while the Cambridge Cluster has 3,000 ICT and digital firms.

There are 91,000 IT and telecommunications professionals and technicians in the LSCC area (12.8 per cent of the England total). There are 12,400 businesses in the ICT and digital sector, 8.1 per cent of the England total.

The ICT and digital industries support 63,900 jobs in the LSCC area – 6.6 per cent of all England's jobs in this sector. This encompasses a wide range of activities including communications, electronics, hardware, software, computer services, digital media and computer games.

ICT & digital industries underpin success in other knowledge sectors: The Wellcome Trust Sanger Institute has a 6 petabyte data centre used to host information on sequencing genomes. Cambridge firm Owlstone uses gas sensors on microprocessors to detect cancer from analysis of a patient's breath.

The Corridor boasts major successes in communications, electronics and IT hardware, software and computer services, and digital media, with many European leaders and global corporates.

LIFE SCIENCES: EUROPE'S LEADING LOCATION FOR LIFE SCIENCES BUSINESSES AND RESEARCH

There are 635 life sciences businesses in the Corridor, accounting for 24,700 jobs, and contributing 11% of all England's employment in this sector. The Corridor's success is built on 37 research institutes with global renown in the life sciences sector. The Corridor and its adjacent areas host the bulk of UK research activities and expertise in life sciences.

The two largest public investments in life sciences research in the UK have been made in the Corridor – the £700m Francis Crick Institute (an interdisciplinary medical research institute) in London, and the new £212m MRC Laboratory for Molecular Biology (LMB) in Cambridge. Stevenage Bioscience Catalyst and the Anglia Ruskin MedTech Campus offer other key sites for growth.

The Corridor hosts the global headquarters of major pharma companies such as AstraZeneca, GlaxoSmithKline, and Amgen. It is also a source of innovative start-up companies such as Crescendo Biologics, Convergence Pharmaceuticals, Heptares Therapeutics, Kymab Limited, Horizon Discovery Ltd, and Topivert Pharma Ltd.

The main national industry and research networks are based in the Corridor, including One Nucleus (the global life sciences industry network) and the Stem Cell Network.

The UK's premier dedicated life sciences business parks are located in the Corridor, including Granta Park, Cambridge Science Park, Medtech Campus, Chesterford Research Park, and Cambridge Biomedical Campus.

LEARNING FROM OUR GLOBAL COMPETITORS

All our global competitor regions promote and deliver improved place-making for knowledge industries and the regional integration of place-making policies

CASE STUDIES OF OTHER GLOBAL TECH AND KNOWLEDGE REGIONS FORMED A KEY STRAND OF THE GROWTH COMMISSION'S WORK

OVERVIEW OF THE CASE STUDY AREAS

THE BOSTON ROUTE 128 REGION HAS INTEGRATED ECONOMIC DEVELOPMENT WITH INFRASTRUCTURE AND LAND USE PLANNING

Boston Route 128, Massachusetts is one of the leading high-tech areas in the world. Boston has a world-class set of research institutions, pushing the frontiers of knowledge in fields including cancer research, cloud storage, robotics, and nanotechnology. This region has effective metro – and regional-level strategy, planning and delivery. There is significant collaboration on the provision of infrastructure, land and area-based initiatives such as Innovation Districts. Economic development is integrated with land-use planning. Although there are many challenges of growth (such as income inequality, ageing transport infrastructure, housing shortages and workforce development), an integrated regional approach means that the Boston Route 128 region is better placed than most to understand and plan for them.

THE ØRESUND REGION HAS ENCOURAGED BUSINESS AND R&D COLLABORATION AS A MEANS OF FORGING BETTER REGIONAL ECONOMIC LINKS

The Øresund region of Greater Copenhagen and Skåne (Denmark and Sweden) has involved the creation of a cross-border functional economy with new regional brand/name. With a total population of 3.6 million, the Øresund is one of the most well-known examples of European transnational collaboration, building on the metropolitan area around Copenhagen and, across the sound, southern Sweden following the opening of a fixed-link bridge/tunnel in 2000. The link provides agglomeration benefits, creating a larger metropolitan region with an integrated labour market, helping to overcome the drawbacks of the area's peripheral location in global terms. The Øresund Region is a technology hub with innovation potential, world-class scientific infrastructure and a good

environment for start-ups. Wider policy efforts were needed to connect the assets and capabilities in the enlarged region. Many of the Øresund initiatives have prioritised the creation of business and knowledge networks and collaborative platforms.

GREATER MUNICH HAS PROVIDED SUCCESSFUL TECHNOLOGY AND BUSINESS POLICIES SUPPORTED BY STRONG INFRASTRUCTURE

Greater Munich is Germany's most productive urban centre and is one of the country's leading metropolitan regions for high-tech activity, with a powerful innovation system. Munich ranks highly for quality of life, technology leadership, human capital, and economic performance. In the 1980s and 1990s, Munich and Bavaria pioneered innovation and technology policies. Industrial diversity is one of Munich's greatest strengths. High-tech industries and knowledge-intensive services sit alongside traditional production. Greater Munich has very strong transport and utility infrastructure, achieved through robust planning and significant investment in both public transport and international connectivity. The city is rated in the world's top five for electricity, water, transport and telecommunication systems, and these play a major part in sustaining the area's high quality of life.

NEW YORK CITY METROPOLITAN AREA HAS COMBINED STRONG STATE POWERS AND COMMITMENT WITH BOTTOM-UP LOCAL ADVOCACY AND AGENDA-SETTING

The New York City Metropolitan Area is the most populous urban agglomeration and largest economy in the United States, with 20.1 million residents in 2014, accounting for 1 in 16 Americans. New York Metropolitan Area is now a leading global region for ICT and digital and other tech industries. 'Silicon Alley' is one of the country's largest technology hubs, with strengths in internet, telecommunications, and biotechnology. The wider New York Metro area has the largest bioscience workforce in the USA. In recent years New York State has pioneered a new approach to economic development by creating regional economic development councils – a community-based approach, which enables ten regions within the state to develop long-term strategic plans for economic growth based on their unique assets and market opportunities. The challenges of growth and success include high

costs, lack of workforce availability, and a high incidence of poverty and inequality. Policy responses have sought to better utilise the existing workforce and improve the productivity of local businesses.

BUSINESS LEADERS HAVE PUT PLACE-MAKING ISSUES AT THE TOP OF THE AGENDA FOR THE CONTINUED SUCCESS OF SAN FRANCISCO-SILICON VALLEY

San Francisco-Silicon Valley is the leading global region for entrepreneurship, investment and tech business. Its highly-skilled workforce and ability to develop and commercialise technology and launch businesses is unparalleled. Many of the world's most innovative technological advances have been conceived, incubated and scaled in Silicon Valley, generating economic growth and prosperity for the region's companies and residents. The San Francisco-Silicon Valley area consists of 101 cities, but it is one economy with more than 7 million people living, working and enjoying leisure activities across the region. Transport is a critical challenge, despite an extensive commuter rail system and three major airports. High levels of demand, combined with historic under-funding, numerous modes of travel, two dozen transit operators, and fragmented strategic management, have worsened congestion and commuting times. Other challenges include housing, falling R&D spending and lack of effective workforce and skills planning and development.

THE TRIANGLE PROVIDES EVIDENCE THAT REGIONAL TRANSFORMATION IS POSSIBLE WITH A STRONG VISION AND LEADERSHIP

The Triangle in North Carolina (USA) has transformed from a rural economy in the 1950s into a leading global tech region. Founded in 1959 as a collaborative initiative to deliver the USA's biggest technology research and science park, The Triangle is home to the Research Triangle Park (RTP). This 7,000-acre cross-boundary science park is the largest and leading high technology research and science park in North America. The area ranks highly as being business friendly, high tech and as a good place to live. The Triangle's bold, ambitious strategy has been achieved and delivered through state and local government leadership and effective cross-boundary collaboration. Collaborative regional delivery bodies include a regional partnership and public transport authority.

MAIN LEARNING POINTS

Whilst the Growth Commission would not expect the London Stansted Cambridge Corridor to precisely replicate the success factors and policies of other successful global knowledge regions, there are several key learning points.

Long-term development. Major technology and innovation regions have developed over 30 to 50 years. The success factors are many, but tend to be a combination of scientific innovation, research and development capacity and expertise coupled with entrepreneurialism, high-level skills, room for growth and expansion, and available finance. Initial state investment in the form of research grants or defence/aerospace spending has also been significant in the US and German case studies.

Strong leadership and advocacy. All the case study regions have had strong political and business leaders and advocates. These have endured in collaborative formal government structures and arrangements, as well as private sector and non-profit associations.

Local and regional powers and tax raising. Each case study region has substantial local and regional powers in terms of policy and delivery in transport, education, skills, land use, business, and infrastructure. They also have more substantial tax raising capacities than the localities within the London Stansted Cambridge Corridor.

Adaptability and flexibility is a key characteristic. The path to success and prosperity has rarely been straightforward, and each region has had to deal with industrial, market and financial restructuring.

Congestion, housing, and skills. All the world's major technology and knowledge economy regions have had to face the impacts of high levels of growth. Typical challenges include transport congestion, housing availability and costs, and shortages of appropriate workplace skills.

Almost every global knowledge region collaborates across the functional economy and local jurisdictions, in policy areas such as economy, transport, land use and housing. As economies have grown and their functions have transcended traditional government boundaries, policies and strategies have followed. Some regions, such as Boston Route 128, Greater Munich, The Triangle, and The Øresund, have strategic plans and an integrated regional approach (to varying degrees). Others, such as San Francisco-Silicon Valley, have suffered from the absence of a sufficiently integrated regional approach. This has been recognised with the development of Plan Bay Area 2013-2040, a long-range integrated transportation and land-use/housing strategy for the San Francisco Bay Area.

ALL THE TECHNOLOGY REGIONS IN THESE CASE STUDIES HAVE STRONG AVIATION CAPACITY

Aviation capacity is extensive in every technology region discussed in these case studies. For example, the Boston Route 128 and the San Francisco-Silicon Valley regions both have up to 10 runways available across a number of airports. Five airports service businesses and residents in the London Stansted Cambridge Corridor, with a total of 154.4 million passengers in 2015, and with a peak departure capacity of 160 movements per hour. This contrasts with New York Metropolitan Area's three airports, with 122.7 million passengers in 2015, and a peak departure capacity of 186 movements per hour. The international airports in San Francisco-Silicon Valley (San Francisco International Airport and Oakland International Airport) have a combined peak departure capacity of 209 movements per hour. This indicates that, compared with international competitor regions, the Greater South East of England and London lacks sufficient aviation capacity to serve such a large and dynamic economy.

London Stansted Airport has the capacity to expand and could be a big part of the solution to the aviation needs of the Corridor, London and the Greater South East. London Stansted Airport runway's current operational ceiling is 40 to 45 million passengers per annum. There were 22.5 million passengers in 2015. So there is a lot of scope for growth within the current ceiling, and there could be even more if an additional runway is considered. Since it was taken over by Manchester Airports Group, the Airport has established strong links with the business community which have led to significant activity to establish scheduled flights and connections to East and West Coast destinations in the US to serve the life sciences industry.

All of our global competitor regions have improved place-making for knowledge industries and boosted regional integration, or are promoting such arrangements. These place-making strategies and policies are being pursued in order to enhance their competitiveness in attracting knowledge-based industries. Each region is delivering or advocating greater cross-jurisdictional working to achieve this. Such initiatives have been integral to long term approaches, as in Boston Route 128 or Greater Munich, and are the prime concern of the Bay Area Economic Forum, the main business policy leadership organisation in San Francisco-Silicon Valley.

These regions have diverse spatial configurations. Silicon Valley is not a city region in itself, but a semi-rural area with small cities and large towns right next to big metro area of San Francisco and the Bay Area. The Triangle in North Carolina is not a metropolitan area or city region in the classic sense. Both Silicon Valley and the Triangle are attempting to create more vibrant urban centres to suit the preferences of their skilled workforces. This is evidenced by the preference of Silicon Valley's top tech talent to live in San Francisco. The message here is that the classic 'city region' of big city with hinterland continues to be important, but the configuration on the ground, as well as changes in location preference, are complex and diverse.

CHALLENGES TO FUTURE GROWTH AND PROSPERITY

Growth and demand has run ahead of the Corridor's ability to supply what businesses need. The Corridor's phenomenal rates of growth have not been matched with similar growth in local workforce skills, housing supply and transport capacity.

INTERNATIONAL COMPETITION

Many nations and regions are seeking to compete directly in the industries and technologies of tomorrow. The world will not stand still and wait for us to address our location, workforce and transport challenges.

Most advanced and developing nations aspire to further develop the industries, R&D capabilities and skills that are so strong in the Corridor. Whether they are the established technology regions in Europe and the USA, or are the emerging regions of China and India, all have the aspirations, policies, strategies and investments to build successful knowledge-based economies capable of taking advantage of the next big advances in technology. We must be mindful that global competition will become increasingly fierce over the next 10, 20 and 30 years.

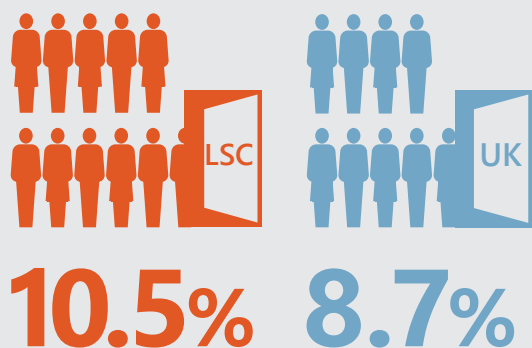
POTENTIAL LABOUR MARKET SHORTAGES

Labour market capacity is being stretched, as a result of high rates of economic activity, low unemployment, and above-average levels of skills shortages. This demonstrates the imbalance between the supply of labour and firms' requirements for suitably trained and skilled staff.

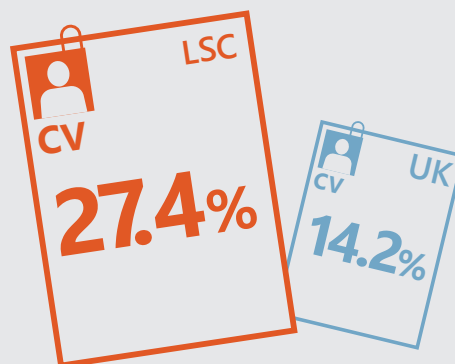
Labour demand and jobs growth has been phenomenal, with 10.5 per cent growth in jobs in the Corridor between 2009 and 2014 against 4.1 per cent nationally.

Workforce availability and skills shortages are a concern. Even with the workforce growing by 20.2 per cent between 2000 and 2014 (against 9 per cent nationally), labour supply shortages are evident. The Corridor accounted for 10.5 per cent of England's vacancies in 2015, compared with 8.7 per cent of national employment. Skills shortages are more prevalent in the Corridor than nationally, but they are caused by a lack of available workforce rather than because workers lack necessary skills. This is particularly problematic in Cambridgeshire, where 45 per cent of hard-to-fill vacancies in 2015 were due to a shortage of applicants.

Recruitment difficulties are particularly challenging in professional occupations, accounting for 27.4 per cent of all vacancies in the Corridor compared with 14.2 per cent nationally.



The Corridor accounted for 10.5 per cent of England's vacancies in 2015 compared to the 8.7 per cent share of national employment.



Recruitment difficulties are particularly challenging in professional occupations – accounting for 27.4 per cent of all vacancies in the Corridor compared to 14.2 per cent nationally.

HOUSING COSTS AND AFFORDABILITY

Affordability problems are worsening.

Cambridge ranks second and London third as Britain's least affordable cities, in terms of the ratio of average house price to median income. London had the highest mean house price in 2015 (£530,100), with Cambridge second (£469,600). In 2014, Islington, Hackney, Haringey, Cambridge and Epping Forest ranked among the most expensive 10 per cent of 326 local authority areas in the UK, in terms of average house prices and private rents. House prices have grown rapidly across the LSC Corridor. Since 1995 house price inflation rates have ranged from 248 per cent in Harlow to 451 per cent in Hackney. Social housing rents have also increased rapidly in some areas since 1998, with rent inflation rates ranging from 67.8 per cent in Harlow to 123.1 per cent in Stevenage.

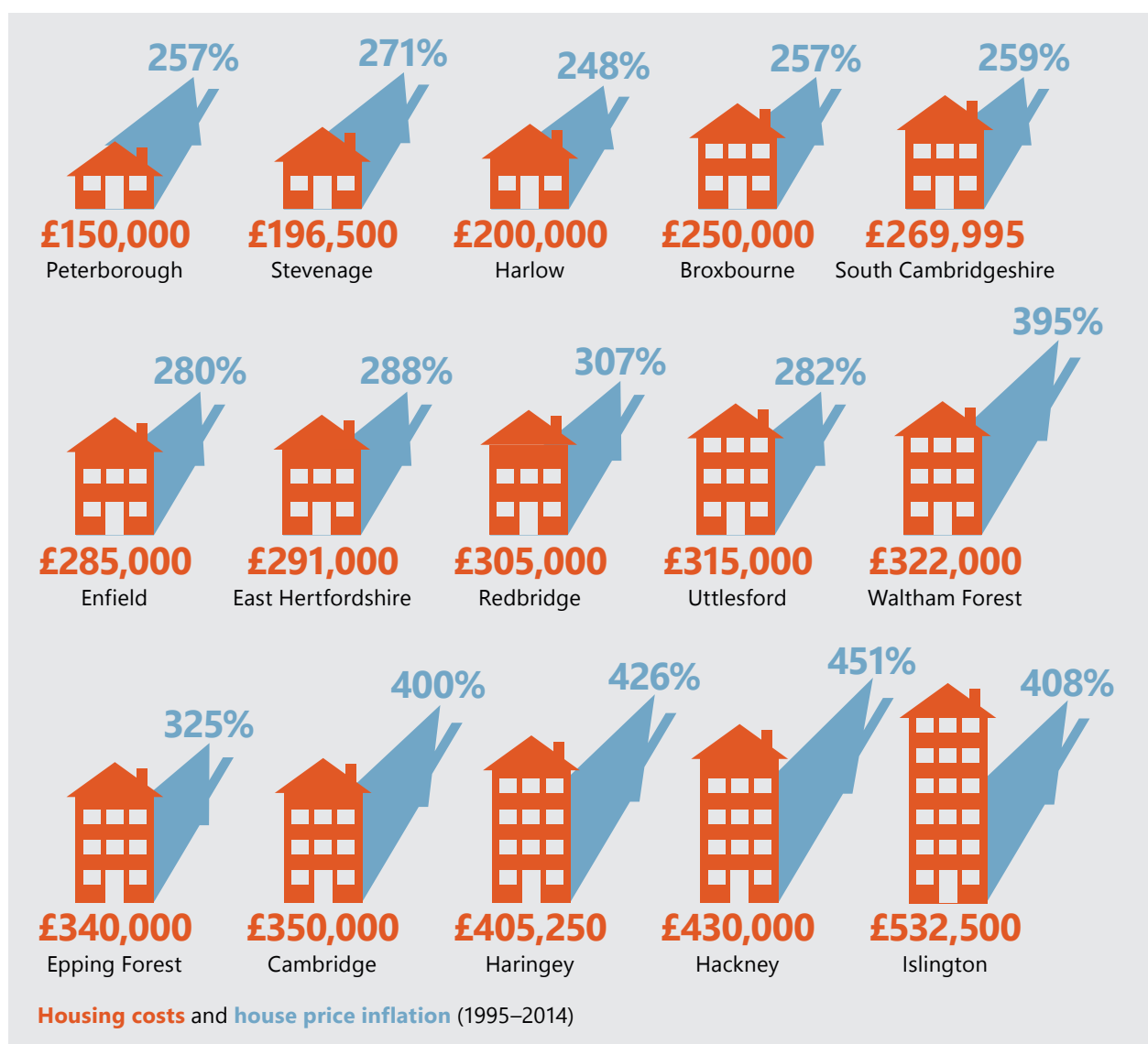
There is ever increasing housing demand.

Population growth has been extremely rapid across the LSC Corridor. Between 2000 and 2014, the number of people living in the area increased by 438,700 – or 19.1 per cent – almost twice the growth rate across the UK (9.7 per cent). This growth is projected to continue at a steady rate.

Housing completion rates, however, are not increasing to meet demand.

Across the LSC Corridor, net additions to the housing stock fell sharply between 2006/07 and 2010/11 and have since plateaued with no signs of recovery. Net additions in 2014/15 were 39 per cent below their 2006/07 peak. Across England, although net additions to the housing stock increased significantly in 2014/15, they were still 24 per cent below their 2007/08 peak.

AVAILABLE EVIDENCE SUGGESTS THAT THE MAIN BARRIER TO HOUSING SUPPLY IS THE RATE OF COMPLETIONS AND HOUSE BUILDING RATHER THAN PLANNING CONSTRAINTS

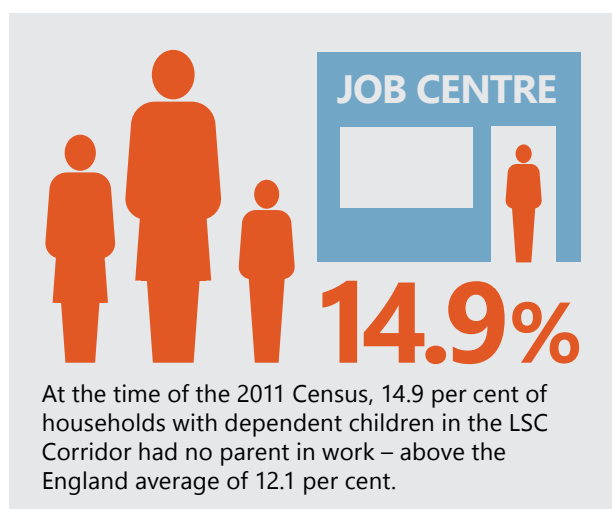


Planning permissions are adequate to meet projected housing needs, but build rates are far too low. From existing forecasts and projections, it is anticipated that there will be an extra 13,605 households in the Corridor each year between 2011 and 2031. Planning policies indicate permission for 15,634 homes each year over this time period. This would require a near-tripling of current build rates: only 5,780 homes were completed in 2014/15.

ENSURING EVERYONE GAINS FROM GROWTH

Income deprivation and rates of child poverty and workless households are high in the LSC Corridor, particularly in its six London boroughs.

Young people have the highest rates of economic inactivity and unemployment is more pronounced.



Lower skilled and entry level workers need to access job opportunities, and tend to rely more on public transport. There are significant challenges in ensuring everyone benefits from growth and jobs. There is a case for improving public transport access to employment centres to help unemployed people and young people find work. Substantial improvements in transport services to major employment centres such as London Stansted Airport will create job opportunities as well as benefiting international passengers.

Residents in lower-skilled jobs are less likely to travel long distances. Evidence from the 2011 Census makes it clear that, on average, workers in the Corridor in less-skilled occupations seek work closer to home. These include administrative and secretarial occupations; caring, leisure and other service occupations; sales and customer service occupations; and elementary occupations.

INADEQUATE TRANSPORT AND INFRASTRUCTURE CAPACITY

The transport and broadband infrastructure of the Corridor is widely regarded as inadequate for future growth. Traffic congestion is widespread at peak times in and around our main towns and cities, and around major employment sites. Super-fast broadband availability is patchy. Rail connections are good, but capacity, journey times and reliability could be improved. There are insufficient rail services to meet the commuter needs of major centres outside of London, such as Cambridge.

AVIATION CAPACITY IS LIMITING INTERNATIONAL BUSINESS AND INVESTMENT

While airports that serve the Corridor handle a large number of passenger movements, current runway configurations are constraining the capacity for passenger growth. Competitor locations such as the New York Metropolitan Area and San Francisco-Silicon Valley have much greater potential airport capacity.



BOOSTING GROWTH BETWEEN CAMBRIDGE AND LONDON

The economy between Cambridge and London needs a boost. While the economy of the Corridor as a whole has performed well above the national average, this performance is being driven by exceptional growth rates in Cambridge and London, while growth in Essex and Hertfordshire is more sluggish.

VIABILITY OF EMPLOYMENT SITES

Current and future employment sites need good access to talent if they are to be viable.

To become successful business locations, such sites must have access to an adequate supply of skills and a qualified workforce within reasonable commuting distance. This can be achieved both by enhancing local residents' skills and qualifications, and by expanding the potential labour market catchment through effective transport infrastructure.

MAINTAINING LONDON'S GROWTH

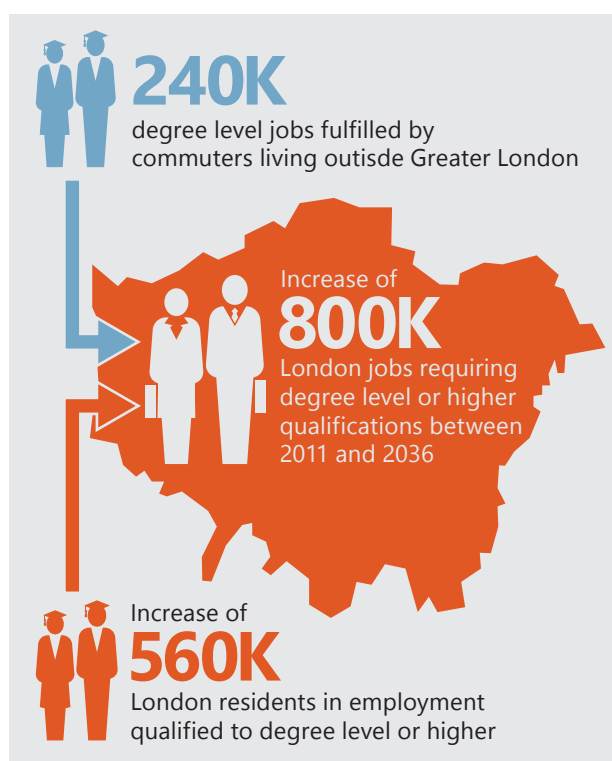
London's growth has been outstanding, and it has contributed an increasing share of national economic output over recent years.

London is projected to create an additional 850,000 jobs by 2036. 800,000 of these jobs will require degree-level qualifications, but London is only forecast to provide 560,000 additional workers with these qualifications levels over this period.

However, there are constraints to future growth such as housing costs and availability and international aviation capacity.

House prices in London have grown sharply since 2008, and all 33 London boroughs have median prices higher than the England median house price of £198,000. The capital has little spare aviation capacity, with no solution in sight to this highly publicised problem.

Despite this success, unemployment remains high, as does inequality. There remains progress to be made in terms of providing access to opportunity for all of London's residents



TRANSPORT AND LAND USE PLANNING WILL NEED TO ADAPT TO REMAIN COMPETITIVE

Significant changes in settlement patterns, density and workforce availability lie ahead.

Demographic changes will mean that the Corridor's transport and land use planning system will need to adapt over the next 30 years.

THE OUTCOME OF THE RECENT EU REFERENDUM REINFORCES THE CHALLENGES FACED BY THE CORRIDOR, AND ALSO PRESENTS SOME NEW ONES

The technology and knowledge-based industries that are so strong in the Corridor compete and operate globally and rely on global talent.

It is clear that the technology and knowledge – based industries that are strong in the Corridor and offer such potential for the future are dependent on: access to global markets and integration with supply chains and other global parents/subsidiaries; and securing talent and skills from around the world. It is also clear that we would need to ensure the continued support for R&D activities, particularly in research and higher education institutions, particularly if there is the need to transition funding arrangements from EU based research grants.

The Corridor is well placed to create new opportunities from global trade.

The UK is an internationalised economy that relies on global trade and economic relationships. We suggest that building on the Corridor's potential would present a quick win for the UK economy, and that addressing immediate needs (such as infrastructure) will give confidence about what lies ahead.

There is a need to ensure all communities benefit from economic growth and knowledge industries.

We have pointed out in our report that the benefits from the success of the technology, knowledge-based and professional business services industries could be more widely shared. This is a significant challenge for the Corridor, and other knowledge regions around the world. Indeed, the EU referendum result once more emphasises the need for us to work harder to ensure that all communities benefit from global trade and growth industries.

Over the next few years, there is a need to ensure that infrastructure, property and housing developments proceed.

The market and economic environment is uncertain immediately after the EU referendum. We must plan for the contingency that infrastructure, property and housing developments may well be impacted by this. We must take steps to maintain confidence and ensure these projects are delivered.

3. AMBITION

Our vision for the London Stansted Cambridge Corridor

OUR 20-YEAR AMBITION: TO BECOME A COMPETITIVE **GLOBAL** TECH AND LIFE SCIENCES REGION

The London Stansted Cambridge Corridor leads the UK in ideas, innovation and entrepreneurship and could become of the top five Global knowledge regions, alongside San Francisco – Silicon Valley, Boston Route 128, and The Triangle

OUR AMBITION IS FOR THE LONDON STANSTED CAMBRIDGE CORRIDOR TO BECOME A COMPETITIVE GLOBAL TECH AND LIFE SCIENCES REGION

- 1) **We are the leading region in the UK for ideas, innovation and entrepreneurship.**
- 2) **We have the professional, finance and business services** expertise to turn ideas and innovation into competitive advantage and wealth.
- 3) **We have the capability and potential** to compete as a global tech region, but we are falling behind in terms of quality of place, infrastructure, scaling-up businesses and workforce skills.
- 4) **Effective collaboration** will be required to address these challenges and build on our advantages to achieve our vision.
- 5) **The outcome of the recent EU referendum** in our view only reinforces the need to underpin and build on the competitive position of the Corridor. The UK is an internationalised economy that relies on global trade and economic relationships, but we also need to ensure that all of our communities benefit.

BUILDING ON EXISTING COMPETITIVE ADVANTAGE

Building on our knowledge and R&D capability:

As Chapter Two demonstrated, the London Stansted Cambridge Corridor has a superb track record in its knowledge-based industries, R&D capability, entrepreneurship and growth performance. It is the leading region in the UK for ideas, innovation and entrepreneurship.

Developing the Corridor further to become a global tech and life sciences region: Over the next 20 years, the Growth Commission strongly believes that the Corridor could be further developed to compete in the same league as Silicon Valley, Route 128, The Triangle and Greater Munich.

KNOWLEDGE INDUSTRIES ARE DRIVEN BY TALENT

Tech and life sciences firms in the Corridor have consistently told us that the primary reason they locate here is access to talent. Industry leaders place the skills and entrepreneurship of the region's workforce at a premium.

TALENT LOCATES WHERE THERE ARE SIGNIFICANT CAREER OPPORTUNITIES AND A HIGH QUALITY OF LIFE

We need to deliver quality of place to become the next global tech and life sciences region.

Our ability to attract and retain talent relies on our ability to offer exciting career opportunities, host leading global firms, and provide vibrant, affordable and accessible homes and communities.

There are potential Corridor effects and benefits which are waiting to be unleashed.

Currently the economic links in the Corridor are growing stronger. The Corridor has the potential to be a functional economy with all the right capabilities to be globally successful.

THE CORRIDOR ALREADY HAS THE CAPABILITY TO BE A GLOBAL KNOWLEDGE REGION AND THIS CAN BE UNLEASHED OVER THE NEXT FIVE YEARS – WE DO NOT HAVE TO WAIT 30-40 YEARS

Evidence from our international case studies suggests that it takes 30 to 40 years to develop the capabilities to be a global knowledge region.

The Corridor is already well on the way to developing this global capability. It is our view that with some concerted actions and collaborative working we could make significant progress over the next five years. We do not need to wait 40 years. Given the prospective challenges for the UK economy post-EU referendum, we suggest that we take actions now to secure this growth and potential.

2036: OUR VISION FOR THE LONDON STANSTED CAMBRIDGE CORRIDOR

BY 2036, THE LONDON STANSTED CAMBRIDGE CORRIDOR WILL BE...

- One of the top five Global knowledge regions, alongside San Francisco – Silicon Valley, Boston Route 128, and The Triangle.
- The prime location choice for tech and life sciences firms looking to locate in the UK
- The source of 10 new 'unicorns' (new firms with valuations reaching US \$1 billion or higher), three of which will be FTSE100 companies, and all of which are global technology leaders
- Home to 400,000 new jobs created since 2016, of which 200,000 will be tech, life sciences and knowledge jobs
- Leading UK productivity: with GVA per hour 20 per cent above the UK average

BY 2036, THE CORRIDOR WILL BE THE LEADING TECHNOLOGY REGION IN EUROPE FAVOURED BY...

- Very high levels of R&D, entrepreneurship and an active tech community
- World class scientific, technological and business skills and talent
- High quality business premises and sites
- Dense supply and value chains
- World class transport infrastructure
- Effective links between research institutions and business

BY 2036, THE CORRIDOR WILL OFFER A HIGH QUALITY AND VIBRANT LOCATION FOR TALENT, WITH ITS...

- Extensive, deep and well connected labour market for science and technology related skills and jobs, with many avenues for career progression and entrepreneurship
- Education and skills system that provides a skilled, qualified workforce with the ability to be flexible and adapt and upgrade skills throughout a career
- Provision of a range of high quality housing options close to employment locations
- Vibrant, diverse communities

BY 2036, THE CORRIDOR WILL BE A MAJOR BENEFIT TO UK PLC BY...

- Accounting for a significant share of R&D, innovation and commercialisation activity
- Being the heart of a dynamic technology-based economy
- Providing substantially higher rates of productivity and productivity growth
- Providing innovative products and services and new entrepreneurial models that compete effectively in global markets
- Directly building on London's advantages as a global professional and financial services hub

BY 2036 THERE WILL BE SEVERAL NEW AND HIGHLY COMPETITIVE KNOWLEDGE REGIONS IN ASIA, BUT...

- The Corridor will match their technological capability and out-compete them on quality of business location, quality of life, and the depth of collaboration between firms, research institutes, entrepreneurs, higher education and government

FIVE PRIORITIES THAT WILL DRIVE OUR AMBITION

Billions of pounds of private investment funds are not achieving their desired returns at present. With the right level of scale, ambition and local commitment, these could be channelled into a regional investment fund for the Corridor

1) NEW POWERS AND FINANCIAL VEHICLES FOR INFRASTRUCTURE, HOUSING AND PLACE-MAKING

HIGH-GROWTH ECONOMIES SUCH AS THE LONDON STANSTED CAMBRIDGE CORRIDOR HAVE THE POTENTIAL AND VIABILITY TO SUCCESSFULLY USE PRIVATE FINANCE VEHICLES TO DEVELOP INFRASTRUCTURE AND OTHER ASSETS

The historic and projected rates of growth in the London Stansted Cambridge Corridor are high, which makes local and regional financial vehicles much more viable in the Growth Commission's view.

We should aspire to have a world-class infrastructure. With leading road, rail, and aviation capacity and ultra-fast broadband speeds that match the best in the world.

Private and institutional investors will only invest where there is scale, stability and a good return. Viable financial vehicles require scale, a sufficient flow of investable propositions and projects, and realistic means to repay both principal and interest.

The Corridor can be a forum in which local areas can collaborate to develop viable investment vehicles. While the Corridor is not the only potential geographical basis for collaboration, as an existing consortium and partnership it is a good place to start.

Private finance vehicles could be used for rail station upgrades, improvements to broadband infrastructure, or motorway junction improvements. The finance for station improvements could be repaid through a share of additional ticket revenues, car parking charges, and commercial rents from the new station buildings and other enhanced uses such as increased office, commercial and retail floor space. For motorway junction improvements, the finance could be repaid by a land value tax on the value uplifts to development sites which are made more viable or more profitable through the improvements, a roof tax on new houses, developer contributions, and/or additional business rate revenues.

THE INTEGRATION AND STRATEGIC DEVELOPMENT OF THE CORRIDOR'S TRANSPORT SYSTEM NEEDS A MAJOR UPGRADE

A Transport Authority would prioritise investment in transport improvements to enhance the Corridor's competitiveness and quality of place. It would enable closer integration of different modes of transport, linked to future housing and employment site developments. Significantly, it would also facilitate the application of existing and future innovations, such as smart card ticketing, new signalling systems, and integrated mobile apps.

OVER THE NEXT FEW YEARS, THERE IS A NEED TO ENSURE THAT INFRASTRUCTURE, PROPERTY AND HOUSING DEVELOPMENTS PROCEED

The market and economic environment is uncertain immediately after the EU referendum. We must plan for the contingency that infrastructure, property and housing developments may well be impacted by this in order to maintain the ability of the Corridor to remain competitive as a location.

Quality of place and connectivity are fundamental to becoming a globally competitive knowledge region

2) PLACE-MAKING FOR TECH AND LIFE SCIENCES

TECH AND LIFE SCIENCES INDUSTRIES THRIVE IN HIGH QUALITY PLACES AND WELL CONNECTED, VIBRANT COMMUNITIES

Tech and life sciences industries thrive in high quality places and communities. Such locations are well connected, have great workforce skills and entrepreneurial talent. They have a richness and diversity that acts as a magnet to global talent and investment.

Quality of place and connectivity are essential in a competitive knowledge region. High quality housing, development, infrastructure, and location will boost the Corridor's attractiveness to talent and investment. This in turn will lead to increased growth, productivity and global competitiveness.

COMPETITOR REGIONS HAVE PLACE-MAKING AT THE HEART OF THEIR STRATEGIES

All the regions that compete with the Corridor globally aspire to be high quality, well connected locations with great amenities.

Most have articulated the need for better place-making, well designed new homes, vibrant communities, and improved transport infrastructure. This is also true of the emerging economies, and China in particular.

FAILING TO IMPROVE PLACE-MAKING AND QUALITY OF LOCATION WILL UNDERMINE OUR COMPETITIVENESS

If we do not ensure quality of place and connectivity in the Corridor, our long-term prospects will be undermined. One risk identified by the Growth Commission is that inadequate quality and connectivity in the Corridor will curtail its prospects as a location for business and talent.

WE MUST SUPPORT THE CORRIDOR'S MAIN REGENERATION AND DEVELOPMENT OPPORTUNITIES AND SITES

Several key regeneration and development opportunities have the potential to substantially enhance the Corridor's competitiveness as a location for business and talent.

Broxbourne, Harlow and Stevenage have significant strategies and ambitions for growth and development. They can play an important role in supporting the Corridor's tech and life sciences clusters. Current developments and future plans will greatly improve the industrial, commercial and residential offer. These areas must be supported to provide the right types of development that enhance the quality of place for the Corridor's knowledge-based industries and residents.

Strategic sites such as the Wellcome Trust Sanger Institute, Harlow Enterprise Zone, Alconbury Weald Enterprise Zone, Meridian Water, and Park Plaza West present a unique opportunity to provide high quality and competitive workplaces to meet the needs of existing and future technology-based and life sciences industries.

There is a huge opportunity for employers to collaborate to develop our local workforce, so that they have the right talent and skills to compete for the future

3) BUILDING TALENT AND ENSURING EVERYONE CAN BENEFIT

DURING OUR INQUIRY EVENTS, EMPLOYERS REVEALED THAT MANY OF THEIR STAFF TRAVEL LONG DISTANCES TO WORK, LIMITING RECRUITMENT AND LABOUR PRODUCTIVITY

Providing better labour market connectivity will create a bigger functional labour market – a larger and deeper skills pool for the Corridor's employers. It will also reduce journey times for employees, improving their productivity and staff retention for businesses.

Developing the local workforce will also be necessary, given the reduced capacity of the Corridor to accommodate migrating workers, particularly from the rest of the UK. The only way to maintain growth and productivity will be to improve existing workers' skills, and educating and training the local workforce to meet employers' skills needs.

There is a need to ensure all communities benefit from economic growth and knowledge industries. The implications of the EU referendum result reinforce the need for us to work harder to ensure that all communities feel the benefits of globalisation and of growth industries.

4) LONDON STANSTED AIRPORT AS A DYNAMIC SOURCE OF GROWTH AND DEVELOPMENT

OUR VISION IS FOR AN AIRPORT THAT IS A DYNAMIC DRIVER OF GROWTH AND LOCAL BUSINESS PERFORMANCE, PROVIDING THE SERVICES AND ROUTES THAT THE CORRIDOR'S TECH AND LIFE SCIENCES BUSINESSES NEED

Airports play a valuable economic development role and the Corridor needs a strategy and action plan to use London Stansted Airport as a dynamic source of growth as well as supporting the region's businesses.

London Stansted Airport has the capacity to expand and could be a big part of the solution to the aviation needs of the Corridor, London and the Greater South East.

London Stansted Airport's role in the UK's aviation strategy could be better informed if we understand its potential contribution to economic development.

Future growth in passenger numbers and the likely implications will be better understood in the context of the Corridor's economic role and future development.

5) DEEPENING THE PARTNERSHIP WITH LONDON

LONDON'S GROWTH PROSPECTS ARE GREAT, AFFECTING THE CORRIDOR BOTH IN TERMS OF BUSINESS AND LABOUR MARKET OPPORTUNITIES

Plans for London's growth and spatial development will increasingly need to involve closer working with adjacent local areas and transport corridors. This could be addressed in the first instance through a formal LSC Corridor forum for planning London's growth, as a prelude to the next London Plan.

The shared issues and priorities span a wide range of business, economic and public policy issues, including land use planning, housing and transport. There are also clear challenges and opportunities in relation to business growth, workforce skills, international investment, R&D and technology, and international connectivity.

North London is favourably positioned between the knowledge based economy and institutions of the Corridor and the rest of London. We need to understand how North London's economy and communities have benefited so far from these opportunities, and what kinds of strategies and actions could be beneficial in the future.

Working more closely with London would help to develop new and more effective responses to our shared challenges and opportunities.

WHAT'S AT RISK IF WE DON'T COLLABORATE TO ADDRESS THESE PRIORITIES?

If we fail to develop high quality business locations, workforce skills, vibrant new communities to live in and the transport infrastructure to connect them, the Corridor risks losing its competitive edge. Risks need to be addressed in five key areas.

RISK 1: A DETERIORATING LOCATION OFFER

Failure to develop high quality business locations, attractive new communities to live in and the transport infrastructure to connect them will result in a poorer locational offer with higher costs due to demand pressures, congestion and skills shortages. This will eventually begin to erode the advantages the Corridor enjoys through its knowledge-based industries, entrepreneurship and local workforce skills. Ultimately, the Corridor's productivity premium, which currently stands at 16 per cent, could decline.

RISK 2: LABOUR MARKET SHORTAGES, WHICH WILL REDUCE BUSINESS INVESTMENT

Failure to invest in measures to improve labour market and skills supply will result in a **continued increase in workforce and skills shortages**, restricting business performance.

Talent is the number one location factor for knowledge and technology based industries.

A lack of workforce skills, or the failure to attract skilled labour to live and work in the Corridor, will reduce the Corridor's attractiveness and viability to investors. This is already happening among some employers in Greater Cambridge, who are choosing to expand in overseas locations because they cannot source their workforce here.

RISK 3: INCREASED HOUSING PRESSURES COULD REDUCE SKILLS SUPPLY

Failure to invest in measures to boost housebuilding, such as road and rail transport improvements, will lead to further rises in house prices and worsening affordability. This has major implications for employers and their ability to recruit and retain talent.

RISK 4: CONTINUED POLARISATION OF THE WORKFORCE AND COMMUNITIES

Failure to invest in measures to increase access to jobs and opportunities for all residents, including those from deprived communities, will result in continued polarisation between the communities and individuals who can access jobs and routes to progression in the labour market, and those who are less able to do so.

The Corridor will be less able to accommodate skilled labour moving from elsewhere in the UK and overseas. Historically, the expansion of workforce skills has been achieved to a large degree through in-migration from the rest of the UK. It is difficult to see how this can continue, given current housing completion rates and trajectories. To remain competitive, we must significantly improve the productivity of existing labour and better develop the local workforce to meet employers' needs.

Increased detachment and disaffection from the changing economy. If community members, and particularly young people, are not able to engage in employment, education and training relevant for today's economy and tomorrow's jobs and workplaces, they may become less likely to participate in the economy at all and more likely to become disaffected and disengaged. This will lead to further deprivation and social polarisation.

If there is no local talent base, businesses will invest elsewhere. Some tech – and knowledge-based businesses want to be based in the places where people with the skills and talent they need live. If these skills or talents are missing in a neighbourhood, it stands less chance of benefiting from such investment.

RISK 5: GROWTH IN LONDON EXERTS GREATER CHALLENGES AND PRESSURES ON LOCALITIES WITHIN THE CORRIDOR

Growth will occur in London, with significant ramifications for local areas outside the capital

in terms of labour demand, wage differentials, transport use and congestion, house prices and housing demand, and land prices and land use pressures.

The likely potential growth in London is already known. Failure to plan for and manage this growth in ways that benefit local areas within the Corridor could create significant additional challenges and risks.

Failure to plan outside London may also constrain London's own potential. London's growth will become increasingly dependent on how it interacts with its surrounding areas. Constraints may emerge if there is no common strategy or plan to support London's growth.

WHY COLLABORATE?

Labour markets, workforce catchment areas, transport movements, and housing markets all transcend local borders. They do not operate according to administrative boundaries. The economic benefits, rationale and case for investment in physical and human capital are often multi-jurisdictional. Consultation and collaboration across local areas is required in order to plan for and fund these challenges.

Investments can be complementary and mutually reinforcing. For example, upgrading a rail line has implications for other modes of transport which may operate across jurisdictions. If integrated transport solutions were planned from the beginning, transport investments would deliver greater benefits.

The status quo is not an option

There are potential Corridor effects and benefits which are waiting to be unleashed.

Currently the economic links in the Corridor are growing stronger. The Corridor has the potential to be a functional economy with all the right capabilities to be globally successful.

The Corridor is already globally competitive in innovation and technology, but future growth depends on the place-based policies that can develop and support a high quality location for business and work.

Not taking action does not mean success will continue. The danger is a lack of action would erode the competitive advantage of this region and send the wrong message particularly as the competition is taking a long term strategic view.

4. DELIVERY

Cooperation and collaboration can deliver a step-change

DELIVERING THE VISION: **COLLABORATION AND COOPERATION** IN THE CORRIDOR

We recommend that collaboration and cooperation in the corridor focuses on where it can best add value

VALUE FROM COLLABORATION AND COOPERATION

Some objectives can be more effectively achieved through actions that are coordinated across the Corridor. The benefits of collaboration and cooperation will be apparent for priorities and activities that require:

- **One voice:** to campaign for shared priorities and for the local powers and resources to deliver change
- **Scale viability:** for example, a Corridor infrastructure fund, which would require a sufficient flow of deals and variety of revenue sources to be viable
- **Scale economies where delivery can be more feasible or effective due to its size:** a Corridor-wide STEM careers or job entry initiative, for example, could attract higher levels of employer participation and provide significant benefits
- **Value from combining assets:** such as better integrating transport modes to improve travel times, user benefits and journey experience
- **Risk management:** sharing risks and de-risking by building common agendas and generating buy-in – such as a shared vision for land use and housing

There is a track record of collaboration to build on within the Corridor. The London Stansted Cambridge Consortium, West Anglia Task Force, Cambridgeshire Joint Strategic Planning Unit, Local Enterprise Partnerships, and Cambridge Ahead are all welcome initiatives.

FORM SHOULD FOLLOW FUNCTION

The Growth Commissioners believe form should follow function. The most appropriate delivery structures and mechanisms should be designed in order to achieve expressed ambitions and desired outcomes.

There are many forms of collaboration.

The Growth Commission considers that a lot could be achieved by combining existing structures and powers more effectively.

Priorities and actions at the Corridor level should proceed where there is a shared agenda, where effective collaboration is essential to deliver the best

outcomes, and where activities might be more efficient or effective at the Corridor scale.

Effective partnership working in the Corridor has been given a good start through the work of the London Stansted Cambridge Consortium. It is time to move to the next level: to set out compelling, focused collaborative actions in the short, medium and long-term, where partners can achieve results together. This approach would help to build confidence in joint work and cross-boundary working, leading to more ambitious priorities and actions over the next five to ten years.

FORMS OF COLLABORATION WHICH WOULD SUPPORT OUR AMBITIONS

Advocacy: for example, coordinated campaigns for common priorities or common assets such as rail routes; and sharing good practice and knowledge at conferences and workshops (e.g. for building tech locations or employer-led skills).

Sharing resources and expertise: such as shared place marketing material, expertise on tech and life sciences locations and place-making, or shared expertise on employer-led skills.

Co-production: for example, a common 'smart growth' strategy and principles for development, which ensures that employment sites and use are future-proofed for knowledge industries and their workers.

Policy and strategy development: such as foresight initiatives and events to develop a shared understanding of future priorities and issues.

Delivery: initiatives such as a joint financial vehicle with investment funds and payback mechanisms for industrial, commercial, housing and infrastructure development.

DELIVERING THE VISION: THE NEXT FIVE YEARS

The Corridor will require greater powers and flexibility over transport funding, place-making and workforce development in order to unleash its potential

THE CORRIDOR COULD MAKE SIGNIFICANT PROGRESS OVER THE NEXT FIVE YEARS IF IT BEGINS TO BUILD AND DEVELOP SIGNIFICANT COLLABORATIVE ACTION ON TRANSPORT AND INFRASTRUCTURE FINANCE, PLACE-MAKING, SKILLS AND TALENT, LONDON STANSTED AIRPORT, AND COOPERATION WITH LONDON

DELIVERING NEW POWERS AND FINANCIAL VEHICLES FOR INFRASTRUCTURE, HOUSING AND PLACE-MAKING

We propose the following actions for the London Stansted Cambridge Consortium:

Investment vehicle feasibility study:

- A feasibility study for an investment fund that could utilise sources such as institutional finance, local authority investment, and individual share or bond issues
- The potential use of vehicles and revenues from business rates retention should form part of this study
- This feasibility study could outline the integrated transport, infrastructure and development needs within the Corridor and the type and phasing and finance required. It would then explore the likely size, returns and repayment methods that are available or necessary to make such a fund viable

Advocacy and lobbying for:

- An investment vehicle for infrastructure and development projects
- The local powers of taxation, value capture and user charging necessary to service such an investment vehicle

Explore the case for a Corridor Transport Authority to...

- Take strategic control of all major transport routes and assets
- Develop an integrated strategy and plan
- Utilise private finance for developments and improvements
- Introduce user benefits such as integrated fare structures and ticketing
- Utilise the innovation, tech and talent in the Corridor to provide more effective transport solutions

We propose the following actions for HM Government:

Fully commit to devolving powers and enabling legislation that...

- Allows local authorities (individually or in collaboration) to borrow from private finance and use local tax, user charging and repayment vehicles
- Allows the formation of new regional transport authorities
- Over the next few years, there is a need to ensure that infrastructure, property and housing developments proceed

Put in place contingency plans to deal with market uncertainties that may emerge in the short-term after the EU referendum.

- Financial instruments such as bridging loans and pump priming finance may be necessary for critical infrastructure and property projects to ensure progress is not interrupted

CASE STUDY: COPENHAGEN METRO AND ØRESTAD SCHEME, DENMARK (2002-2007) – LOCAL FINANCE FOR INFRASTRUCTURE

The Copenhagen metro and Ørestad scheme is a metro development with a total cost of EUR 1.6 billion. Value was created from the design and construction of the new metro line. Increased accessibility to nearby land raised demand among developers and investors. 52% of the whole site was sold or under construction by the end of 2006, with overall sales totalling EUR 623 million. Furthermore, value was captured from direct payments (10%), real estate taxes (10%), and operating profits from the metro (30%). Finally, the captured value paid for the construction of the metro by repaying the EUR 2.3 billion debt incurred during construction process.

DELIVERING PLACE-MAKING FOR TECH AND LIFE SCIENCES

We propose the following actions for the London Stansted Cambridge Consortium:

Develop the quality of place-making for our current and future knowledge industries

- Deliver the resource or capacity to collate, analyse and disseminate location trends and best practice for knowledge-based industries
- Hold a regular conference or event to demonstrate and explore trends in business location
- This could potentially develop into a 'place-making' institute, setting market expectations, providing advice and toolkits to local partners, and offering location benchmarking to knowledge industries

Shared branding and marketing material

- There is a wealth of strategic assets and good news stories which could be harnessed to sell the Corridor to investors
- A common repository of place-marketing information and promotional material would benefit all partners in the Corridor, public and private
- The Corridor could also examine how to better cooperate in handling investment inquiries
- There is a need to explore how the Corridor, and/or its tech and life sciences clusters, could be more effectively branded

Support the main regeneration and development opportunities and sites

- Advocacy and profile for growth areas and sites such as those in Broxbourne, Enfield, Hackney, Greater Harlow, South Cambridgeshire, and Stevenage
- Ensure that regeneration and new developments meet the location requirements for technology – and knowledge – based industries and their workers

CASE STUDY: METROPOLITAN AREA PLANNING COUNCIL, METROPOLITAN BOSTON – DELIVERING PLACE-MAKING FOR TECH AND LIFE SCIENCES

Metropolitan Boston's regional planning agency, the Metropolitan Area Planning Council (MAPC), covers the 101 cities and towns of Metropolitan Boston. The MAPC published its regional plan, MetroFuture, in May 2008, leading to almost 300 individual projects in regional and local planning, municipal collaboration, and public policy to advance the MetroFuture vision. Roughly two-thirds of these projects are now completed, one-third are still under way, and more are being added.

MAPC produces the regional Comprehensive Economic Development Strategy (CEDS). The strategy highlights the need for a regional approach to economic development to address broad environmental issues, public health, education, housing, transportation, and infrastructure, and manage interconnected labour and housing markets, transportation systems, educational institutions, and cultural and scenic assets.

The MAPC's Strategic Plan 2015-2020 shows that stakeholders have identified regional thinking, convening and facilitating, and interdisciplinary work as MAPC's core competencies, and have praised MAPC's commitment to regionalisation and the role it plays as a regional thought leader.

BUILDING TALENT AND ENSURING EVERYONE CAN BENEFIT

We propose the following actions for the London Stansted Cambridge Consortium:

Developing better links between employers, educational institutions and young people across common skills and capabilities

- Deliver knowledge and best practice, sharing resources and events for STEM and IT skills and careers information, linking employers, educational institutions and young people

Provide information and guidance materials for careers information and job entry that reflect the needs of tech, engineering and life sciences industries across the Corridor

- In partnership with science, technology, engineering and ICT & digital employers, develop careers information resources and learning resources for use by schools and careers services

Learn, improve and share best practice

- Encourage the sharing of ideas and best practice within the Corridor and from international leaders in the field

We propose the following actions for HM Government:

Allow local authorities and partnerships to use funds from the proposed training levy (Apprenticeship Levy) to:

- Finance careers and learning resources and tools for young people and educational institutions

We propose the following actions for the London Stansted Cambridge Consortium, the business community HM Government, educational institutions and other local interest groups:

Respond to the challenges and opportunities posed by the recent EU referendum result

- Respond to the risks and challenges posed by the recent EU referendum result by clarifying and communicating the position of workers and residents from the EU and beyond, and to put in place a stable, workable solution that, in the short-to-medium term, minimises the risk of a flight of talent from the Corridor and rest of the UK

- Mobilise the business community, industry associations, local government, trade unions, colleges and universities to work with communities, schools and other organisations in deprived communities to increase access to opportunity into careers in science, technology, engineering and manufacturing industries, and professional business services firms

CASE STUDY: MASSBIO – DELIVERING THE RIGHT TALENT AND SKILLS

MassBio is committed to advancing Massachusetts' leadership in the life sciences to grow the industry, add value to the healthcare system and improve patient lives. It is a not-for-profit initiative founded in 1985 representing more than 700 biotechnology companies, academic institutions, disease foundations and other organisations involved in life sciences and healthcare.

Massbio has a Career Centre for employers and job seekers. Since 2001, the MassBioEd Foundation has been dedicated to engaging high school teachers, inspiring students and guiding the life sciences workforce.

MassBioEd's flagship program, BioTeach, provides high school teachers with lab equipment and life sciences curricula combined with intensive professional development and on-site mentoring. BioTeach supports educators from more than 200 public schools across the Commonwealth of Massachusetts in engaging students through lab-centred, inquiry-based learning. Through BioTeach, MassBioEd has provided workshops and mentorship for more than 750 teachers and lab experiences to more than 150,000 students.

MassBioEd also develops detailed analysis on job trends to illuminate the pathway from the classroom to careers in life sciences. MassBioEd's goal is to provide an understanding of the industry's workforce needs and the skills required to fill available jobs. It serves as a guide to educators, training professionals, and industry, so that Massachusetts can meet the workforce needs of the future.

<http://www.massbio.org/about/massbio-ed>

DELIVERING **LONDON STANSTED AIRPORT** AS A DYNAMIC SOURCE OF REGIONAL GROWTH AND DEVELOPMENT

We propose the following actions for the London Stansted Cambridge Consortium:

A joint economic development strategy for London Stansted Airport and its surrounding area

- Develop a joint public-private economic development strategy with the aim of developing the Airport zone as a growth node in the Corridor
- Explore how London Stansted Airport could contribute to the aviation needs of the Corridor, London and the Greater South East
- The strategy could integrate aviation and associated activities with the likely locational advantages for international business
- The strategy could also articulate how the airport's role in both international connectivity and as a business location could support the Corridor's vision to be a competitive global tech and life sciences region

We propose the following actions for HM Government:

Develop an 'airport economic development zone' strand to the work of the National Infrastructure Commission

- Airport proposals that can significantly boost local and regional economic development and growth should be considered alongside criteria covering passenger and international aviation demand

CASE STUDY: DALLAS FORT WORTH AIRPORT – AIRPORT AS A DYNAMIC GROWTH ASSET

John Kasarda coined the name and concept of "Aerotropolis" – "a combination of giant airport(s), planned city, shipping facility, and business hub." In the Aerotropolis model, the airport is at the city centre, surrounded by hotels and conference centre, air cargo facilities, and offices. The next development ring includes facilities for just-in-time manufacturing, bonded warehouses, logistic parks and free trade zones, e-commerce centres, information/communication technology corridors, research and technology facilities, retail/wholesale marketplaces, and exhibition areas. A third zone involves flexible tech spaces, industrial parks, distribution centres, sports and recreation/special use spaces, entertainment districts, and business parks. The final development ring has adjacent cities, medium – and lower-density residential, tourist attractions, health centres and hospitals, offices, and lots of green space. All of this is supported and served by a very high capacity airport, light rail passenger systems, vehicle expressways, and major rail.

Dallas Fort Worth Airport exemplifies this model. North Texas is home to many corporate headquarters and has its own evolving telecommunications corridor—AT&T, Nokia, Ericsson, and Verizon. Additionally, there are significant tourism and leisure attractions. High-value products (cell phones, iPads, pharmaceuticals, hard drives, computer chips) arrive via overnight air and are then repacked for distribution, assembled to complete products, or consumed in some other manner. Sometimes partly finished technical components are shipped to China, Thailand, Singapore, Vietnam, or India for completion of products which are then shipped back to the United States.

The Aerotropolis concept differs from the historic formation of cities, where airports were placed on the edge of the existing city and were a long way from central business districts. This development model places the airport at the centre and lets the cities grow around them.

DEEPENING THE PARTNERSHIP WITH LONDON

We propose the following actions for the London Stansted Cambridge Consortium, the Greater London Authority, London Boroughs and HM Government:

Develop a deeper shared understanding of the challenges and potential responses

- Building on existing partnership working to date (such as through the London Stansted Cambridge Consortium and the West Anglia Task Force), a joint initiative to undertake economic and policy research to inform strategic choices for the full range of major shared policy issues, including transport, infrastructure, health, business competitiveness, international connectivity, housing, education and skills

We propose the following actions for the London Stansted Cambridge Consortium, Greater London Authority and London Boroughs:

North London is favourably positioned between the knowledge based economy and institutions of the Corridor and the rest of London:

- Articulate clearly how North London's economy can benefit, and what actions are critical to take advantage of both its links to the rest of London and to the Corridor, in particular the labour market opportunities and knowledge based industries and institutions

We propose the following actions for HM Government, and joint advocacy from The London Stansted Cambridge Consortium and London authorities and partnerships:

Ensure that the interests of key growth industries and their trade relationships with European Union members are maintained

- HM Government works closely with key growth industries and their representative bodies to ensure a positive regulation and trading relationship with EU member nations

Joint advocacy to ensure continuity and enhancement of R&D programmes and capabilities

- Joint advocacy to secure a guarantee from HM Government to fully meet/replace existing EU research funding commitments that are currently facilitating a number of major advanced and globally significant research programmes in the Corridor and Greater London

CASE STUDY: BAY AREA COUNCIL ECONOMIC INSTITUTE COOPERATION WITH NEIGHBOURING METROPOLITAN AREA

Since 1990, the Bay Area Council Economic Institute has been the leading think tank focused on the economic and policy issues facing the San Francisco-Silicon Valley Bay Area, one of the most dynamic regions in the United States and the world's leading centre for technology and innovation. It is guided by a board of trustees drawn from leaders in the corporate, academic, non-profit, and government sectors.

The Institute is a trusted partner and adviser both to business leaders and government officials. Through its economic and policy research and its many partnerships, the Institute addresses major factors affecting the competitiveness, economic development and quality of life of the region and the state, including infrastructure, globalisation, science and technology, and health policy. It provides objective assessment and advice on the full range of public policy areas, including the economy, industrial policy, housing, transport, infrastructure, international aviation, education, health, housing, science and innovation.

The Institute has a history of robust analysis in the transportation sector and continues to assess the region's needs. The Institute continually investigates how the Bay Area serves as an important business and cultural hub by being globally connected through foreign direct investment, links to other technology regions, large numbers of foreign students at its universities, and a globally diverse population.

<http://www.bayareaeconomy.org>

APPENDIX: LIST OF CONTRIBUTORS, SPEAKERS, SPONSORS AND PARTNERS

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London Borough of Hackney

London Borough of Haringey

London Borough of Redbridge

London Borough of Waltham Forest

Cambridge City Council

Peterborough City Council

The Borough of Broxbourne

East Hertfordshire Council

Epping Forest District Council

Harlow Council

South Cambridgeshire District Council

Stevenage Borough Council

Uttlesford District Council

The Lee Valley Regional Park Authority

Anglia Ruskin University

Middlesex University

Greater Cambridge & Greater Peterborough LEP

Hertfordshire LEP

South East LEP

London Enterprise Panel

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Cambridgeshire Chamber of Commerce

North London Chamber of Commerce

Essex Chambers of Commerce

Harlow & District Chamber of Commerce

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www.lscgcommission.org.uk

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