

# PURSUING PROSPERITY

WHY REGIONAL PRODUCTIVITY GROWTH MATTERS  
FOR SCOTLAND'S FUTURE

JUNE 2017



UNLOCKING  
REGIONAL GROWTH  
CBI CAMPAIGN



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*There has never been a more important time to focus on improving productivity in Scotland. We know that productivity is vital for long-term, sustainable economic growth. Yet we also know that Scotland's productivity performance falls short of our international competitors, while economic growth continues to lag behind the rest of the UK. Add the challenging backdrop of Brexit and the new revenue raising powers of the Scottish parliament, and it's clear that acting now to boost productivity and support our businesses to grow the economy is fundamental to our future prosperity.*

So what steps can we take to turbocharge productivity in Scotland and what effects would that process have on our economy, businesses and society as a whole?

In December 2016 the CBI's report *Unlocking regional growth* unpacked those questions on a UK-wide basis. But we wanted to go further, which is why we committed to exploring the significance of the key drivers of productivity differences specifically for Scotland. Our findings show that that action to increase productivity in Scotland could add £25bn to our economy over the next decade.

While the prize on offer is significant, so are the challenges faced by Scottish businesses and our economy. Just as there are large differences between levels of productivity across the UK, similar inequalities prevail within Scotland. I'm sure most people will be surprised to discover that the most productive area of Scotland is 50% more productive than the least productive area.

Understanding what drives these intra-regional and intra-national variations in productivity is crucial to unlocking growth, wealth creation and job opportunities across the Scottish economy. As our analysis shows, there is a complex but clear range of common drivers and recommended actions for increasing productivity in Scotland's diverse communities.

Some, like improving school performance, creating more vocational options for young people, improving digital connectivity and de-cluttering the business support landscape, must move to the top of the agenda for all levels of government. Others, like knowledge-sharing, investment in better management tools and increased access to overseas markets, must be achieved by businesses and government working together, with a joint determination to reap the productivity benefits that the evidence suggests is on offer.

I would like *Pursuing prosperity* to be seen as a key contribution to the debate on what business and government can do collectively to improve productivity – putting an evidence base behind the importance of education and skills, connectivity, businesses' own management practices, innovation and exporting as key drivers of productivity in Scotland. As a place to do business, Scotland can't – and shouldn't – compete internationally on costs alone. Addressing these key productivity drivers is therefore essential to retaining our competitiveness and attractiveness for investment.

Businesses in Scotland are ready to play their part, and to do this they need to see true partnership from the administrations at Holyrood and Westminster alike. Only by working together can we create the kind of sustainable, inclusive growth that is needed to benefit the whole of Scotland.



**Hugh Aitken**  
CBI Scotland director



*In December 2016 the CBI published 'Unlocking regional growth', a report exploring the drivers of growth and productivity differences across the UK and what could be done to fix disparities between regions and nations. The analysis identified four main drivers of productivity differences: educational attainment, transport links and connectivity, management practices and innovation, as well as the proportion of firms who export. This report explores the significance of these drivers for Scottish productivity. In particular, we find that the size of the prize from unlocking growth across Scotland could be an additional £25bn to our economy over the next decade.*

### The scale of productivity differences across Scotland

- Scotland's productivity performance has fared better than the UK as a whole over the last decade. The historical gap between productivity levels in Scotland and the UK as a whole has narrowed significantly, with Scottish productivity levels now about the same as the UK average. However, both nations fall behind on international comparisons.
- Crucially, there are significant differences in productivity between regions that need to be addressed. CBI analysis found that the most productive local authority area in Scotland is 50% more productive than the least productive local authority area.
- The Scottish parliament's new revenue raising powers and the challenges facing the Scottish economy make boosting productivity even more important for future prosperity. Supporting private sector growth in Scotland will be essential.
- The Scottish government must take the opportunity to turbocharge the economy and ensure Scotland is an attractive place to do business. City Region Deals can play a role in spreading the benefits of improved productivity.
- This isn't just a challenge for the Scottish government. A successful UK economy needs all its component parts firing on all cylinders. Therefore, the UK government must back prosperity in Scotland. It is essential that Scotland's business and political leaders are involved in a meaningful partnership with the UK government to address key challenges.

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

### Education and skills

- Education and productivity are related – a greater percentage of pupils with higher qualifications is linked to higher levels of productivity, with academic and vocational qualifications both playing a role.
- A focus on school results alone is not enough. Young people also need the attitudes, aptitudes and wider life skills that will bring them success over a long career.
- Improving schools, encouraging business-school interactions and offering better vocational options for young people are all important.
- Access to skills presents a productivity challenge across Scotland. Businesses must get in-work training and development right. Attracting the right international talent and skills to Scotland will also be vital in helping firms stay competitive.

### Transport and connectivity

- Getting the right infrastructure in place is crucial for connecting people to where jobs are being created and driving economic growth.
- Improving connections between urban areas can boost productivity by giving businesses access to a greater pool of skills and talent. Reducing journey times within local authority areas can have a similar impact. High levels of urban congestion not only causes stress to individuals but also limits the potential size of the talent pool for local businesses and compresses work time for people.
- But connectivity isn't just about transport. Digital connectivity is part of our critical national infrastructure and ensuring we have the digital infrastructure in place to meet business' needs and drive economic growth in the future will be key to lifting productivity.

### Management practices and innovation

- Boosting productivity on the ground must be led by businesses themselves. Better management practices and a vibrant innovation culture at firm-level play a key role, alongside business growth intentions and aspirations.
- Scotland has a developed innovation ecosystem but risks falling behind the rest of the UK and internationally, particularly on research and development (R&D).
- The Scottish government should set a concrete target for combined public and private R&D spend as a percentage of GDP. Boosting business expenditure on R&D and harnessing the strength of our universities to maintain university-based research as a key contributor to the Scottish economy will be vital to meeting any goal.
- Companies that plan R&D investment tend to be more productive than firms that do not. Businesses have a role to play by increasing their own investments and ensuring they have the right in-house skills and culture to make the most of innovation opportunities.

## Exporting

- More productive firms are more likely to be exporters, but exporting also makes firms more productive.
- Some local authorities have a higher proportion of firms that export than others, and this provides another part of the puzzle as to why there are differences in regional productivity.
- Encouraging businesses to export and promoting Scottish firms abroad must continue to be a priority. 8% of firms in Scotland have characteristics similar to other firms in their sector that are currently exporting, but do not export themselves. Providing these non-exporters with support and encouragement to venture into international markets could help to generate productivity gains.
- Making Scotland a global player on the world stage has become even more important as the UK renegotiates its relationship with the European Union (EU) and new trade links are established. On the UK's negotiations with the EU, a joined-up conversation needs to take place between the UK government and Scottish government that provides opportunities for Scottish businesses to feed in.

## The size of the prize: an economy that is £25bn larger

- To give an illustration of the potential gains from raising productivity, CBI Scotland calculated what the economic impact could be by 2024 if each NUTS3 area<sup>1</sup> could improve at the same rate as the top performer in Scotland. Doing so could translate into more inclusive and sustainable growth, higher standards of living and greater global competitiveness.
- Our analysis finds increasing productivity within Scotland could add £25bn to the economy over the next decade.
- Shaping a more productive and inclusive economy right across Scotland is a goal shared by government and business. Making it a reality requires a true partnership between both parties. CBI Scotland would be happy to support the Scottish government in establishing a business-led productivity taskforce.
- Only by working together can we create the kind of sustainable, inclusive growth needed to benefit the whole of Scotland.



## The scale of productivity differences across Scotland

*Scotland's recent productivity performance has fared better than the UK as a whole. The historical gap between productivity levels in Scotland and the UK has narrowed significantly, with Scottish productivity now about the same as the UK average. However, both countries fall behind on international comparisons. Boosting productivity to drive private sector growth is essential to securing future economic growth and prosperity, and made even more important by continued challenges in the Scottish economy. With substantial new revenue raising powers devolved to the Scottish parliament this year, the Scottish government is firmly in the driving seat of the country's prosperity.*

In December 2016, the CBI published *Unlocking regional growth*, a report exploring the drivers of growth and productivity differences across the UK and what could be done to fix disparities between regions and nations. The analysis identified four main drivers of productivity differences: educational attainment, transport links, management practices and the proportion of firms who export and innovate. This report explores the significance of these drivers for Scottish productivity.

### **Scotland's productivity performance has fared better than the UK as a whole, but there are significant disparities between local authorities**

Productivity matters because higher productivity leads to more sustainable growth, higher standards of living and greater global competitiveness. For individual businesses, productivity matters because it determines how much they can pay their staff, how quickly they can grow, what they can invest in and ultimately, their success.

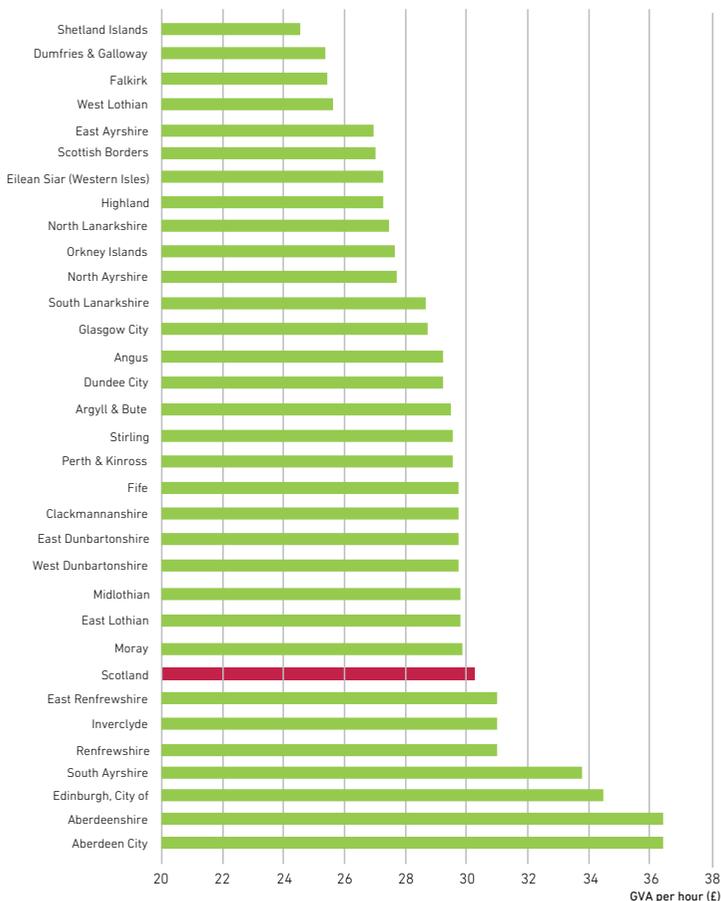
Productivity in Scotland has fared better than the UK as a whole over the last decade. Figures from the Scottish government indicate that real output per hour grew by 9.4% between 2007 and 2015, while UK real output per hour grew by 0.1% over the same period. The historical gap between productivity levels in Scotland and the UK as a whole has closed, with productivity in Scotland increasing from 94.5% of the UK average in 2007 to around the same as the UK average in 2015.<sup>2</sup>

However, productivity in Scotland and the UK remains around 16% lower than the rest of the G7.<sup>3</sup> Now more than ever, the Scottish government and business must work together to secure sustained productivity growth. Based on 2015 data, a 21% increase in productivity would be needed over 2016 and 2017 for the Scottish government to meet its Purpose Target to rank in the top quartile for productivity against its key trading partners in the OECD by 2017.

Crucially, there are significant differences in productivity between regions that need to be addressed. Our analysis found that the most productive local authority areas (LA) in Scotland (Aberdeen City and Aberdeenshire) are 50% more productive than the least productive LA (Shetland Islands), and 43% more productive than the least productive mainland LA (**Exhibit 1**).<sup>4</sup> This difference is among the largest compared to other intra-regional differences in the rest of the UK.<sup>5</sup> Understanding what drives these intra-regional and intra-national variations in productivity is crucial to unlocking growth, wealth creation and job opportunities across Scotland.

**Exhibit 1: There are significant differences in productivity across Scotland**

*Local productivity variation within Scotland (GVA per hour, 2014)*



Source: ONS

City Region Deals can play a role in spreading the benefits of improved productivity through their focus on key drivers. One study suggests that regional variation in productivity reflects employment and sectoral structures, with jobs in higher productivity sectors more concentrated in cities.<sup>6</sup> For example, Aberdeen City and Aberdeenshire typically have high concentrations of employment in high productivity sectors such as engineering, architecture and oil and gas. On the other hand, the south of Scotland has higher concentrations of employment in lower productivity sectors such as retail. This study also suggests cities tend to have more of the assets and characteristics likely to drive higher productivity performance, such as a higher skilled population, better connectivity (physical and digital), greater levels of competition, more knowledge spillovers and sources of innovation such as universities. This analysis aligns with our four drivers, but also highlights the need to ensure that all regions have the assets to support high productivity performance. Indeed the Aberdeen City Region Deal places a strategic long-term focus on innovation, internationalisation, digital connectivity and infrastructure to improve the regional economy more broadly.

### **New revenue raising powers make boosting productivity even more important for future prosperity**

There has never been a more important time for business in Scotland to demonstrate its value and responsibility in raising living standards and creating jobs.

The Scotland Acts of 2012 and 2016 provided new revenue raising powers for the Scottish parliament, notably around income tax. The powers mean that initially around 40% of expenditure by the Scottish government will be funded by tax revenue collected in Scotland.<sup>7</sup> To ensure that the Scottish economy benefits from these new powers, economic performance will need to match or exceed UK economic performance. This makes action to boost productivity and private sector growth crucial.

This need is made more pressing given current economic challenges. Economic growth in Scotland continues to lag that of the UK as a whole. The Scottish government's Purpose Targets to raise the GDP growth rate to the UK level and to match the GDP growth rate of the small independent EU countries by 2017 have not been achieved. Alongside this, uncertainty remains about the UK's future relationship with the EU, and ongoing – albeit easing – pressures in the oil and gas sector persist.

Working in partnership with business, the Scottish government must take the opportunity to turbocharge the Scottish economy. As a matter of priority, it should reset its narrative towards business to underscore that Scotland is an attractive place to do business. The cumulative burden currently faced by businesses in Scotland as a result of recent policy changes such as the introduction of the Apprenticeship Levy, Business Rates changes, and income tax divergence with the rest of the UK – with little consultation with firms – risks sending the wrong signal to potential investors and talent.

Ensuring that the key drivers of productivity – education and skills, transport and connectivity, management practices and innovation, and exporting – are at the heart of policy development will set Scotland up for sustainable growth across all regions. To demonstrate our commitment to this shared goal, CBI Scotland would be happy support the Scottish government in establishing a business-led productivity taskforce comprised of key stakeholders from across the country.

This isn't just a challenge for the Scottish government. A successful UK economy needs all its component parts firing on all cylinders. Therefore, the UK government must back prosperity in Scotland. It is essential that Scotland's business and political leaders are involved in a meaningful partnership with the UK government to address key challenges.

#### **Exhibit 2: The power of data and the voice of business – CBI methodology<sup>8</sup>**

Driven by the passion of our members across the UK's regions and nations, the CBI embarked on an ambitious project in 2016, in partnership with McKinsey, to understand what drives growth and productivity differences in the UK and what can be done to close the gaps.

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 of the UK (NUTS1). In contrast, we were able to analyse data at a much more granular level through use of local authority unit data for Scotland and through special access to the Office for National Statistics' Virtual Microdata Laboratory (VML).

Importantly, we have used the powerful voice and knowledge of our members 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 Scotland is a passion shared by businesses of all shapes and sizes.

## Education and skills

*Education and skills are key drivers of productivity differences. A focus on school results alone is not enough, as young people need the attitudes, aptitudes and wider life skills that will bring them success over a long career. Improving schools, encouraging business-school interactions and better vocational options for young people are all vital. Businesses must also get in-work training and development right. Additionally, attracting the right international talent and skills to Scotland will be vital in helping firms stay competitive.*

### **Education and productivity are related – especially at higher levels of qualification**

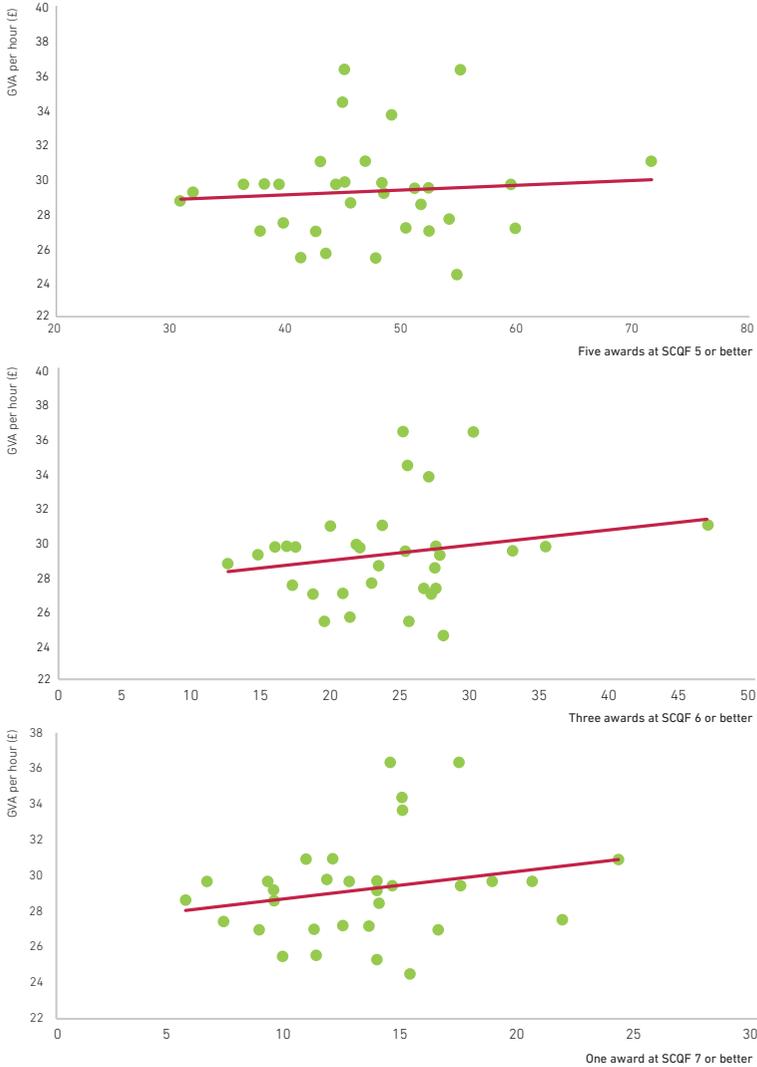
Education and skills are widely recognised as key drivers of inclusive growth and vital to ensuring that every young person has the opportunity to fulfil their potential. Recent survey results have refocused attention on the need to improve performance in our schools. The latest Scottish Survey of Literacy and Numeracy showed less than half of 13 and 14 year-olds are performing well in writing, while the Programme for International Student Assessment (PISA) found scores for maths, reading and science had all declined.

Previous CBI research has shown that school-age education is the biggest long-term driver of economic growth<sup>9</sup> and our latest analysis, supported by the views of our members, highlights the positive relationship between education and skills and productivity across Scotland.

With no floor standard for educational attainment in Scotland, making a direct comparison of school performance between regions and nations is difficult. As a proxy, our analysis looked at attainment defined by the percentage of pupils achieving Scottish Credit and Qualifications Framework (SCQF) levels 5, 6 and 7 or better in 2004.<sup>10</sup> We then compared this to productivity levels in 2014, by which time these students should be fully contributing to the workforce (**Exhibit 3**).

**Exhibit 3: Productivity in a local area is linked to secondary school attainment**

Percentage of pupils achieving SCQF levels 5, 6 and 7 or better in 2004 vs productivity in 2014, by local authority



Source: Scottish government, ONS

We found that a greater percentage of pupils achieving higher qualifications is linked to higher levels of productivity in that area. The correlation generally improves as the level of qualification increases, with only a very weak relationship shown between SCQF level 5 achievement and productivity, but a stronger one shown at SCQF level 7.

It is important to note that this is not linked to a purely academic curriculum. Improving higher level vocational qualifications may have a further enhancing effect on this trend by easing transitions to work.

However, focusing on qualifications alone is not enough. The most important factor for employers when recruiting school and college leavers in Scotland is their attitude to work followed by their aptitude.<sup>11</sup>

With a dual focus on academic attainment and developing the broader behaviours needed for success in work and life, Curriculum for Excellence (CfE) has laid strong foundations. However, the feeling among business is that while progress has been made in primary education, there is still a way to go to successfully implement CfE at secondary level.

Embedding CfE in secondary education across all local authorities is key to ensuring young people are equipped with the key attributes that businesses view as a priority, such as confidence, resilience, enterprise and ambition.

CBI Scotland has called for greater freedoms and controls to be devolved to schools across Scotland to help enable innovation and drive positive change.<sup>12</sup> Education performance measures at all levels should also be broader than only attainment to ensure the right balance is struck between academic performance and broader development.<sup>13</sup>

### **Better links between businesses and schools pay dividends for local productivity**

The success of the Scottish education system is a shared challenge for employers, government and educators. Business has a key role to play in helping young people develop the attributes they need to succeed.

The CBI's *Unlocking regional growth* report found a link between the proportion of firms offering work experience placements and productivity in a local area.<sup>14</sup> Conducting work inspiration activities with students plays a similar role, for example through site visits, mentoring, mock interviews and enterprise competitions.

Businesses across Scotland are clear about what they want from our education system and recognise they have an important role to play in ensuring the system delivers. Over 80% of businesses in Scotland that responded to the CBI/Pearson education and skills survey 2016 have at least some links with schools and/or colleges, and 59% of those firms increased the scale of their involvement in schools or colleges over the year.<sup>15</sup>

There is scope, and a willingness in the business community, to do more. For example, 84% of businesses said they are keen to do more to support schools and colleges to deliver better careers advice. The importance of improving careers advice was also highlighted during our consultation with members.

The Scottish government's youth employment strategy, *Developing the Young Workforce (DYW)*, published in 2014, recognises the importance of better connectivity and co-operation between education and the world of work. The establishment of DYW regional groups, with a focus on school industry partnerships, work inspiration, work placements, recruitment and equalities can have a positive impact on business-school interactions. But these groups are currently at different stages of development across the country and the lack of data currently available makes it difficult to analyse where more needs to be done to facilitate increased business engagement with the education system.

The roll-out of Marketplace<sup>16</sup> – a digital one-stop shop for collaboration between employers and schools and colleges – could help by simplifying the engagement process for businesses and increase the volume and quality of engagements between employers and education. Still, online tools alone are not sufficient.

CBI Scotland has recommended that work experience and inspirational activities be mandatory for all pupils throughout the 3-18 curriculum.<sup>17</sup> All young people should have at least four meaningful, high-quality contacts with the world of work during their secondary education.

Striking the right balance between traditional qualifications and vocational education is key to ensuring young people have the opportunity to succeed. Creating and funding more high-quality vocational options for 14-18 year-olds that have parity of esteem with Higher qualifications should be a key strand of a collective effort to improve educational outcomes across Scotland.

The Scottish government's commitment to expand the number of Foundation Apprenticeships – which allow young people to gain real-world work experience and access work-based learning while they are still at school – to 5,000 a year is a welcome step. Business, government and education providers must work together to ensure more young people can achieve industry-recognised qualifications while gaining practical experience which helps equip them with the skills and attitudes needed to succeed.

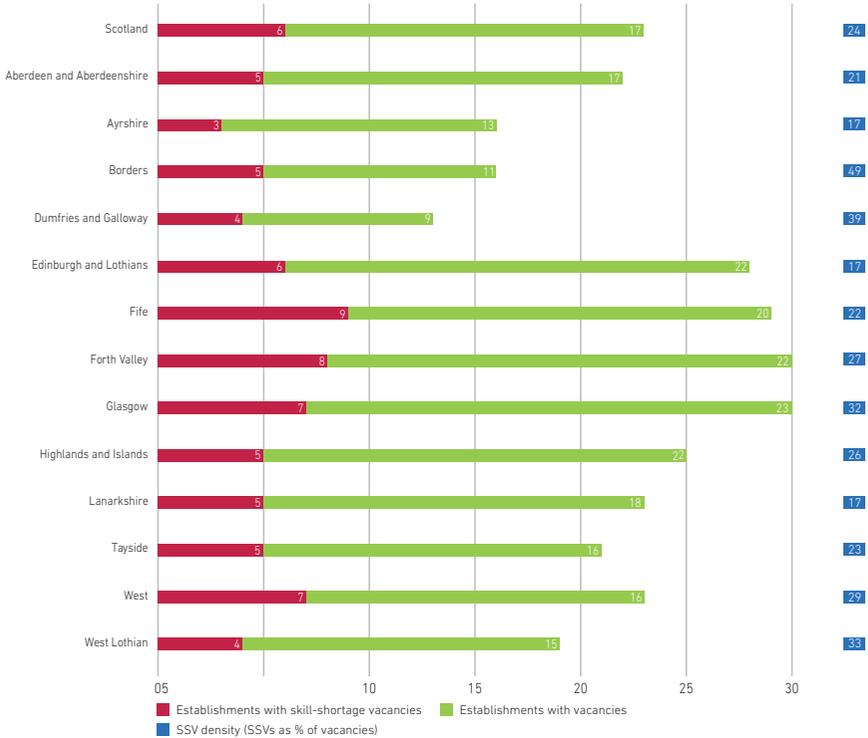
### **Access to skills presents a productivity challenge across Scotland**

Ensuring businesses can access the skills they need to grow is also key to driving productivity across Scotland. More than three quarters (77%) of businesses operating in Scotland expect to have more jobs for people with higher level skills over the coming years, but over two thirds (69%) of firms say they are not confident about filling their high-skilled roles.<sup>18</sup>

Data from the UKCES employer skills survey shows that while skills shortages are an issue nationwide, the skills challenge varies across Scotland (**Exhibit 4**, page 18). In the Borders, only 11% of establishments have vacancies, below the Scotland average of 17%. However, nearly half (49%) of vacancies in the region are a result of skills shortages. This contrasts with Edinburgh and the Lothians, where 22% of establishments have vacancies but only 17% of vacancies are a result of skills shortages.

**Exhibit 4: The impact of skills shortages varies by region**

*Incidence and density of skill-shortage vacancies (SSVs) by region (%)*



Source: UKCES employer skills survey 2015

Around 90% of the workforce today will be in employment in ten years' time,<sup>19</sup> meaning on-the-job training has a crucial role to play in tackling skills gaps and shortages. Firms across Scotland are committed to developing talent in-house. With only 38% of training done externally, the majority use an in-house dedicated training and development budget (82%), mentoring and coaching opportunities (76%) or support employees to study part-time (70%).<sup>20</sup>

**Exhibit 5** looks at how the energy and utilities sector is tackling the skills challenge.

Business is committed to investing in skills, with apprenticeships an important part of that, but firms are also clear that skills needs must be addressed across the current and future workforce. The introduction of the Apprenticeship Levy has fundamentally changed business' relationship with the skills system. With businesses becoming direct funders of the system, there is a legitimate expectation that it should become more responsive to business' needs.

CBI Scotland has called on the Scottish government to allow levy-payers direct access to funds and the flexibility to use them to address the specific skills needs of their workforce. Ensuring apprenticeships are easily accessible in all key sectors is also important. This would support firms in widening the training they offer and addressing skills gaps across their organisation and within their industry. This would also strengthen the Scottish economy and make a particular difference in parts of the country where skills gaps and shortages are having a disproportionate impact on the local economy.

#### **Exhibit 5: The energy and utilities sector is committed to tackling the skills challenge**

Industry leaders that form the Energy and Utilities Skills Partnership, including ScottishPower, have come together to build and launch the first ever joint Workforce Renewal and Skills Strategy for the sector.

As many as four out of five workers in the energy sector are set to retire over the next 15 years and the strategy takes the first steps towards ensuring that the UK's vital energy and utilities sector retains a safe, skilled, resilient and sustainable workforce. It sets out the reality of the challenges faced, immediate initiatives that are underway and the ambitions the Skills Partnership shares in moving towards achieving a more sustainable future.

Keith Anderson, chief executive of Scottish Power, said: *"We're pleased to play our part in the Energy & Utilities Skills Partnership, which drives excellence by bringing employers, skills organisations and stakeholders together. By working closely in partnership, we can attract, nurture and retain talented people for the long-term benefit of our business."*

The Energy and Utilities Skills Partnership has already started to take action by committing to a new 12-month Talent Source Network pilot programme that seeks to encourage people into industry careers and develop a significant future sector talent pool.

Sarah Iddles, who completed the ScottishPower Graduate Scheme in 2016 and is now employed as a SCADA Engineer with the firm's SP Energy Networks arm, is encouraging others to think about a career with ScottishPower.

Sarah said: *"The training I've received from numerous courses and advice from engineers, who are more than willing to pass on their invaluable knowledge, has been excellent. It just helps to show how versatile a degree in engineering is and it has helped me develop my skills no end. Having only been on the graduate scheme for nine months, I can't wait for what my future with the company will bring."*

## Migration

The ability for business to access skills and labour must be a key consideration in the development of a new immigration model following the UK's vote to leave the EU.

Many of the concerns raised by businesses in Scotland echo the Scottish Parliament Culture, Tourism, Europe and External Relations Committee's finding that *"Scotland's economy could suffer if we no longer have access to European workers who have been crucial to so many sectors of our economy, ranging from agricultural workers, through to those employed in food and tourism, to skilled engineers and scientists in our high-growth sectors."*

While Scottish businesses are realistic about the need to strike a balance in our migration system and respond to public concern about the social impacts of immigration, they need a migration system that helps companies to grow, gives our public services access to people and talent and enables us to be globally competitive. Access to skills and labour is a key consideration for firms wishing to invest in Scotland, which in turn is vital for lifting productivity.

EU migration has been of significant net economic benefit to Scotland. Since 2004, it has contributed to reversing the decline in the Scottish population and increasing the number of people of working age in Scotland. Any new UK immigration model should also seek to ensure the benefits of immigration are felt more evenly across the whole country.



## Recommendations

### For the Scottish government

- Devolve greater freedoms and controls to schools across Scotland to enable innovation and help drive positive change, with the aim of effectively delivering CfE.
- Broaden education performance measures beyond academic attainment at all levels to ensure the right balance is struck between academic performance and broader development.
- Collect data centrally on the level of business-school interactions in each local authority area.
- Work experience and inspiration activities should be mandatory for all pupils throughout the 3-18 curriculum, and all young people should have at least four meaningful, high-quality contacts with the world of work during their secondary education.
- Create and fund more high-quality vocational options for 14-18 year-olds that have parity of esteem with Higher qualifications as part of a collective effort to improve educational outcomes.
- Allow Apprenticeship Levy payers direct access to – and flexible use of – levy funds. Sufficient apprenticeship frameworks must also be in place to help businesses address the specific skills needs of their existing workforce.

### For the UK government

- Ensure the post-Brexit immigration system allows Scottish businesses access to the skills and labour they need to grow.

### For business

- Proactively seek opportunities to improve engagement with the education system, and share best practice where possible.
- Work with government and schools to build business capacity for offering meaningful work experience opportunities for young people.

## Transport and connectivity

*Improving connectivity and minimising travel times to give businesses access to a greater pool of skills and talent can boost productivity levels. Improving connections between and within Scotland's City Deal Regions and with the rest of the UK can also help to drive growth. But connectivity isn't just about transport; it is also about ensuring we have the digital infrastructure in place to meet business' needs and drive economic growth in the future.*

### Improving connectivity can lift productivity

Getting the right infrastructure in place is crucial for connecting people to where jobs are being created and driving economic growth.

Better connections between urban areas, also known as agglomeration, offers three major benefits to productivity. Firstly, it broadens the labour market pool, giving businesses access to a greater pool of skills and talent and enables workers to find employment over a wider geographical area, both of which ease skills shortages. Secondly, firms can also access a wider range of markets and suppliers, reducing the cost and difficulty of sourcing inputs. Finally, it makes it easier for firms to share best practice, ideas, people and technology.

Business wants to make Scotland the place to be by attracting more talent, investment and ambition. One of the prime ways of doing that is by improving our international connectivity. We believe the reduction and eventual abolition of a Scottish Air Passenger Duty could give Scotland an edge in the global marketplace for investment, tourism and trade. Bringing all UK airports into line with international competitors would send a clear message that all nations and regions are open for business.

CBI Scotland has previously recommended that connectivity should be the Scottish government's top infrastructure priority.<sup>21</sup> We welcome the progress that has been made across Scotland and particularly the Scottish government's commitment to improving road infrastructure through projects like the new Queensferry Crossing, the M8, M73 and M74 motorway improvements, the dualling of the A9 from Perth to Inverness and the Aberdeen Western Peripheral Route. The completion of these projects on time should be a priority.

However, business is already looking at what comes next. For example, suitable capacity and connections for Scotland to tap into the economic benefits that come with HS2 should be on the agenda. The Scottish government must keep up the momentum and continue to improve connectivity, both between Scotland's City Deal regions and with our key markets across the rest of the UK and abroad. Business should engage early with the Scottish government to identify the next generation of priority infrastructure projects that would deliver maximum benefit to the economy. Reducing congestion, which increases journey times and holds back productivity, should also be a priority.

**Reducing journey times and increasing transport reliability will also bring productivity benefits**

High levels of urban congestion not only causes stress to individuals, it also limits the potential size of the talent pool for local businesses and compresses work time for people, whether travelling between offices, visiting a client site or meeting with a supplier. Evidence from commuting patterns suggests most people travel a maximum of one hour to work, emphasising the importance of minimising travel times in widening access to labour.

Nearly 90% of businesses in Scotland that responded to the CBI/AECOM infrastructure survey 2016 identified capacity (the ability of infrastructure to cope with user demand) as either an important or a critical concern.<sup>22</sup> Our analysis shows that while the impact of addressing these concerns would vary across the country, there are clear productivity gains to be made from reducing journey times (**Exhibit 6**).

**Exhibit 6: Reducing congestion within towns and cities could boost productivity<sup>23</sup>**

**A:** Population within 30 minutes vs productivity, by local authority



<b>B: The productivity impact of reducing journey times for selected local authorities</b>	
<b>Selected local authorities</b>	<b>Estimated increase in productivity</b>
Stirling	2.8%
Edinburgh	2.4%
Glasgow	2.0%
Perth & Kinross	1.8%
Dundee	1.0%

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

Through consultation with our members, we have found that reliability is just as important to many businesses as actual journey time. Unreliable public transport hampers productivity and these concerns are supported by the findings of our 2016 infrastructure survey, in which nearly all (98%) respondents in Scotland described resilience as either a critical or important transport concern.<sup>24</sup>

### **Digital connectivity is key to improving productivity**

Digital connectivity is part of our critical national infrastructure and ensuring that Scotland's digital infrastructure meets business' needs of tomorrow will be crucial to lifting productivity. Previous CBI research shows 91% of firms rank digital networks as a key factor in investment decisions.<sup>25</sup>

CBI Scotland welcomes the Scottish government's commitment to ensure that every business and residential premise in Scotland is able to access superfast broadband by 2021.<sup>26</sup> Achieving this ambitious target will require continued public and private partnership.

However, reliability, as well as speed, of connection is vital to businesses across the country, many of whom often need to connect with others internationally. This came out as a key concern in our consultation with members, with a number of businesses having experienced reliability issues at busy times of the day.

Businesses are also increasingly reliant on the ability to work on the move. However, mobile coverage on many roads in Scotland is poor, falling below the UK average.<sup>27</sup> Increasing the availability and improving the reliability of broadband coverage on public transport would help to reduce productivity loss during travel.

CBI Scotland continues to call for digital connectivity to be integrated into all future infrastructure planning and development decisions. This means digital connections, like mobile and broadband, should be considered before the decision is made to proceed with Scottish government and local authority infrastructure projects like new roads and housing developments, rather than being an afterthought to be retrofitted.<sup>28</sup>

Yet if Scotland is to become a world class digital nation, a commitment to infrastructure alone is not enough. Digital skills in the workplace are increasingly required across different sectors and roles. Research by the Digital Technologies Skills Group shows around 12,800 digital technology job opportunities arise each year but there is not currently a big enough pool of talent to fill them. For digital infrastructure and technological advancements to boost productivity and help deliver inclusive growth, business, government and education must work together to ensure people are equipped with the skills they need.

*"With salmon farms the length and breadth of Scotland, mobile and internet connectivity is vital to our productivity. Yet too often we face real problems in connecting with colleagues across the country. Improving digital and mobile connectivity – particularly in rural areas – would make a real difference to our business and is crucial to supporting economic growth across the whole of Scotland."*

**Craig Anderson – chief executive, The Scottish Salmon Company**

## Recommendations

### For the Scottish government

- Prioritise the completion of existing transport infrastructure commitments on time and continue to improve connectivity between Scotland's City Deal Regions and with our key markets across the UK.
- Ensure decisions on future infrastructure investment are influenced by the potential economic impact of reducing journey times within local areas, which can lift productivity by giving businesses access to a greater pool of skills and talent.
- Pursue the reduction and eventual abolition of Scottish Air Passenger Duty to give Scotland an edge in the global marketplace for investment, tourism and trade.
- Ensure digital connectivity is integrated into all future infrastructure planning and development decisions.
- Work with the private sector and provide the funding necessary to deliver its commitment of ensuring that every business in Scotland is able to access superfast broadband by 2021.
- Increase the availability and improve the reliability of broadband coverage on public transport to help reduce productivity loss during travel.

### For business

- Engage early with the Scottish government to help identify the next generation of priority infrastructure projects that would deliver maximum benefit to the economy.



## Management practices and innovation

*Boosting productivity on the ground must be led by businesses themselves. There is great potential for firms to increase their productivity by closely examining their management practices and innovation culture. CBI Scotland analysis shows management training and workplace innovation are both linked positively to productivity.*

### **Firms that focus on management tools that align with productivity do better**

How companies operate is a factor driving differences in productivity between regions. CBI analysis has shown that more productive regions often have a greater proportion of firms offering management training. Correspondingly, better management practices play a key role in driving productivity.<sup>29</sup>

Work by the Productivity Leadership Group, chaired by Sir Charlie Mayfield, found that there is a lot of potential for businesses throughout the UK to improve productivity in all sectors and sizes of firms through better management practices. Similarly, previous CBI research has found that managing the process of change, how jobs are done and developing skills levels within the workplace are key to firm-level productivity.<sup>30</sup> Better management practices also have secondary effects on productivity through increased innovation. Almost half of businesses responding to the CBI's 2016 innovation survey (46%) answered that increased access to leadership skills would help them to innovate more.<sup>31</sup>

There is a lot of potential to boost firm-level productivity in Scotland. For example, many managers in small and medium-size firms recognise that their skills are under-developed, and evidence indicates that there is a long tail of firms that do not implement management best practices.<sup>32</sup>

However, it can often be difficult for firms to gauge how their management practices stack up. Diagnostic tools such as the Productivity Leadership Group's 'How good is your business really' can help. Scottish Enterprise's Workplace Innovation Service supports companies to increase productivity and business performance by unlocking hidden talent and innovative new ideas or work processes from their existing staff and organisational structures. This is particularly useful for companies that know where productivity gaps in their organisations exist. However for firms not at this stage, a similar self-diagnostic tool led by Scottish Enterprise could help Scottish firms to bridge the gap between diagnosis and action to make the most of what is on offer.

Firms must go beyond leadership when addressing their productivity and ensure that inclusion runs through the veins of their businesses. The business case for inclusion isn't new. It is nine years since the CBI, the TUC and the EHRC published *Talent not tokenism*, highlighting the tangible business benefits of diversity, including increased productivity. Greater diversity in the workplace is not just a matter of fairness, but a hard-nosed business case in the face of major changes in demographics and technology. Firms with the highest levels of gender diversity are 15% more likely to outperform their rivals, while those companies with the highest levels of ethnic diversity are 35% more likely to do so.<sup>33</sup>

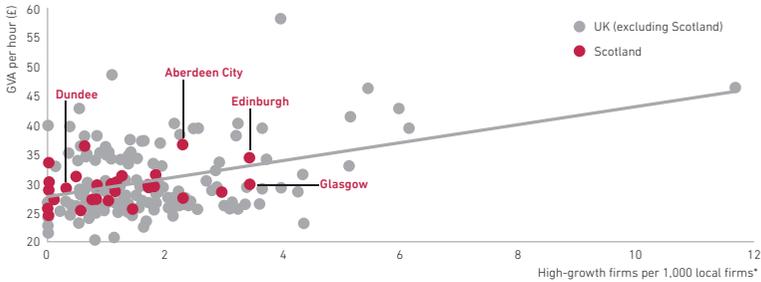
A body of research highlights the role of 'fair work practices' as a driver of workplace productivity and inclusive growth. Fairness is determined by treatment in the workplace, not the type of contract. Good work engages employees and offers scope for progression and development. Delivering this is not just the right thing to do, but vital to raising productivity. Business is clear that demonising certain types of work is not the solution. New laws won't be a magic bullet either. Creating a labour market which is both flexible and fair requires a partnership between business and government to spread good working practices and change workplace culture. Evidence on how Scotland performs against the Scottish government's Fair Work Framework, albeit limited, suggests it is poor-to-mixed.<sup>34/35</sup> However, much of the research to date is UK-wide. Further empirical research on its impact in Scotland would be welcome.

### **Business growth intentions and aspirations also matter**

Our analysis found that the new ideas and enthusiasm generated by younger and smaller companies mean that they regularly outperform more established firms in their industry on productivity.

'Scale-up' firms with rapidly increasing turnover also have higher productivity than non-scale-up firms (**Exhibit 7**, page 28). Yet there may be particular challenges facing Scottish firms that want to scale-up. Research from the Enterprise Research Centre shows that while Scotland overall has an above average proportion of high-growth firms, this varies by region with north east Scotland doing particularly well.<sup>36</sup> Across Scotland, the time taken for start-ups to step-up and reach £1m turnover is slower than elsewhere in the UK.<sup>37</sup> It is important that businesses in Scotland are ambitious for the future and there may be a role for Scottish government programmes such as the Scottish Growth Scheme to support such firms.

Other research shows that fast-growth companies can be found across Scotland, with higher productivity levels tending to be in smaller firms.<sup>38</sup> This study also finds that Scotland needs more fast-growth companies in higher productivity sectors alongside support to boost productivity among larger fast-growth companies.

**Exhibit 7: Areas with a high concentration of fast growing firms are more productive***Productivity vs share of firms that are high growth*

Source: ONS, Founders4Schools, Companies House

\* Firms with turnover that is greater than £1m and growing more than 20% annually. County-level local authorities not shown.

### **Innovation plays a role at firm-level, with companies that plan R&D investment more productive than firms that do not**

Business shares the Scottish government's ambition that Scotland becomes a world-leading entrepreneurial and innovative nation. Innovation is at the heart of economic, social and cultural development. It drives productivity, raises living standards, has wider social benefits, and helps to lay the foundations for tomorrow's world.

Scotland has a developed innovation ecosystem but risks falling behind the rest of the UK and internationally, particularly on research and development (R&D). Figures from the Scottish government indicate that gross expenditure on R&D was 1.46% of gross domestic product (GDP) in 2015, a figure unchanged since 2013. UK expenditure on R&D was 1.68% of GDP over the same period. Both figures are well below the OECD average.<sup>39</sup>

Boosting business expenditure on R&D in Scotland will be key to meeting the Scottish government's aspirations. In 2015, business expenditure on R&D was £871m (41% of total R&D spend), which pales in comparison to the south east of England which spent £4.7bn the same year (72% of total R&D spend in the region).<sup>40</sup> Research from Scottish Enterprise suggests that low business investment (including R&D spend) is likely a major reason for Scotland's low productivity levels, alongside weaker competition and low investment by businesses born in Scotland, among other factors.<sup>41</sup>

Previous CBI research has highlighted the role that public funding plays in the R&D puzzle, with evidence that government spend crowds-in private sector expenditure.<sup>42</sup> Since CBI Scotland published *Accelerating our ambitions*, the Scottish government has taken a number of steps to further develop Scotland's innovation ecosystem, including the CAN DO Innovation Action Plan and the Enterprise and Skills Review. These steps are welcome, particularly the commitment to review, streamline and simplify the innovation ecosystem. However, businesses are now looking for the discussion to move on from the processes required to

support innovation to action and delivery. Feedback from CBI members has indicated that the innovation support landscape still feels cluttered. Our analysis identified over 111 business support programmes in Scotland alone. CBI Scotland previously recommended that Scottish Enterprise take on the role of being the 'shop window' where support programmes could be accessed in a single place.<sup>43</sup>

The Scottish government can go further. The CBI recently called on the UK government to target the country's public and private R&D spend to 3% of GDP.<sup>44</sup> To reaffirm its ambition, the Scottish government should consider revising its national indicator on R&D to set a similar concrete target for Scottish R&D spend.

University-based research is essential to the Scottish economy and to the health of companies regardless of business application. Universities are one of the largest providers of innovation centres and are particularly helpful for young firms in need of flexible incubation or acceleration support.

Scotland outperforms other UK nations and regions on higher education expenditure on R&D. In 2015, R&D spend in this sector was £1.1bn, 51% of total Scottish R&D spend and second only to London.<sup>45</sup> A current risk to this sector is the implication of the UK's vote to leave the European Union (EU) for funding and collaborative networks. Scotland has received just under €165m from Horizon 2020, and UK universities currently receive the highest levels of European funding in cash terms of any EU member state.<sup>46</sup> The UK government, working with the Scottish government, must explore options for Scotland's involvement in networks such as Horizon 2020. Collaboration with European partners is a vital factor in enhancing Scotland's research excellence.

Business-to-business and business-university collaboration offers the chance for companies to improve performance through developing new techniques or technologies, by de-risking investment in research, and by extending the capabilities and expertise available to them. No company has all of the skills necessary to innovate internally and solutions can stem from across industry.

Although the UK ranks fourth globally in terms of business-university collaboration and despite improvements in the networks between them, this has not shifted the dial on the UK's ability to commercialise basic research. For example, the UK places just 26th of the EU 28 on sales of new-to-market and new-to-firm innovations as a percentage of turnover. The relative capability of our small and medium-sized enterprises (SMEs) is also a challenge, with the UK ranking 18th across the EU based on the proportion of SMEs introducing product or process innovations. This is linked to the complexity of the innovation landscape in the UK. With many different players and multiple support mechanisms, businesses of all sizes can struggle to navigate the innovation ecosystem and the resource demand of engaging with its many disparate bodies is often significant.

Businesses have a huge role to play, not just by increasing their own investments, but by ensuring they have the right in-house skills and culture to make the most of innovation opportunities and are in a position to collaborate with other businesses and universities to de-risk investment in research. Additionally, raising awareness of the importance of R&D and innovation to company growth and sharing internal strategies to promote an enterprise culture will help drive innovation across all levels of their organisations. **Exhibit 8** examines how Peak Scientific's innovation culture is at the heart of the firm's success.

**Exhibit 8: Developing the right people alongside the right products is key for Peak Scientific's productivity**

Peak Scientific is a leading innovator in the design, manufacture and support of high performance gas generators for analytical laboratories. The company is headquartered near Glasgow with major operations in North America, China and India and direct offices in 13 other countries.

Over the last decade, Peak Scientific has undertaken a major plan for growth with innovation at its heart. Its plan has resulted in the company experiencing annual average growth of 20% since 2005.

In 2005, the company had a limited product range but significant potential for growth. To support this potential, a revised engineering strategy and structure was put in place, which focused on getting the right people and skills into the firm in two areas: design – for new product development – and manufacturing – for production process. From this, the company developed its meticulous research and development culture, with approximately 12% of its global headcount now focused in this area.

Over time, as the strategy took hold and turnover grew, the company purposely decided to revisit its strategy, structure and skill sets. Boosting productivity increasingly became about attracting and nurturing the right talent, alongside developing the right products. This involved identifying potential leaders among its engineers and beyond, and investing in their development and support.

Peak Scientific has identified several factors that have been key to the company's success. One factor is business agility, which allows it to maintain a flexible non-corporate philosophy facilitating swift reaction to changing customer needs and ability to bring new products to market quickly. Another is continual investment to ensure continual improvement.

Underpinning all its activities and culture are its four core values: respect, freedom with responsibility, restless (continually striving to improve), and fun and passion.

## Recommendations

### For the Scottish government

- Revise the R&D national indicator to set a concrete target for public and private R&D spend in Scotland.
- Work with business to spread good working practices and change workplace culture.
- Scottish Enterprise should consider developing a diagnostic tool to help firms self-diagnose their productivity.

### For the UK government

- Work with the Scottish government to explore options for the UK's involvement in networks such as Horizon 2020 when the UK leaves the EU.
- Ensure the Industrial Strategy Challenge Fund complements existing initiatives in Scotland and delivers a holistic approach.

### For business

- Recognise the impact workplaces have on productivity – good employee relations will make workplaces more inclusive and help everyone perform at their best.
- Ensure the right in-house skills and innovation culture is in place, including awareness raising of the importance of R&D and innovation to company growth.



## Exporting

*Scotland has a strong exporting track-record and there is potential to strengthen this further. 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, so fostering an outward-looking Scottish economy will be vital for the future.*

### More productive firms are more likely to be exporters, but exporting also makes firms more productive

Exporting has a strong relationship with productivity. Exposing firms to the 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 raise their productivity. One study of Scottish firms found that as well as needing to become more productive pre-entry to export markets, businesses that enter international markets can gain significantly from post market entry 'learning-by-exporting' which can boost productivity by around 16-18%.<sup>47</sup> This suggests merit in increasing the scale of peer mentoring by exporting businesses for pre-market entry firms.

Some local authorities have a higher proportion of firms that export than others, and this provides another part of the puzzle as to why there are differences in regional productivity (**Exhibit 9**). The CBI's *Unlocking regional growth* report identified numerous factors that determine how likely a firm is to be an exporter. For example, 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 9: 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, 2012, 2014)

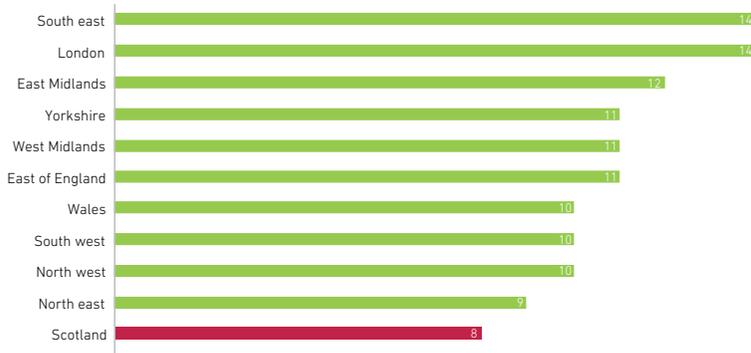


## Encouraging businesses to export and promoting Scottish firms abroad must continue to be priorities

There is a significant number of potential exporters who are not exporting. In Scotland, 8% of firms have characteristics similar to other firms in their sector that are currently exporting, but do not export themselves (**Exhibit 10**). Encouraging and supporting these non-exporters to take the leap and venture into international markets could help generate productivity gains.

**Exhibit 10: Across all regions and nations of the UK, there is a large number 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)

In *Accelerating our ambition*, CBI Scotland called on the Scottish government to ensure that making Scotland a global player on the world stage is a priority during this parliament – a need that has become more important as the UK renegotiates its relationship with the EU and prioritises new trade links. Initiatives such as the 'Scotland House' innovation and investment hubs are welcome steps and, in time, the Scottish government should explore establishing hubs in key markets. On the UK's negotiations with the EU, a joined-up conversation needs to take place between the UK government and Scottish government that provides opportunities for Scottish businesses to feed in.

Increasing productivity will require increasing the value of exports, as well as the volume of exports. Again, innovation will be key. One Scottish study has found increasing activities that build up the stock of 'knowledge-based assets', such as innovation activities, can boost firm-level productivity. The relevant executive agencies must consider these resources in a strategy designed to boost exporting, not just the provision of information to aspiring firms.<sup>48</sup>

The Scottish government's intention to use 'mygov.scot' to provide a single point of access to trade support services across Scottish Enterprise, Scottish Development International, DIT, UK Export Finance and other partners is welcome. However, for many firms exporting is a costly and risky exercise, so raising the profile and providing the right financial support to help firms export is important. The financial services sector provides a great deal of export finance but can only do so when operating under the right conditions, which requires the UK government to ensure the collective impact of financial services regulation is consistent and clear for firms.

The UK government's industrial strategy also provides a good opportunity to ensure that policies to boost exports and productivity are tailored to city circumstances, looking at their productivity and export potential. It is important that its application in Scotland aligns with and complements existing Scottish government initiatives. The Scottish government also has a role to play in finance, collaboration and coordination with executive agencies on both sides of the border in order to avoid duplication of efforts. As a priority, it should publish how it intends to interact with the UK government on the industrial strategy as well as how it will lead on areas where the responsibilities are devolved, such as infrastructure and skills.

Scotland sees good rates of inward investment, but more can be done to cement Scotland's reputation internationally as a great place to invest and do business. EY's Attractiveness Survey 2017 reveals that Scotland attracted 122 foreign direct investment (FDI) projects over 2016, and is second to London on attractiveness for UK FDI projects, with the central belt the most popular area.<sup>49</sup> Increasing Scotland's attractiveness as a place to invest requires a stable political environment and a regulatory framework that enables businesses of all sizes and sectors to thrive. In particular, the Scottish government must keep the cumulative burden faced by businesses in Scotland at a minimum.

## Recommendations

### For the Scottish government

- In time, explore increasing the number of 'Scotland House' hubs outside the EU.
- Publish how the Scottish government will interact with the UK government on the industrial strategy, as well as how it will lead on areas where the responsibility is devolved, such as infrastructure and skills.

### For the UK government

- Ensure a joined-up conversation between the UK government and Scottish government takes place that provides opportunities for Scottish businesses to feed into the UK's negotiations with the EU.

### For business

- Exporting businesses should consider engaging in programmes and initiatives to help or mentor non-exporting businesses in their region on exporting.



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## The size of the prize: an economy that is £25bn larger

*To give an illustration of the potential gains from raising productivity, CBI Scotland calculated what the economic impact could be by 2024 if each local area could improve at the same rate as the top performer in Scotland. Doing so could translate into more inclusive and sustainable growth, higher standards of living and greater global competitiveness. Our analysis finds increasing productivity could add £25bn to the Scottish economy over the next decade.*

We created 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 between 2004 and 2014. We also assume in both 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 reflects the likely limited scope for already high-performing areas to continue to improve at the same pace. This baseline scenario results in Scotland's nominal gross value added rising 32% to £163.62bn by 2024.

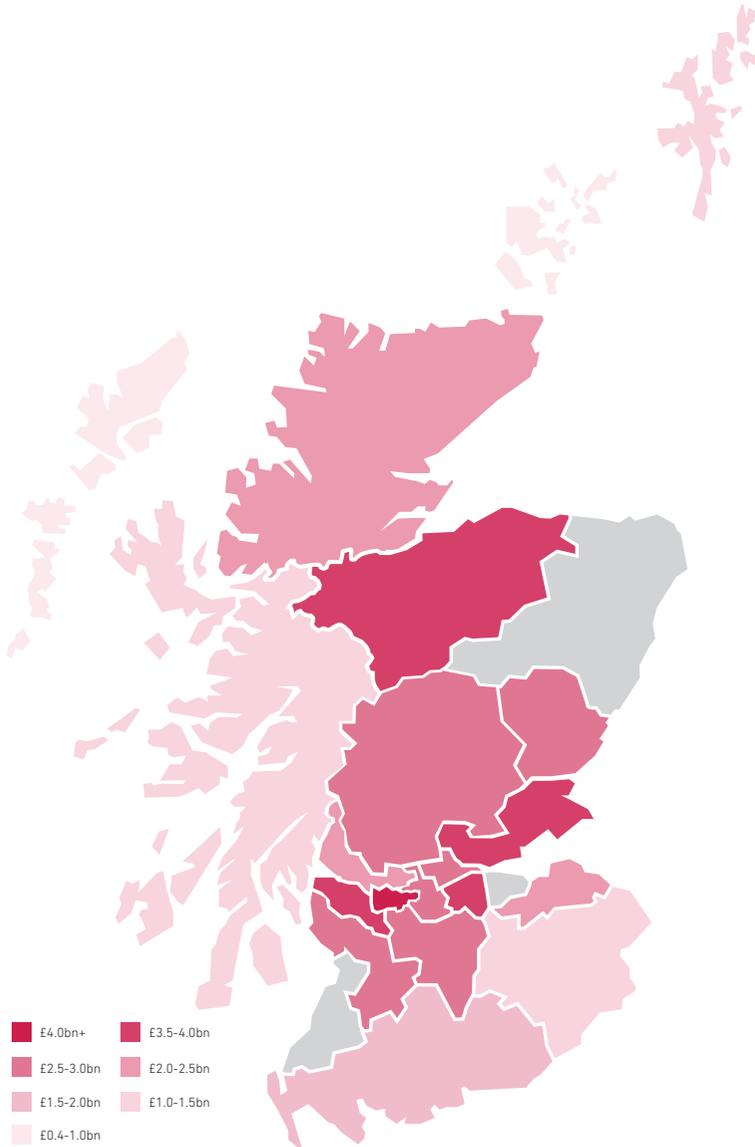
We then tried to gauge what would happen over the next decade if each local area could match the performance of the star performer in Scotland between 2004 and 2014 (Aberdeen City and Aberdeenshire).<sup>50</sup> In other words, if every local authority area could emulate the success stories, what would be the gains in productivity for Scotland as a whole? In this scenario, we find that the nominal gross value added of the Scottish economy would climb 53% to £188.55bn by 2024. Our analysis finds increasing productivity within Scotland could add £25bn to its nominal gross value added over the next decade. **Exhibit 11** breaks down how this would be shared between regions.

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

Shaping a more productive and inclusive economy right across Scotland is a goal shared by both the Scottish government and business. Making it a reality requires a true partnership.

The findings set out in this document can help to foster a long-term approach to lifting Scotland's growth potential – putting an evidence base behind the importance of education and skills, transport and digital connectivity, practices in the workplace, innovation and exporting as the key drivers of productivity. This does not require dramatic changes in the Scottish government's approach as these drivers align with the priorities outlined in its Economic Strategy and Agenda for Cities including internationalisation, boosting investment, boosting innovation and supporting inclusive growth. But it does need a cohesive and clear framework. With Scotland's economy becoming more geographically concentrated in cities,<sup>51</sup> ensuring that the City Region Deal partnerships boost productivity is essential, but no region must be left behind.

**Exhibit 11:** The share of the prize on a regional basis (£bn)<sup>52</sup>



Source: CBI analysis of ONS microdata

**We have identified a number of recommendations for the Scottish government, UK government and business**

On the Scottish government's part, it must take the opportunity to turbo-charge the Scottish economy, putting private sector growth and productivity at the heart of any initiatives. As a first step, it should reset its narrative towards business to provide a boost of confidence for Scottish firms and investors (current and potential) in Scotland as a place to do business.

A successful UK economy needs all its component parts firing on all cylinders. Therefore the UK government must also back prosperity in Scotland. It is essential that Scotland's business and political leaders are involved in a genuine and meaningful partnership with the UK government to address key challenges on the horizon and to maintain the benefits of the UK single market. A modern industrial strategy that works for Scotland, and has the ambition, longevity, measurability and delivery of regional as well as sectoral initiatives can also achieve the ultimate objective of improving people's lives.

Business must also be ready to play its part and engage early with the Scottish government to help it identify the right priorities. To facilitate this, CBI Scotland would be happy to support the Scottish government in establishing a business-led productivity taskforce comprised of key stakeholders from across the country. Throughout the remainder of 2017 and beyond, we will continue to share insights into the productivity drivers we have identified in this report, and convene businesses and stakeholders to share insights into firm-level productivity.

Only by working together can we create the kind of sustainable, inclusive growth needed to benefit the whole of Scotland.



## Summary of recommendations

### GENERAL

#### For the Scottish government

- As a priority, reset its narrative towards business to provide a confidence boost to Scottish firms and investors in Scotland as a place to do business.
- Establish a business-led productivity taskforce comprised of key stakeholders from across the country.

#### For business

- Engage with local and national government to help identify the right actions to boost productivity.

### EDUCATION & SKILLS

#### For the Scottish government

- Devolve greater freedoms and controls to schools across Scotland to enable innovation and help drive positive change, with the aim of effectively delivering CfE.
- Broaden education performance measures beyond academic attainment at all levels to ensure the right balance is struck between academic performance and broader development.
- Collect data centrally on the level of business-school interaction in each local authority area.
- Work experience and inspiration activities should be mandatory for all pupils throughout the 3-18 curriculum, and all young people should have at least four meaningful, high-quality contacts with the world of work during their secondary education.
- Create and fund more high-quality vocational options for 14-18 year-olds that have parity of esteem with higher qualifications as part of a collective effort to improve educational outcomes.

- Allow Apprenticeship Levy payers direct access to – and flexible use of – levy funds. Sufficient apprenticeship frameworks must also be in place to help businesses address the specific skills needs of their existing workforce.

#### For the UK government

- Ensure the post-Brexit immigration system allows Scottish businesses access to the skills and labour they need to grow.

#### For business

- Proactively seek opportunities to improve engagement with the education system, and share best practice where possible.
- Work with government and schools to build business capacity for offering meaningful work experience opportunities for young people.

## TRANSPORT & CONNECTIVITY

### For the Scottish government

- Prioritise the completion of existing transport infrastructure commitments on time and continue to improve connectivity between Scotland's City Deal Regions and with our key markets across the UK.
- Ensure decisions on future infrastructure investment are influenced by the potential economic impact of reducing journey times within local areas, which can lift productivity by giving businesses access to a greater pool of skills and talent.
- Pursue the reduction and eventual abolition of Scottish Air Passenger Duty to give Scotland an edge in the global marketplace for investment, tourism and trade.

- Ensure digital connectivity is integrated into all future infrastructure planning and development decisions.
- Work with the private sector and provide the funding necessary to deliver its commitment of ensuring that every premise in Scotland is able to access superfast broadband by 2021.
- Increase the availability and improve the reliability of broadband coverage on public transport to help reduce productivity loss during travel.

### For business

- Engage early with the Scottish government to help identify the next generation of priority infrastructure projects that would deliver maximum benefit to the economy.

## MANAGEMENT PRACTICES & INNOVATION

### For the Scottish government

- Revise the R&D national indicator to set a concrete target for public and private R&D spend in Scotland.
- Work with business to spread good working practices and change workplace culture
- Scottish Enterprise should consider developing a diagnostic tool to help firms self-diagnose their productivity.

### For the UK government

- Work with the Scottish government to explore options for the UK's involvement in networks such as Horizon 2020 when the UK leaves the EU.
- Ensure the Industrial Strategy Challenge Fund complements existing initiatives in Scotland and delivers a holistic approach.

### For business

- Recognise the impact workplaces have on productivity – good employee relations will make workplaces more inclusive and help everyone perform at their best.
- Ensure the right in-house skills and innovation culture is in place, including awareness raising of the importance of R&D and innovation to company growth.

## EXPORTING

### For the Scottish government

- In time, explore increasing the number of 'Scotland House' hubs outside the EU.
- Publish how the Scottish government will interact with the UK government on the industrial strategy, as well as how it will lead on areas where the responsibility is devolved, such as infrastructure and skills.

### For the UK government

- Ensure a joined-up conversation between the UK government and Scottish government takes place that provides opportunities for Scottish businesses to feed into the UK's negotiations with the EU.

### For business

- Exporting businesses should consider engaging in programmes and initiatives to help or mentor non-exporting businesses in their region on exporting.



## References

- 1 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
- 2 State of the economy, Scottish government, March 2017
- 3 State of the economy, Scottish government, March 2017. ONS international comparisons of productivity, April 2017
- 4 We use regional data from 2014 in this report which does not account for changes in productivity as a result of the decline of the oil and gas sector
- 5 *Unlocking regional growth*, CBI, December 2016
- 6 *Scotland's productivity performance: latest data and insights*, Richmond and Turnbull, November 2015
- 7 *Scotland's Budget 2016*, Fraser of Allander Institute, September 2016
- 8 A full explanation of the methodology used in this report can be found in the CBI's *Unlocking regional growth* report
- 9 *First steps*, CBI, November 2012
- 10 The Scottish Credit and Qualifications Framework can be viewed at: [http://scqf.org.uk/wp-content/uploads/2015/01/A5\\_SCQF\\_WEB.pdf](http://scqf.org.uk/wp-content/uploads/2015/01/A5_SCQF_WEB.pdf). A table showing how current and old qualifications relate to one another in terms of their SCQF level is available at: [http://www.scqf.org.uk/content/files/Old%20Vs%20New%20\(low%20res\)%20-%20Updated%20July%202013.pdf](http://www.scqf.org.uk/content/files/Old%20Vs%20New%20(low%20res)%20-%20Updated%20July%202013.pdf)
- 11 *The right combination*, CBI/Pearson education and skills survey, CBI, July 2016
- 12 *Delivering excellence*, CBI, March 2015
- 13 *ibid*
- 14 *Unlocking regional growth*, CBI, December 2016
- 15 CBI/Pearson education and skills survey, July 2016
- 16 <https://www.skillsdevelopmentscotland.co.uk/news-events/2017/march/digital-matching-service-linking-young-people-and-employers/>
- 17 *Delivering excellence*, CBI, March 2015
- 18 CBI/Pearson education and skills survey, July 2016
- 19 *UK employer skills survey 2015*, UK Commission for Education and Skills, January 2016
- 20 CBI/Pearson education and skills survey, July 2016
- 21 *Accelerating our ambitions*, CBI, October 2015
- 22 *Thinking globally delivering locally: infrastructure survey 2016*, CBI/AECOM, November 2016
- 23 CBI research has determined how many more people could be attracted to work in cities if they were able to reduce journey times by up to 50% and the impact that could have on an area's productivity
- 24 *Thinking globally delivering locally: infrastructure survey 2016*, CBI/AECOM, November 2016
- 25 *Taking the long view: a new approach to infrastructure*, CBI-URS Infrastructure Survey, November 2014
- 26 *A plan for Scotland: the government's programme for Scotland 2016-17*, Scottish government, September 2016

- 27 *Connected nations 2016*, Ofcom, December 2016
- 28 *Accelerating our ambitions*, CBI, October 2015
- 29 *Unlocking regional growth*, CBI, December 2016
- 30 *Better off Britain*, CBI, November 2014
- 31 Innovation survey, CBI, November 2016
- 32 *Management practice & productivity: why they matter*, Centre of Economic Performance and McKinsey, July 2007
- 33 *Time for action: the business case for inclusive workplaces*, CBI, October 2016
- 34 *Fair work and productivity*, Rogers and Richmond, December 2016
- 35 *Fair work framework*, Scottish government, 2016
- 36 *UK local growth dashboard*, Enterprise Research Centre, November 2016
- 37 *ibid*
- 38 *Fast-growth companies in Scotland*, Hopkins and Richmond, June 2016
- 39 *Gross expenditure on research and development (GERD) 2015*, Scottish government, March 2017
- 40 *UK gross domestic expenditure on research and development: 2015*, ONS, March 2017
- 41 *Business investment performance in Scotland*, Richmond and Turnbull, March 2017
- 42 *Now is the time to innovate*, CBI, March 2017
- 43 *Scotland can do: boosting Scotland's innovation performance – an innovation action plan for Scotland*, Scottish government, January 2017
- 44 *Now is the time to innovate*, CBI, March 2017
- 45 *Gross expenditure on research and development (GERD) 2015*, Scottish government, March 2017
- 46 *Scotland's relationship with the EU: Response to the European and External Relations Committee's call for evidence*, Universities Scotland, 2017
- 47 Report to SQW Consulting – SDI policy evaluation, Richard Harris, May 2010
- 48 [http://www.gla.ac.uk/media/media\\_132052\\_en.pdf](http://www.gla.ac.uk/media/media_132052_en.pdf)
- 49 Scotland attractiveness survey, EY, May 2017
- 50 We argue that the success of this area between 2004 and 2014 is an aspiration that is relevant despite the decline of the oil and gas sector and its impact on the region post-2014
- 51 Scotland's economic powerhouses: a focus on Scotland's city economies, Fraser of Allander Institute, October 2015
- 52 The share of the prize is calculated by NUTS3 region. 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 in the UK (which include Aberdeen and Aberdeenshire, Edinburgh and South Ayrshire) improve at the trend rate of UK productivity growth from 2004 to 2014

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