

# UNLOCKING REGIONAL GROWTH

UNDERSTANDING THE DRIVERS OF PRODUCTIVITY ACROSS  
THE UK'S REGIONS AND NATIONS

DECEMBER 2016



UNLOCKING  
REGIONAL GROWTH  
CBI CAMPAIGN



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The background of the page is an abstract geometric pattern composed of numerous triangles of varying sizes. The colors transition from a light green in the top-left corner, through yellow and orange in the center, to a deep red in the bottom-right corner. The triangles are arranged in a way that creates a sense of depth and movement.

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*We have a golden opportunity to unlock higher productivity and growth across the regions and nations of the UK. This is something I have heard time and time again as I have visited firms and spoken to stakeholders across the country in my first year at the CBI. The numbers tell their own story. The most productive area of the UK is now almost three times more productive than the least. This matters because productivity is the foundation of wages, living standards, opportunities and prosperity. Wide geographic differences are at the root of much of the inequality in the UK today.*

This is why, soon after I arrived at the CBI a year ago, we launched a study into why these regional productivity differences exist and what more businesses and government can do to tackle them. Working on analysis with McKinsey, we set out to create a rigorous database of the drivers of productivity. We used detailed Office for National Statistics (ONS) microdata to build up a productivity map of the UK and the strengths and weaknesses of every local area. This analysis has been tested with the CBI's network of businesses across the UK, involving over 500 firms, including SMEs, multinationals, scale ups and family-owned firms.

There are some important findings and some surprising – and not so surprising – results. Most importantly, the research shows that the fundamental driver of economic performance is education. This is something the CBI has been passionate about for many years, but we now have fresh insights and, as a result, recommendations we believe will make a real difference at a local level. There is also a vital role for business. Business practices and know-how are critical drivers and tools such as those being developed by the Productivity Leadership Group, chaired by Sir Charlie Mayfield, could be transformational.

It will surprise nobody that high-quality infrastructure is a crucial factor, but our analysis brings hard evidence demonstrating how improving connectivity between regions and reducing congestion can raise productivity by widening the labour market pool and improving the efficiency of supply chains.

Encouragingly, we have also found that success can come from any sector mix: it is by closing the performance variance within sectors that the biggest uplift can be found.

As well as the economic prize, there is another reason why I am personally delighted that the CBI has conducted this work. I want the CBI to be known as much for its work in the regions and nations of the UK as it is in Westminster and internationally. Our ability to convene, provide insight and influence at a local, as well as national and global, level makes the CBI uniquely well-placed to shape the economic agenda of today.

This is an important and timely moment for business to step up its efforts to shape the debate. Successive governments have embraced devolution and returned powers to local bodies. In many places, this has already started to pay dividends. But in others, fragmented voices are permitting local politics to win out over economic rationale and too many disjointed initiatives are distracting businesses rather than helping to drive progress.


This report and the recommendations that follow can help to change that. And it can form the cornerstone of a very modern Industrial Strategy. But what we have done so far is only the beginning and there will be a tailored approach for taking this forward across regions and nations in 2017, to reflect existing powers and priorities.

I would like this work to be used on an open-source basis by all stakeholders with an interest in promoting regional growth. And for businesses to use it when they are engaging with local enterprise partnerships and regional growth agencies to help inform and scrutinise their plans. I would like it to help inform local city deals, for local leaders to use it to test and shape their priorities and spending decisions to ensure they focus on the issues that will have the most economic impact. We will help lead the way with discussions across UK regions and nations throughout 2017.

And, finally, I would like central government to use it to inform the place-based elements of their Industrial Strategy to understand what will bring most benefit to local communities.

The CBI is keen to work with businesses, government and stakeholders across the country to seize the significant economic and social prize on offer.

**Carolyn Fairbairn**



**Director-general, CBI**



*As the Chief Executive of Irwin Mitchell's Business Legal Services division, I am delighted to be partnering with the CBI's 'Unlocking Regional Growth' campaign - particularly as it relates to an issue that we, as a national law firm, feel passionately about.*

Our own UK Powerhouse report was launched in October 2015 to coincide with the Conservative Party's annual conference in Manchester, the birthplace of the Northern Powerhouse concept. We saw this as a great opportunity to ask the government to consider more seriously the issues relating to economic rebalancing.

Based on our survey of 2,000 business owners, our report made a number of recommendations including a rethink of existing transport policy and a call to focus more on local road and rail projects, not just large national schemes such as HS2.

Other proposals included the devolution of more powers to local authorities, greater tax competition in the regions and a bigger say for businesses in the formation of our education policy.

One finding from UK Powerhouse that grabbed lots of headlines was our prediction that the production gap between the South East and the rest of the UK would get even bigger over the next 10 years if current government policies continued. Our wider analysis of 38 cities in the UK also found that by 2026, not one of the top ten fastest growing cities would be in the Midlands or the North.

There is clearly a huge effort required to turn things around and this is one of the many reasons why we are fully supportive of the CBI's latest campaign.

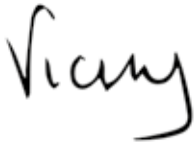
We welcome their fresh input and authoritative voice on the complex issues of encouraging regional economic prosperity. Like the CBI, we have a passion for helping businesses achieve their goals. We pride ourselves on helping organisations grow and we work hard to get to know their businesses and the sectors in which they operate. As a national firm with offices throughout the UK our teams have real insight into the regional differences that businesses face.

I'm pleased to say that there are also some very close similarities between the calls for action within UK Powerhouse and the CBI's four drivers of regional growth and prosperity. For example, this study acknowledges that tackling economic differences is complex and highlights the importance of education and skills. It also underlines how improved transport infrastructure between cities can boost productivity by widening access to skilled labour.

With the mayoral elections in a number of cities and regions approaching, we also support the CBI's timely call for placing productivity and economic growth at the heart of devolution.

It's encouraging that the central government recognises the need to unlock regional economic growth and I firmly believe that if we work together, we can all make a big difference.

**Vicky Brackett**

A handwritten signature in black ink, reading 'Vicky' in a cursive, flowing script.

**CEO Business Legal Services, Irwin Mitchell**





*Driven by the passion of our members across the UK's regions and nations, we have embarked on an ambitious project to understand what drives growth and productivity in the UK and what can be done to fix the disparity. Many organisations and research bodies have looked at this but none have the reach across sectors, regions and nations that the CBI has. Now we have the tools to ensure that decisions to unlock regional growth, taken at a national and local level, can be informed by evidence rather than a reliance on political assertion.*

## **1** *Insights from big data and the voice of business: CBI methodology*

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In partnership with McKinsey, by combining special access to the Office of National Statistics' (ONS) Virtual Microdata Laboratory (VML) with the powerful voice and knowledge of our members and a specially established panel of experts and stakeholders, we have been able to analyse regional data at an unprecedented level of detail. We can now produce data on up to 173 regions of the UK and, in some cases, we can even go right down to postcode level.

## **2** *Mind the gap: the scale of the productivity differences across the UK*

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The UK falls behind on international comparisons of productivity and this is true at the regional level as well. Nine out of ten UK cities perform below the European average, and more than half are among the 25% least productive cities on the continent.<sup>1</sup> The UK has recently fallen further behind its international peers. Since the global financial crisis, only in London and the South East is GDP per head above its pre-crisis peak, as of 2015.<sup>2</sup> As a result, the most productive area of the UK is now almost three times more productive than the least.<sup>3</sup>

While productivity is not always the most intuitive concept, it matters since higher productivity leads to more sustainable growth, better standards of living, and greater global competitiveness. For businesses, productivity matters because it determines how much they can pay their staff, how quickly they can grow and what they can invest in. To understand why regions and nations across the UK have different standards of living, and why some regions have been growing faster than others, we need to get under the skin of differences in productivity. Through our access to ONS microdata, we have found that productivity varies as much within regions as it does between them, so we really need to take the analysis down to a local level.



### **3** *Our findings: four main drivers of regional productivity differences*

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Our analysis has identified that there are four main drivers of regional productivity differences. In order of impact, they are:

#### **1. Educational attainment of young people at 16 and skills**

Ensuring strong school performance and children getting the best results at GCSE (or equivalent) is the single most important driver of productivity differences across the UK, but a focus on school results is not enough. Businesses must also get in-work training and development right. Attracting talent and skills from around the world to regions and nations across the UK is vital in helping businesses stay competitive in a global environment.

#### **2. Transport links that widen access to labour**

A greater pool of skills and talent leads to greater connections between businesses and supply chains and higher productivity in the local area. Improving connections between the UK's largest cities can help to drive growth, particularly in the North of England where better transport links between cities could provide access to a population of up to 16 million, the same number that is within an hour of London today. In Leeds alone, lowering travel times to Manchester and Sheffield to 30 minutes, could lift productivity in the city by more than 10%. Significant gains can also be achieved by improving local transport links and reducing congestion, particularly in larger cities in the Midlands.

#### **3. Better management practices**

Our findings align with those of Sir Charlie Mayfield's Productivity Leadership Group.<sup>4</sup> There is great potential for firms to increase their productivity by closely examining their management practices. Firms offering performance-related bonuses and flexible benefits tend to be more productive.

#### **4. A higher proportion of firms who export and innovate**

Firms with higher productivity are more likely to export, but exporting also makes firms more productive. Exposing firms to the pressures of foreign markets helps them to become more competitive and encourages them to innovate. Most regions and nations have between 10% and 15% of firms who are potential exporters. International ownership, a high level of research and development, and a higher proportion of employees who are graduates all make a firm more likely to export.

## 4 *Accentuate the positive: success can come from any sector mix*

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Understanding the differences between and within regions and nations is critical to inform future policymaking. The type of sectors within a region matters less for productivity – it is possible to be a high productivity region or nation with almost any sector composition, suggesting that regions and nations should focus on what they do well. This is the core principle that lies behind our thinking for a ‘place-based’ Industrial Strategy, working in-step with a sector-led approach.

## 5 *Regional scorecards: every devolved nation and region is different*

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Investment should focus on the levers that will make the most difference in each nation or region. To assist policymakers, the CBI is developing regional scorecards, which highlight where business leaders, devolved administrations, central and local governments leaders should concentrate their efforts. The North West, for instance, has a low number of “high-growth” firms when compared with the UK average.<sup>5</sup> But underlying this are huge differences within the region itself; in Manchester, around four in every 1000 firms is classified as being high-growth, more than double that in Liverpool. Next year we will make these scorecards available to business leaders, policymakers and local communities across the UK’s regions and nations to facilitate discussion around how best to raise productivity and quality of life around the UK. On each scorecard, an area is assessed on how it performs relative to the rest of the UK across ten determinants of productivity and is assigned a recommendation level for each of them to highlight which ought to be prioritised.

## 6 *The size of the prize: an economy that is £208 billion larger*

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To give an illustration of the potential gain of raising productivity across the regions and devolved nations in the UK, the CBI has calculated what the economic impact could be by 2024 if each local area could improve at the same rate as the top performer in their respective region or nation. The size of the prize is huge – increasing productivity within each nation and region could add £208bn to the UK’s nominal gross value added over the next decade. This would lead to more jobs, more exports and higher standards of living across the UK.

## 7 *Next steps: the importance of business and government partnership*

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By comparing numerous international case studies, as well as our learnings from the devolved nations, it is clear that prioritising a few policy levers and executing them well is more effective than spreading efforts too thinly across too many initiatives. Policymakers and local business leaders can use the scorecard to help evaluate how their area performs against others in their region, nation and the UK as a whole. We have identified three main recommendations for UK and devolved governments, and in 2017 the CBI will be helping businesses and stakeholders across the UK be clear on the regional priorities for growth.

### Recommendations for UK and devolved governments

- Adhere to the three principles of devolution: align devolution to economic geographies, devolve powers to the right level, and hold local leaders to account
- Integrate evidence from what drives productivity growth at a local level into the new Industrial Strategy being developed by the UK and devolved governments in partnership with business
- Continue to prioritise investment in education, infrastructure, empowering local business leaders and building efforts to support potential exporters.

### Next Steps

- Encourage policymakers to place increasing productivity and economic growth right at the heart of further devolution efforts
- Work with the devolved nations' governments on how findings can be taken forward in their respective economic development plans
- Develop national and regional scorecards for all UK regions and nations to aid policy development.

## The power of big data and the voice of business: CBI methodology

*Driven by the passion of our members across the UK's regions and nations, we have embarked on an ambitious project to understand what drives growth and productivity in the UK and what can be done to fix the disparity. Many organisations and research bodies have looked at this but none have the reach across sectors, regions and nations that the CBI has. Now we have the tools to ensure that decisions to unlock regional growth, taken at a national and local level, can be informed by evidence rather than a reliance on political assertion.*

Most of the existing literature on regional growth in the UK has focused only on data available at the high level of the 12 regions and devolved nations (NUTS1)<sup>6</sup> or at the level of the 38 Local Economic Partnerships of England or equivalent regions.<sup>7</sup> But we have also been able to use data for much smaller areas called NUTS3, ranging from Leeds City Centre or the Shetland Islands, which have a maximum population of 800,000. There are 173 regions of this size in the UK and we can produce data on what drives productivity even at this granular level for all of these regions (see Chapter 5 for an example of our scorecard). For some of our analysis we have gone even deeper than this, right down to the postcode level (NUTS4). For instance, we are able to show the propensity to export in cities and towns across the UK or how many more people could be connected to local jobs markets through better transport connections in their local area.

We've also had special access to the Office for National Statistics' (ONS) Virtual Microdata Laboratory (VML) (affectionately known as the 'data bunker') in London, where we have been able to analyse data from hundreds of thousands of businesses' anonymised responses to official government surveys on how much they are investing, their levels of research and development and whether they are exporters.

Importantly, we have used the powerful voice and knowledge of our members around the UK, to focus on practical actions that businesses and policymakers can take. One thing that has come across loud and clear is that ensuring prosperity reaches each area of the UK is a passion shared by businesses of all shapes and sizes right across the four nations.

Following this, we established a panel of experts on regional growth to tap into their collective expertise and peer review our methodology. We also convened a steering group of cross-sector CEOs to provide practical advice. We are tremendously grateful for their help and insights.

# Acknowledgements

## Expert panel

### **Tera Allas**

Visiting Fellow, McKinsey Global Institute

### **Ed Cox**

Director, IPPR North

### **Simon Edmonds**

Director, Manufacturing and Materials, Innovate UK

### **David England**

Inflation Report and Agency Intelligence Division, Bank of England

### **Irene Grahame**

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### **Prof. Richard Harris**

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### **Richard Holt**

Head of Global Cities Research, Oxford Economics

### **Sarah Jackson**

Director of Research, Partnerships and Innovation, University of Liverpool

### **Alexandra Jones**

Chief Executive Officer, Centre for Cities

### **Prof. Jonathan Levie**

Director of Teaching, University of Strathclyde

### **Dr. Max Nathan**

Senior Birmingham Fellow in Regional Economic Development, Birmingham Business School

### **Dr. Peter Simpson**

Director, N8 Research Partnership

### **Jessica Studdert**

Deputy Director, New Local Government Network

## Senior member panel

### **Paul Booth OBE**

Chairman, Tees Valley Unlimited LEP

### **Mark Chivers**

Director of Estates, Walgreens Boots Alliance

### **Fred Jones**

Head of Expansion, Uber

### **Justin Kelly**

Head of Business Development, Siemens

### **Heidi Mottram OBE**

Chief Executive Officer, Northumbria Water Group

### **Nick Roberts**

Chief Executive Officer, Atkins Global

### **Jay Scanlan**

Partner, Global Digital Strategy, McKinsey & Company

### **Alex Vaughan**

Managing Director, Natural Resources, Costain

## Mind the gap: the scale of the productivity differences across the UK

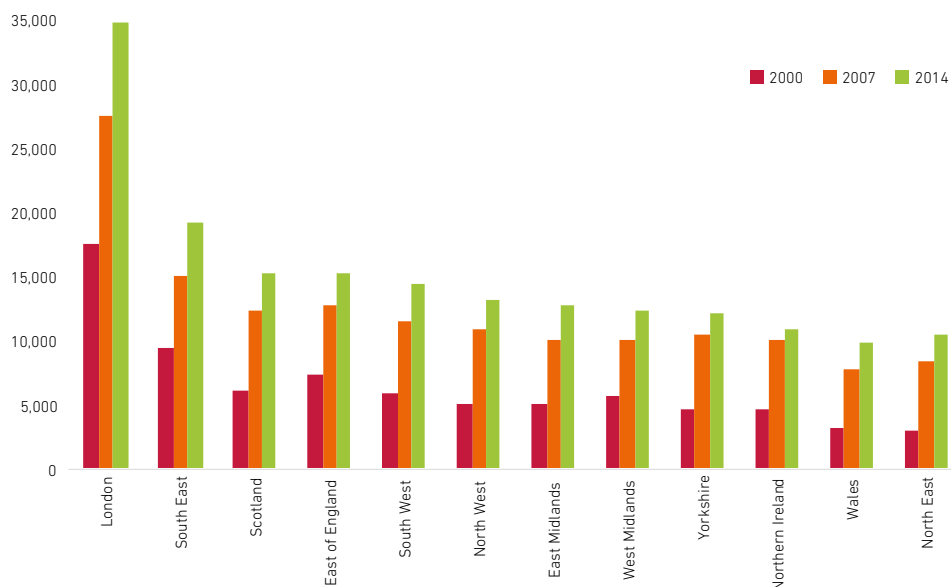
*The UK falls behind on international comparisons of productivity and this is also true at the regional level. Nine out of ten UK cities perform below the European average, and more than half are among the 25% least productive cities on the continent.<sup>1</sup> And the UK has fallen further behind its international peers.*

Since the global financial crisis, only London and the South East have seen GDP per head rise above pre-crisis levels. Looking at gross value added per hour in nominal terms, the most productive area of the UK is now almost three times more productive than the least.<sup>3</sup> While productivity is not always the most intuitive concept, it matters because higher productivity leads to more sustainable growth, higher standards of living, and greater global competitiveness. For businesses, productivity matters because it determines how much they can pay their staff, how quickly they can grow and what they can invest in. To understand why regions and nations across the UK have different standards of living, and why some regions have been growing faster than others (Exhibit 1), we need to get under the skin of differences in productivity.

And to really understand what is driving differences in productivity, we need to dig deeper into the UK's regions and nations. Through our access to ONS microdata, we have found that productivity varies almost as much within regions as it does between them (Exhibit 2). London as a whole might be 60% more productive than Northern Ireland, but there is huge variation of gross value added (GVA) per hour within the capital, with the most productive areas twice as productive as the lowest in London's areas. While many city leaders in the UK may look with envy at London's productivity performance, our members were concerned about how stark some of the differences within London are, and what this means for opportunities for young people in the different boroughs of London. Even within the borough of Tower Hamlets, which as a result of the contribution from financial institutions based in Canary Wharf has the highest productivity in the UK, there is a huge range in standards of living and local productivity.

### Exhibit 1a: There is significant variation in the level of productivity across the regions and devolved nations of the UK and this has persisted over time

Nominal GVA per head (£) since 2000\*



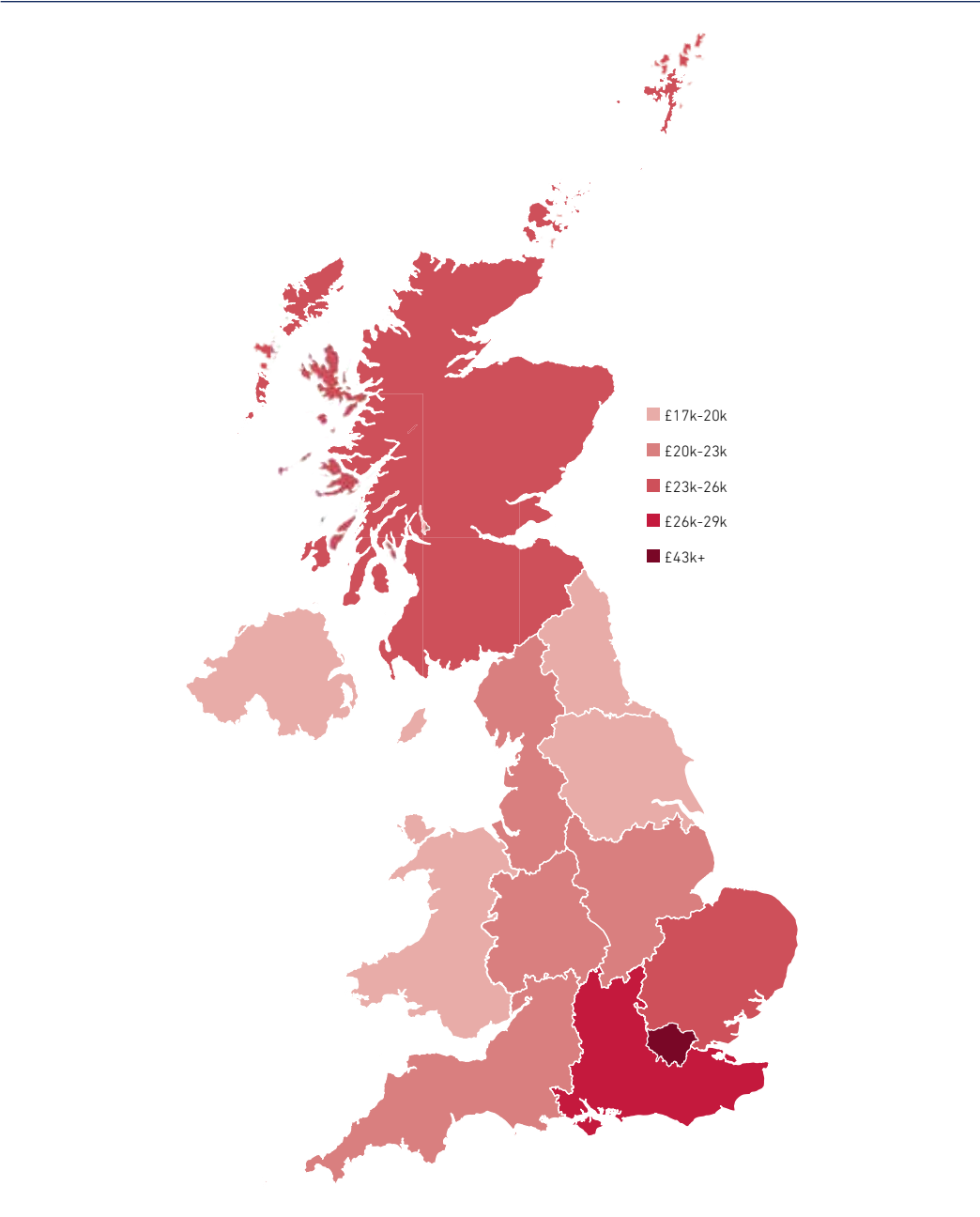
\* Measured as gross value added at basic prices which does not account for differences in inflation rates across the regions  
SOURCE: ONS (2014)

There are also huge differences in productivity in the Northern Powerhouse. Within the North West, productivity in Cheshire East is at £35 per hour, almost £15 higher than in Blackpool (Exhibit 2). This has an impact on businesses in the region and on average wages. In Wales, there is less difference within the region with productivity varying by around £7.50 per hour, but the overall level of productivity falls behind the UK average of £31 per hour. Understanding what drives these intra-regional and intra-national variations in productivity is crucial to lifting growth, wealth creation and job opportunities across the whole of the UK.



Exhibit 1b: There is significant variation in the level of productivity across the regions and devolved nations of the UK and this has persisted over time

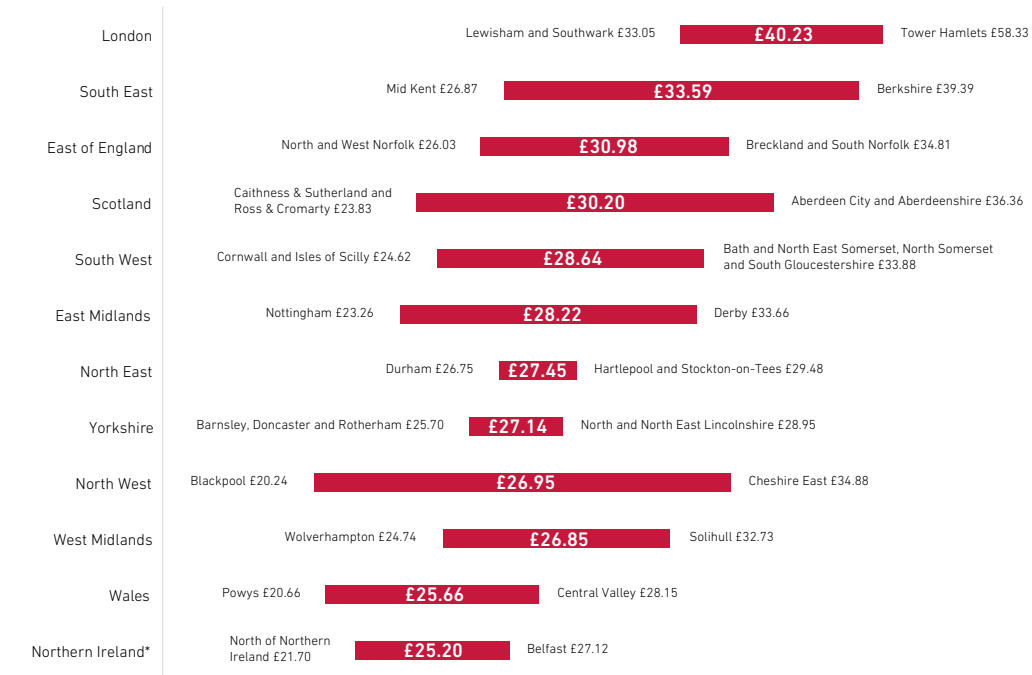
Nominal GVA per head (£)\*



\* Measured as gross value added at basic prices which does not account for differences in inflation rates across the regions  
SOURCE: ONS (2014)

## Exhibit 2: There is almost as much variation in productivity within the regions and devolved nations as between them

Local productivity variation within the UK (GVA per hour)



■ Regional/national average

\* Northern Ireland NUTS3 figures are based on 2013 data for GVA per job filled and hours worked

SOURCE: ONS (2014)

## Our findings: four main drivers of regional productivity differences

*We also need to look deeper into what drives differences in regional productivity at a local level. Many of these drivers echo what influences growth and productivity at the national level. Our analysis has identified that there are four main drivers of productivity:*

- 1. Educational attainment of young people at 16 and skills*
- 2. Transport links that widen access to labour*
- 3. Better management practices*
- 4. A higher proportion of firms who export and innovate.*

### 1. Educational attainment of young people at 16 and skills

Our analysis, using a number of variables and supported by the views of our members show that educational attainment is the single most important driver of productivity differences around the UK. This follows previous CBI research that shows school-age education is the biggest single long-term driver of economic growth.<sup>8</sup> We looked at a range of measures of school outcomes and performance as well as internal migration patterns. People do not move around the UK as much as you might expect, with only 3% of the working age population moving to another region in a given year. Moreover, the people moving out of a region to go to university rarely return. So for businesses to be able to drive growth, we need to focus on people leaving school with the right skills.

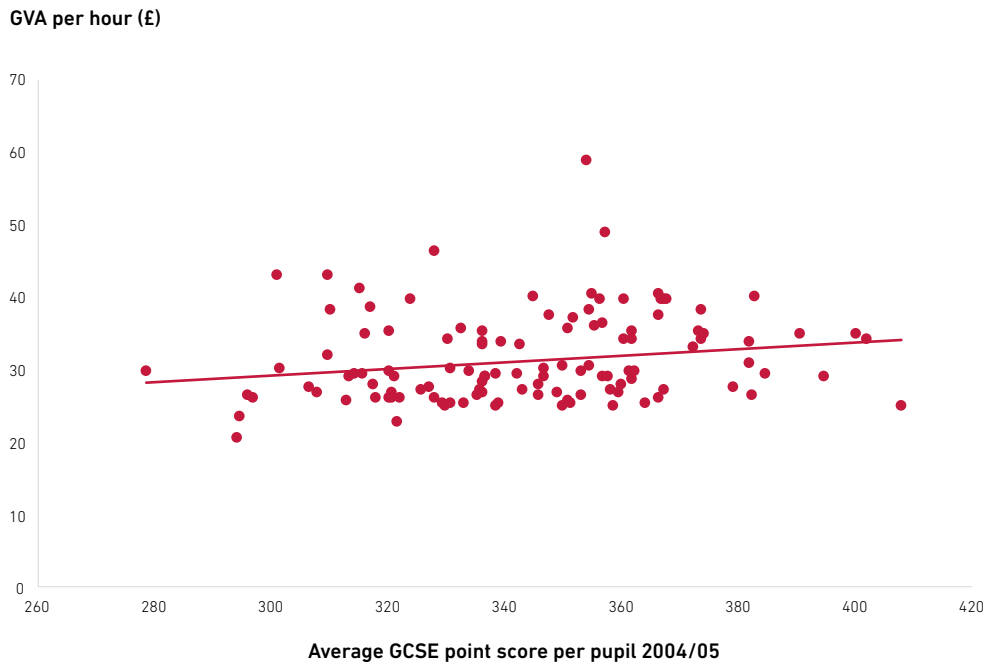
We found that where children get the best results at GCSE or equivalent, and school performance is highest, regional productivity is also greater.<sup>9</sup> This held true for a range of educational variables we examined. For example, almost eight out of ten pupils in Trafford achieved at least five A\*-C grades at GCSE. This is far above the average for the North West, where two-thirds of school pupils achieve this standard. At the other end of the spectrum, only half of the students in Blackpool manage to achieve the same feat. The Manchester suburb is 6% more productive than the North West as a whole, whereas in Blackpool, productivity is merely three-quarters of the regional average.

Exhibit 3 shows the correlation between average GCSE scores per pupil in local areas (NUTS3) in 2004 around the UK and compares it with productivity in those local areas in 2014, enabling us to capture the impact of the secondary school education of individuals who will now be in their mid-to-late twenties and fully contributing to the workforce.<sup>10</sup> The attainment levels of school and college leavers is then reflected in the composition of the local workforce. This, in turn, determines the occupations they can aspire to and explains a significant part of the difference in productivity difference between the regions.

Comparative data on school performance in Scotland and Northern Ireland has not been accessible in the same way as for GCSE results in England and Wales. We will be looking more closely at the three devolved nations to explore the education link to productivity in the coming year, building on businesses' continuing commitment to education success across Wales, Scotland and Northern Ireland.

### Exhibit 3: Productivity in local area is linked to achievement of secondary school leavers

Average GCSE point score in 2004/05 vs productivity in 2014 by NUTS3\*



\* Includes GCE/VCE and other equivalent examinations

SOURCE: Department for Education, WalesStat; ONS (2014)

Since education is a fundamental building block for success – for individuals, companies, regions and nations – it is vital that schools focus on long-term outcomes. Crucial to this is helping children and young people develop the knowledge, skills and behaviours they need and to provide support for teachers and schools which are struggling or face particularly challenging circumstances. Business-led initiatives such as the ESH Group “Building my Skills” programme can really help. This programme provides students with employability guidance sessions and business engagement throughout the school year, leading to a higher take up of work experience and apprenticeships.

### **1.1 Previous targeted initiatives have shown how school performance can be improved**

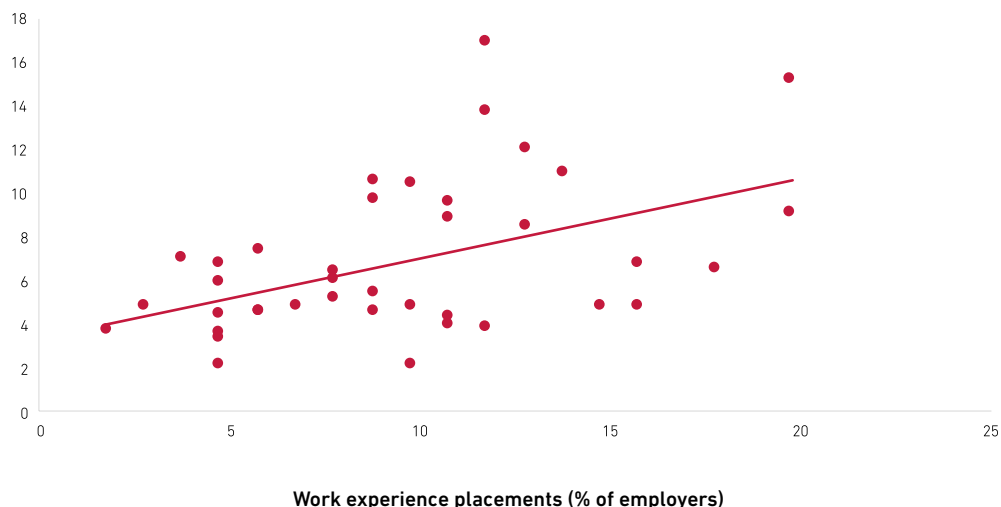
The London Challenge involved partnerships between central and local government, schools and other key players, ensuring robust local planning and support. Leadership training by teams of advisers and a detailed use of data resulted in dramatic improvements in secondary school performance across the Capital. Ofsted rated 30% of schools as “outstanding” in 2010 compared to 17.5% nationally. The programme’s success meant other areas adopted similar initiatives, such as in Greater Manchester and the Black Country between 2008 and 2011. While their achievements were substantial, they were impacted by the timescale they had to embed practices. The London Challenge lasted eight years in total with a substantial amount of investment, a total of £80mn. The Greater Manchester and Black Country City Challenges lasted only three years. The Teach First initiative to train and support teachers and place them in schools serving low-income communities has been important in raising performance and outcomes for these schools, though more success has been seen in London due to its wider support networks. The larger jobs market in London, not just for teachers but for their partners as well, has made it easier to attract great teachers to the capital. The importance of a depth and range of job opportunities for partners as well is something that our members highlighted as an issue, and if business and government can get productivity right across UK regions, this will increase the job opportunities around the UK.

While young people need to build their workplace skills on solid foundations, many are leaving school unprepared for the transition into the world of work. Offering professional experience placements can help. Looking across England our analysis shows a link between a higher proportion of firms which offered work experience placement and productivity in the LEP region (Exhibit 4). Conducting work inspiration activities with students plays a similar role, for example through site visits, mentoring, mock interviews and enterprise competitions. For example, Simons, a property solutions business, tries to instil passion in students to plan for their future through careers fairs, local mentoring and by encouraging young people to find work experience at Simons or within the industry.

## Exhibit 4: Better links between businesses and schools pays dividends for local productivity

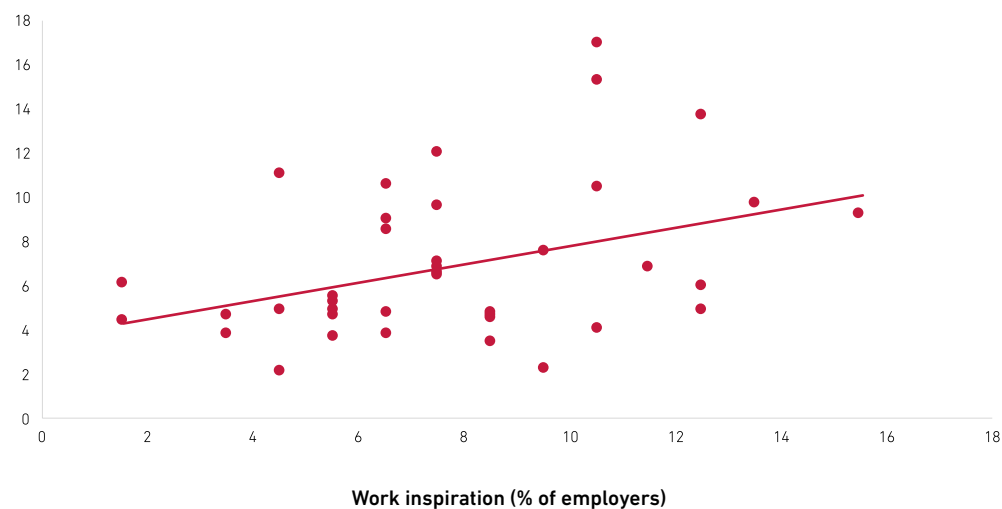
### A: Businesses offering work experience placements vs productivity by LEP

GVA per hour (£)



### B: Businesses offering work inspiration vs productivity by LEP\*

GVA per hour (£)



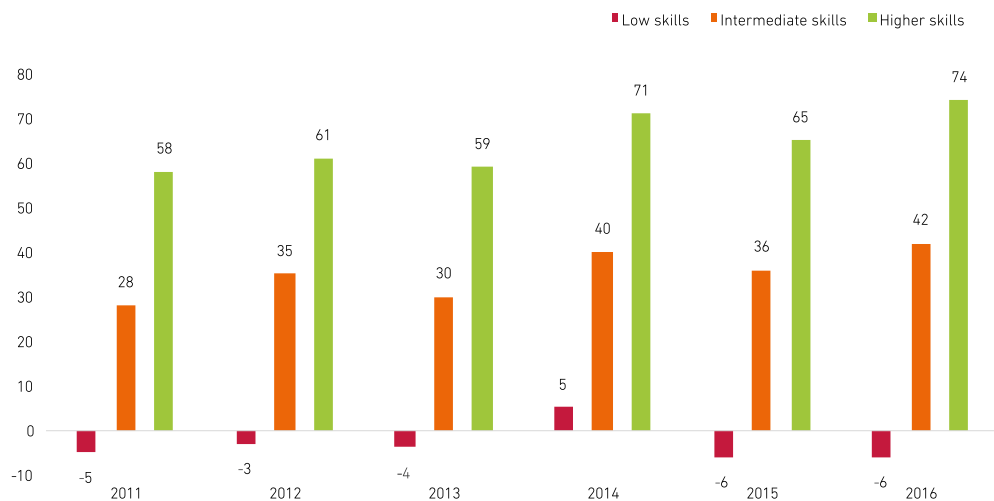
\* Work inspiration is the aim of instilling a passion in students to plan for their future careers, through means such as site visits, mentoring, mock interviews and enterprise competitions.

## 1.2 Building skills throughout careers is vital

Around 90% people in the workforce today will be in employment in 10 years' time.<sup>11</sup> Therefore on the job training and lifelong learning has a crucial role to play, particularly as the world adapts to disruptive technology and more flexible careers. While the shortfall in skills is already felt by firms across the country, this is set to grow since future roles will require a higher levels of skills. This increase in demand for higher skills has already been seen over the last few years (Exhibit 5). Indeed, our latest Education and Skills Survey shows that 69% of businesses were not confident about filling their high-skilled jobs over the next three to five years, up from 55% in 2015.<sup>12</sup> Skill shortages is one of the main concerns that unites businesses across regions in the UK with one-fifth to one-quarter of all vacancies across regions a result of skill shortages or the inability to find the person with the right skills for the job.<sup>13</sup> Unsurprisingly, the majority of businesses say this affects their company's performance.<sup>11</sup>

### Exhibit 5: Firms are increasingly looking to hire high-skilled workers

Business demand for different skills levels over the next 3 to 5 years (%)\*



\*Firms reporting increased demand minus those reporting decreased demand

SOURCE: CBI/Pearson (2016)

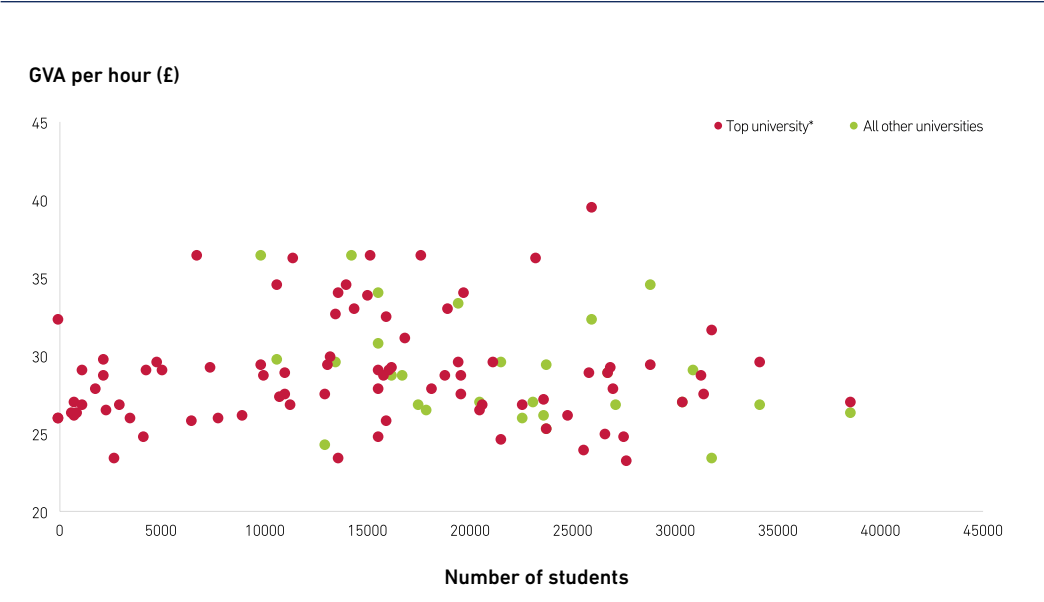


### 1.3 Attracting and employing more graduates also pays productivity dividends

Our analysis also finds that areas with more professional graduates are also significantly more productive than those with fewer. Despite there being many world-class universities spread out across the UK, university towns do not capture all of the potential productivity benefits, since most move to different areas to work after completing their degree. Nearly half of students at top universities move to London compared with around a quarter of those at other universities (Exhibit 6).<sup>14</sup> And only two-fifths of students at top universities opt to remain local versus roughly two-thirds for all other graduates. Graduates from top universities are the ones who will benefit the most from better career opportunities and higher salaries that are available in larger cities like London. There may be more opportunities to encourage top talent to take up jobs after university in cities across the UK like Bristol, Belfast, Cardiff and Edinburgh. Some university towns like Norwich, which have a high quality of life but a relatively low number of graduate jobs means that they aren't always so successful at keeping graduates within the local area. The proportion of graduates in the workforce in Norwich and East Norfolk is 35.4%, lower than the average of 38.2% for the East of England as a whole. To provide more opportunities for local graduates and to help world-class research turn into innovative products, many universities are setting up innovation centres or business hubs.

Exhibit 6: Graduates from the best universities often migrate to London, leaving other areas drained of top talent

A: Number of students at university (excluding London) vs productivity by NUTS3



B: Graduate employment destination post university\*



\* Future of Cities, Graduate Mobility report: based on universities within the NUTS1 areas containing Birmingham, Bristol, Cardiff, Liverpool, Manchester, Leeds; proportion that "remain local" is proportion that have employment in the stated city in that NUTS1 area

\*\* Russell Group or Times Top 30, 2013

SOURCE: ONS (2014); ONS Microdata (2014)

**Case study 1: Close cooperation between education providers and businesses can ensure that local skill shortages can be addressed**

BMet is a leading provider of further and higher education courses across the Midlands, priding itself on innovative courses, quality and ground-breaking partnerships with employers to its students succeed. Through its wide range of vocational courses, A-Levels, Centres of Excellence and Academies BMet has built a strong educational infrastructure in support of the skills needed in the future across the Midlands.

Andrew Cleaves, Principal and Chief Executive, BMet: "With its strong links to business around the region, BMet will play a more active role with businesses as the Apprenticeship Levy is introduced. Our challenge is to work more closely with firms to bridge the skills gap. In this way can we ensure that we match firms' skills needs and encourage employers to engage more actively, not as part of their CSR agenda, as it makes good business sense to increase diversity and access to many more potential employees. BMet is gearing up to meet this challenge and in a great position to deliver quality apprenticeships that will fuel the region's success."

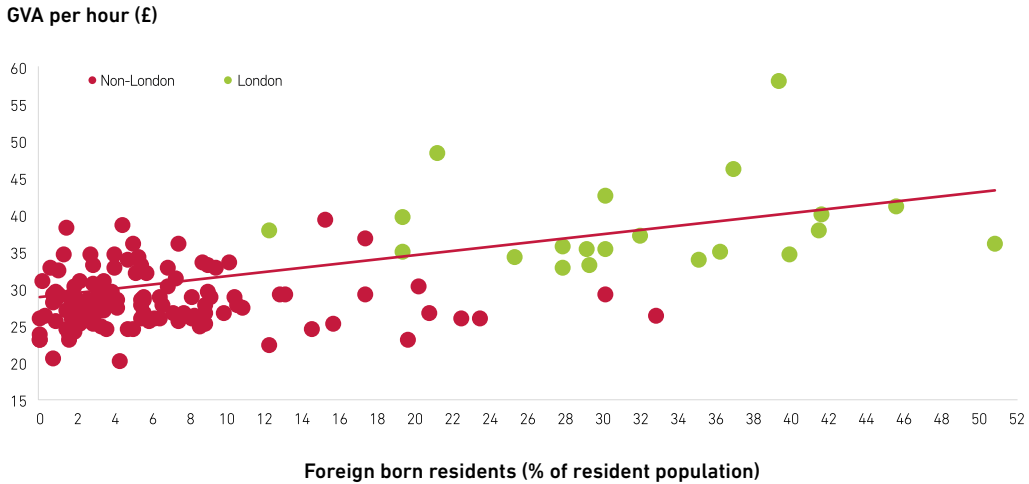
**1.4 There is also an opportunity to attract more mobile young families to regions and nations outside of London**

In addition, we looked at migration patterns within the UK, and there is a strong link between migration to an area, both from within the UK and from international migration, and higher productivity in that local area. Though of course the causality runs both ways. Talent from around the world is attracted to UK regions and nations with the best variety of jobs on offer. But overall flows of internal migration are small relative to the size of the local population, which is why a focus on building skills at school and of the local workforce pays dividends.

With immediate skill shortages still creating challenges across UK regions and nations, attracting more talent from around the world can help to boost productivity in a very immediate way. This is echoed by our members, who tell us access to labour and a migration system responsive to economic need is vital, while taking measures to address public concerns around pressures on public services. Our evidence shows that areas with a higher proportion of foreign-born residents are more productive. This is true even if you exclude London where there is a high proportion of foreign born residents (Exhibit 7).

### Exhibit 7: Areas with a higher proportion of foreign born residents are generally more productive areas

Proportion of foreign born residents vs productivity by NUTS3\*



\* Includes foreign born children of UK nationals, does not include short-term migrants who stay for less than 1 year

SOURCE: Annual Population survey; ONS (2014)

Looking at the flows of different age groups of people around the UK, apart from those moving cities to go to university, the most mobile people by age are in their twenties. Between 2009 and 2013, around 80,000 22- to 30-year-olds moved to London with only 31,600 leaving the city. So the net inflow from regions and nations around the UK into London of this age group was around 50,000 over this four year period (Exhibit 8). But the net flows of people in their twenties into London in 2014 was almost matched by a new outflow from London of people in their 30s. What's perhaps most surprising about this fact is how small the internal migration flows are overall, with the flow of people in their twenties into London only 2% of the resident workforce. Unsurprisingly, given the cost of living and pressures on quality of life, particularly when starting a family, we see flows out of London when people reach their thirties, but generally to the surrounding Home Counties, with the South East, the East of England and the East Midlands benefiting. So there may be scope for some regions to work on attracting young working families back to their region or on retaining bright graduates.

### Exhibit 8: Aside from young people heading off to university in their late teens, migration within the UK is relatively low

Net internal migration by age

	17-19		20-29		30-49		Total (17-64)	
	Net migration (000s)	% of resident workforce	Net migration (000s)	% of resident workforce	Net migration (000s)	% of resident workforce	Net migration (000s)	% of resident workforce
<b>North East</b>	4.40	4.1%	-5.5	-1.6%	-0.9	-0.1%	-1.7	-0.1%
<b>North West</b>	-1.80	-0.7%	-4.0	-0.4%	-1.5	-0.1%	-8.3	-0.2%
<b>Yorkshire and The Humber</b>	7.30	3.3%	-11.8	-1.6%	-1.7	-0.1%	-6.4	-0.2%
<b>East Midlands</b>	4.70	2.6%	-8.0	-1.4%	3.2	0.3%	1.5	0.1%
<b>West Midlands</b>	-0.90	-0.4%	-3.0	-0.4%	-0.2	0.0%	-4.8	-0.1%
<b>East of England</b>	-8.70	-4.1%	7.2	1.0%	10.0	0.6%	10.0	0.3%
<b>London</b>	-6.90	-2.4%	35.5	2.4%	-35.4	-1.3%	-18.2	-0.3%
<b>South East</b>	-4.30	-1.3%	-0.3	0.0%	16.1	0.7%	11.9	0.2%
<b>South West</b>	3.20	1.6%	-2.8	-0.4%	7.4	0.5%	13.5	0.4%
<b>Wales</b>	2.20	1.7%	-6.2	-1.6%	0.6	0.1%	-1.5	-0.1%
<b>Scotland</b>	1.90	0.9%	-0.5	-0.1%	2.1	0.1%	5.3	0.2%
<b>Northern Ireland</b>	-1.10	-1.4%	-0.6	-0.2%	0.2	0.0%	-1.1	-0.1%

SOURCE: ONS (2014)

## 1.5 Lack of high quality homes and high costs of moving holds back mobility

CBI members around the country felt very strongly that the high cost of home ownership, low availability of high quality homes for rent and the high transaction costs of moving homes in the UK really impacted on labour mobility. They found it hard to convince young families in particular to relocate to different regions in the UK, which also reflects concerns around the variability of school performance. We analysed some factors related to how quickly planning decisions were made but the data was insufficient to find a clear link to productivity growth.

**Case study 2: Partnership with local universities helps one of Yorkshire's tech unicorns get the right digital skills.**

Getting the right digital skills wasn't always easy for Sky Betting & Gaming, but working with local universities and marketing its specific needs has helped it find the right people and supports the growing tech hub of Yorkshire & the Humber.

With 2 million active customers Sky Betting & Gaming is the largest UK online gambling operator as measured by the number of customers. The firm is headquartered in Leeds with a global reach of offices in Sheffield, London, Rome and Munich. But over 90% of its 1,100 staff are based in Yorkshire. Sky Betting & Gaming were recently named as one of only 2 Yorkshire based 'unicorns' (tech businesses valued at over \$1bn).<sup>15</sup>

Since March 2015 Sky Betting & Gaming has almost doubled its headcount from 550 to nearly 1,100, half of which were in technology roles. The firm initially found it hard to find and attract those with the right digital skills. But by building a partnership with local universities, significant investment in marketing and a more modern benefits package, they were able to turn this around. They invested £2.5mn in two graduate academies; a commercial scheme and software scheme, and over 75% of the software academy graduates now come from Yorkshire universities. These graduates have recently completed a one-year long 'boot-camp' programme and will now join various 'tribes' within the firm on a rotational programme in order to learn about different aspects of the business.

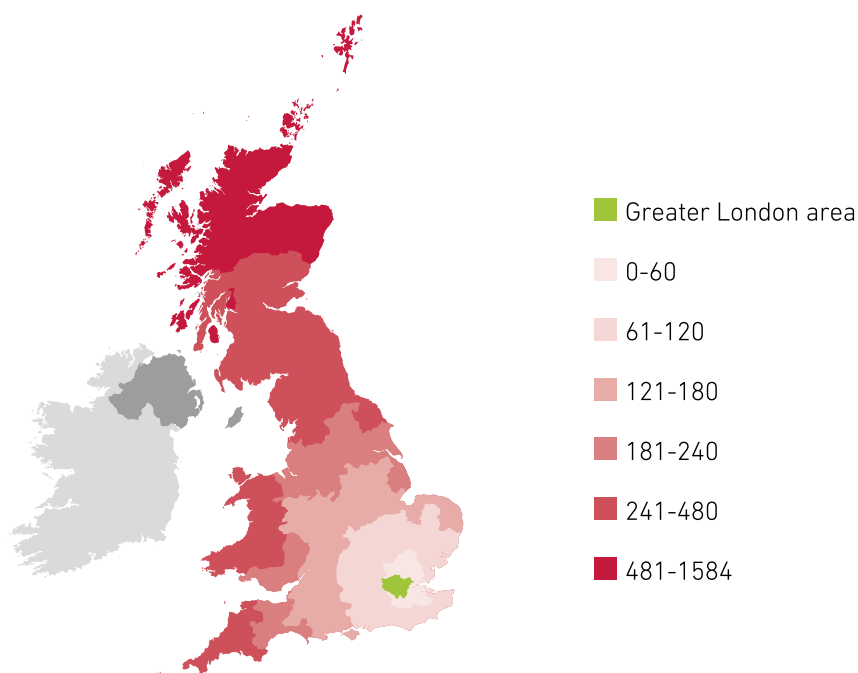
Richard Flint, CEO, Sky Betting & Gaming: "Yorkshire is a fantastic place to build a technology business but significant investment in infrastructure, a strong, region-wide mayor, and the maintenance of competitive tax rates are required if we are to make the most of the opportunities available here. Policymakers have talked about growing regions of the UK's economy outside of London, but we now need to see genuine action to make that happen."

## 2. Transport links that widen access to labour

Getting the right infrastructure in place plays a crucial role in connecting people to where jobs are being created and raises productivity. There are good travel links between London and the rest of Britain, but travel times between other major cities, regions and nations are relatively poor (Exhibit 9). Businesses in Northern Ireland, are dependent on good air links to quickly access the UK capital. However, businesses are frustrated by the lack of good transport links across the UK's cities, particularly across the North and areas with high levels of congestion, such as the South East and Thames Valley. The 2016 CBI/AECOM Infrastructure Survey shows that 69% of respondents in the North West say delivering East-West rail links to decrease journey times is critical, while in the South East, 87% cited tackling congestion as the top priority including, improving journey times on the M3.<sup>16</sup> These priorities came out clearly in our roundtables around the UK and echo the work being taken forward by LEPs around England, for example by the four LEPs in the South East and Thames Valley to enhance connectivity in the region.<sup>17</sup> By improving infrastructure both between and within the regions and nations, it is possible to deliver benefits to productivity through 'agglomeration'.

### Exhibit 9: The vast majority of Britain is well connected to London\*

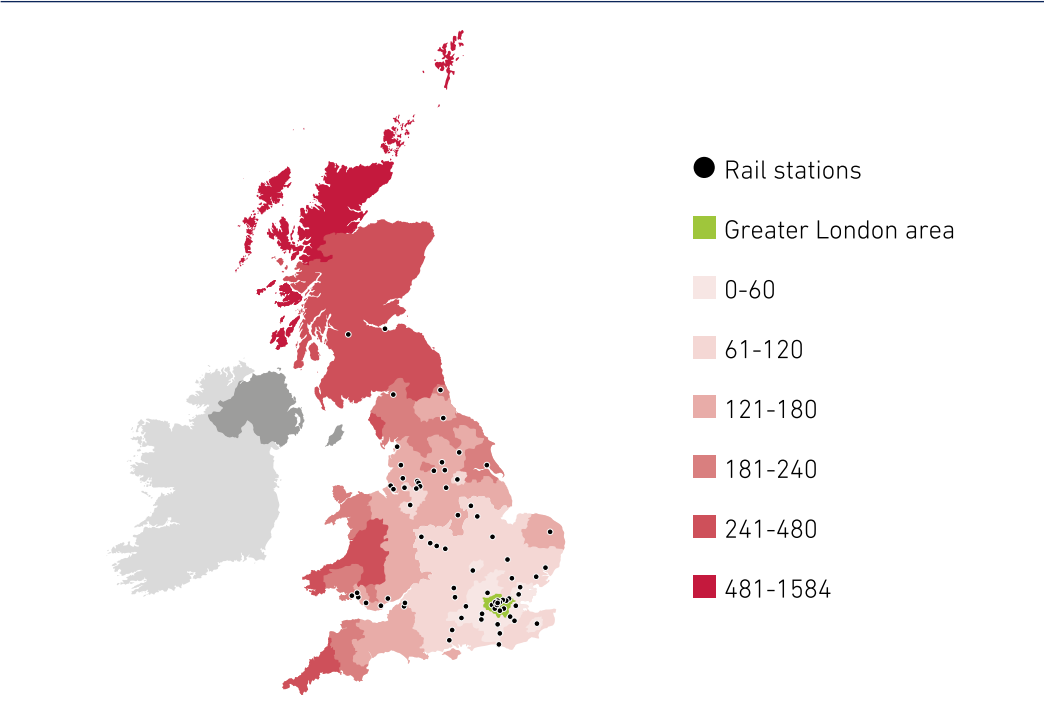
A: Travel time to London by car (minutes)



\* Northern Ireland is excluded due to its lack of a land border with the rest of the UK, inhibiting car and rail journeys

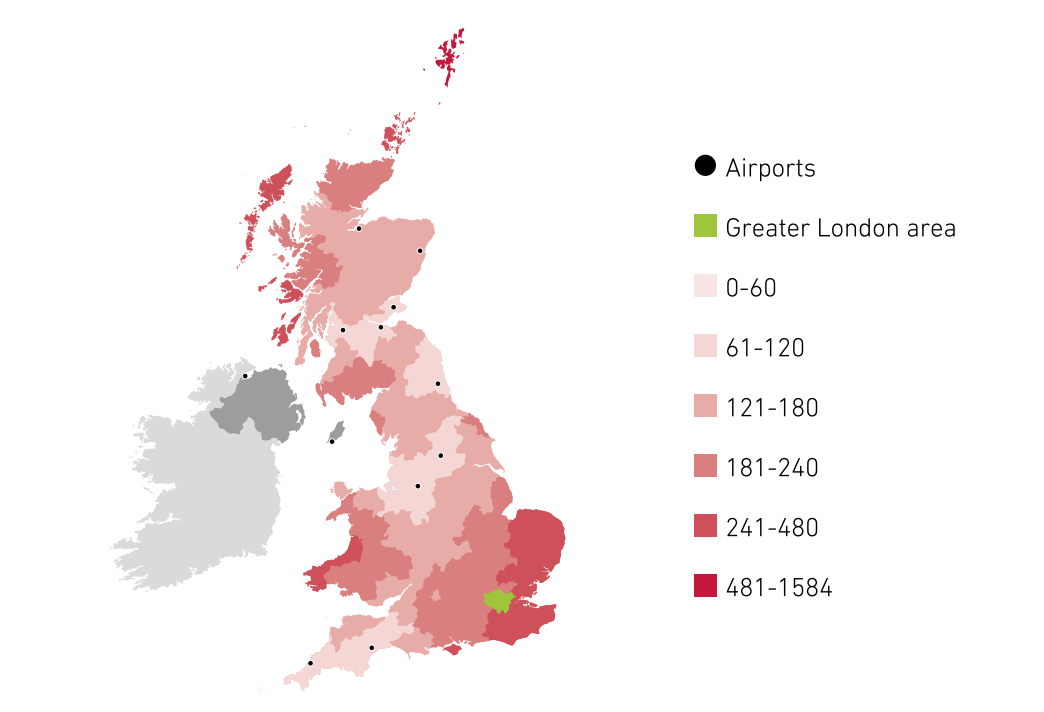


B: Travel time to London by rail (minutes)\*\*



\*\* Based on 79 regional hubs in England, 4 in Wales and 2 in Scotland

C: Travel time to London by air (minutes)



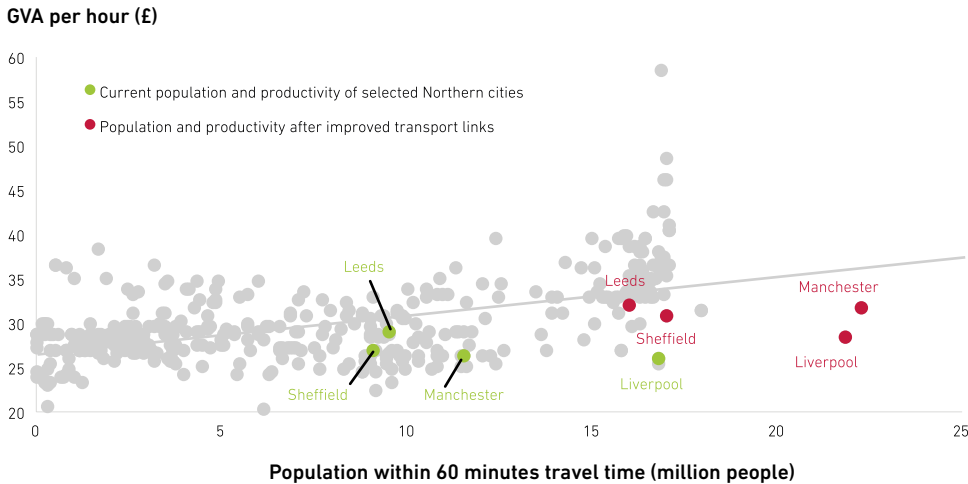
Better connections between urban areas, also known as agglomeration, offers three major benefits to productivity. It broadens the labour market pool, enabling workers to find employment over a wider geographical area which eases skill shortages. Firms can also access a wider range of markets and suppliers, reducing costs and the difficulty of sourcing inputs. Finally, it makes it easier for firms to share best practice, ideas, people and technology. International examples provide plenty of evidence that agglomeration can bring considerable benefits, most notably the Øresund Bridge constructed between Copenhagen and the nearby city of Malmö. It brought together a population of almost 4 million through the creation of the Øresund region, including Copenhagen's population of over 2 million, to create a larger metropolitan area and provided a direct link via a tunnel to Copenhagen international airport, Kastrup. It was accompanied by the creation of a common "Øresund" brand and a focus on promoting IT and professional services. Since its opening, around 30 companies have moved their headquarters to Malmö and daily commuting has increased by 600%.

Evidence from commuting patterns suggest most people travel a maximum of one hour to work, so minimising travel times is important. Comparing productivity across different regions and nations in the UK, we estimate that for every 1 million increase in the population that are within 60 minutes of travel time of a postcode area, this corresponds to an additional £0.50 in GVA per hour.

As it currently takes longer to get from Liverpool to Hull by train than from London to Paris, improving connections between the cities in the North of England presents a particularly compelling opportunity to lift productivity.<sup>18</sup> Our analysis shows that reducing travel times between cities in the North of England, via the best mode of transport, could provide access to a working population of up to 16 million, matching the number within an hour of London today (Exhibit 10). In Leeds alone, lowering travel times to Manchester and Sheffield to 30 minutes, could lift productivity in the city by more than 10% to £32 an hour, placing it around the average for Oxfordshire.

### Exhibit 10: If some Northern cities became more connected we could see a significant increase in productivity due to agglomeration

Population within 60 minutes of the centre of a Local Authority vs productivity of the Local Authority



We have used a proxy metric for inter-regional agglomeration: the population that lives within 60 minutes of a particular Local Authority. For every 1,000,000 increase in population we see a £0.50 increase in GVA per hour. We have modelled the impact of increasing the 'catchment areas' for some Northern cities by reducing travel times between the cities to 30 minutes

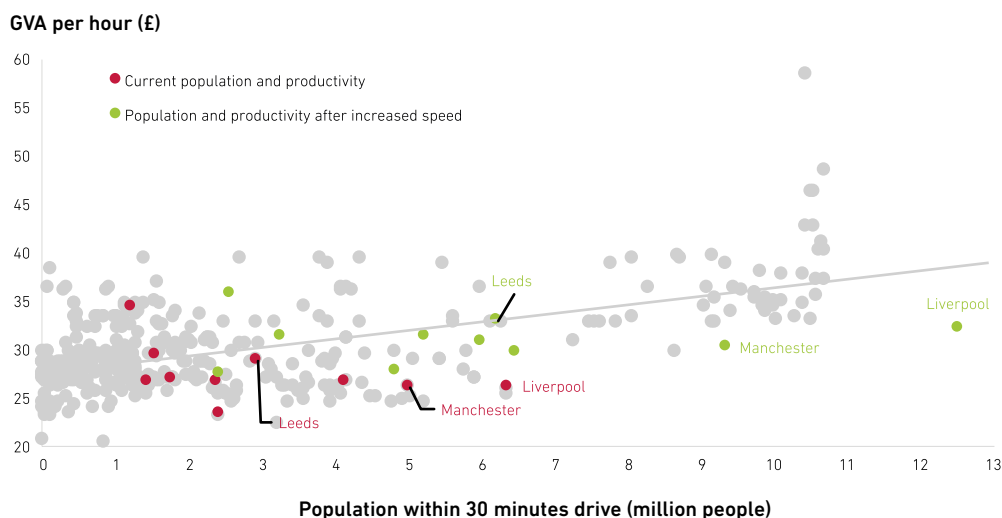
SOURCE: ONS, Census, Postcode Sector to Sector data (XYZ maps)

There are also productivity gains that can be gleaned by shortening travel times within local areas. High levels of urban congestion not only cause stress to individuals, they also limit the potential size of the talent pool for local businesses and weigh down on work time for people whether travelling between offices, visiting a client site or meeting with a supplier. Using postcode data, we have determined how many more people could be attracted to work in cities if they were able to reduce current journey times by road by up to 50%. Reducing journey times by road within some regions could have productivity benefits of up to 14%, particularly in cities such as Leicester and Liverpool where a large number of workers reside in areas surrounding the urban area (Exhibit 11). Reducing congestion plays an important role here. Increased capacity, well-designed bus transport and greater integration with alternative modes of transport – rail, ports and airports – has the potential to alleviate congestion and better connect people with jobs in urban centres.

In the East of England, the importance of better connections to the port in Felixstowe, which handles around 40% of the UK's container cargo,<sup>19</sup> to the Midlands was highlighted as critical by 48% of respondents in our 2016 Infrastructure Survey.

## Exhibit 11: Reducing congestion within large cities could boost productivity

## A: Population within 30 minutes vs productivity by Local Authority



We have used the population that lives within 30 minutes of a particular Local Authority as a proxy for local agglomeration. For every 1 million increase in an area's population, there is an additional £0.60 in GVA per hour. We have modelled the impact increasing the speed of travel within cities by 50% (so that people within 45 minutes of the centre can travel into it within 30 minutes).

## B: Results of reducing journey times by 50% by selected cities

City	Increase in pop. (m)	% increase in prod.
Liverpool	6.2	14%
Manchester	4.4	10%
Sheffield	3.8	9%
Leicester	3.6	8%
Leeds	3.3	7%
Nottingham	2.4	6%
Birmingham	2.3	5%
Bristol	1.7	3%
Edinburgh	1.4	2%
Newcastle	0.7	1%

SOURCE: Census, Postcode Sector to Sector data (XYZ maps)

## **2.1 Ensuring that the UK's digital infrastructure is prepared for the challenges of tomorrow is pivotal to productivity**

The UK's superfast broadband coverage is generally good, with 70-75% of households having access, placing it in the top-third of European countries according to Ofcom, ahead of Germany with 65-70% of coverage but behind the Netherlands, with near total coverage. The UK is also in the top-third of measures of download speeds among OECD countries<sup>20</sup> and three-quarters of businesses believe that UK digital networks have improved in the last five years, with 59% expecting improvement to continue.<sup>16</sup> Looking at our regional microdata, we found some evidence of a link to productivity and variations in download speeds and mobile connectivity. But in our roundtable discussions around the country, our members were very concerned about the reliability of download speeds and in particular whether the UK is ready to take advantage of the next wave of digital technology. Nearly one-third of businesses tell us that current fixed-line broadband does not meet their needs. And where coverage is good, low digital skills, limited awareness of the digital services available and high costs may be holding back take-up, particularly among SMEs. Many made the link between poor physical transport infrastructure, the high cost of housing and of moving home in the UK. Better digital infrastructure and connections could overcome some of these challenges particularly with more and more businesses embracing flexible working practices.

### **Case study 3: Arriva is continuously improving its passenger experience, but congestion remains a major issue and is holding back many regional economies**

Arriva is one of the largest providers of passenger transport in Europe, employing approximately 30,000 people in the UK, with operations in 14 countries. It is one of the UK's largest bus operators with services across London, the north east, north west and south east of England, Yorkshire, the Midlands and Wales. Arriva is also a significant provider of UK rail service

Buses play a crucial role connecting labour with the employment market and supporting economic activity. Bus services have been challenged by falling passenger numbers, with a growing congestion crisis on the UK's roads leading to rising journey times.

Effective partnerships with local governments and operators have been proven in many areas to improve bus usage. Arriva, Stagecoach and Merseytravel have signed a new agreement that will deliver more than £25m worth of investment in bus services in year one of the five-year partnership, for the benefit of existing passengers and in a bid to attract new ones. Passengers will benefit from a range of new services and customer-focused improvements, including improved ticketing, Wi-Fi and enhanced networks.

The Liverpool City Region Bus Alliance is a key element of a comprehensive bus strategy for the region. Built around the idea of 'multimodal' transport for customers, changing between rail and bus services will be simplified making journeys easier and more enjoyable for passengers.

Phil Stone, Regional Managing Director, North West and Wales, Arriva: "This report highlights the challenges facing some of the UK's regional economies. Infrastructure is still holding growth back with heavy congestion zones seen across the UK and poor connectivity between some of the larger cities, in particular between cities in the North.

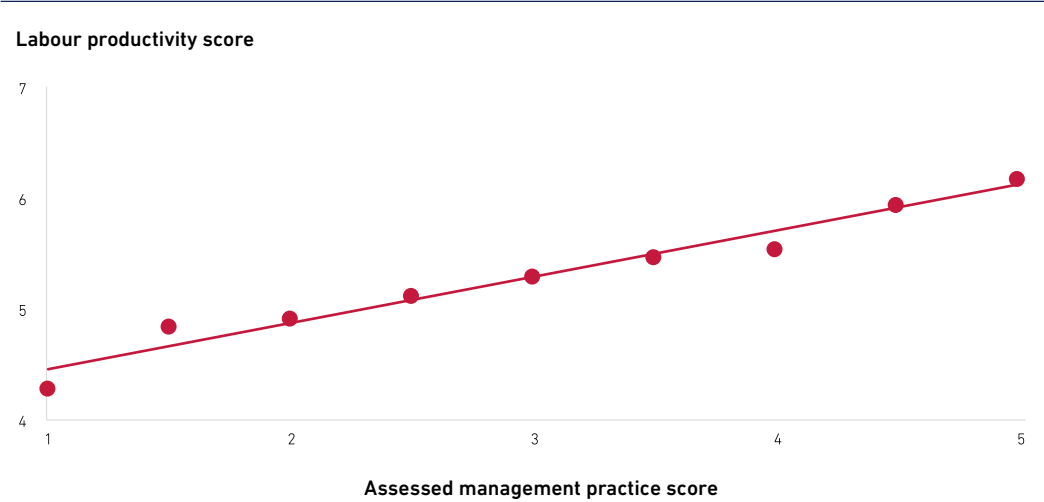
Bus services make a significant contribution to our economy and local communities, linking people to work, helping shoppers access our high streets, and connecting people with education, health and leisure opportunities".

## **3. Better management practices**

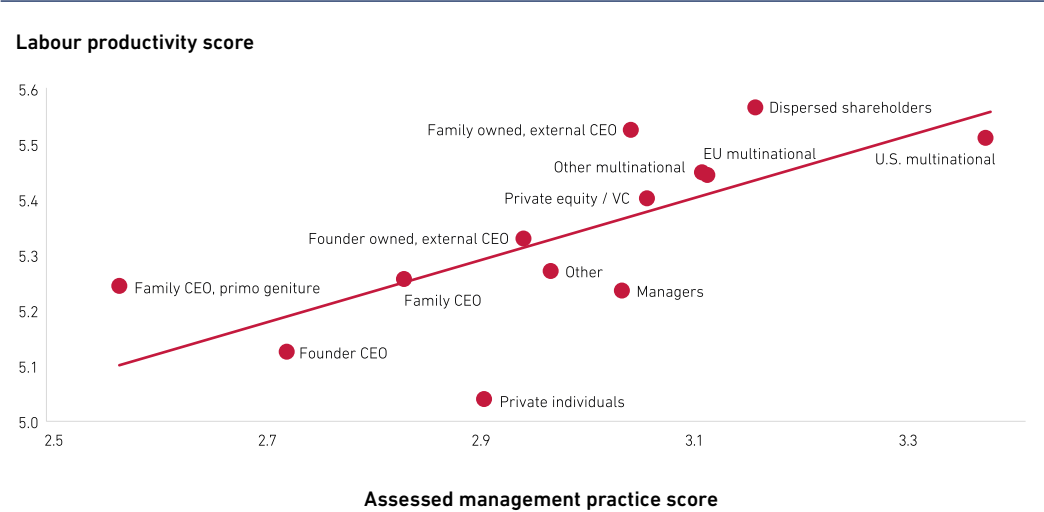
Another key driver of the disparity in growth across the regions and nations is how companies operate, as well as their ambitions for the future. Analysis shows that more productive regions often have a greater proportion of firms offering management training (Exhibit 12). Correspondingly, better management practices play a key role in driving productivity, much more so that the availability of finance, which varies little between regions and nations. In addition, the type of ownership structure matters, with better management practices associated with foreign-owned multinationals or family-owned businesses with an external CEO.<sup>21</sup>

Exhibit 12: Another significant driver of productivity is management practices, which are predominantly determined by a firm's ownership structure

A: Labour productivity vs quality of management practice (Firms grouped by 0.5 increment of management practice score)\*



B: Labour productivity vs quality of management practice (Firms grouped by ownership arrangement)\*



\* Survey of 4,000 firms globally. Management practice scores based on interview-based assessment of 18 topics in three broad areas: shop floor operations; performance management; and talent management

SOURCE: Centre for Economic Performance

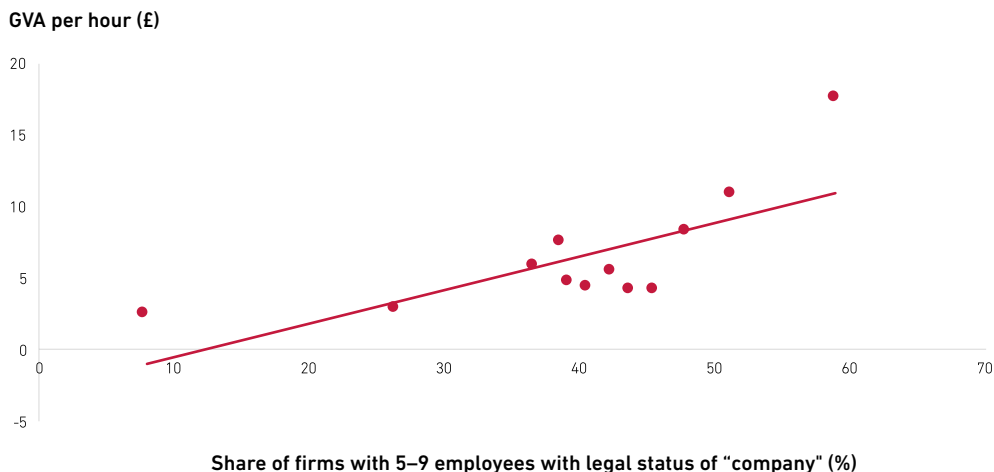


Our results show that employee-related incentive programmes such as firm and individual performance-related bonuses, flexible benefits plans, as well as share options, are linked positively to productivity. What is certainly clear is that firms that focus on management tools that align with productivity do better. Recent work by the Productivity Leadership Group chaired by Sir Charlie Mayfield, comparing productivity at the firm level in Germany and the UK, also finds a lot of potential for UK businesses to improve productivity in all sectors and sizes of firms through better management practices. It can sometimes be difficult to gauge how your own firm's management practices stack up, but a new tool created by the Productivity Leadership Group can help business leaders to diagnose performance. By filling out the "How good is your business really?" questionnaire, the tool is able to assess a firm's productivity across five key areas and provides best practice, industry trends and recommendations where improvements can be made to lift productivity at the firm.<sup>22</sup>

New ideas and enthusiasm generated by younger and smaller companies mean that they regularly outperform more established firms in their industry. In addition, smaller businesses are likely to be more productive if they are incorporated as 'companies' (Exhibit 13). All this suggests a role for better knowledge sharing around management practices for growing firms, and the importance of growth intentions and aspiration. Strathclyde Business School offer a Growth Advantage Programme which provides a ten-month programme for CEOs of SMEs and which has proved highly successful (see pull-out box).

### Exhibit 13: Regions with younger firms and where more small firms are incorporated as a company are more productive

A: Productivity vs share of small firms with legal status of “company” by NUTS1\*



B: Productivity vs average age of small firms by NUTS3



\* Small firms who have the legal status of “company” (as opposed to a sole trader or partnership).

SOURCE: ONS (2014); ONS Microdata (2014)

#### **Case study 4: Strathclyde Business School Growth Advantage Programme**

Interventions to increase the ambition of business owners yields positive results, such as the Strathclyde Business School Growth Advantage Programme. The programme has lifted both sales and employment of participating companies significantly. The programme involves:

- 10 month programme for CEOs of growth SMEs established by University of Strathclyde Business School and sponsored by Santander
- Consisted of 5 two-day workshops and optional additional masterclasses with targeted subjects covered including: marketing, operations, resources and leadership

#### **Key success factors**

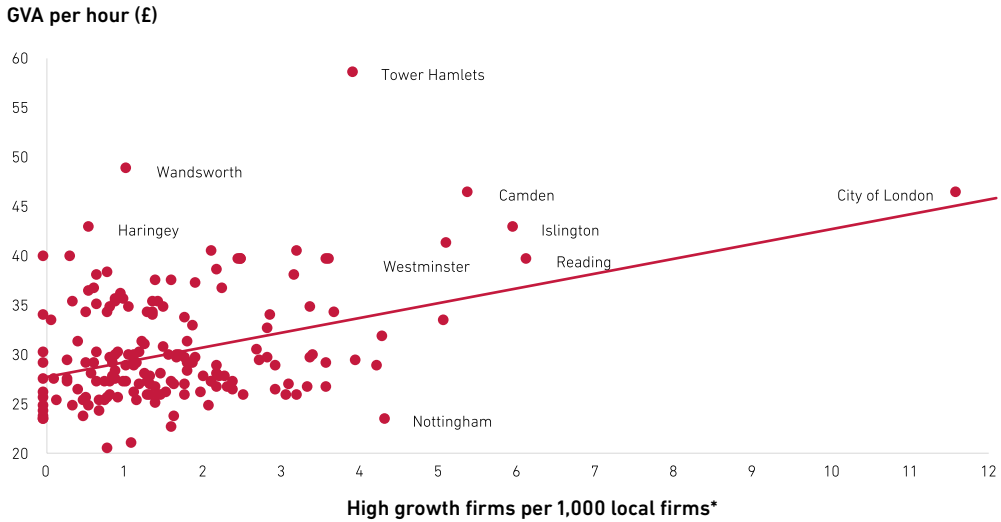
- High-profile endorsement allowed the programme to attract good participants
- Networking among participants and with external speakers helped to form useful contacts
- Tailoring of programme to participant needs and focus on providing usable “tool kits” gave impact from day one
- Careful selection of participants ensured relevant peer-to-peer networking and a cohort of participants who can be valuable to each other and to future cohorts

#### **Participant quotations**

- “The business is now firmly on a growth phase”
- “The company feels re-energised, re-motivated and [is] more profitable”
- “Changing the value proposition enabled us to approach [new] customers and acquire business”

Scale-up medium-sized businesses are the entrepreneurial heroes of the UK economy and there is compelling evidence about how these firms have insights into boosting productivity that are important to share with the wider business community. Our analysis has highlighted that scale-up firms with rapidly increasing turnover have higher productivity rates than non-scale-up firms (Exhibit 14). In York, roughly 6 in every 1000 firms are classified as being “high-growth”, more than double the UK average, with productivity in the city more than 6% above that for Yorkshire as a whole.<sup>5</sup>

**Exhibit 14: Areas with a high concentration of fast growing firms are more productive**  
Productivity vs share of firms that are high growth

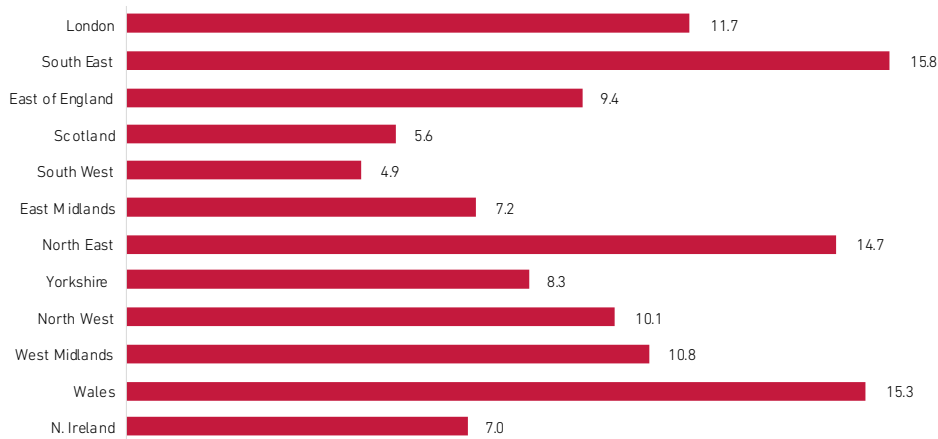


\* Firms with turnover that is both greater than £1mn and growing more than 20% annually. County-level local authorities not shown.  
SOURCE: ONS; Founders4Schools; Companies House

Innovation also plays a role in determining firm-level differences, with companies that plan to invest in research and development significantly more productive than firms that were not (Exhibit 15). Likewise, we also found that firms that spent a greater share of their turnover on software development similarly experienced productivity gains. In addition, our recent digital survey with IBM showed that giving technology a strategic face, in the form of Chief Digital or Technology Officers, could help to enable digital strategy from the board level down.<sup>23</sup> While the UK takes the top place globally for e-commerce, and is in fifth place for the availability of technology, it ranks 14<sup>th</sup> in the world for company-level adoption of digital technology as firms struggle to keep up with the pace of technological change.<sup>24</sup> This “digital divide” is holding back the UK economy.

**Exhibit 15: Innovation matters for productivity and varies across the UK**

Turnover attributable to new, improved, and novel products (%)



In a firm level regression of productivity, two proxies of innovation were found to be statistically significant factors for predicting productivity

- Firms planning to invest in R&D were significantly more productive than firms that were not
- Firms that spent a higher share of their turnover on software development were also significantly more productive

SOURCE: Community Innovation Survey (2008); ONS Microdata (2014)

It's true that the government provides a great deal of assistance for firms across a whole spectrum of issues, from developing export strategies to protecting IP. But with over 531 business support programmes available across the UK it can be bewildering for companies and this makes it hard for them to find the right support. In Northern Ireland alone there are 147 programmes available, with 152 in Wales – three times as many as in any English region. To make it easier for companies to access the support they need, a “shop window” could be established where these hundreds of initiatives could be accessed in a single place. This could operate in a similar way to the ‘Britain is Great’ campaign, and other schemes through Invest NI, Scottish Enterprise and Business Wales, which have helped to provide one place that businesses can go to and a clear brand. Initiatives that overlap one another could also be consolidated, making it simpler for businesses and saving costs for government.

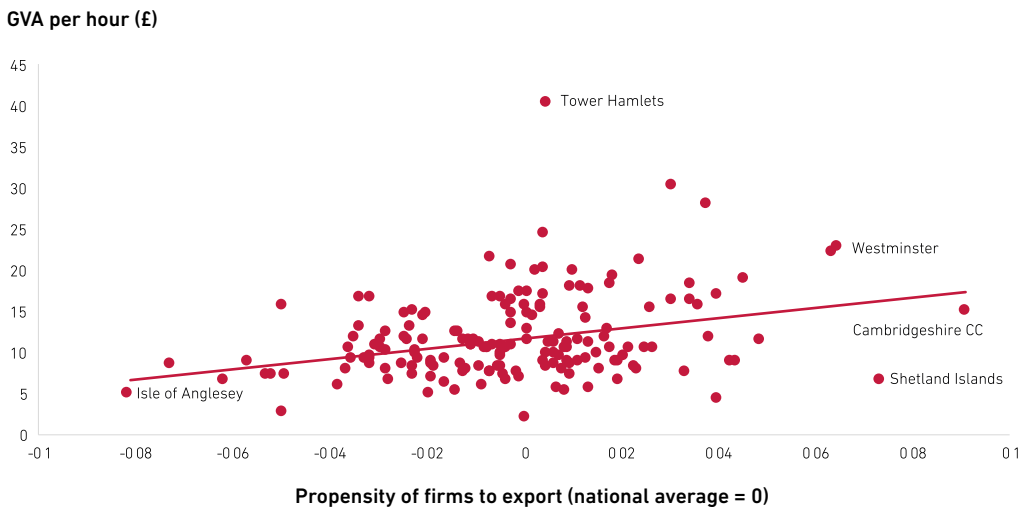
#### 4. A higher proportion of firms who export and innovate

Productivity can also be influenced by whether or not a firm is an exporter. Exposing firms to competitive pressures of international markets not only forces them to become more competitive but also encourages them to be innovative, the combination of which helps to raises their productivity. One study has calculated that in a firm's first year of exporting, they experience an increase in productivity that is on average 1.6 percentage points higher than if they had remained non-exporters.<sup>25</sup>

Given that some UK areas have a higher proportion of exporters in comparison with others, this provides another part of the puzzle as to why there exists differences in regional productivity (Exhibit 16). But this disparity is not caused by the degree sector concentration across the regions and nations, as even after controlling for sector mix there remains significant geographical differences in the propensity of firms to export. Swindon is in the top 10% of the country when it comes to propensity for firms to export, while productivity in the town is 6% higher than that for the South West as a whole. We have identified that there are numerous other factors that determine how likely a firm is to be an exporter. Businesses are more likely to export if they are foreign-owned, conduct research and development, employ graduates and have been established for more than 20 years (Exhibit 17).<sup>26</sup>

#### Exhibit 16: More productive firms are more likely to be exporters but exporting also makes firms more productive

Relative propensity of firms to export vs productivity by NUTS3



SOURCE: ONS microdata (2012, 2014)

**Exhibit 17: Softer factors are important in determining a firms' likelihood to export**

Factors which influence a business's propensity to export

Factor	Impact on likelihood of firm to export
Being foreign-owned	+20%
If firm does R&D	+18%
If firm has graduates*	+17%
If firm is over 20 years old	+10%
If firm is in region with greater concentration of firms in same sector**	+4%
If firm is in an industry with more competition***	+2%

\* Firms who have up to 5% of staff that are university graduates, compared to companies who have none at all.

\*\* Effect of 10% increase in agglomeration index value.

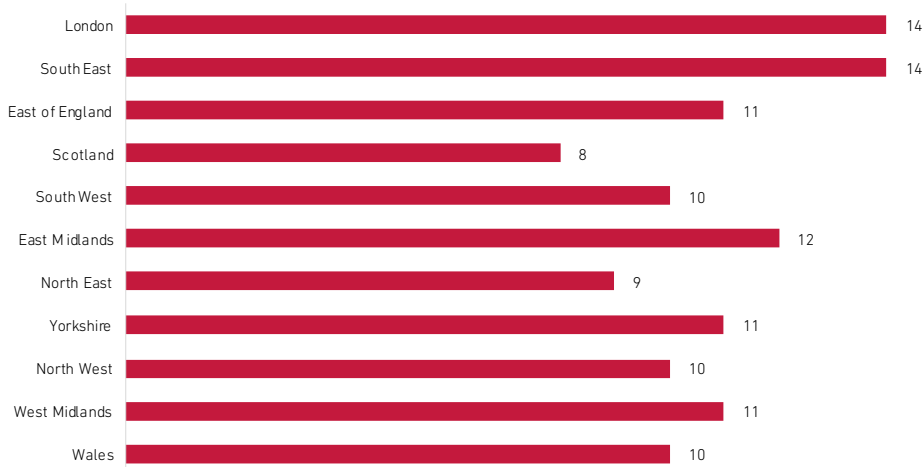
\*\*\* Effect of 10% increase in the Herfindahl Index; a measure of firm size in relation to the industry which provides an indication of the level of competition between them.

SOURCE: ONS microdata (2014); Harris and Moffat (2013)

Throughout the UK, there are a large number of potential exporters who are not exporting today. Most regions and nations have between 10% and 15% of firms that have characteristics similar to other firms in their sector that are currently exporting (Exhibit 18). Providing these non-exporters with the support and initiative to take the leap and venture into international markets could help to generate productivity gains. Targeted and consolidated government assistance can be successful in this respect, as demonstrated by the Canadian Digital Media Network which has helped SME technology start-ups bring in millions of dollars' worth of additional revenue by putting the measures in place to make them successful exporters. For example, sector-focused trade commissioners would help to identify opportunities in new markets and funding would help firms "land" in a specific market through co-working spaces within firms in the export market, attending overseas meetings and making the right contacts.

### Exhibit 18: Across all regions of the UK, there is a large amount of potential exporters that are not exporting today

Proportion of non-exporting firms that are “potential exporters” by NUTS1\* (%)



\* Average value for 2004 - 2010

SOURCE: Harris and Moffat (2013)

The decision to expand the UK’s aviation capacity with a new runway at Heathrow Airport is welcome news to businesses across the UK. With 40% of the UK’s goods exports going via air freight, and a seven-fold rise in business spending on these services expected by 2050, there is a clear need for unrestrained air links.<sup>27</sup> Allowing firms to fly their goods and people around the country or the world more easily will drive productivity and growth, with the benefits creating jobs and increasing prosperity from Bristol to Belfast. Moreover, additional routes to emerging markets present even greater opportunity for innovative, ambitious and internationally focussed firms to break into new markets.

The next step will be connecting Heathrow with other expanding airports across the UK as part of a long-term framework for aviation capacity for the whole of the UK. This will also need a joined up approach to improved connectivity to and from airports. This is important for growing freight operations such as those at East Midlands and Newcastle Airport. Connecting more people to airports is vital too; Amsterdam’s Schiphol Airport has a smaller immediate population versus Greater Manchester, yet draws a higher proportion of passengers from further afield, and provides important connections to the rest of Europe. Greater connectivity around Schiphol is supported by rail journey times to neighbouring areas around 30% quicker than those achieved between Manchester and the likes of Liverpool, Leeds and Sheffield.<sup>18</sup>



**Case study 5: Through R&D and collaboration with Cardiff University, IQE has seen dramatic export growth and now sends over 90% of its products overseas**

IQE is a leading compound semiconductor exporting business headquartered in South Wales, with sites around the world and a turnover of £120m in 2015. They chose South Wales for their global headquarters because of the proximity to a number of universities specializing in their technologies.

IQE has partnered with Cardiff University to create the Compound Semiconductors Centre (CSC), a joint venture to develop technology through the research and development chain – and the first catapult centre in Wales. The CSC acts as a central node for a growing cluster, bringing IQE closer to its supply chain, customers and public partners. By working in collaboration, productivity is raised across the supply chain as agglomeration benefits bear fruit. Through its engagement with Cardiff and other nearby universities, through the CSC and otherwise, IQE recruits and develops a significant number of graduates and PhD students, boosting business-university interaction in the region and supporting the development of skills and experience.

The role of the CSC has been expanded through the formation of Cardiff University's Institute of Compound Semiconductors to address the whole R&D chain. The emergence of the cluster is further enhanced with a new Compound Semiconductor Applications catapult being set up in the region. IQE engages with firms like Airbus on "Co-Innovate" conferences to encourage greater collaboration in the region and industry.

Chris Meadows, Head of Open Innovation, IQE: "Our business benefits from looking 10 years down the line, taking decisions and making investments that create a cluster of productive, collaborative partners. Collaboration is at the heart of what we do, and is what allows IQE to go from strength to strength as a leader in compound semiconductors."

## Accentuate the positive: success can come from any sector mix

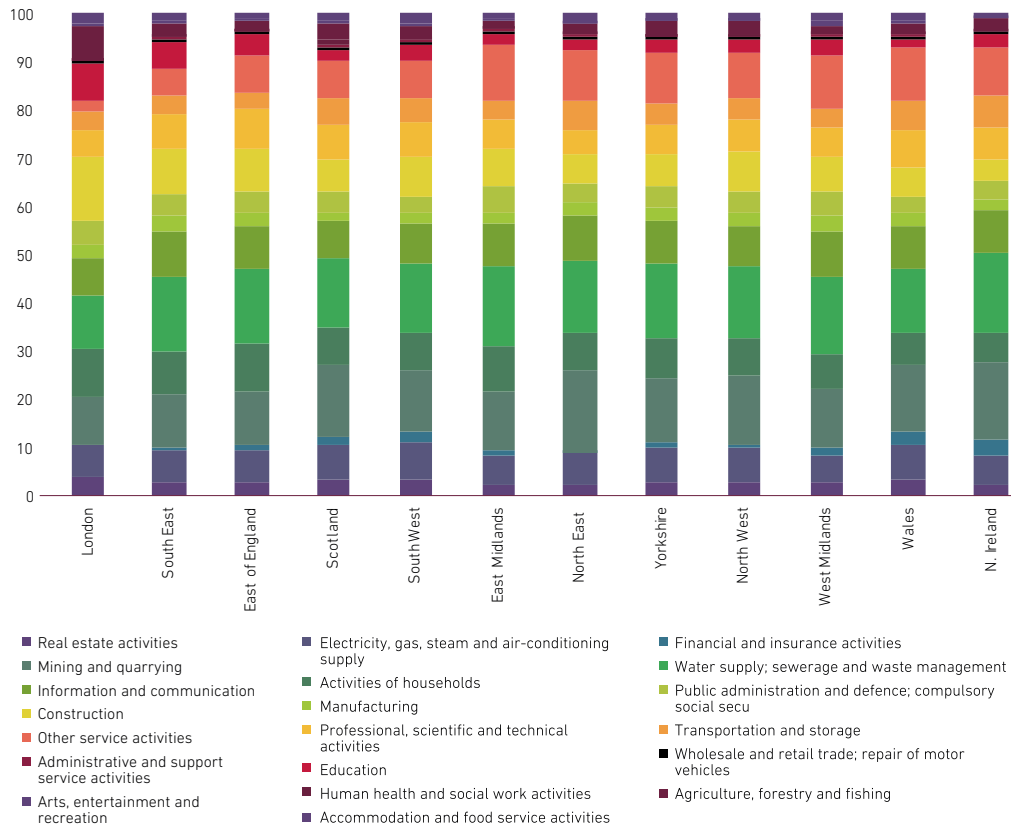
*Understanding the differences between and within regions and nations is critical to inform future policymaking. The type of sectors within a region matters less for productivity – it is possible to be a high productivity region or nation with almost any sector composition, suggesting that regions and nations should focus on what they do well. This is the core principle that lies behind our thinking for a ‘place-based’ Industrial Strategy, working in-step with a sector-led approach.*

One of the most surprising findings of our analysis is that the mix of sectors across the UK is not that different. In addition, the type of sectors in different regions in the UK does not play a big role in explaining differences in productivity. In terms of sectors, the UK's regions and nations are more similar than we think. While there is not much difference in the employment in different types of sectors across UK regions, there is a wide variation of productivity within a sector across regions in general. Using the ONS microdata, we were able to adjust the sector mix for the UK by assuming that employment in each region by sector was similar to the employment in different sectors on average for the UK (Exhibit 19). What this shows is that there is not much difference between the current measure of productivity or GVA per head in each region, and what productivity would be if the region had the same employment in different sectors as the UK average. This is particularly true for the South West, regions across the North, and the West Midlands, where productivity on this basis is virtually unchanged. But for Wales and Scotland, productivity is much higher than the sector mix would suggest.

Some areas like Nottingham and Torbay have lower productivity sectors which bring down their average productivity levels. In contrast, the presence of high tech hubs in Brighton, oil & gas in Aberdeen and the associated specialism in high tech engineering, or advanced manufacturing in Deeside, North Wales raise their productivity above the average.

### Exhibit 19: Apart from London, employment levels do not vary significantly by sector in each region

Sector mix by employment in NUTS1 areas (%)



SOURCE: ONS (2014)

Higher levels of public sector employment are associated with lower levels of private sector productivity, however, implying the public sector crowds out the private sector. This resonates with our members in Northern Ireland and Wales, in particular, where there was a feeling that the public sector attracted some of the best graduates, particularly given higher benefits that were available which limited some of the dynamism in the private sector.

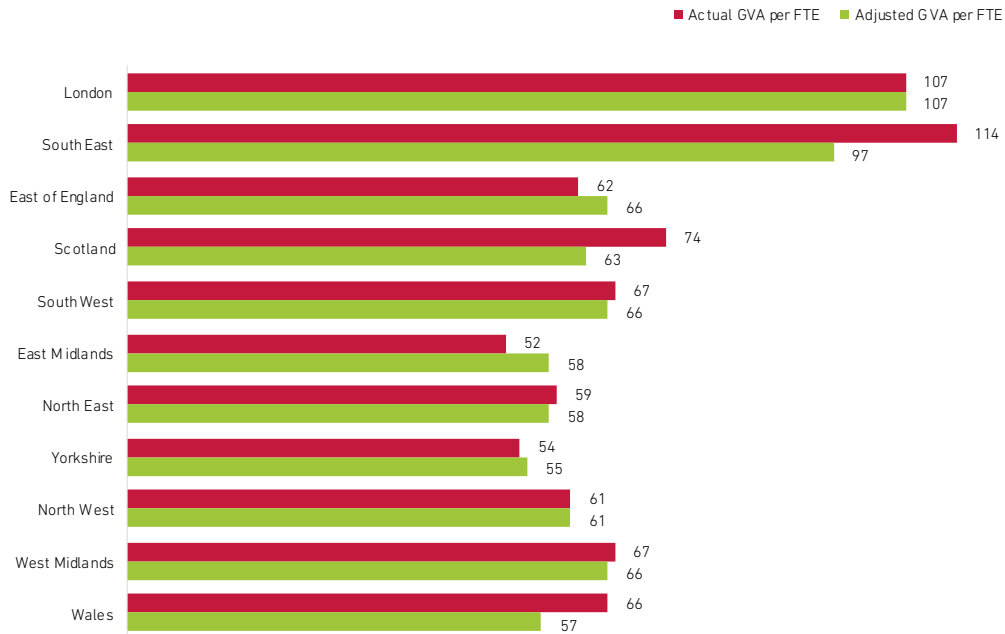
Our work suggests that the sector mix across regions and nations in the UK is similar and so success is not tied to have any one particular sector dominating. The key is to raise the performance at the company level across all sectors, and focus on what regions and nations are doing well rather than try to change the sector mix. One way to achieve this is through the promotion of clusters. Looking overseas, while many regional initiatives to promote clusters have been costly and failed, some countries have made careful efforts and transformed depressed areas into world-leading areas. By promoting the concentration of a particular industry in an area, it can boost local productivity by creating a pool of specialised workers, places suppliers in easier reach and spreads knowledge about successful business practices. In Portland, where there is a dearth of research universities and credit availability, substitute functions are mimicked by the high-tech anchor firms Teletronix and Intel. Today, it is home to many more large firms including: Pixelworks, HP, and Epson as well as attracting newer firms such as AirBnB. Portland is now also more inventive than Boston with 260 patents per 1,000 people compared to Boston's 223 patents.

While clusters make up 20% of the total UK GVA, they have a limited impact outside of London (Exhibit 20). However, clusters do have a small but positive impact on their sector's productivity in their nation or region.

Our members feel that this has underplayed the importance of clusters, the mix of sectors and importantly the role of universities in helping to drive collaboration and innovation across different sectors (see case study 5 on page 45).

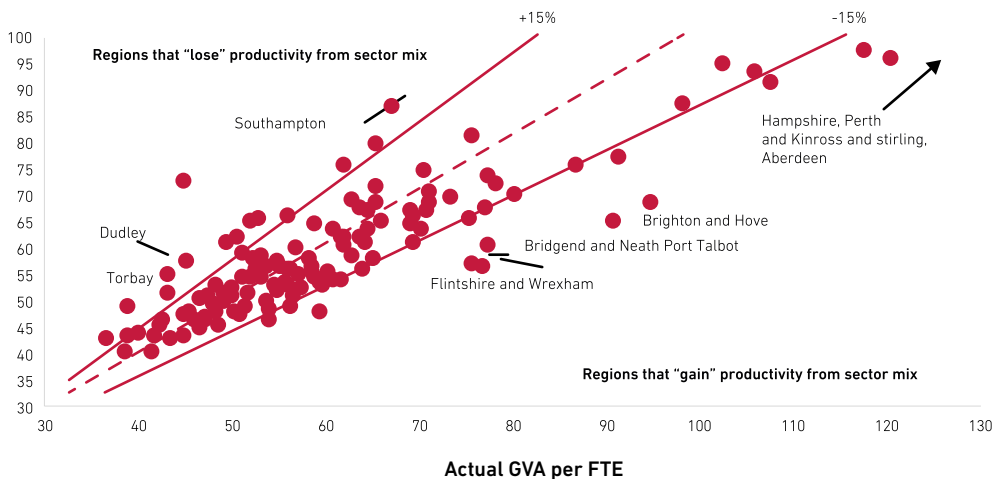
### Exhibit 20: After adjusting the employment ratio to the UK average, productivity in most NUTS3 areas does not change significantly\*

A: GVA per FTE by NUTS1 area (£000's)



B: GVA per FTE by NUTS3 area (£000's)\*\*

#### Adjusted GVA per FTE



\* Excluding financial services, which is not covered by ONS microdata.

\*\* NUTS3 areas between the lines have a productivity change of less than 15% as a result of normalising the employment rates by sector

SOURCE: ONS microdata (2014)

## Regional scorecards: every devolved nation and region is different

*Investment should focus on the levers that will make the most difference in each nation or region. To assist policymakers, the CBI is developing regional scorecards, which highlight where business leaders, devolved administrations, central and local governments leaders should concentrate their efforts.*

While the drivers of productivity are the same across the UK, local performance within each driver varies widely between the regions. And we know that to really understand productivity, we need to look at a local level, and understand how the devolved governments, local authorities and LEPs can work together to turnaround performance. Experience from international case studies of regeneration suggests that having a clear focus on a couple of areas that need to be improved can really turnaround performance. So to really have a good return, local and national government need to use economic evidence to focus investment on priority areas.

Our heatmap shows where investment is needed to help boost the drivers of productivity and some of the strengths that different regions and nations can play to (Exhibit 21). Taking East Midlands as an example, we can see that while it falls behind when it comes to the education and skills productivity drivers, it boasts a significant number of firms with rapidly increasing turnover.

## Exhibit 21: Each region and nation has its own unique set of strengths and opportunities when it comes to productivity

Heatmap of productivity drivers by NUTS1\*

	East of England	East Midlands	London	North East	North West	Northern Ireland	Scotland	South East	South West	Wales	West Midlands	Yorkshire and The Humber
<b>Productivity</b>												
GVA per hour												
<b>Education &amp; skills</b>												
School outcomes												
Business interactions with schools												
In-work training												
Share of graduates in the workforce												
<b>Business Practices</b>												
Business growth aspiration												
Presence of high growth firms												
Exporting propensity												
Turnover from innovative products												
<b>Infrastructure and connectivity</b>												
Size of economic area (agglomeration)												
Additional population in 30-45 minutes												
Mobile connectivity (4G)												

\* Grey shading indicates where data is unavailable (Northern Ireland, Scotland and Wales only)

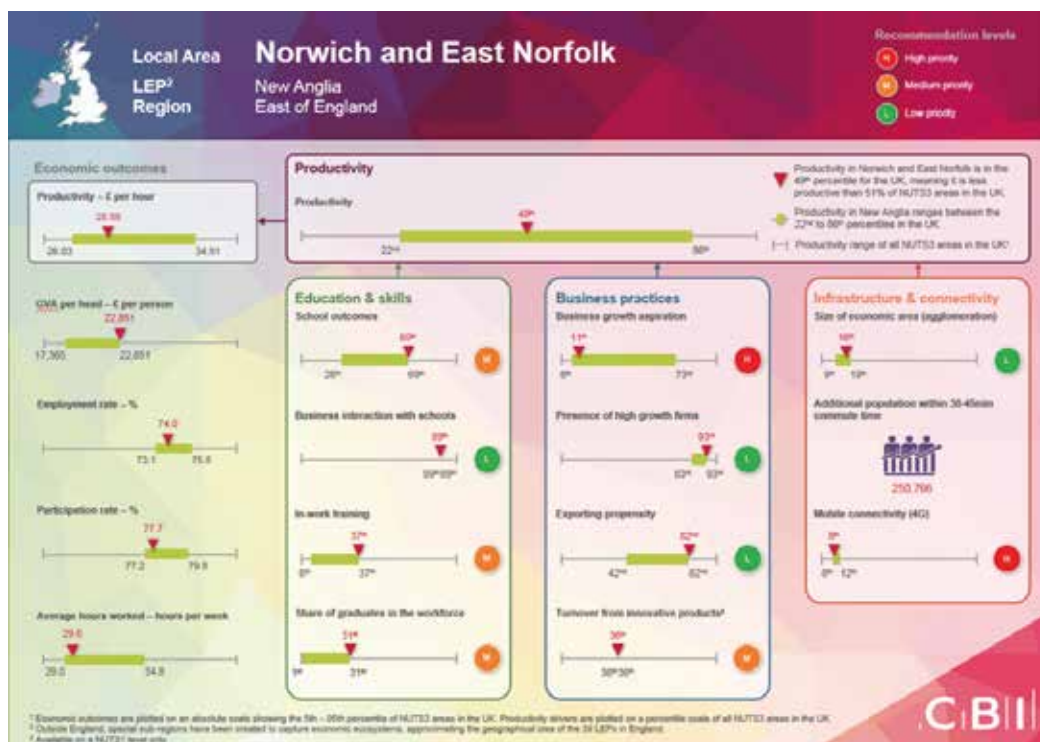
SOURCE: CBI calculations

We have developed a scorecard in order to visualise the strengths and opportunities for each area relative to other regions and nations and the UK.<sup>28</sup> Businesses and stakeholders can use these to easily identify national and regional priorities for growth, as focusing on a few policy areas for regeneration and executing them well is more effective than spreading efforts too thinly.

On each scorecard, the five economic outcomes metrics are shown in the column on the far left, including that for productivity. Whereas the three columns on the right-hand side of the scorecard shows the relative performance of the area against the drivers of productivity. Each red triangle indicates the average value for the area, whereas the green bar spans the minimum and maximum values of NUTS3 areas within the region and the grey line shows the whole range of the UK. Each driver of productivity is then categorised as being either a high, medium or low priority based on its potential to drive local growth. For example, the scorecard for Norwich and East Norfolk shows that priority levels to improve business interactions with schools is low, given the area falls in the top 20% when compared across the UK (Exhibit 22). But where Norwich and East Norfolk falls down, the scorecard shows a high priority level to improve the share of graduates in the workforce, levels of business growth aspiration and mobile connectivity.

## Exhibit 22: Example of a scorecard

### Norwich and East Norfolk





Based on these scorecards we have identified a set of opportunity areas where some of the biggest gains to productivity can be made. In Nottingham, the proportion of schools that are above the floor standard is low relative to the rest of the UK. Ensuring that these schools that are underperforming have the support they need to progress should be prioritised, with the efforts already undertaken by Nottingham University to lift standards are admirable and should be rolled out more widely.

Swindon, meanwhile, scores poorly when it comes to business owner motivation, with firms unsure of how to take their business to the next level after achieving a certain scale. Here, targeted business support through growth hubs, and accelerator programmes like that of Strathclyde Business School, could solve this, with business owners then able to identify what steps they need to take in order to take their company forward

East Riding, in Yorkshire, has one of the lowest proportion of firms with the propensity to export in the UK. Ensuring that these companies can access the support they need as well as providing them with the initiative to go out and venture into international markets could potentially accrue large productivity gains.

## The size of the prize: an economy that is £208 billion larger

*To give an illustration of the potential gains from raising productivity across the regions and devolved nations in the UK, the CBI has calculated what the economic impact could be by 2024 if each local area could improve at the same rate as the top performer in their respective region or nation. Doing so could translate into more sustainable growth, higher standards of living and greater global competitiveness.*

First, for each region and devolved nation we identify which of the local areas (NUTS3) have increased their nominal GVA per hour the most between 2004 and 2014. This helps us identify the 11 'star performers' across the UK regions and devolved nations.<sup>29</sup> In Wales, for example, this is the Central Valleys region, which was able to raise its productivity by 42% over this time period, whereas in Yorkshire and Humber, Hull registered the strongest growth rate of 43%. This was a step change ahead of the UK as a whole, where productivity per hour rose by 34% over this time period from £23.20 an hour in 2004 to £30.97 in 2014.

Next, we establish a baseline scenario, under which productivity for each local area continues to grow over the ten years to 2024 at the same pace that it did over the ten years to 2014. We want to focus on the potential for lower productivity areas to turn around their performance, while also reflecting that high productivity areas have already managed to cultivate near-ideal conditions for productivity. To account for these factors, we assume both in our baseline and alternative scenarios that the 20% most productive local areas (NUTS3) improve at the trend rate of productivity growth from 2004 to 2014. This baseline scenario results in the UK's nominal gross value added rising 31% to £2.09tn by 2024.

Under the alternative 'reach for the stars' scenario, we try to gauge what would happen over the next decade if each local area could match the performance of the star in their respective region. In other words, if every local area could emulate the success stories in their region, what would be the gains in productivity be at the UK level? In this scenario, we find that the nominal gross value added of the UK economy would climb 45% to £2.30tn by 2024.

The difference between the two scenarios is £208bn. Many of the drivers of productivity take time to change, from education and skills to better infrastructure connections, and there are several external factors that can affect UK productivity such as the path for global growth or our changing relationship with the rest of Europe. In addition, productivity growth in the UK as whole has been much weaker than historical norms since the global financial crisis, which makes the future path for productivity growth even more uncertain. Nevertheless, through our calculation we are simply trying to illustrate the potential gains that could be realised if local areas could mimic the top performers in their regions. This could be achieved or even exceeded over time by prioritising the appropriate drivers of productivity in their cities and towns, informed by the evidence in our scorecards.

## Star performers

Fastest growing NUTS3 areas of each region and nation in terms of GVA per hour between 2004 and 2014



Historical data unavailable for Northern Ireland on a NUTS3 level<sup>29</sup>

## Next steps: the importance of business and government partnership

*Providing specific policy recommendations that apply equally to every English region and devolved administration in one report is an impossible task. All regions and nations of the UK are individual and a tailored approach will be needed. Going forward, we hope each CBI region and nation will use the information available to tailor this report's recommendations to fit the policy context within their area and use it to facilitate discussions between business and local leaders.*

By comparing numerous international case studies, as well as our learnings from the devolved nations, it is clear that prioritising a few policy levers and executing them well is more effective than spreading efforts too thinly across too many initiatives. The transformation of Pittsburgh has illustrated that it is possible to meet many of these conditions for success with a shared long-term vision combined with local solutions (see case study 6 on page 60).

The scorecard we have developed can serve as a useful starting point each devolved policy maker, local authority and local business leaders can draw upon to evaluate how their area performs against others in their region, nation and the UK as a whole. This will help them know which policy levers to pull in order to deliver the greatest gains to productivity.

Moving beyond this, we have identified three key recommendations for local and national government:

1. Adhere to the three principles of devolution: align devolution to economic geographies, devolve powers to the right level, and hold local leaders to account
2. Integrate evidence from what drives productivity growth at a local level into the new Industrial Strategy being developed by the UK and devolved governments in partnership with business
3. Continue to prioritise investment in education, infrastructure, empowering local business leaders and building efforts to support potential exporters.

## **1. To ensure that devolution is implemented successfully, we have identified three principles that must be adhered to**

Devolution to the English regions offers an opportunity for change but as our report demonstrates there isn't a one-size-fits-all approach that can be applied to all the English regions. As our experiences in Scotland, Wales and Northern Ireland since 1999 demonstrate, in order for devolution to be successful, it is crucial that it is accompanied by equipping local leaders – both political and business leaders – with the right tools so that they can make informed decisions. However, with devolution comes accountability: effectiveness of local leadership and execution of powers should be tied to future powers and funding. We have identified three principles for effective devolution:

### **Policymaking aligned to economic geographies, not political boundaries**

Decisions are most effective when they are grounded in economics, inclusion and the needs of businesses rather than on short-term political strategies. Authorities need to work in unity with one another, especially in areas where there are shared administrative boundaries such as through local enterprise partnerships (LEPs), to ensure that policy is harmonious, not conflicting.

### **Powers devolved to the right level of authority**

If there are inconsistencies of regulations between localities, it creates a burden for business, making it crucial that a balance is struck between decentralisation and specialisation. To address productivity in underperforming regions, it is imperative that local areas have the power to transform education in schools, target and prioritise infrastructure investment as well as the ability to provide active business support as is the case in the devolved nations.

### **Policymakers held to account**

Leadership at the local level requires individuals with the vision, direction and ambition to make a difference to the area they are responsible for. Businesses must be a part of the process of shaping policy through public-private collaboration initiatives and local enterprise partnerships (LEPs) in England. Accountability is also necessary; local leaders should be evaluated as to their effectiveness in executing policy and this should be tied to future powers and funding.



*Businesses need to be at the forefront of driving regional productivity, and LEPs have a leading role to play in helping to shape the strategies that are needed to raise productivity across the South West and English regions. Our LEP is already well on course to work in collaboration with our partners in the public sector, the third sector and with education establishments to shape policy to generate growth. We have embarked on our Productivity Plan that will go hand in hand with the Devolution agenda and help attract maximum investment. I welcome this new CBI report and look forward to working with the CBI and other partners towards transformational growth in the Heart of the South West.*



Steve Hindley, Heart of the South West LEP

## 2. UK and devolved governments, in partnership with business, should integrate evidence from what drives productivity growth at a local level into the new Industrial Strategy being developed

A sector-led and place-based Industrial Strategy has the potential to build confidence and prosperity by unlocking growth and productivity across the regions and devolved nations of the UK. The UK's companies hold many of the answers to this challenge – building a skills system for years to come, ensuring that the UK is a leading location for cutting-edge innovation and helping to renew the UK's infrastructure. But business needs to work in partnership with government and the devolved nation administrations as they take forward their strategies.

The starting point in England should be to build on the sector-led approach to Industrial Strategy, capitalising on the momentum behind the partnerships that have developed between industry and government in recent years, with a long-term strategic focus and alignment of policy across all levels of government. Developing sectors in which regions and nations have a comparative advantage is a key lever for regional productivity growth. And this should be combined with a 'place-based' approach that tackles key barriers to productivity growth, while ensuring close cooperation between industry and all parts of government – across departments and geographies including at a devolved nation level – in order to play to the strengths of the UK economy. The devolved administrations have responsibility for economic strategy within their own jurisdictions but likewise must seek to play to their own strengths and unique identities.

Initiatives such as Catapult Centres with specialist facilities that are located closely to the sectors they work with, or City Deals that back regional and national economic strengths, show that in some areas, the UK is already linking up places with sectors. But a comprehensive Industrial Strategy needs to ensure that the right skills are in place across the UK regions and nations, led by strong management practices and supported by the right transport infrastructure to get people to where the jobs are being created. The last building block is to ensure the right support to exporters so that the UK is competitive around the globe and goods and services are reaching fast-growing markets around the world.

**Case study 6: Pittsburgh – putting the right Industrial Strategy in place**

The transformation of Pittsburgh was characterised by a partnership model of Industrial Strategy with the right vision in place. There was a shared vision for the region: To create an exemplary quality of life through high-value jobs for all citizens by nurturing an economic environment that would foster retention and expansion of existing businesses, create new firms as well as attract other companies to the region.

There was a joint focus on throwing support behind projects that spurred job creation and industry growth, such as the creation of an R&D initiative which promotes Pittsburgh as the robotics capital of the world as well as the establishment of a regional hospital information network.

The Strategic Investment Partnership and PRIDE funds aimed to finance projects that were expected to have a significant impact upon the economic development of the region.

Furthermore, this led to the implementation of a long-term vision that would prepare students for the jobs of the future, empower parents to ensure every child is ready to learn, certify every student with a Career & Academic Passport (CAP) by age 18, and start a new generation of teachers that would empower teachers to the changing demands of the workplace. All with the aim of a more dynamic workforce in years to come.

**Case study 7: A true cross-sector partnership, Sensor City is set to make Liverpool a global leader in sensor technology**

Opening officially in July 2017, Sensor City is one of the world's first innovation centres for sensor technology. A university enterprise zone, it is an example of strategic partnership working between the public and private sectors. Liverpool John Moores University and the University of Liverpool are working with the Liverpool City Region Local Enterprise Partnership to deliver a £15m project that aims to create 1,000 jobs and 300 start-up businesses over the next decade.

The centre will be a business hub, housing and supporting commercially viable high tech businesses. It will combine the innovation expertise of the two universities, as well as providing a site for established firms and graduate entrepreneurs looking to develop commercial opportunities.

The centre will benefit a wide range of industries, raising productivity and establishing Liverpool as a world leader in the field.

Professor Nigel Weatherill, Vice Chancellor, Liverpool John Moores University: "With sensor technologies forming a major part of the LCR LEP's Innovation Plan, Sensor City allows us to work with local companies and entrepreneurs to help support them to compete on a global stage in this growing market."

Professor Janet Beer, Vice Chancellor, University of Liverpool: "The sensor market is growing at more than 10% per year, creating 73,000 jobs in the UK alone. Our universities will provide the entrepreneurial talent to translate innovative ideas from the laboratory to the factory floor, benefiting new and established businesses across the country."



### 3. Governments should continue to prioritise investment in education, infrastructure, empowering local business leaders and building efforts to support potential exporters.

#### Education and skills

We need to get education right across the UK. We know from our work at the national level that raising aspirations and strong performance is achieved through empowering good leaders, attracting great teachers and giving schools the space to focus on the best education for their pupils. In England, an enhanced role for Regional Schools Commissioners could provide greater support for underperforming schools, particularly around focusing on long-term outcomes and greater careers support to help students prepare for the world of work.<sup>30</sup>

Given skill shortages around the country and the proven link of both international and internal migration to boost productivity, the UK government and devolved administrations should also increase the voice of local enterprise partnerships and local business groups in articulating skills needs. This should link to both the training provided in the nation or region and the assessment of national shortage occupations made by the Migration Advisory Committee for the skilled migration system.

## Infrastructure

In the next phase of road and rail investment, the government needs to prioritise connecting the UK's cities outside of London, particularly in Northern regions, and improve congestion within cities especially in the Midlands. The government should look to extend infrastructure funding both within and between regions where the agglomeration benefits of investing in local transport infrastructure clearly outweigh the costs. This should be addressed within the pre and post-2020 Road Investment Strategy and the next rail investment period and can be met within a higher level for public sector net investment of 2% of GDP. Infrastructure funding in devolved nations should be prioritised in a similar fashion. Regional bodies such as Transport for the North (TfN) also have an important role in conjunctions with LEPs to link priorities to future city or devolution deals. The UK government should double the funding allocated through the English Local Growth Fund and devolved nations should consider exploring similar funding opportunities. CBI members tell us that "growth deal three" of the Local Growth Fund has been around five times oversubscribed, highlighting the demand for funds for infrastructure projects. Following the decision for a new runway at Heathrow Airport, the next step will be connecting Heathrow with other expanding airports across the UK through a joined up approach to improve connectivity to and from airports.

Due to Northern Ireland's small size, large scale transport infrastructure projects should be conducted on an all-island basis to maximise the opportunities for productivity gains that can be gleaned by shortening travel times – particularly between Belfast and Dublin. The CBI/Ibec Joint Business Council scoping paper 'Connected: A prosperous island of 10 million people' proposes the development of a comprehensive motorway and dual carriageway network that would aid productivity and significantly stimulate economic activity across the island of Ireland.<sup>31</sup> The NI Executive and Irish government must work together through the new North/South Infrastructure Group to maximise the opportunities of all-island approach.

In Scotland, the Scottish government must be commended for continuing to invest in infrastructure during the economic downturn with a number of road and rail projects that were high on business' wish-list being completed. Business is now looking to government to keep up this momentum through the updated Infrastructure Investment Plan by ensuring delivery of a priority shortlist of transport projects, and also as Transport Scotland takes forward the Scottish government's review of its National Transport Strategy. Additionally, given the importance of embracing digital technologies and the potential to increase the skills available to regional businesses through telecommuting, the UK government and devolved administrations should prioritise business broadband access and make it easier to provide mobile connectivity along major transport routes. Each nation's efforts should be underpinned by a clear roadmap for public and private sector investment in digital infrastructure.

## Business practices and exports

Improving productivity in the UK's regions and nations has to start at the firm level. Online diagnostic tools and portals to open source knowledge bases or further training can help to boost management practices, such as the Productivity Leadership Group's (PLG) 'How good is your business really'. In addition, devolved governments and local enterprise partnerships should consider targeted interventions modelled on the business accelerator education programme for growth (based on the University of Strathclyde model) in areas where there are fewer high-growth firms.<sup>32</sup>

Local businesses face a bewildering array of business support with 531 different initiatives from different levels of government. The UK government should look to develop a single 'shop window' for business support to enable simpler navigation, clearly sign-posting available support and the consolidation of overlapping initiatives. Moreover, as most regions and nations have between 10% and 15% of firms who are potential exporters, efforts should be built on to identify these firms and offer targeted support to raise awareness of the practical steps needed to start exporting in a new market.

## Conclusion

Now is the right time to shape a more productive economy right across the UK and unlock growth in all regions and nations. The findings set out in this document and the scorecards that will follow next year can help to foster a long-term approach to lifting the UK's growth potential – putting an evidence base behind the importance of good skills, connectivity and practices in the workplace. These are the true drivers of regional productivity differences.

All regions and nations of the UK are individual and a tailored approach will be needed. But what remains the same is that there must be a true partnership between business and government. And where governments are looking to devolve new powers and create new structures, there is an opportunity to make a real difference. But, English devolution must be implemented carefully, listening closely to the needs of businesses with regional prosperity at its heart and learning from the experiences of Scotland, Wales and Northern Ireland.

Many local leaders are already stepping up to the challenge, but this needs to be seen right across the UK. Soon to be elected Mayors across England have a chance to draw a line in the sand and take regions from strength to strength. In 2017, the CBI will be taking a deeper dive into what this means for individual regions and nations. Utilising the CBI's regional scorecard, the CBI will be helping businesses and stakeholders across the UK be clear.<sup>33</sup>

## Appendix: devolution in the UK

The UK has been on a long devolution journey, with significant developments over the last two decades. The approach to devolution differs across the UK and continues to evolve across and within the four nations. The creation of the Scottish Parliament and Welsh Assembly in 1999, plus the restitution of devolution in Northern Ireland following the Good Friday Agreement, saw major policy areas devolved to directly elected and autonomous legislatures. More recently, local devolution deals have taken place across the UK with the first wave in 2011 bringing new powers to major cities and regions.

### Devolved Nations

Since 1999, wide-ranging enabling powers have been devolved to the governments of Wales, Scotland and Northern Ireland (see Exhibit 23), empowering them to introduce primary legislation in over twenty areas including education, infrastructure, taxation and economic development. The devolved governments collectively control over £68bn in public funds, and provide control the provision of public services to over 10 million people.

Exhibit 23: Devolution in Northern Ireland, Scotland and Wales

Economy	People	Place
Economic development	Primary and secondary education	Highways and transport – principally road, rail and air
Business rates	Further education	Land-use planning
Income tax (Scotland and Wales)	Higher education	Certain energy consents and efficiency programmes
Corporation tax (Northern Ireland)	Workforce skills	Housing
Stamp duty land tax (Scotland and Wales)	Employment law (Northern Ireland only)	Local government
Landfill tax (Scotland and Wales)	Social Security (Northern Ireland only)	Environment and sustainability
Air Passenger Duty (Scotland and Northern Ireland)	Health and social care	Tourism
Pensions (Northern Ireland)	Welfare (Scotland)	Onshore oil and gas licensing (Scotland)
Some VAT revenues (Scotland)	Justice and Policing (Scotland and Northern Ireland)	Most aspects of criminal and civil law (Scotland)
Borrowing powers	Employment programmes (Scotland)	

SOURCE: CBI

### Regional devolution

Devolution deals for UK regions vary significantly in context, size and scope but usually see the devolution of relatively limited powers for a specific and agreed purpose. The pioneering Greater Manchester deal includes elements like health and social care integration and greater control over criminal justice while the Cornwall deal, the first

for a non-urban region, is more limited in scope and does not include the requirement for a directly elected mayor. The policy areas included in English devolution deals, and those that have scope to be developed further, are set out below. Regional devolution, the Northern Powerhouse and Midlands Engine agendas provide valuable new lenses through which to address regional growth, allowing more effective and targeted interventions at the local, regional and national levels.

#### Exhibit 24: Devolution in the English regions

	Devolved power	Level of devolution
Education, skills and demographics	Housing investment fund	✓
	Redesign of 16+ further education system	✓
	Apprenticeship grant for employers	✓
	Early years pilot	✓
	19+ skills funding	✓
	Integration of health and social care	✓
	Local Commission on health needs	✓
Business practices	Work and health programme joint	✓
	Work and health programme pilot	✓
	Growth hub	✓
	Productivity commission	✓
	Manufacturing advice	✓
International links	HMRC customs support	✓
	Export advice (UK Trade & Industry)	✓
Infrastructure and connectivity	Bus franchising	✓
	Smart ticketing	✓
	Rail	✓
	Roads	✓
	Integration of flood defence and water/coastal management	✓
Local governance	Spatial planning	✓
	Land disposal and utilisation	✓
	Mayoral or combined authority corporations	✓
	Universal credit pilot	✓
	Police and fire services	✓
	Commissioning of local criminal justice services	✓
	Youth justice	✓

■ Commitments included in most devolution deals

■ Commitments included in some devolution deals

■ Areas for further exploration for some devolution deals

SOURCE: National audit office analysis of devolution deal documents

## References

- 1 Measured in terms of productivity by GVA per capita in pound sterling adjusted for purchasing power parities. Source: Centre for Cities. Competing with the continent. September 2016.
- 2 Andrew G. Haldane, Chief Economist at the Bank of England. "Whose Recovery" - speech given on 30 June 2016.
- 3 Gross value added (GVA) is the measure of the value of goods and services produced in an area, industry or sector of an economy.
- 4 Productivity Leadership Group. How good is your business really? Raising our ambitions for business performance. July 2016.
- 5 Firms with turnover that is both greater than £1mn and growing more than 20% annually.
- 6 We have conducted our analysis using NUTS codes, or Nomenclature of Units for Territorial Statistics, a geocode standard created by the EU, given its extensive use in the field of regional growth research. NUTS 1 comprise of the 12 UK regions and nations, of which have a minimum population of 3 million (eg. North East, Scotland).
- 7 There are 38 defined LEPs in England. For Northern Ireland, Scotland and Wales, we have developed 12 City Regions or pseudo-LEP regions for the purposes of our analysis at this level.
- 8 CBI. First Steps. November 2012. As part of our long-running schools campaign, we also set out priorities for the different education systems in Wales (Step Change, September 2014), Scotland (Delivering Excellence, March 2015) and Northern Ireland (Step Change, October 2014).
- 9 Determined as the proportion of schools that fall below the floor standard set by the Department for Education. A school is below the floor standard if the average achievement of its pupils is half a grade worse per subject than other pupils with the same prior attainment.
- 10 We find a reasonably strong positive correlation, even though we are comparing the skills of the flow of some of the new workers into the workforce relative to the total productivity per hour of the whole local area.
- 11 UK Commission for Education and Skills. UK Employer Skills Survey 2015. January 2016.
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- 28 We have developed a scorecard for each of the 174 NUTS3 areas, the 51 LEP/sub-regions and the 12 regions and nations of the UK.
- 29 GVA per hour is not historically available on a NUTS3 level for Northern Ireland, leaving us unable to identify its star performer. In order to compensate for this, we take the growth rate of the star performer in Wales, given the similarity of Wales's economic fundamentals with Northern Ireland, and apply that to each NUTS3 area in Northern Ireland under the alternative scenario.
- 30 Regional Schools Commissioners work with underperforming schools in their region to improve their performance, intervening in governance if needed, while also lending support in any other manner that may help them to reach their potential.
- 31 CBI/Ibec. Connected: A prosperous island of 10 million people. July 2016.
- 32 For further information, see [www.strath.ac.uk/business/huntercentreforentrepreneurship/gap](http://www.strath.ac.uk/business/huntercentreforentrepreneurship/gap)
- 33 To be released in 2017 on a NUTS3, LEP/sub-region and NUTS1 level.



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December 2016

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100% recovered fibre certified by the FSC®.  
Duncanprint is certified to ISO 14001 and  
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management systems NEZ052.

Product code: 11624

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