THE UK INNOVATION CORRIDOR

Innovative Placemaking for an Innovative UK

VINCI DEVELOPMENTS | UK

CONTENTS

1 OVERVIEW

UK Innovation Corridor: Economic vision and ambition

The UK Innovation Corridor is a UK asset of major economic significance with the potential to increase GVA from its current level of £183bn to £350bn by 2050 and the ambition to become the world's go-to hub for life and data sciences, health technologies and advanced manufacturing.

Comparable to the North Carolina Research Triangle, Boston Route 128, and Silicon Valley, the UK Innovation Corridor has the ability to deliver a distinctive innovation ecosystem for the benefit of all parts of the UK, ensuring economic recovery, high-value growth, increased productivity, and prosperity and health for all.

UK Innovation Corridor Business Plan & Global Scientific Superpower

Introduction

As the independent business Chair of the UK Innovation Corridor[1], the country's leading sci-tech region, I am honoured to work with the very best of leaders from the public and private sectors, and this report is testimony to the strength and influence of that collaborative leadership.

It also highlights their desire to share their learnings and practice for the benefit of colleagues across the whole country. In this way, the UK Innovation Corridor can play its part in helping address the levelling up agenda both in its own area and more widely across the whole of the UK.

Our report **Innovative Placemaking for the whole of the UK** builds on two previous seminal reports[2] that laid the robust foundations upon which this new research and our collective vison and ambition is based - to drive investment, growth, skills development, and increased productivity from London to Cambridge to Peterborough.

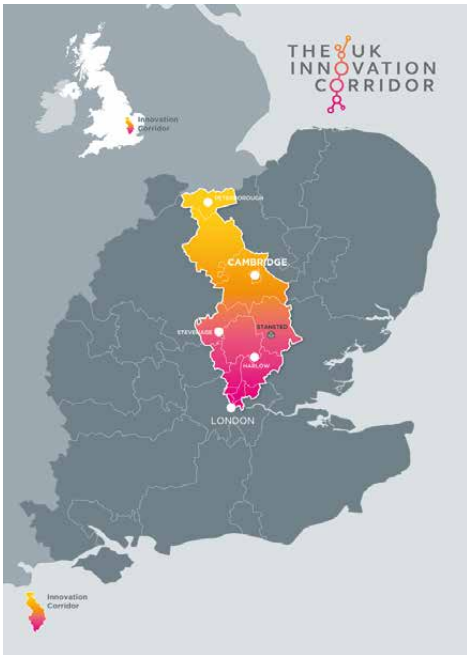
The UK Innovation Corridor includes major concentrations of activities in life sciences, ICT, digital and media, agritech, and advanced manufacturing – all ensuring economic success for the area and for the whole nation. It benefits from long established partnerships and effective cross boundary collaboration between its constituent partners that together form a distinctive, established and connected scientific and economic eco-system.

By taking a collective long term, cohesive approach to strategic placemaking, underpinned by sound academic research and economic evidence, the leaders of the UK Innovation Corridor have together provided a blueprint of regional economic development throughout the whole of this globally significant region.

Our collective ambition is that government and investors will recognise this and have confidence to back delivery of the ambitions detailed in the report.

Dame Ann Limb DBE DL

Chair
UK Innovation Corridor



1 The UK Innovation Corridor was formed in 2013 by a voluntary consortium of local authorities, businesses, universities, and colleges, working with the Local Enterprise Partnerships, and governed by a non-statutory board.

2 LSCC Growth Commission Report (June 2016) and The UK Innovation Corridor: Global Scientific Superpower delivering UK economic growth and post Covid recovery' (November 2020).

Strategic leadership and collaboration delivers successful innovative placemaking

This work captured in this report has been steered by a cross-party group of local authority leaders who, on behalf of the public and private sector leaders in the UK Innovation Corridor, worked together as the Steering Group to progress the project.

Their time and continued commitment to the partnership working, resource sharing and programme delivery, highlighted in this report lie at the heart of the successful culture and deliver practices found along the UK Innovation Corridor as a whole.

Cllr Linda Haysey

Leader
East Herts
District Council

Cllr Kevin Bentley

Leader
Essex County
Council

Dr Nik Johnson

Mayor of
Cambridgeshire
and Peterborough

Cllr Georgia Gould

Leader
Camden Council
and Chair of
London Councils

We are also very grateful to Jules Pipe, deputy London mayor for planning, regeneration and skills for his input and strategic advice.

Private Sector Support

The UK Innovation Corridor is proud to be represented by many of the leading businesses throughout the region, representing all sectors and sizes. We are particularly grateful to the following for their ongoing support of our work.

VINCI DEVELOPMENTS UK

AstraZeneca

SOCIUS

Shared Strategic Areas of Focus

The Steering Group and the Board of the UK Innovation Corridor have agreed to concentrate on the following shared strategic areas of focus:

Strategic area of focus	Areas for collective development
Innovation in the economic eco-system	Re-inventing supply chain provision for key sectors and clusters - short, resilient, and in proximity to where people live Developing a structured response across boundaries to economic recovery from the pandemic Capitalising on new travel connections and travel to work patterns Creating a region wide approach to attracting innovation, entrepreneurship and foreign investment.
Innovation in education, skills and jobs	Innovative regional solutions to address short term skills needs and shortages New approaches to meet skills requirements of the future Developing further the potential of innovation in higher education Redefining access to work, the location of work, and the need for space, to support the economic eco-system.
Innovation in local communities	Ensuring all communities benefit from regional growth, innovation and knowledge Leveraging the life and health science clusters to deliver benefits to local communities Setting a new standard for involving communities directly in tackling deprivation and inequality Exploring the economic impact of an integrated, regional approach to green and blue space.

Key Characteristics and Critical Success Factors

Leadership	Strong cross party political and business collaboration since its formation on 2013 Collective commitment to: combine to multiply growth; ensure local people share in the benefits of growth and knowledge; effective delivery of programmes; secure investment Further potential for strategic alliances with anchor institutions.
Global Standing and Scale	The largest and most significant corridor in the UK - £183bn annual economic value It is over twice the size of the Oxford to Cambridge Arc (£87 billion) GVA rising by 2.8% - highest growth of all corridors World-leader in Life and Health Sciences, and Technology sectors Premier education institutions – and investment plans for new colleges and universities.
Economic Opportunity	Substantial growth potential in core sectors and re-designing supply chains Addressing the economic impact of Covid and post covid recovery support Future connection points – including HS2 and emerging travel patterns A young, growing population 87% of people below 64 years compared to 81% nationally 4.4 million people (2020) growing by 1.3% pa double the UK rate Highly skilled workforce - 53% with NVQ4+ against 43% GB average.
Disproportionate impacts	Areas of inequality and deprivation – >10 year life expectancy differences across the corridor Historically long commutes (17km per journey) and high levels of self employment Big local variability in higher skills e.g. Cambridge 60%, Harlow 32% Low levels of access to green space: Only ~4% of land accessible (Parks, Nature, Woodland, protected sites).

A primary economic region for the whole of the UK

The Innovation Corridor is one of the primary economic regions in the UK. It has the potential to deliver sustainable and green growth, while addressing underlying issues of equality and inclusivity.

This work focussed on the following primary objectives:

Understanding the full potential of the UK Innovation Corridor - bringing together data and analysis on a regional scale

Identifying the high impact programmes or interventions that will deliver additional value

Developing a clear strategy for the UK Innovation Corridor - its value proposition beyond the work in each sub regional area

Making the case for capacity funding to drive these programmes forward.

2 STRATEGIC AND INNOVATIVE PLACE MAKING FOR THE CORRIDOR AND THE UK

Over the past 20 years, economic growth of the Corridor has considerably outperformed the national average. There is every reason to think that this will continue over the next three decades so that the Corridor will achieve its economic vision and ambition and reach its target of £350bn GVA by 2050. Post-pandemic recovery is likely to be complicated and therefore it is sensible to present different scenarios – high, medium, low - which are quite are quite widely separated.

However, given the underlying strength of the Corridor, with a strong presence of future-orientated sectors such as life and health science, IT, digital and media, and agritech, under any of these scenarios it is the UK Innovation Corridor that will lead the national economic recovery. But, even with the more optimistic 'high growth' scenario the Corridor still significantly underperforms against its international peers in the US, Europe and Far East.

The following section sets the scenarios, the assumptions and evidence base which underpin them before proposing interventions which would help to achieve sustainable growth.

Corridor-wide scenarios for economic development, skills, land use planning, transport infrastructure and services, ensuring coordination across policy areas policy areas

The UK Innovation Corridor is world-renowned for its innovative companies and research establishments. For example, Figure 1 shows the number employed in BioPharma (in pink) and MedTech (in blue), with the UK Innovation Corridor shown to be a leading corridor for these new industries

In the past 20 years, and as a result of investment in new technologies, the UK Innovation Corridor has been the fastest growing among all corridors to/from London, achieving 2.9% per year. However, Figure 2 shows it is still some way behind the global peers, in the overall size of output, output per person, and annual rates of recent growth. To compete well, there is a need to 'up the game'.

Figure 1

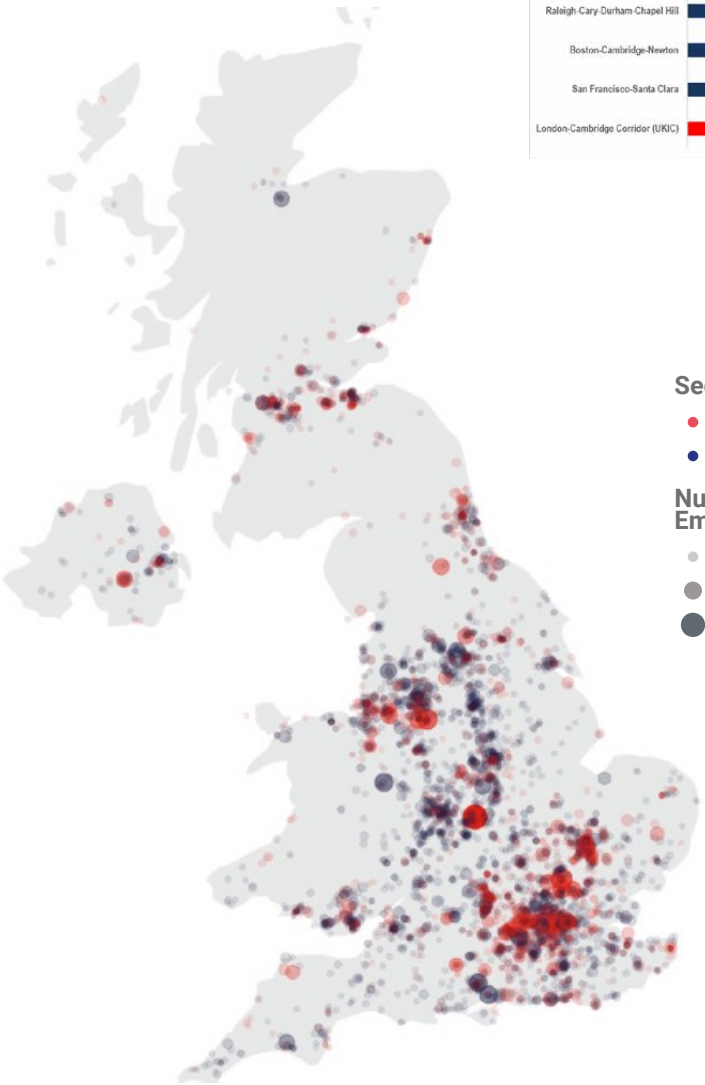
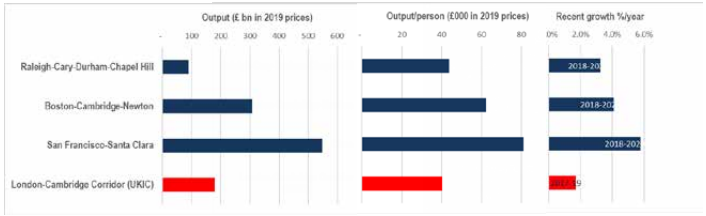


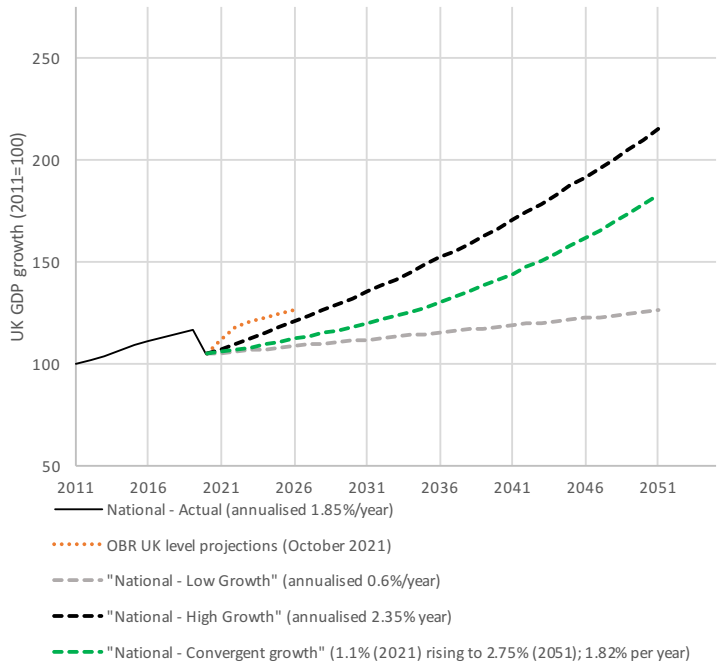
Figure 2: Comparison with leading innovation areas in the US



Sources: BioIndustry Association; Government's Life Science Vision

Three Growth Trajectories: All UK and UK Innovation Corridor

Figure 3: GVA Trajectors – UK as a whole



Post-pandemic recovery is likely to be complicated, with the range from low growth to high growth likely to be quite wide. A realistic growth trajectory is likely to involve a fairly slow start, with economic growth rising gradually – but it is also important to cover the 'persistently low' and 'historically high' possibilities. Figure 3 shows the national picture where assumptions have been adapted from recent work undertaken for the UK2070 Commission, which clearly shows three growth trajectory possibilities. The UK Innovation Corridor has three possibilities for future development, all of which result in it leading the whole country in recovery and growth, as shown in Figure 4.

Figure 4: GVA Trajectors – UKIC scenarios

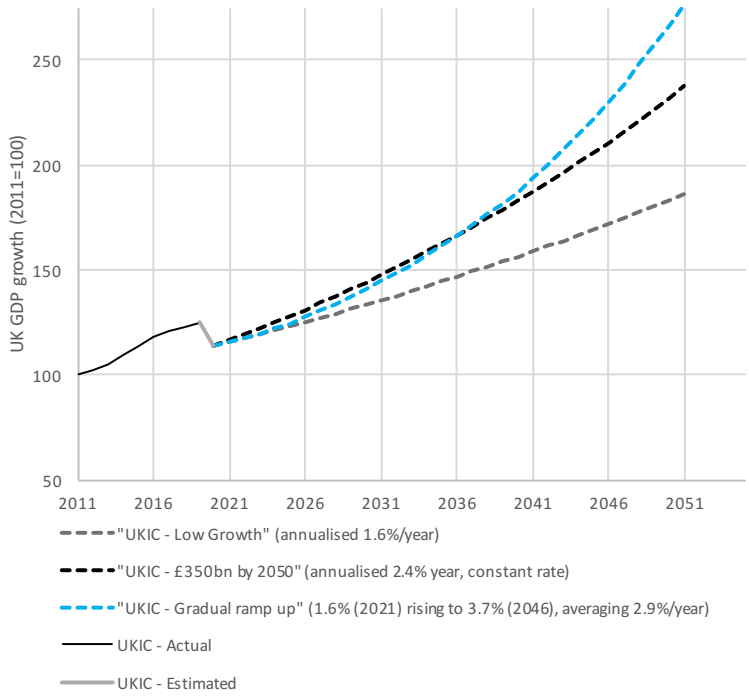


Figure 4 shows that the UK Innovation Corridor is likely to lead the whole country in recovery and growth especially given the wide range of uncertainties that exist. Different policy interventions will produce different results. We can learn from the results of the modelling tests, and use thees results as part of the evidence for making a case for investment in the Innovation Corridor

Distribution of Growth: Past-trend vs Convergent

By looking at past GVA trends, the polarised GVA patten will continue under 'trend growth', but become progressively more even under 'convergent growth'.

Figure 5: Past GVA trends: polarised growth

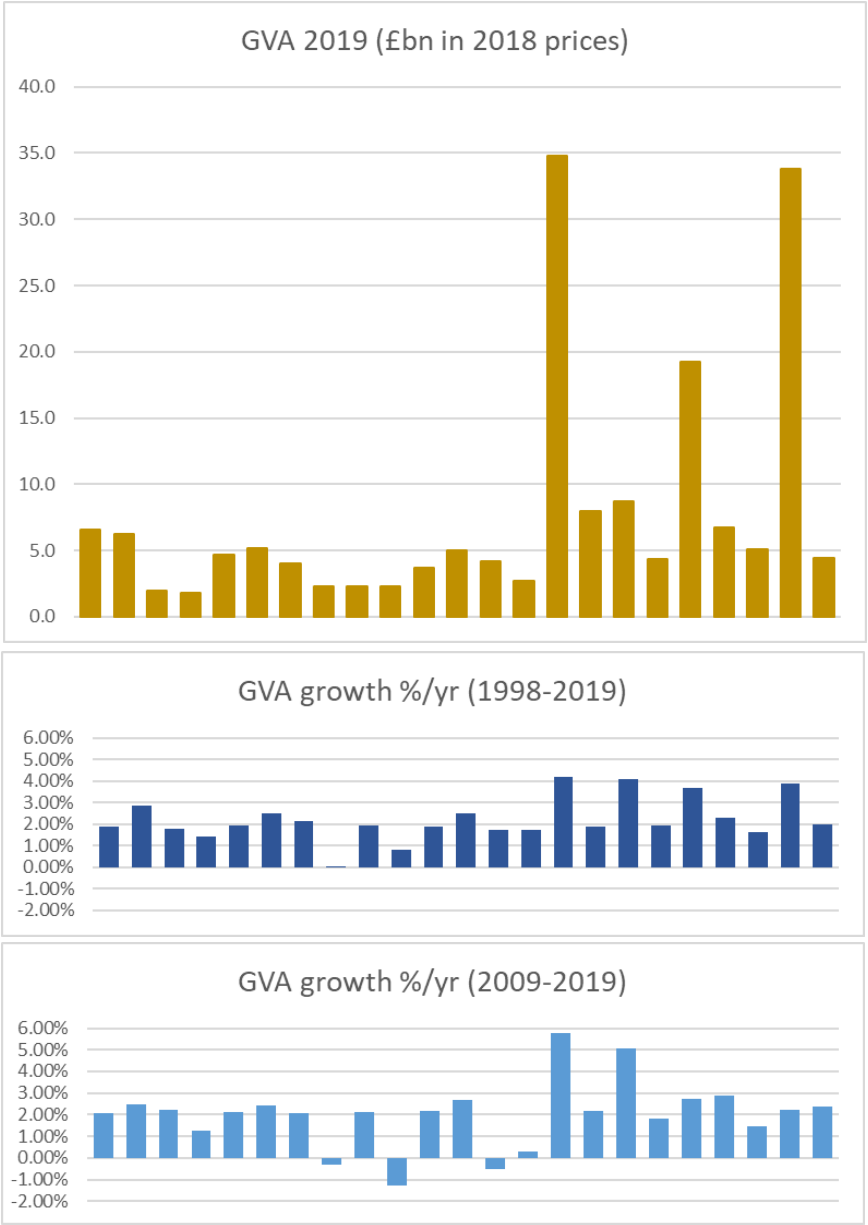


Figure 6

This clearly recognises two trend based scenarios and one convergent distribution scenario that bucks the trend.

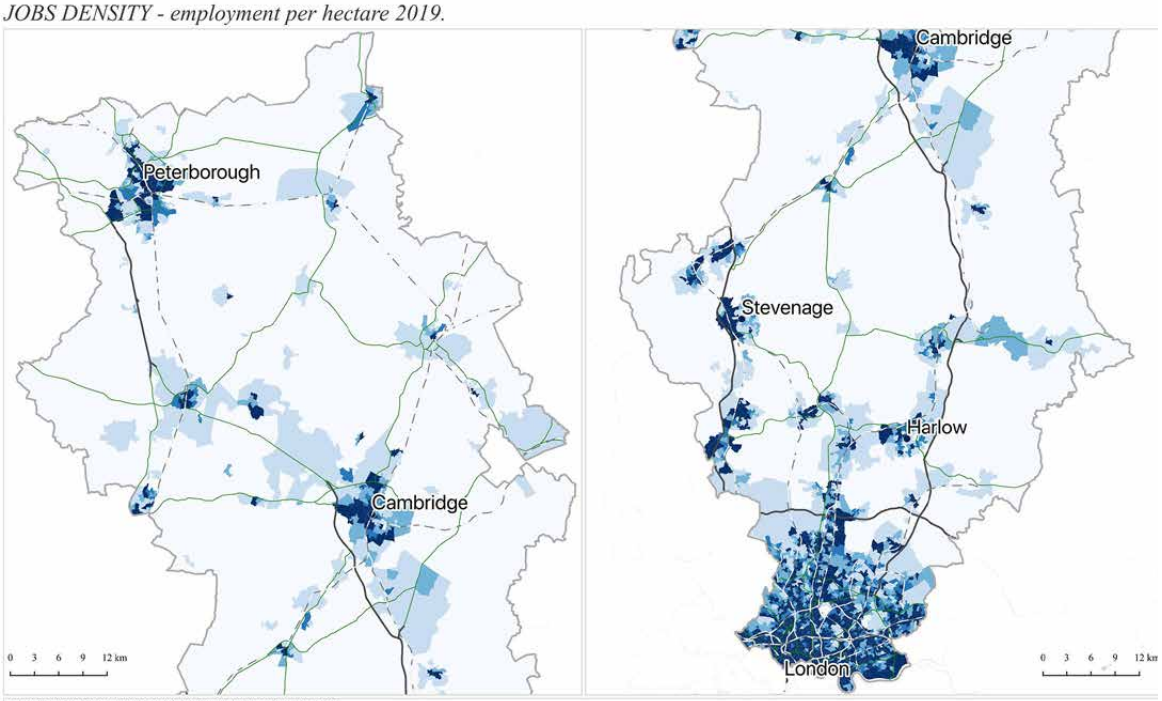
	Overall growth		
	Low	Constant High	Recovery
Trend distribution	X	X	
Convergent distribution			X

Skills and Productivity

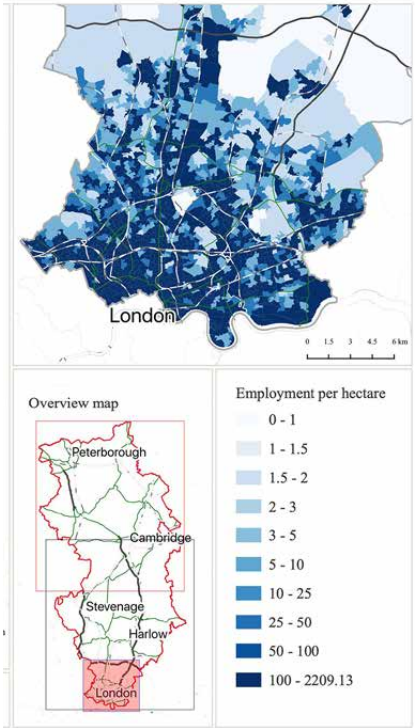
The main employment centres are already situated on the two main rail routes – under the convergent model of distribution, productive jobs are assumed to spread from existing growth hot spots to their surrounding areas, particularly along the rail lines. This is a key attribute and asset to the UK Innovation Corridor.

Figure 7: The main employment centres are already situated on the two main rail routes

JOBS DENSITY - employment per hectare 2019.



Notes: Employment includes employees plus the number of working owners. Excludes self employed people not registered for VAT or PAYE & HM Forces and Government Supported trainees are excluded.



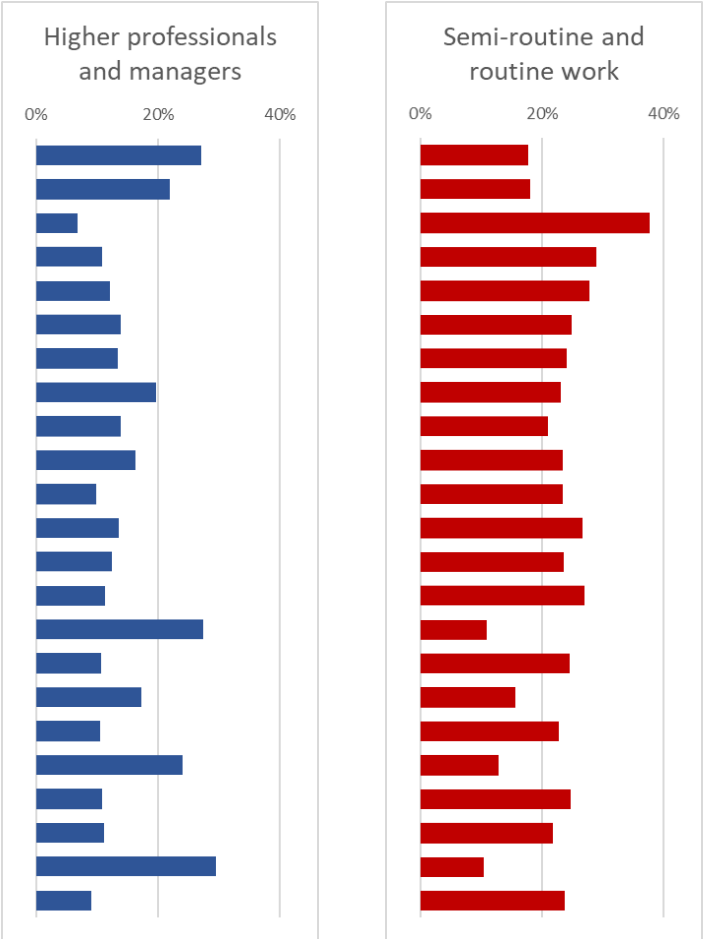
Skills and Productivity (output per job) Assumptions

The current distribution of skills is highly polarised among the local authorities (see Figure 8).

This continues with the trend scenarios, but converges towards the high skill local authorities under the convergent growth scenario.

Skills affect the output per job, which is what is generally defined as productivity.

Figure 8

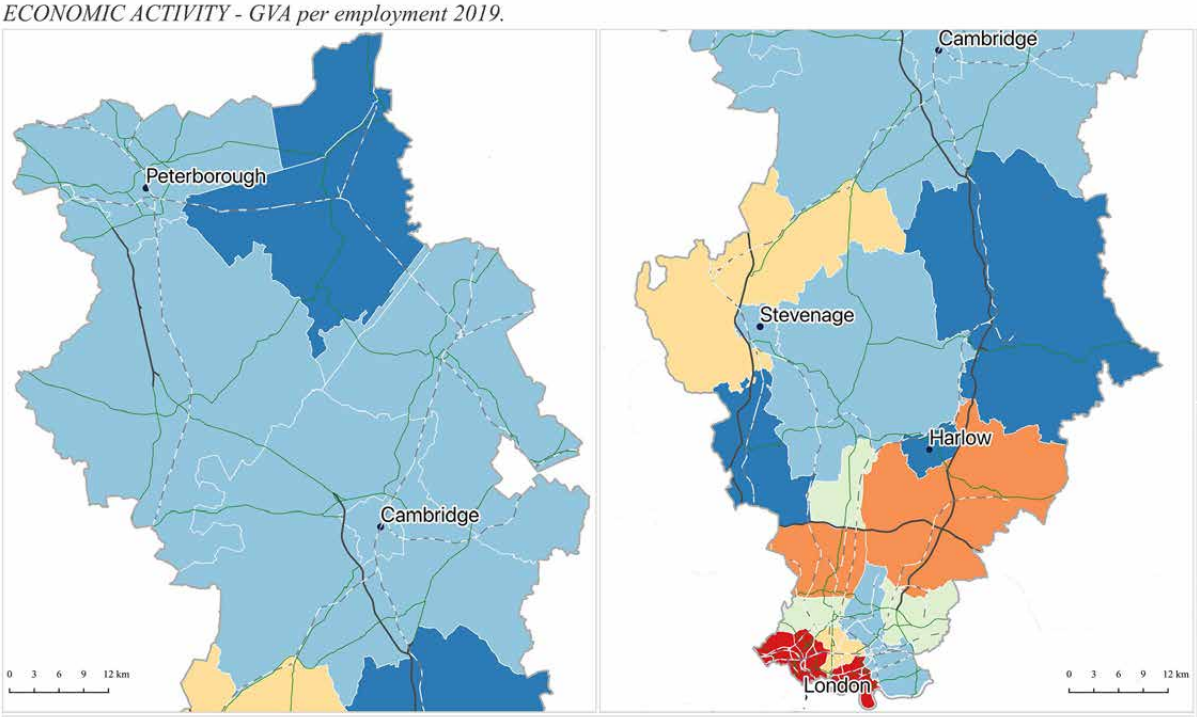


Housing Growth and Transport Assumptions, and Model Predictions

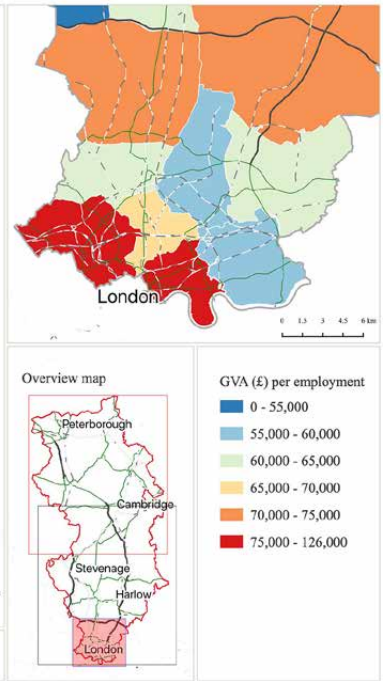
During 2011-2019, jobs grew by 571k in the corridor (or 2.7% per year), which means economic growth came entirely from growth in jobs rather than productivity;

Figure 9

ECONOMIC ACTIVITY - GVA per employment 2019.



Source: Regional GVA (https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossvalueaddedbalancedbyindustrylocalauthoritiesbyitl1region). Business Register and Employment Survey (nomisweb.co.uk).
Notes: Gross Valyue Addded (balanced) chained volume measures in 2018 money value. Employment includes employees plus the number of working owners. Excludes self employed people not registered for VAT or PAYE & HM Forces and Government Supported trainees are excluded. Contains Ordnance Survey data. © Crown copyright and database right 2021. Contains Office for National Statistics data. © Crown copyright and database right 2021.



In line with the skills assumptions, under the past-trends distribution of jobs, the output per job will be highly polarised as currently (see above); under the convergent distribution, the output per job converges towards the current leaders, starting from the anchor locations.

Going forward, we assume the number of jobs and output per job contribute equally until 2031, and from then on output per job will be the main source of further growth, particularly through raising output per job in currently low productivity areas.

Higher productivity is required to support the growth as population everywhere in the world has stabilised.

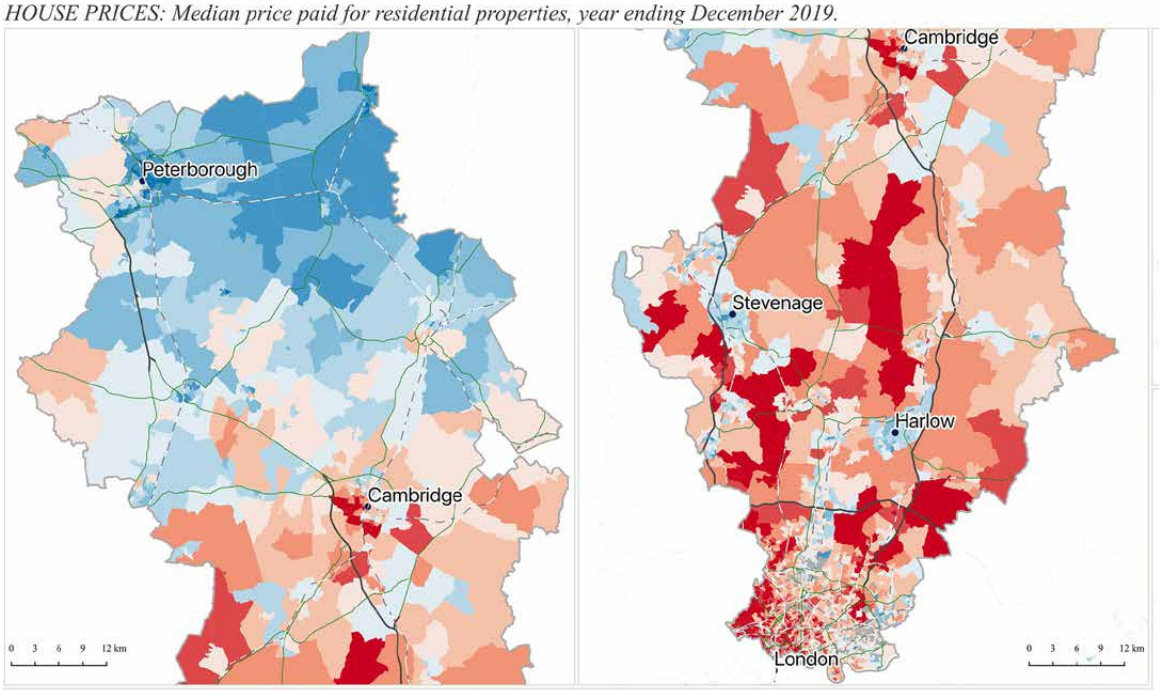
Under Low GVA Growth assumptions (1.6%/yr) we assume housing will grow below the agreed local plans responding to lower overall population growth;.

Under Constant High Growth with (2.4%/yr) and Convergent High Growth (starting from 1.6%/yr in 2022 ramping up to 3.7%/yr by 2046, averaging 2.9%/yr), housing growth will follow the agreed local plans till end of the plan periods and then follow the average historic delivery per year to 2051.

Transport infrastructure and services will expand according to demand under each scenario to provide the same level of service as currently.

Figure 10

HOUSE PRICES: Median price paid for residential properties, year ending December 2019.



Source: HPSSA Dataset 46: Median price paid for residential properties by LSOA (https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianpricepaidbylowerlayersuperoutputareahpssadataset46).
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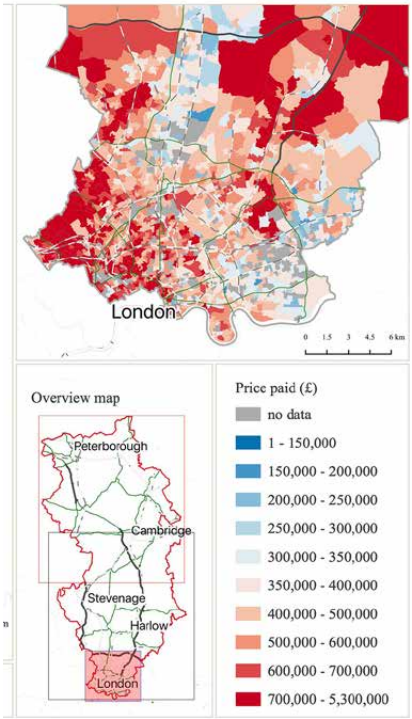


Our model tests show that the combination of the assumptions summarised in this section - regarding GVA, job, housing and transport growth - and under past-trends and convergent distribution patterns would lead to very different outcomes:

House prices:

Low growth: prices continues to rise in and around growth hot spots, and falls in low skill areas

Trend high growth: prices in and around growth high spots will far outstrip wages, thus potentially deterring most skilled young workers without access to non-wage funds

Convergent high growth: prices rise but mean wages catch up to improve affordability.

Commuting travel (with modest teleworking adaptation):

Low growth: bottleneck worsening on the boundary of the hot spots

Constant high growth: grid lock likely towards end of plan period

Convergent high growth: large rise in active and public transport, with shortening of mean trip distances.

The outcomes of each scenario has its social, energy and environmental impacts as well.

The UK Innovation Corridor: leading the way for the whole UK

The alternative scenarios investigate the consequences of the growth and distribution of GVA, jobs, housing and transport – the scenarios are assessed by their impacts on housing prices and affordability, travel choices and associated social and environmental effects.

The scenarios show that without spreading the momentum of growth from the current hotspots, the growth trajectories are likely to be unviable in the medium term.

The spread of growth through creating high productivity jobs around the current hotspots, particularly along the rail lines, would greatly improve job access as well – such spreading should start from the current anchor locations, and post 2031, go on to the rest of the corridor.

The good jobs in currently deprived areas will then drive the demand for skills training in the local communities.

The rise in overall productivity in the UK Innovation Corridor will then help to make high rates of growth within the environmental and housing capacities of the Corridor – and in turn, the doubling of the overall economic output will take the area into the league of the global competitors in terms of the critical mass of technology and skills, thus enhancing the UK's global competitiveness and supply chain resilience.

3 COLLABORATIVE STRATEGIC PLACEMAKING

This report defines five key anchor locations, four defined programmes, each following the strategic imperatives of scope, scale and economic focus.

Key Anchor Locations

Cambridge South

A new station and Europe's largest life sciences cluster

Stevenage

One of Europe's largest life science campuses

Harlow

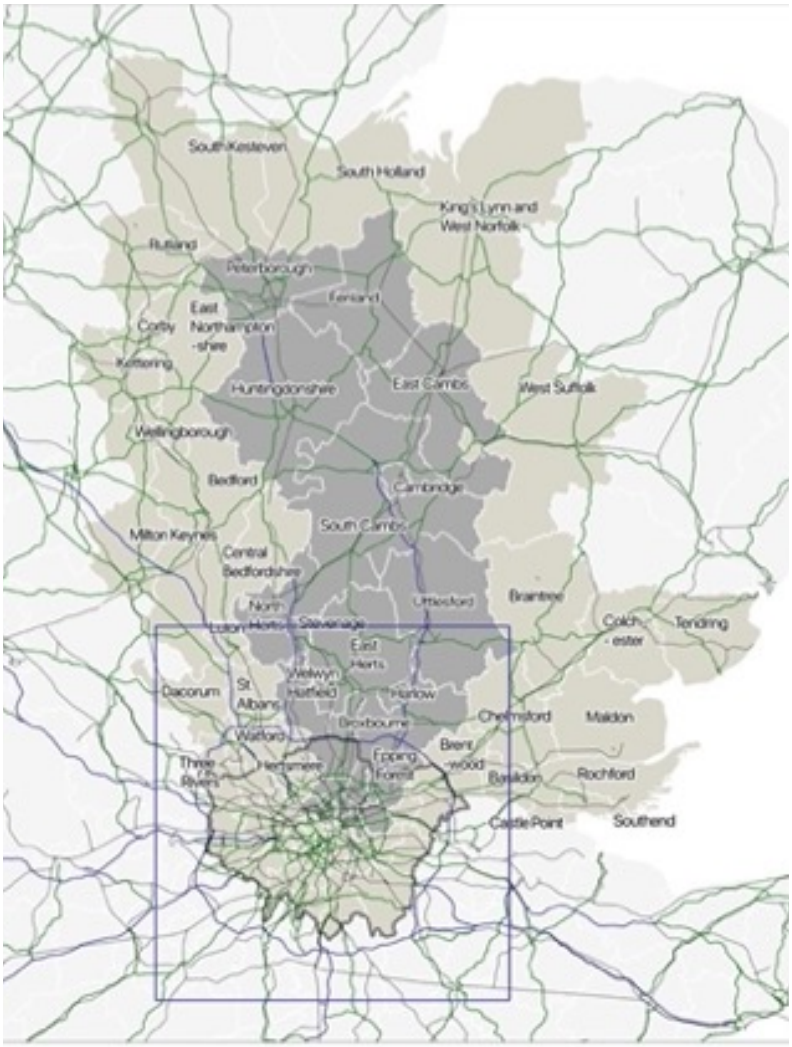
A new centre of national and international scientific expertise

Lee Valley

A new center with significant manufacturing development

London Euston

HS2 interchange and Knowledge Quarter



Strategic Imperatives

Scope	Clearly demonstrates the value of the corridor Contributing to the wider levelling up agenda Interventions look to address inequalities and deprivation across and within corridor geographies Focusses on key cross corridor issues and opportunities Leverages existing successful interventions Shares risk and resources to maximise impact Does not overlap or replace current / local initiatives
Scale	Addresses new growth challenges created by existing plans and current delivery Clear links to new anchor developments across the corridor (London Knowledge Quarter/HS2, Cambridge South & Life Sciences, Harlow and Gilston & Public Health England, Stevenage SG1, New Baldock ,…..) Demonstrates real value delivery in short order 9-12 months
Economic focus	Identifying and supporting the emerging eco-system and supply chain challenges Focussing on skills and skills development - New job opportunities require raising skill levels and directly linking skills development to job opportunities and needs The importance of places that combine jobs, education and infrastructure within a high quality environment

UK Innovation Corridor: Four Strategic Programmes

UK Innovation Corridor

Shared Ambition: the world's go-to hub for life and data sciences, health technologies and advanced manufacturing. Shared Mission: deliver £350bn of economic value per annum

Strategic Economic Anchor Locations

Maximising their potential for the whole corridor

London Euston	Harlow	Stevenage	Lee Valley	Cambridge South
HS2 interchange and Knowledge Quarter	A new centre of national and international scientific expertise	One of Europe's largest life science campuses	A new center with significant manufacturing development	A new station and Europe's largest life sciences cluster

Innovation & Growth

(Programme 1)

Leveraging the power of all four Strategic Anchor locations working together

Skills

(Programme 2)

To unleash the potential of the corridor, meet short term demand and long-term aspiration

Access to jobs

(Programme 3)

Ensuring all communities benefit from regional growth, innovation and knowledge

Eco System & Supply Chains

(Programme 4)

Using convening powers to develop the eco system and supply chains for key sectors

Strategic Programme 1: Innovation & Growth

Leveraging the power of all five Strategic Anchor locations working together

Ambition

- Develop a world leading approach to the delivery of major projects whilst maintaining quality
- Share risk and resources to maximise impact
- Enhance and spread world beating innovation across and between locations.

Proposed Solution

- Establish a virtual Corridor Innovation Center to share knowledge and support collaboration between investors, developers, business, local government and the central government
- Engage our universities to develop world-class knowledge transfer
- Focus on delivery of major initiatives
  - Work with strategic partners (Investors, developers, business, local government and the central government) to develop an integrated view of capacity requirements
  - Build specialist capacity to accelerate delivery via shared utilization rather than recruiting a new team
- Share marketing and promotion activity
- Support joint policy initiatives.

Strategic Programme 2: Skills

A fresh approach to Skills that can unleash the potential of the corridor, meet short term demand and long-term aspiration

Ambition

- Enable 400,000 new, high-quality jobs, created over 25 years.
- Establish 50,000 new apprenticeships and opportunities for young people and ensure 300,000 of the new jobs created are in local communities
- Create a world-renowned partnership between Business, Government and Education providers to strengthen reskilling and multi skilling across the corridor and on a regional scale.

Proposed Solution

- Develop a regional Skills Hub - a strengthened partnership across stakeholders – Business, Govt. LA's, HE/FE providers, voluntary sector.. Targeted at developing the local work force to provide a pipeline of skilled workers to meet demand and changing the conversation in communities
- Assess the Skills Funding in the corridor to ensure Govt gets its full return on skills investment, and funding is aligned to business requirements, addressing acute skills needs in core sectors and provides a place-based approach to complement work in communities
- Identify a cohort of schools to assess the potential to expand the opportunity areas programme and improve access to extra-curricular activities.

Strategic Programme 3: Access to Jobs

Ensuring all communities benefit from regional growth, innovation and knowledge

Ambition

- For our own communities to be involved in designing the solutions that deliver better access to jobs, especially in areas of inequality
- Deliver better job opportunities in our most deprived communities through sustainable and innovative solutions
- Create a model of best practice and learning that can be replicated.

Proposed Solution

- Engage the local population in our most deprived communities to develop their own solutions to job opportunities
- Start with three “Local Innovation Sprints” Projects – working with local communities to develop solutions
- Focus on accelerated roll out of the solutions as they develop.

Strategic Programme 4: Eco-system and Supply Chain

Using convening powers to develop the eco system and supply chains for key sectors

Ambition

- Capitalise on the opportunities to develop shorter supply chains and foster accelerated economic growth in our core sectors - attracting significant additional private investment over the next 10 years
- Connect new job opportunities that arise to reduce the economic imbalances between areas and social groups in the Corridor as a central economic strategy
- A global leader in supply chain innovative and optimisation - working collaboratively with Business and Government to bring supply chain provision within the corridor.

Proposed Solution

- Develop further the Innovation Corridor Branding and messaging for international investors, including how to promote the Corridor and differentiate compared to other places. Work with DIT to promote and develop the Corridors unique brand to a global audience, tailoring marketing activities to clients in the target sectors/markets
- Establish a new marketing strategy to approach key sectors, in particular promoting the five strategic economic locations as a destination for life sciences, medtech and advanced manufacturing services. Geographically focused on growth in key markets
- Focus on attracting business activities that will strengthen the region's major players and rising stars.

4 NEXT STEPS

UK Innovation Corridor: Programme Delivery Approach

Governance	• Clear reporting line into existing board (regular reporting into UKIC overall structure) • Existing small group of elected leaders, supplemented with business leaders from across the corridor to form the Programme Delivery Group

Clear Programme leadership	• Lead Chief Executive assigned to each programme
	  • Innovation and Growth lead
	  • Skills lead
	  • Access to job lead
	  • Eco system and supply chain lead
	• Recruit a small dedicated executive team
	  • A full-time programme director
	  • Additional staff allocated and paid for by the programmes

Focus for the Programme Delivery Group	• Programme measurement and monitoring • Drive fund raising and recruitment • Distribution and control of funds • Driving delivery of programmes

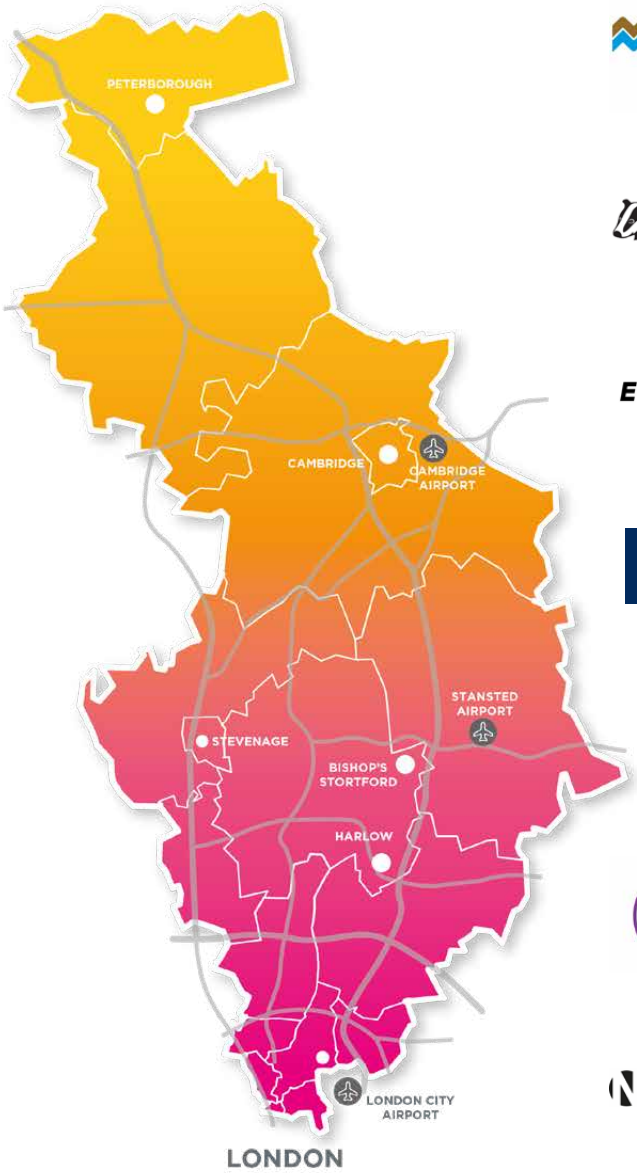
The design principles to underpin the delivery of the programmes…

- Coherent and joined up interventions
- Collaboration between Govt; local authorities; business and Universities
- Clear action plans
- Scope

The keys to making this a success…

- Pace
- Quick wins
- Strong process for transitioning from current to new arrangements
- Capacity funding

To find out more, contact John McGill at john.mcgill@lscc.co



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