

# DRIVING PRODUCTIVITY IN THE HEART OF THE SOUTH WEST CONSULTATION PAPER (GREEN PAPER)

PART OF THE EVIDENCE BASE  
UNDERPINNING THE HEART OF THE  
SOUTH WEST  
LOCAL INDUSTRIAL STRATEGY

*Document 001*

# Driving productivity in the Heart of the South West

## Consultation Paper (Green Paper)

January 2017

(Updated July 2019)



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## FOREWARD

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In March 2014, the Heart of the South West LEP published the area's Strategic Economic Plan. It set out how we planned to maximise economic growth across our area to transform the prospects of the Heart of the South West and establish a legacy of prosperity for future generations.

The Heart of the South West LEP area enjoys many benefits. The exceptional quality of our environment will provide vital lifeblood to our tourism and agricultural sectors and attract new digital and technology companies. With the advent of Hinkley Point C and new nuclear across the UK, we will be able to create a truly momentous shift in the opportunities for our businesses.

Since the publication of our Strategic Economic Plan, Government has rightly turned its attention to the challenge of productivity. It recently published the 'Building Our Industrial Strategy' green paper<sup>1</sup>, and we need to be able to articulate clearly our local aspirations.

Government also remains committed to devolution. In response to this the Heart of the South West area has published its devolution prospectus, Devolution for Heart of the South West: A Prospectus for Productivity (March 2016)<sup>2</sup>. The 17 local authorities, two National Parks, the Local Enterprise Partnership and the three Clinical Commissioning Groups across the area are committed to working collectively to deliver greater prosperity and wellbeing, and to improving our contribution to the prosperity of the nation. Central to the delivery of this Deal is the development of a Productivity Plan and a single investment programme.

The Heart of the South West LEP area has therefore agreed to develop a Productivity Plan that will:

- Set out our long term strategic ambitions to raise productivity and a clear plan for achieving this ambition;
- Support the delivery of the devolution agenda for our area;
- Establish a place-based agenda for the proposed Government Industrial Strategy; and
- Replace the current Strategic Economic Plan.

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<sup>1</sup>

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/585273/building-our-industrial-strategy-green-paper.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/585273/building-our-industrial-strategy-green-paper.pdf)

<sup>2</sup> <http://heartofswlep.co.uk/wp-content/uploads/2016/09/Heart-of-the-South-West-Devolution-Prospectus.pdf>

The recent economic and political upheavals, combined with the decision to leave the European Union, have created a degree of uncertainty. It is critical at this time to understand and build upon our strengths and address the relative weaknesses in our economy. In that way we will build resilience and remain competitive in the face of such uncertainties.

This consultation document is just the first stage in the process of developing a Productivity Plan for our area. Through this we aim to engage with the wider community of businesses and stakeholders to identify the key issues that we must address if we are to improve the productivity of the Heart of the South West LEP area and build our future economy.

We urge our partners to provide their valuable feedback to this consultation in order to create a robust and meaningful Productivity Plan that has the backing of all stakeholders (responses should be sent to [engagement@torbay.gov.uk](mailto:engagement@torbay.gov.uk)). Our strength is built upon our partnership, and we look forward to hearing your views on our plans for the delivery of transformational growth in the Heart of the South West.

Steve Hindley  
Chairman, Heart of the  
South West LEP

John Osman  
Councillor  
on behalf of the Heart of  
the South West Local  
authorities

## EXECUTIVE SUMMARY

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"The productivity gap is well known, but shocking nonetheless: We lag the US and Germany by some 30 percentage points. But we also lag France by over 20 and Italy by 8. Which means in the real world, it takes a German worker 4 days to produce what we make in 5; which means, in turn, that too many British workers work longer hours for lower pay than their counterparts".

*Chancellor of the Exchequer, Autumn Statement 2016*

The UK is facing a critical productivity challenge; this is not a new challenge but the scale is increasing significantly - the gap between the UK and other G7 countries is the largest it has been for 30 years. This means UK workers are working longer to produce less than our main international competitors. The benefits of increased productivity are largely felt by individuals through increased wages, so the level of our productivity is directly connected to levels of household income, our ability to pay for public services and ultimately our quality of life.

The position for the HotSW area is even starker. Our success in recent years has been in growing the number of people in employment. With 79% of our population employed, the HotSW area enjoys employment rates not just above the UK average, but close to the best performing countries in Europe. Despite this, our LEP area ranks 33<sup>rd</sup> out of 39 LEP areas in England for the level of productivity. Productivity also varies considerably within the LEP area itself.

There is no "quick fix" to this challenge but the rewards are significant. **If the gap between the existing UK productivity rate and the Heart of the South West was closed, every household in our area would be £11,500 better off per year, every year.** If we matched productivity levels found in Germany, the increase per household would be even greater, at £20,000 per year, every year. Ensuring the proceeds of improvements in productivity are shared across our area is part of our challenge.

The HotSW Productivity Plan will set out how our area will come together to address this challenge. It will set out the contribution the HotSW area can make to closing the UK's productivity gap and how we will be an integral part of the forthcoming Industrial Strategy. It will form the basis of negotiations with Government for investment and devolved powers and it will act as a focal point to corral local resources.

This document is the beginning of that process. It sets out the challenges in more detail, showing how we compare with other parts of the UK and highlighting the differences within our area.

We have key assets that we can build upon. The recent Science and Innovation Audit highlighted our competitive advantage in aerospace, nuclear, environmental data and high tech marine. Part of the challenge will be striking the right balance between exploiting opportunities in these high productivity sectors and seeking to raise productivity in sectors that have lower productivity but high levels of employment, such as tourism and care.

There are 5 recognised drivers of productivity, set out below, each with a snapshot of the current HotSW position.

**Skills:** there is a clear link between having higher levels of skills and higher levels of productivity. Although uneven, attainment levels up to age 18 is relatively good, after which it drops off due to a lower than average proportion of pupils progressing to higher education. Workforce qualifications are in line with other areas of England though we lag behind the best performing LEP areas such as Oxford. Almost one third (29%) of vacancies were hard-to-fill due to skills shortages in 2015 and the density of skills shortages in the Heart of the South West was among the highest of all the LEP areas. Investment in in-work training for employees is lower than other parts of England, though given the growth in new technology this may be being met in other ways. It is important to understand this and to ensure the opportunity from the apprenticeship levy is maximised.

**Innovation:** there is a clear link between the level of investment in innovation, research & development, and an area's productivity. On numerous measures HotSW performs towards the lower end of the scale in terms of levels of innovation. We have some strengths, such as in Clinical Sciences, Environmental Sciences and Life Sciences. However, creating the right conditions to support more of our businesses to increase levels of innovation is crucial; this includes maximising the impact from our world-class education sector and the clear competitive advantages identified in the Science & Innovation Audit.

**Enterprise:** our business base is dominated by small businesses employing less than 5 people. Whilst business survival rates are high, there are fewer new businesses are being created in HotSW than in other parts of the country and we have fewer foreign-owned businesses – both key drivers of productivity. Furthermore the proportion of the workforce in private sector employment has not grown as strongly as in other LEP areas. Our sector mix differs from other parts of the country, for example we have a lower proportion of the highly productive Financial Services and Information and Communications sectors, though in general, whatever the mix, productivity in each sector is lower than the national average. This is true even in sectors where it could be argued the HotSW area has traditional strengths, such as agriculture. Within this area, it is also important to understand the role that social enterprise can play in growing productivity.

**Competitiveness:** Competition improves productivity by creating incentives to innovate and by ensuring that resources are allocated to the most efficient firms. Key components

of competition are market size and whether businesses are exporting or competing in national and international markets. On these measures HotSW lags behind other areas of the UK. Improving access to markets is vital, which links to the 5<sup>th</sup> driver of productivity.

**Infrastructure:** access to markets and the peripherality of an area are key components in its productivity. HotSW faces long standing challenges in terms of road and rail connectivity. In addition, although it is improving, access to and use of superfast broadband remains behind other LEP areas.

Alongside the drivers of productivity, there is continued considerable investment in housing. Whilst not a driver of productivity in itself, this is critical to address the affordability issue for the area and to provide housing for a population that is growing in part due to inward migration from other parts of the UK; skilled people who are attracted by our outstanding natural environment and quality of life. Our natural capital has an important part to play in our overall offer, but we need to be clear on what this offer is and how we can make the most of it.

So, these are the challenges facing us as we seek to play our part in growing the UK's overall productivity. These challenges give rise to many critical questions; for example, at the broadest level what sort of area do we want to be? Or at a narrower level, how we improve levels of entrepreneurship?

We are seeking your views by 10<sup>th</sup> March on these and other issues so we can start to set out what a Productivity Plan may begin to look like. Please send your responses to [engagement@torbay.gov.uk](mailto:engagement@torbay.gov.uk). We will consult again on this in the summer when we will be seeking responses to our draft productivity plan.

Below are some questions that might guide your response.



## Questions for Consultation

In the light of the evidence presented below on the opportunities and challenges our area is facing, we would like your feedback on the following questions.

When giving your feedback, please include any relevant data and the rationale for your views, as this information will be invaluable in helping us to compile the evidence base for the Productivity Plan.

Please note these questions are just for guidance, so please feel free to raise any other issues you feel are relevant.

### General questions

- In seeking higher productivity, what sort of area do we want to be?
- What in your view would make the biggest impact to productivity in HotSW?
- What is the main barrier to raising productivity in your business/sector (including public sector)?
- What drivers are most important to you – inward investment, levels of innovation, availability of finance, skills, competition and export, connectivity in transport and broadband, successful partnerships outside area, natural capital assets, other?
- How do we build on our natural capital assets?
- How do we build on and improve our cultural assets?
- What is the role for the public sector in improving the HotSW productivity levels?
- How can we ensure that the benefits of productivity growth are felt by all?

### Skills

- How do we raise the aspirations of our young people?
- What skills do we need now and in the future?
- How do we ensure skills are available as required locally?
- How do we attract and retain talent from within and outside the region?
- How do we ensure adults continuously upskill and how do we maximise in-work progression?
- What will encourage businesses to invest in skills?
- What scope is there to increase apprenticeships?
- How do we improve our digital skills in the region?
- How do we retain more graduates in the region?
- How can we maximise the contributions of older people?

### Enterprise

- What is currently inhibiting business growth?
- How can we get more people to start a business and what could we do to help?
- How do we support rural businesses?
- How do we identify and support more “scale ups” and how do we help businesses to grow?
- How do we encourage entrepreneurs and an entrepreneurial culture?

- How do we improve access to finance for business growth?
- What other incentives would improve entrepreneurial activity?
- What are the challenges in terms of leadership and management and what should we do to help?
- What role can social enterprise play in growing productivity?

### **Innovation**

- How do we improve the innovation ecosystem – the process by which ideas move into new or better products and services - to strengthen the innovative capacity in business and public sector?
- What incentives will improve technology transfer and encourage universities and business to work more closely together?
- How do we promote creativity in support of innovation?
- How do we support R&D and build on existing strengths?
- How do we best support knowledge exchange and clustering?

### **Competition and Infrastructure**

- What should our priorities be for transport infrastructure?
- Do we have appropriate business premises / science parks?
- What are the key barriers to investment capital?
- How important is housing provision and affordability to raising productivity?
- How do we improve access to Broadband and Superfast Broadband?
- How do we improve our export capabilities?
- What should be the priority in terms of improving connectivity?

### **Other**

- What other key considerations should we be taking into account to grow productivity in Heart of the South West?

## INTRODUCTION

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*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.*

*Unlocking Regional Growth, CBI<sup>3</sup>*

The HotSW LEP, the 17 local authorities, the National Parks and the three Clinical Commissioning Groups in the Heart of the South West area are committed to developing a joint Productivity Plan. As a first stage in this process we are gathering our evidence base and undertaking an extensive consultation with our partners on the issues that we face, as well as the solutions. We want your help in developing a future vision as well as a plan of action for our economy.

This paper aims to guide the first stage of the consultation process. We would like to hear your views on the nature of the challenges we face and the steps we need to take to enhance our economic performance both now and in the future. This paper sets out the position our area is currently in, making comparisons to national and international benchmarks where relevant. Once we have compiled your views we will consult again on the outcome of this process so we that can focus on developing a clear plan of action for the future (see 'Timetable and process' for details).

### The Productivity Challenge

When we talk about the economy we often talk about growth, but the pursuit of 'growth' and the pursuit of 'productivity growth' are not the same thing. Growth can be achieved either by:

- increasing the number of people who are in work or the number of hours they work; or by
- increasing the value of the goods and services that each person in work produces per day or hour, i.e. by increasing productivity.

Productivity is a measure of how efficiently inputs (labour and capital) are used to produce outputs (goods and services)<sup>4</sup>. Its importance lies in it being the key

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<sup>3</sup> P4 *Unlocking Regional Growth: Understanding the Drivers of Productivity across the UK'S regions and nations*, CBI 2016

<sup>4</sup> In formal terms, Gross Value Added (GVA) equals the value of the 'outputs' of an enterprise (normally turnover) less the 'inputs' (the cost of bought in goods and services). GVA is, in effect, the income available to enterprises to cover expenses (wages, dividends, etc.), savings (profits), long-term investment (depreciation), and (indirect) taxes. Productivity is the total GVA of a geography, sector or enterprise divided by a measure of labour input. The measure of labour input may be the number of jobs, the number of full-time equivalent jobs (FTE) or the number of hours worked. Generally, using the number of hours worked or FTE jobs is preferable, as this removes differences that result from variations in the level of part-time working in different geographies.

determinant of wages and living standards. It also determines enterprises capacity to grow through investing in their businesses.

"Higher productivity increases household incomes. Productivity is the single most important determinant of average living standards..."

*'Fixing the Foundations', HM Government, July 2015*

"The productivity gap is well known, but shocking nonetheless: We lag the US and Germany by some 30 percentage points. But we also lag France by over 20 and Italy by 8. In the real world, it takes a German worker 4 days to produce what we make in 5; which means, in turn, that too many British workers work longer hours for lower pay than their counterparts."

*Chancellor of the Exchequer Autumn Statement 2016*

The crucial challenge for HotSW, described in both our Strategic Economic Plan and Devolution Prospectus, is that our productivity is currently 83% of the UK average. Over the last decade, economic growth in the HotSW LEP area has been driven by rising employment – the more people we have in work, the bigger our economy is.

Although HotSW still contains areas of high unemployment, across the LEP area employment is at an historic high. In many Districts employment rates are approaching the level that economists have traditionally viewed as "full employment". Increasingly, to support improvements in quality of life, we will need to look beyond growing the number or the proportion of people who are in work and to focus on growing the value of the goods and services they produce. We need to move from thinking about "growth" to thinking about "productivity". As stated in our Devolution Deal Prospectus, we need to create not just more jobs, but *"better jobs, a healthier, higher skilled labour market and new homes for our growing population"*. The challenge is how to achieve this rise in productivity, given the nature of HotSW's economic base and infrastructure.

The Heart of the South West has had historically low levels of productivity compared with the UK average; **if the gap between the existing UK productivity rate and the Heart of the South West was closed, every household in our area would be £11,500 better off per year, every year.**

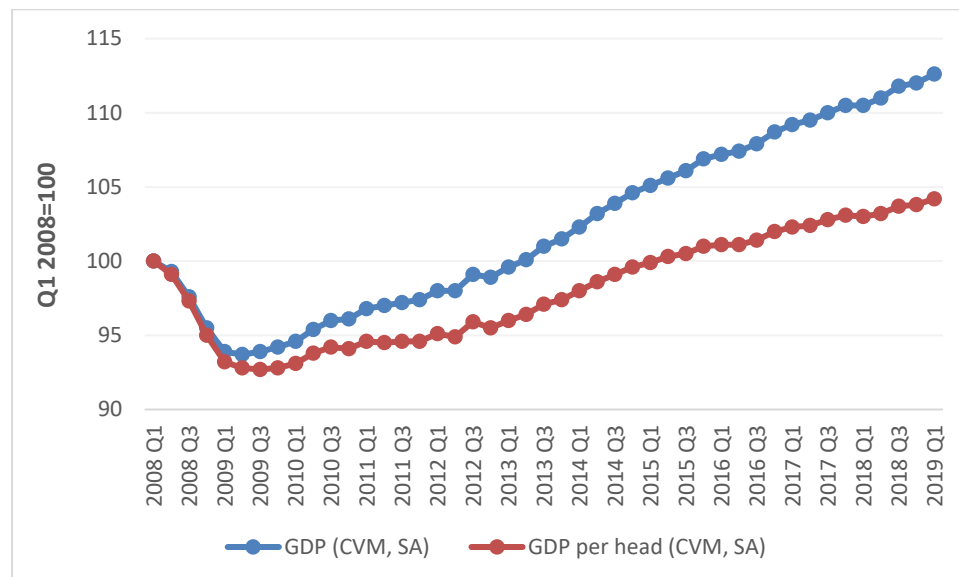
Increasing our productivity will increase the wealth and help improve the quality of life of everyone in the Heart of the South West. If the UK closed the productivity gap with Germany, every household in the UK would be £8,500 better off per year, every year.

If the Heart of the South West achieved levels of GVA per head found in Germany, **the increase per household would be even greater, at £20,000 per year, every year.**

## THE PRODUCTIVITY CHALLENGE

Since 2010, the UK economy has been growing and the total output of the UK economy (Gross Domestic Product (GDP)) has been rising. However, this rise has been entirely the result of an increase the volume of people in employment. UK productivity, measured in terms of output per head, remains lower than it was before the recession.

**Figure 1: GDP & GDP per head<sup>5</sup>, chained volume measures - UK, Q1 2008 = 100**



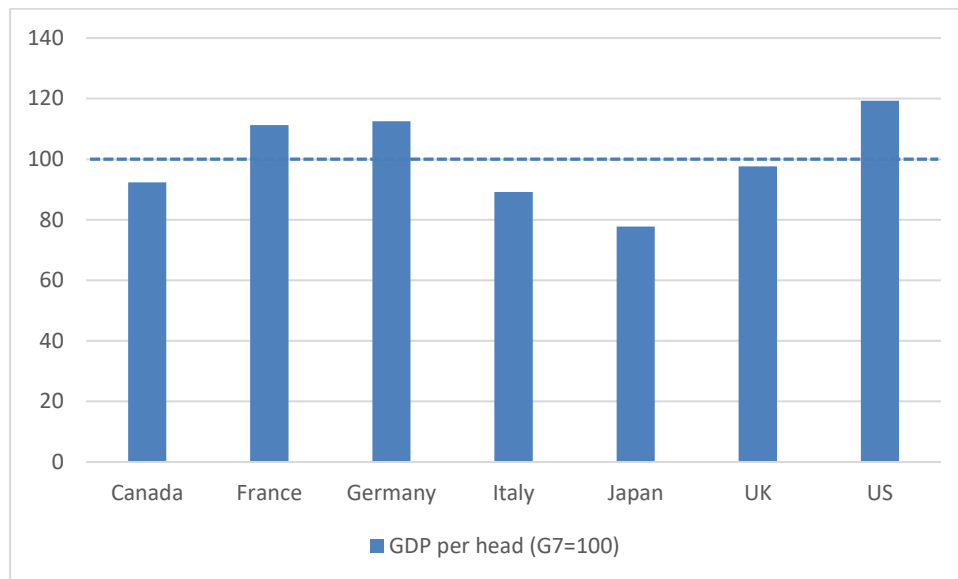
Source: Gross Domestic Product – ONS, May 2019

### International comparisons

The UK narrowed its productivity gap with the rest of the G7 in the first half of the 2000s. Between 2002 and 2007, UK GDP per hour rose faster than any other G7 country. However, that trend has been in reverse since the financial crisis. Since 2007, UK productivity has risen more slowly than in any other G7 country apart from Italy. As a result UK output per hour is now 20% below the average for the other G7 advanced economies - the widest productivity gap since 1991.

<sup>5</sup> Output per head = GDP divided by the total population

**Figure 2: Difference in GDP per hour worked, G7 countries, 2017, G7=100**



Source: OECD

“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. And the UK has fallen further behind its international peers.”

*Unlocking Regional Growth: Understanding the Drivers of Productivity across the UK'S regions & nations, CBI 2016*

The case for a shift in policy focus, away from ‘growth and jobs’ to addressing the productivity gap, is made absolutely clear in the Government’s Productivity Plan, ‘Fixing the Foundations’, published in July 2015.

*Productivity is the challenge of our time. It is what makes nations stronger, and families richer. Growth comes either from more employment, or higher productivity. We have been exceptionally successful in recent times in growing employment. We are proud of that. But now in the work we do across government we need to focus on world-beating productivity, to drive the next phase of our growth and raise living standards<sup>6</sup>.*

## Why is productivity important?

In the context of globalisation, raising productivity is essential to enable companies to be competitive internationally, to exploit opportunities in emerging markets and to attract

<sup>6</sup> Fixing the foundations: Creating a more prosperous nation, HM Treasury, July 2015

foreign direct investment. Productivity growth is also central to ensuring that real wages rise across the economy.

Research suggests that roughly 60% of the value generated in the UK economy accrues to employees in the form of wages and non-salary compensation, such as pensions<sup>7</sup>. Raising productivity raises earnings, which in turn raises income tax receipts and VAT on personal expenditure. It reduces the number of people claiming in-work benefits and helps to balance the budget.

*'Higher productivity will improve the public finances. The Office for Budget Responsibility (OBR) estimated in 2014 that in a high productivity scenario public sector net debt would fall to 56.7% by 2019-20, while under a low productivity scenario debt would rise to 86.6%'*

*Fixing the Foundations, HM Treasury, 2015*

Raised productivity also creates scope for increased capital investment and higher spending on research and development. Through increased tax receipts, it helps to pay for social goods, such as protecting the natural environment, health and care.

## Why focus on productivity now?

In the past, productivity has usually bounced back relatively quickly following recessions. This time it's different. The persistent weakness in UK productivity (the 'productivity puzzle') has challenged economists. There are many theories to explain it<sup>8</sup>, including: weakness in investment reducing the quality of equipment employees are working with; the banking crisis leading to a lack of lending to more productive firms; the ongoing impact of labour hoarding; employees within firms being moved to less productive roles; a plentiful supply of labour, including from abroad, enabling companies to pursue employment rather than capital intensive growth models; and slowing rates of innovation and discovery. None of these explanations alone is sufficient to explain what has happened, making it difficult to predict when or if productivity growth will return to pre-crisis rates. This 'productivity puzzle' that makes the issue particularly urgent now.

At the time of writing, UK unemployment in Q1 2019 was at a 45-year low, at 3.8% (1.3 million).

In the HotSW LEP area, 78.7% of adults (aged 16 to 64) are in employment, a figure well above both the UK and EU averages. In Mid Devon, East Devon, Sedgemoor and South

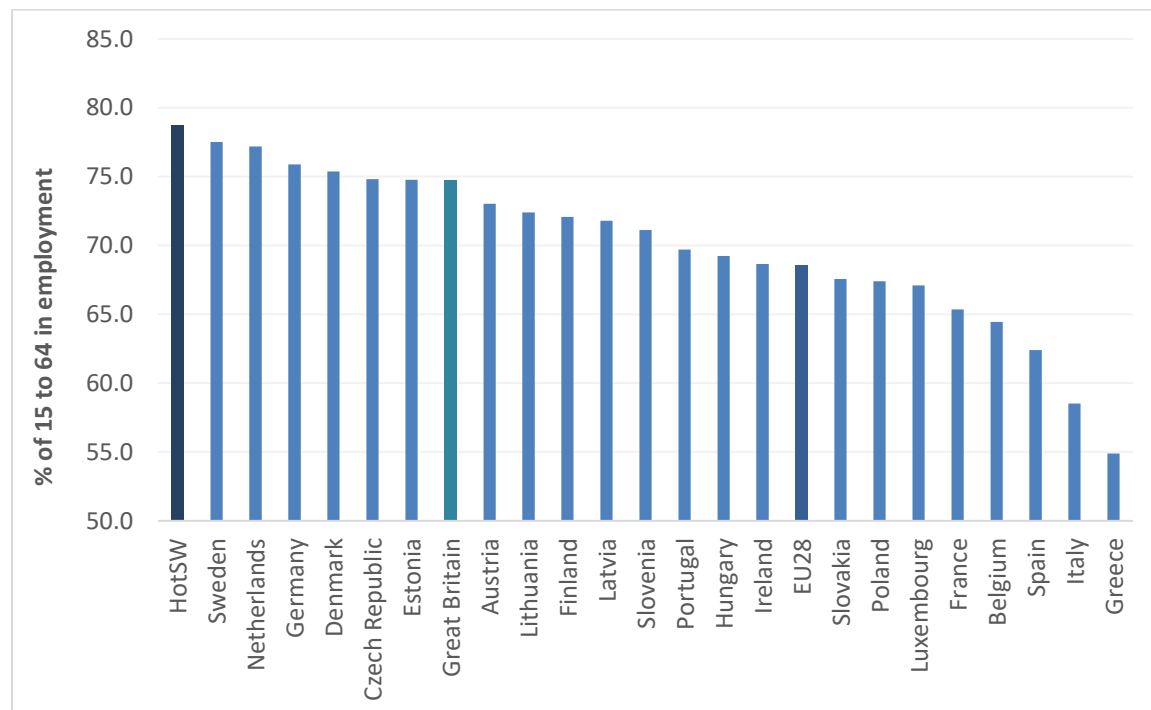
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<sup>7</sup> Missing out - Why ordinary workers are experiencing growth without gain, Resolution Foundation, July 2011

<sup>8</sup> D Harari, House of Commons Briefing Paper: Productivity in the UK, Number 06492, 22 November 2016, House of Commons

Somerset the employment rate is above that found in Iceland, the leading nation among the EU 28 group.

**Figure 3: Employment Rate, 15 to 64 Year Olds, EU Countries, 2018 (Eurostat)**



Source: Eurostat

The 20% of people who aren't working includes many who are effectively outside the labour market, such as carers, people who have retired early, people who are bringing up children, who have acute physical or mental health problems or who are in prison. Unless economic conditions change, a growth strategy based solely on raising the proportion of people who are in employment is unlikely to succeed<sup>9</sup>.

Of course, we must continue to help people who are unemployed to find and prepare themselves for work. We must also recognise that many areas continue to be affected by deprivation and HotSW contains wards such as Tormuhan and Roundham-with-Hyde (in Torbay), St Peter and the Waterfront (in Plymouth), Bridgwater Westover and Bridgwater Hamp where the number of people claiming unemployment-related benefits is over three times the LEP area average. Finding the measures to generate productivity growth in an inclusive manner, so that the benefits are felt across the breadth of society, is an important consideration.

<sup>9</sup> The 20% also includes people who are homeless, who have problems with drug misuse, who are long-term unemployed or leading chaotic lives and who are difficult to support into work. In short, delivering growth by further increasing the employment rate is becoming increasingly difficult.



It is, of course, possible to deliver growth by increasing employment volumes, rather than employment rates, through inward migration. Inward migration has been an important driver of growth for HotSW in recent decades. But is it generating the sort of growth or environment that we want?

Pre-BREXIT figures suggest that HotSW's population will grow by a further 120,000 in the decade from 2015 to 2025, with two thirds of this being net migration from within the UK and one third coming from outside national borders. In the light of the BREXIT vote, it's also reasonable to assume that international migration will slow. If the economy continues to expand, this will result in increased labour market tightening, which in turn may drive a rise in wages. If this happens enterprises may be tempted to move more capital intensive modes of production, with positive impacts on productivity, as long as the skills, the finance and other forms of support that enterprises need are available. As Government points out in its Green Paper, the national Industrial Strategy will be '*a critical part of our plan for post-Brexit Britain*', designed to position the UK as a positive, globally competitive trading nation.

## **Industrial balance**

Productivity varies enormously from one industrial sector to another. GVA per full time employee (FTE) in Finance and Insurance activities (£59,746) is two and a half times that found in Hospitality and Food services.

Figure 4 shows GVA per FTE in the HotSW area for the major industrial sectors, the proportion of all HotSW employment found in that sector and a 'location quotient'<sup>10</sup>.

It shows that HotSW has:

- a denser than average concentration of employment in Public Administration which, having high GVA per FTE, boosts average productivity for the LEP area;
- low levels of employment in the highly productive Financial and Insurance activities and Information and Communication sectors; and
- high densities of employment in a number of relatively low productivity sectors, including: Arts, entertainment & recreation; Accommodation and Food Services; Agriculture; and Human health & social work (including care), a number of which employ large volumes of people.

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<sup>10</sup> Location quotients show whether the concentration of employment in a sector is denser (a score above 1) or rarer (a score below 1) than the UK average.

**Figure 4: GVA per FTE Job, employment volumes, intensity and productivity, HotSW, 2017**

	Real GVA per FTE (£)	Real GVA per FTE Index (GB=100)	Industry % of HotSW GVA	GVA-based LQ (GB=1)
Agriculture, forestry and fishing	38,524	103.5	1.8%	2.82
Mining and quarrying	93,826		0.5%	1.83
Manufacturing	68,883		13.1%	1.30
Electricity, gas, steam and air conditioning supply	170,024	84.9	2.7%	1.60
Water supply; sewerage, remediation and waste	109,733	107.7	1.7%	1.65
Construction	36,951	78.1	8.3%	1.32
Wholesale and retail trade; repair of motor vehicles and motorcycles	39,895	81.8	12.1%	1.16
Transportation and storage	44,001	57.9	3.4%	0.78
Accommodation and food services	25,568	75.4	4.5%	1.50
Information and communication	53,397	53.9	3.5%	0.52
Financial and insurance activities	134,188	64.7	2.3%	0.32
Real estate activities	143,602		7.7%	0.55
Professional, scientific and technical activities	54,799	90.5	5.4%	0.71
Administrative and support service activities	35,444	77.4	4.0%	0.78
Public administration and defence services; compulsory social security	59,020	93.4	7.0%	1.58
Education	49,718	91.9	7.6%	1.30
Human health and social work activities	35,681	92.6	9.9%	1.36
Arts, entertainment and recreation	43,037	77.3	1.3%	0.89
Other service activities	42,928	72.0	1.6%	1.37
Activities of households as employers	53,421	104.1	0.5%	1.42

Source: Advanced Modelling of Regional Economies Economic Model for HotSW, Impact (2019)

Raising the proportion of HotSW's economic activity that sits within more productive sectors is clearly one route to raising productivity. But, is HotSW's productivity gap due to differences sectoral balance of the economy or because workers are less productive in all sectors of the economy?

In reality both factors have a role. Productivity lags the national average in all sectors apart from Public Administration. In some sectors, such as Finance and Insurance Services and Information and Communication, the gap is extremely large (**Error! Reference source not found.**). We not only have lower concentrations of employment in these sectors, but the activity that we do have in these sectors is significantly less productive than the national average, which is clearly partly due to the impact of London. In Education and in Human Health and Social Work, the productivity gap is smaller than the all sector average. This is not unexpected given that national policies around wages and public sector investment play a role in these sectors and that the nature of the activities undertaken in these sectors is broadly similar across the country.

The sectors within HotSW that have seen the fastest productivity gains over the last five years are: Wholesale & retail; Professional, scientific & technical; Administrative & support services; and Information & Communication.

The Productivity Plan will need to address:

- how to seek to reduce dependency on low productivity sectors, by promoting investment in higher value-added areas of the economy; and
- how to improve productivity in all sectors, perhaps particularly those (such as Human health and care or Accommodation food Services) in which local employment volumes are highest and concentrations are particularly dense.

## POLICY CONTEXT

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The new Chancellor, Philip Hammond in his first Autumn Statement in 2016, continued Government's commitment to productivity and the devolution agenda. It is intended that this Productivity Plan will help us compete for resources from Government programmes and policies that will flow from this commitment.

Following the publication of Fixing the Foundation in 2015, the Chancellor's Autumn Statement 2016 announced the introduction of a National Productivity Investment Fund (NPIF). This fund will provide for £23 billion of spending between 2017-18 and 2021-22. The plan builds on existing plans for major investment over this Parliament, including the biggest affordable house building programme since the 1970s, resurfacing 80% of the strategic road network, investment in the railways, and prioritising science and innovation spending. The NPIF will take total spending on housing, economic infrastructure and R&D to £170 billion over the next 5 years.

### Industrial Strategy

On 24<sup>th</sup> January 2017, the Prime Minister launched proposals for *"a modern Industrial Strategy to build on Britain's strengths and tackle its underlying weaknesses to secure a future as a competitive, global nation"*. The Government's Green Paper, *Building Our Industrial Strategy*, continues the direction of travel seen in the Autumn Statement where the Chancellor vowed to make the UK economy "resilient" for leaving the EU as forecasts pointed to higher borrowing and slower growth. Its 10 Pillars link closely with the key drivers of productivity identified in this report and on which we are seeking your views.

Thus the development of the Heart of the South West Productivity Plan and the consultation process for our Plan will enable us to respond effectively to the Government's Industrial Strategy consultation.

There are ten key pillars to the proposed Industrial Strategy.

### Investing in science, research and innovation

The government proposes investing an additional £4.7 billion by 2020-21 in R&D funding. The Industrial Strategy Green paper starts a consultation on how to invest this funding, setting out options ranging from investment in local science and innovation strengths, and increased support for commercialisation, to investing in future research talent. It also consults on the technologies which the new Industrial Strategy Challenge Fund could support, including:

- smart and clean energy technologies (such as storage and demand response grid technologies);
- robotics and artificial intelligence (including connected and autonomous vehicles and drones);
- satellites and space technologies;

- leading edge healthcare and medicine;
- manufacturing processes and materials of the future;
- biotechnology and synthetic biology quantum technologies, and
- transformative digital technologies including supercomputing, advanced modelling, and 5G mobile networks
- Creative industries

Other commitments include: launching a challenge prize programme to stimulate home-grown inventors; maximising the incentives created by the Intellectual Property system; and setting out a UK Measurement Strategy.

### **Developing skills**

Ensuring everyone has the basic skills needed in a modern economy will be a key focus. There is also an emphasis on building a new system of technical education to benefit the half of young people who do not go to university, boosting STEM (science, technology, engineering and maths) skills, digital skills and numeracy.

Proposals include:

- £170m of new capital funding to establish prestigious Institutes of Technology, to deliver higher level technical education in STEM subjects across all regions.
- Expanding the provision of specialist maths education (e.g. Exeter Mathematics School).
- Tackling shortages of STEM skills, encouraging the growth of STEM subjects and incentivising growth in the number of STEM graduates. Exploring how to support further education colleges to be centres of excellence in teaching maths and English.
- Testing ambitious new approaches to encourage lifelong learning and exploring a new 'UCAS-style' way of searching and applying for courses in technical education.
- Working towards a joined-up, view of the sector specific skills gaps.
- Publishing a comprehensive careers strategy later this year.

### **Upgrading infrastructure**

Investment in economic infrastructure is a key part of industrial strategy. Government will use infrastructure to support rebalancing between regions. Investment in the A303 Stonehenge route, an essential connection for the South West is highlighted for future action.

The government will award £1.8 billion to Local Enterprise Partnerships (LEPs) across England through a third round of Growth Deals. £556 million of this will go to the North of England, £392 million to LEPs in the midlands, £151 million to the east of England, £492 million to London and the south east, and £191 million to the south west. Clearly only a proportion of this will come to HotSW. This local infrastructure funding will improve transport connections, unlock house building, boost skills, and enhance digital connectivity.

### **Supporting businesses to start and grow**

The UK invests on average two to three per cent of GDP less than France, Germany and the United States in fixed capital – such as plant and machinery. The Patient Capital Review, recently announced by the Prime Minister, will identify the most effective ways to improve the availability of patient capital for growing businesses. Government will work with the British Business Bank and the ScaleUp Institute to understand and address the relative weakness of venture capital funding and entrepreneurship networks outside the South East. Government will explore how to identify scale-up businesses so that they can be more effectively targeted for support.

### **Improving procurement**

The public sector spends around £268 billion per year, equivalent to 14 per cent of GDP. Used strategically, government procurement can encourage innovation, competition, and investment in skills. An independent review of the UK's Small Business Research Initiative will examine how we can use strategic procurement to support innovative businesses.

### **Encouraging trade and inward investment policy**

The UK is the number one location for inward investment in Europe – but not enough UK firms export, and trade as a share of the economy has grown more slowly than in our G7 competitors over recent decades. Plans include testing a new 'Team UK' approach to trade, convening consortia of businesses around UK Export Finance backed funding to bid for major overseas contracts.

### **Delivering affordable energy and clean growth**

Security of supply is, of course, foundational. There are three major challenges for energy policy that our industrial strategy will address; the shift to a low carbon economy; the need to manage the changes to energy networks required in the transition to a low carbon economy; and to make sure that the UK capitalises on its strengths in the energy industries to win a substantial share of global markets.

Future proposed actions include: setting out a road map to minimise business energy costs; publication of an Emissions Reduction Plan during 2017, providing long-term certainty for investors; and a new research institution to act as a focal point for work on battery technology, energy storage and grid technology.

### **Cultivating world-leading sectors**

Government proposes to set an 'open door' challenge to industry to come to Government with proposals to transform their sectors through 'Sector Deals'. The Government will work with sectors that organise themselves behind strong leadership to help deliver upgrades in productivity. This could involve: addressing regulatory barriers; promoting competition and innovation; working together to increase exports; and working together to commercialise research. Sector deals will be driven by business to meet the priorities of business.

## **Driving growth across the whole country**

New competitive funding streams to support world-class clusters of research and innovation in all parts of the UK, whether they are led by business or universities, and large or small projects. Government will also work with local areas to test new approaches to closing the skills gap. These could include: improved pre-school education to reduce the divergence of achievement which opens up before school; new schemes to support the retention and attraction of graduates; and measures to increase the take up of apprenticeships.

Expanding existing streams supporting universities' commercialisation activity would allow them to do more for their local economy and support more local small businesses.

The Government will use additional infrastructure funding to unlock growth in areas where connectivity is holding it back by creating new funding which allow better coordination of local economic plans with infrastructure investment.

Working with local areas to identify and help develop industrial and economic clusters of businesses, and local specialisms, putting in place the right institutions with the right powers to help support local areas of economic strength.

## **Creating the right institutions to bring together sectors and places**

Government is seeking to build on such institutions where they exist, and work with business to create them where they are needed. There is also recognition that this may involve creating new institutions or strengthening existing ones such as educational and innovation institutions, business networks and trade associations, or financial networks and local funds. The importance of anchor institutions is recognised and there is a desire to maximise the benefit that they can bring to an area by supporting the growth of UK supply chains.

The Cabinet Office is reviewing the location of Government agencies and cultural institutions and will consider relocating them where they could help reinforce local clusters and support private sector growth.

Importantly the Government will support networks of universities, such as *SETsquared*, where they want to come together to improve commercialisation.

They will work with Local Enterprise Partnerships to review their role in delivering local growth and examine how we can spread best practice and strengthen them, including extending the support they can receive from the What Works centre for Local Economic Growth.

The Green paper also addresses devolution (see below).



## Devolution

Devolution Deals represent the principal mechanism through which recent UK Governments have sought to respond to demand for more place-based decision-making in England. The deal-making process is a challenge to established ways of working, nationally and locally. It represents a significant development in relation to public service reform, local economic growth, and local democratic accountability in England.

Whilst it is England's urban areas have been the first movers towards devolution since November 2014, areas with significant rural populations are now developing devolution deals. While the early devolution deals were primarily done with urban areas in the North, there are now major deals in the early stages in large parts of the South of England<sup>11</sup>.

The government has said that it remains committed to devolving powers to support local areas to address productivity barriers. The government will transfer to London, and to Greater Manchester, the budget for the Work and Health Programme, subject to the two areas meeting certain conditions, including on co-funding. The government has also confirmed the Greater London Authority's (GLA) affordable housing settlement. The government will continue to work towards a second devolution deal with the West Midlands Combined Authority and will begin talks on future transport funding with Greater Manchester.

Work for the Local Government Association on devolution suggests that what is emerging is 'asymmetric devolution' in which the main catalysts of change are 'bottom-up' aspirations and demands for higher levels of autonomy to respond to place-based challenges and potential. A strong evidence base, sound partnership, cohesive strategy and track record all appear to be in place before a deal is in prospect.

The Industrial Strategy Green Paper states that Government will explore further devolution deals for England's largest cities, where these will increase economic growth. Following the elections for the first combined authority mayors in May 2017, the Local Government Association will work with new Mayoral Combined Authorities to build up administrative capacity, for example in transport planning and economic development, which could involve seconding officials from Whitehall to cities.

Partners across Heart of the South West set out the ambition around devolution in a prospectus published in spring 2016. The productivity plan is a key part in moving to the next stage of this process.

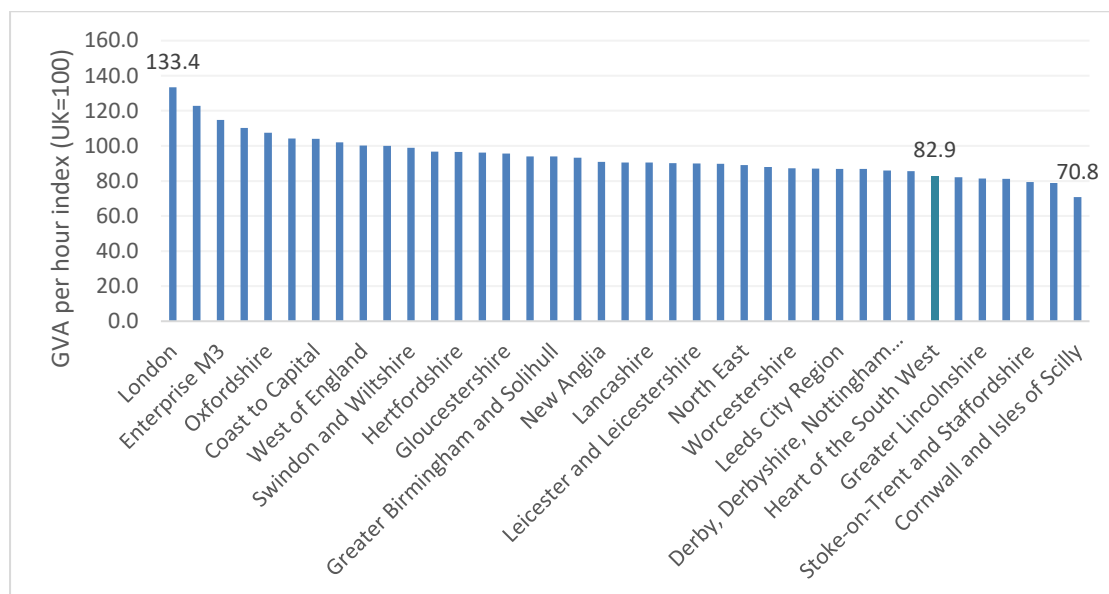
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<sup>11</sup> *Learning from English Devolution Deals: A report by New Economy for the Local Government Association, LGA 2016*

## PRODUCTIVITY IN THE HEART OF THE SOUTH WEST LEP AREA

As Figure 5 below shows, GVA per hour worked in the HotSW LEP area is amongst the lowest in the country. At £27.90 per hour, it is £17 per hour (or 38%) lower than the productivity of the London LEP region.

**Figure 5: Nominal GVA (balanced) per hour worked index (UK=100), 2017**



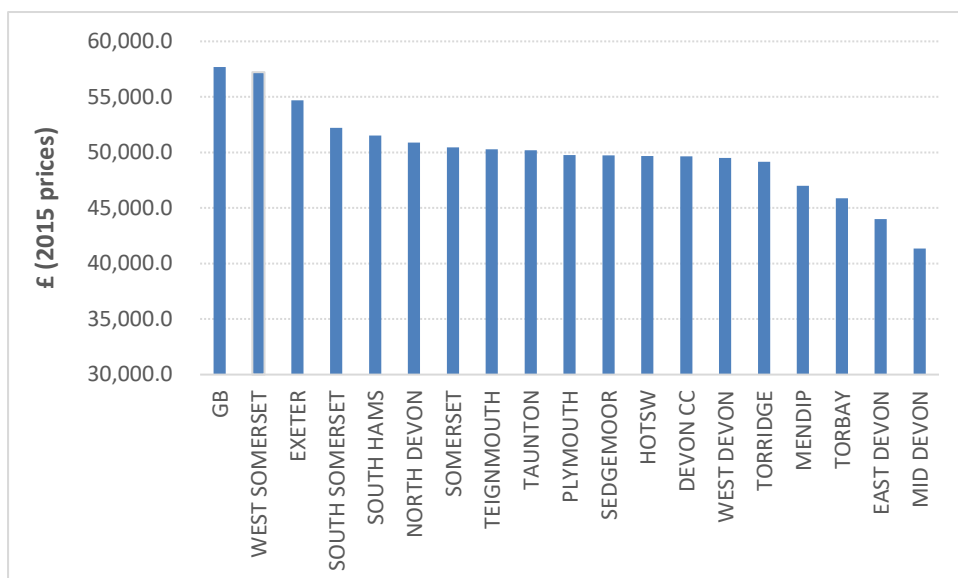
Source: ONS Sub-regional Productivity

HotSW's productivity has slipped from 86% of the UK average in 2004 to 82.9% in 2017, despite a rally from a low of 85.6% in 2011. In London, productivity has been stable, rising minimally from 132.5% of the UK average in 2004 to 133.4% in 2017.

Productivity performance also differs within the HotSW LEP area. The use of county or LEP averages disguises large differences in the industrial structure, the knowledge and capital intensity of production in different localities.

Figure 6 (below) shows that within HotSW, GVA per FTE ranges from £54,700 in Exeter to £41,344 in Mid Devon. However, even HotSW's highest productivities in Exeter (£54,700) and West Somerset (£57,226) fall short of the GB average. It is important to note however that whilst this data may provide a guide it can be misleading. The presence of a nuclear power station in West Somerset for instance will be reflected in the figures but perhaps does not reflect the nature of the economy of that area as a whole.

**Figure 6: Real GVA per Full Time Employee, 2016 (est.)**



Source: Advanced Modelling of Regional Economies HotSW Economic Tool, 2018

The areas that have seen the fastest growth in real GVA per FTE since the economic crisis (2009) have been: West Devon (18.5%), South Somerset (12%), Sedgemoor (7.7%), Teignmouth (7.5%) and Torrington (6.4%). Plymouth and Exeter have seen more modest growth in real terms, 6.1%, and 5.1% respectively; however, this remains above the growth nationally of only 0.4% over the same period. The productivity gap with the national average has therefore narrowed in these areas. In other parts of the LEP it has widened<sup>12</sup>.

## Occupational Change

Looking at the proportion of employment found in the three traditionally 'higher level' occupations ('Managers, directors & senior officials'; 'Professionals' and 'Associate Professionals') also provides an insight into the productivity of employment in different parts of the LEP. Figure 7 shows that while the proportion of employment in higher level occupations has been growing, the growth rate has been uneven. Many areas that have the highest concentrations of employment in these higher level occupations are also seeing the fastest rate of growth in knowledge-intensive employment.

**Figure 7: Employment in Higher Level Occupations, Workplace based, 2004 - 2018**

	% of All in employment in professional occupations		Volume ch. 2004-18	% ch. 2004-18
	2004	2018		
East Devon	31.9%	32.5%	3,200	23.4%
Exeter	41.4%	54.2%	19,900	57.3%

<sup>12</sup> ONS data, which is only available at upper tier authority level and for job filled, suggests that between 2009 and 2014 (at NUTS3 level) Plymouth has seen the fastest rate of productivity growth (18%), followed by Somerset (15%), Devon (14%) and Torbay (13%).

Mendip	31.3%	40.5%	4,600	33.8%
Mid Devon	28.3%	53.3%	2,300	28.0%
North Devon	33.5%	35.5%	4,700	29.9%
Plymouth	35.7%	44.2%	17,500	36.0%
Sedgemoor	31.5%	43.0%	10,600	74.1%
West Somerset & Taunton Deane	36.2%	39.2%	4,700	19.1%
South Hams	32.9%	40.9%	4,300	40.2%
South Somerset	37.8%	45.1%	5,600	18.9%
Teignbridge	31.9%	44.1%	5,700	40.4%
Torbay	37.7%	35.3%	-1,600	-8.0%
Torridge	23.2%	52.3%	2,500	46.3%
West Devon	32.1%	33.3%	-2,700	-39.7%
<b>HotSW</b>	<b>33.2%</b>	<b>42.4%</b>	<b>81,300</b>	<b>28.6%</b>
<b>UK</b>	<b>39.6%</b>	<b>46.2%</b>	<b>3,613,700</b>	<b>32.5%</b>

Source: Annual Population Survey, via NOMIS

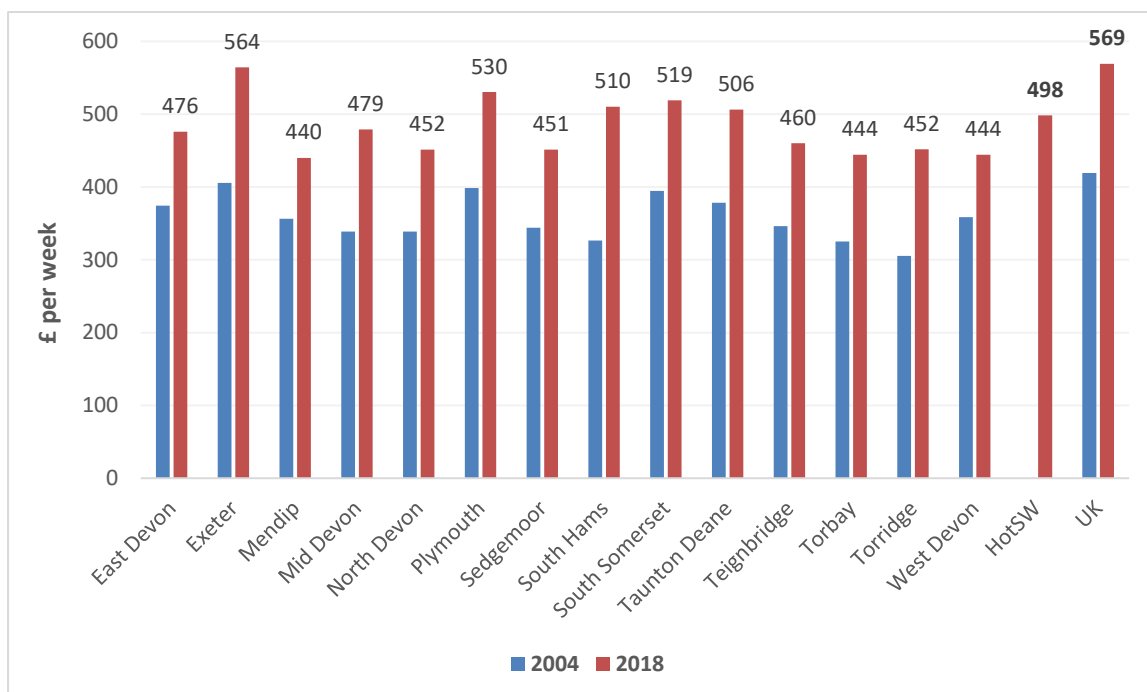
The reasons for this are likely to vary from one area to another. For example the concentration of employment in these occupations in Torridge is likely to owe something to high levels of owner-management, whereas the rapid growth of higher-level employment in the cities is due to growth in professional employment, including that within the public sector.

There is evidence that the labour market is diverging, becoming 'hour-glass' shaped as a result of rapid growth in both professional and service sector occupations<sup>13</sup>. Between 2004 and 2018, the number of people in Professional Occupations in the HotSW area grew by 29%, while the number of people employed in Personal Service Occupations fell by 2%. While modern 'knowledge economies' create large numbers of highly skilled and well paid jobs, they also create large numbers of less well paid service sector jobs, taken up by those tasked with cooking the meals, cleaning the houses or looking after the children and parents of the knowledge-workers, for example. Ensuring that the benefits of productivity growth are experienced across the economy and society as a whole will be important to the cohesion of our communities, as well as having positive fiscal impacts for the wider economy e.g. in relation to dependency on in-work benefits, income tax receipts etc.

The concentration of higher-level / more productive forms of employment in HotSW's urban centres means that average wages are highest among those who are employed in the LEP's cities and surroundings (other than Torbay).

**Figure 8: Workplace based gross full-time weekly wages, 2004 – 2018**

<sup>13</sup> The Changing Shape of the UK Job Market and its Implications for the Bottom Half of Earners, Craig Holmes & Ken Mayhew, Resolution Foundation, March 2012



Source: Annual Survey of Hours and Earnings (Data for West Somerset is unreliable)

It is important, however, to bear in mind that because productivity and GVA are workplace based measures, they are not of themselves indicators of the economic fortunes of a particular geography. For example, higher than average productivity in Exeter flows through into higher than average wages among those working in the city. However, inward commuting to well-paid jobs means that the average Exeter residents' wage is £35 per week below the average for Exeter employees. Conversely, because significant numbers of East Devon residents commute to well paid jobs in Exeter, the average wage of East Devon residents is £10 per week higher than the average wage of those who work in East Devon.

This example is included to illustrate the importance of thinking beyond District Authority boundaries and understanding the workings of wider economic geographies. These vary enormously from sector to sector. While the relationships that are critical to the productivity of a retail enterprise might be contained within a relatively small area, those that are critical to a marine enterprise may extend across the South Coast of the UK. Collaboration between LEP areas and with partners in other parts of the UK will be important to supporting productivity growth in many sectors.

## Functional economic geographies

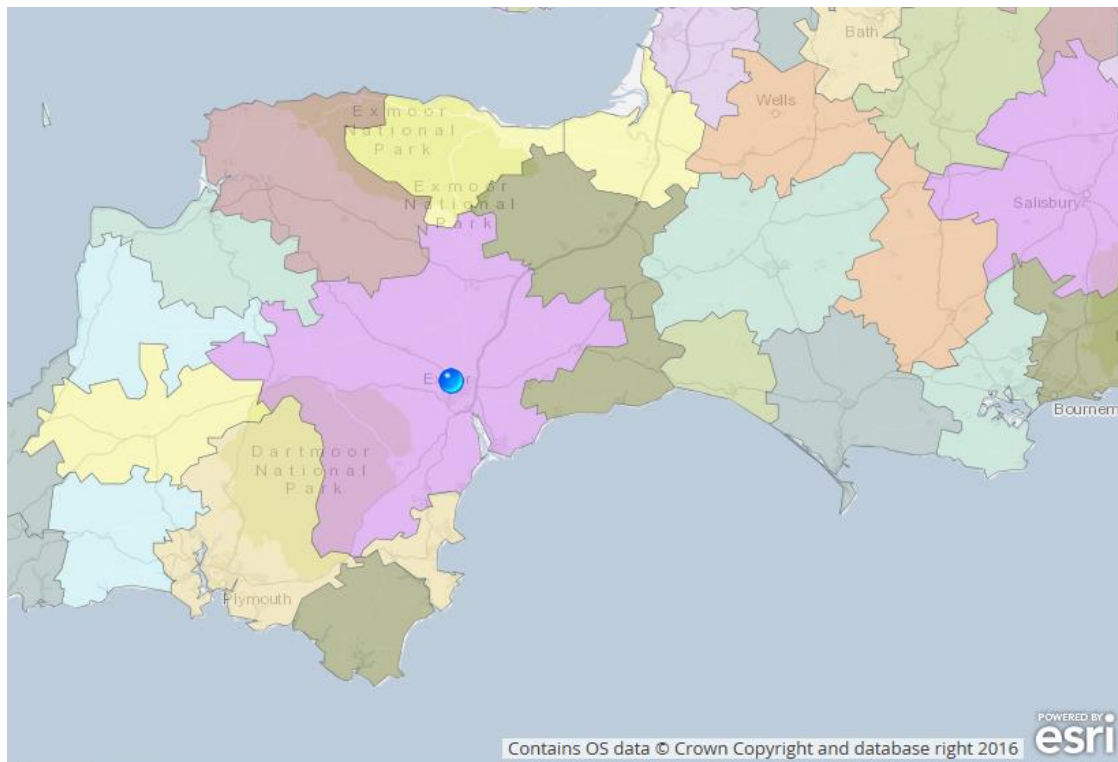
Commuting patterns identified by the 2011 Census returns have been used to create analytical geography called 'Travel to Work Areas'<sup>14</sup> (TTWA). These are the closest we have to functional economic geographies. Exeter is the largest functional economic

<sup>14</sup> The current criteria for defining TTWAs are that at least 75% of the people who work in the area also live in the area and an area must also have an economically active population of at least 3,500.

area in HotSW, accounting for around one quarter of the population aged 16 and over (426,500 residents). This is followed by the Plymouth TTWA with 354,800 residents, Yeovil TTWA (181,200 residents) and Torquay & Paignton TTWA (158,000).

More than 47,700 people commute into the area from outside to work while almost 54,600 commute out. This generates an overall net 'loss' of 6,850 though commuting flows. As one would expect, the districts of Exeter (+26,200) and Plymouth (+4,700) gain from commuting while Torbay (-4,400), Somerset (-8,200) and 'all other Devon CC districts (except Exeter)' lose (-25,150).

**Figure 9: Travel to work areas in the Heart of the South West**



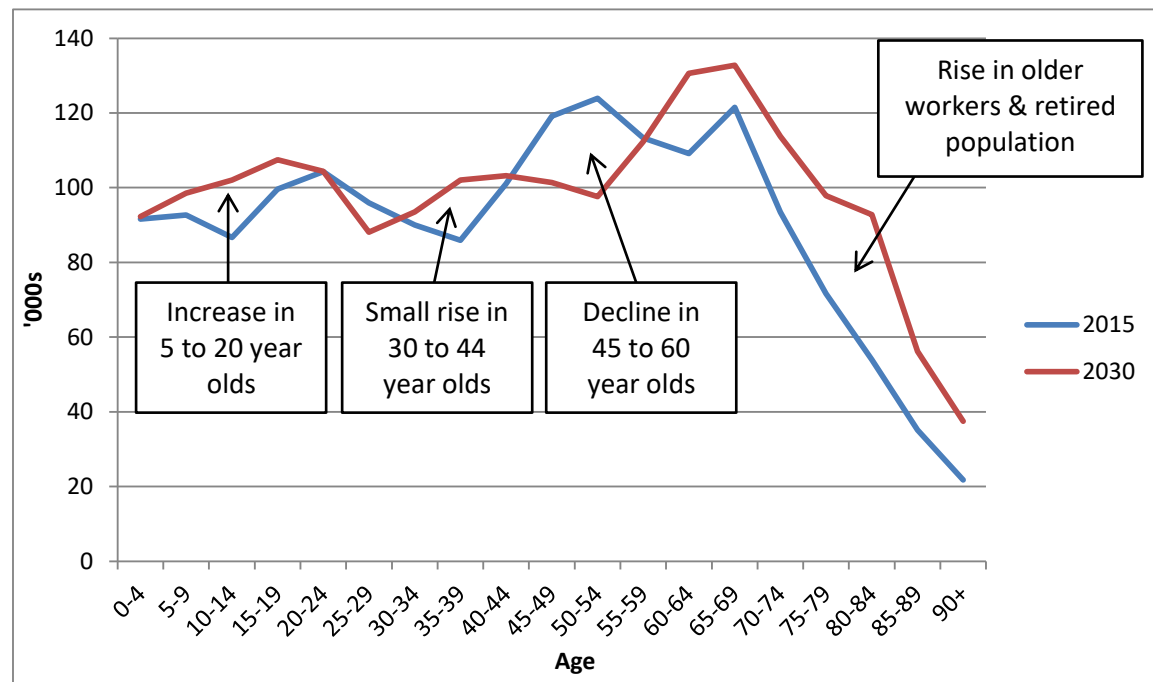
Source: ONS

## Demographic Change

It is important to take into account projected changes in the demographic make-up of the LEP area population. Figure 10 shows how the population of the HotSW LEP area is projected to change between 2015 and 2030. Overall, the population is projected to grow, by 150,000. However, it is notable that the size of the population that is aged sixty or over is projected to rise by almost the same figure. Among younger people, there is projected to be a significant decline in the number of forty-five to sixty year olds (-45,000); a small increase in the number of thirty to forty-four year olds (+20,000); and a higher rise in the number of young people aged under twenty (+30,000).

Although older people are likely to remain in work for longer, continuing a trend that is already visible, this rise in the 'dependency ratio', resulting from population growth at either end of the age spectrum, sets a further productivity challenge. The working age population will have to produce more per person for living standards to be maintained across the whole population.

**Figure 10: HotSW LEP population profile, 2015 and 2030**



Source: subnational population estimates

## BUILDING ON OUR STRENGTHS

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In our Devolution Deal Prospectus we set out some of our key strengths. Most recently these have been confirmed by the publication of the South West England and South East Wales Science and Innovation Audit (2016).

The Heart of the South West covers most of the south west peninsula. Its 1.7 million residents live in a mixture of rural and urban settings served by a stunning natural environment and rich cultural heritage. Our natural capital is thus a great asset.

Most of our businesses are small and medium sized enterprises (SME) employing fewer than five people, providing excellent potential for growth and innovation. We are also home to cutting edge engineering and manufacturing industries including companies of global significance.

The South West England and South East Wales Science and Innovation Audit (SWW-SIA) evaluated scientific excellence, innovation and growth potential across one of the most vibrant regions of the UK, characterised by well-developed high-tech industry clusters.

The SWW-SIA reviewed activity across five themes objectively identified as having the greatest industrial strength, research capacity and long-term potential: Aerospace and Advanced Engineering, New Energy Systems, Next Generation Microelectronics, Digital Living Innovation, and, Resilience, Environment and Sustainability.

The SIA reviewed the regional science and innovation asset base, in both academia and industry for each of the themes, and has identified where existing excellence, global market opportunity and industry trends, coupled with investment, ambition and drive will allow continued growth, both in areas for which the region is already globally competitive and where new opportunities exist in emergent areas.

The SIA also identified a very strong industry-pull to better integrate existing scientific and industrial activity to create pioneering new capacity in Advanced Engineering and Digital Innovation. This will drive significant added-value across a large section of the industries reviewed in the SIA, stimulating long-term economic growth.

The SIA recommends investment in High Value Engineering Design and Systems Integration capabilities, initially focused on the aerospace sector, but also designed to support the automotive, nuclear, marine engineering / energy and microelectronics sectors.

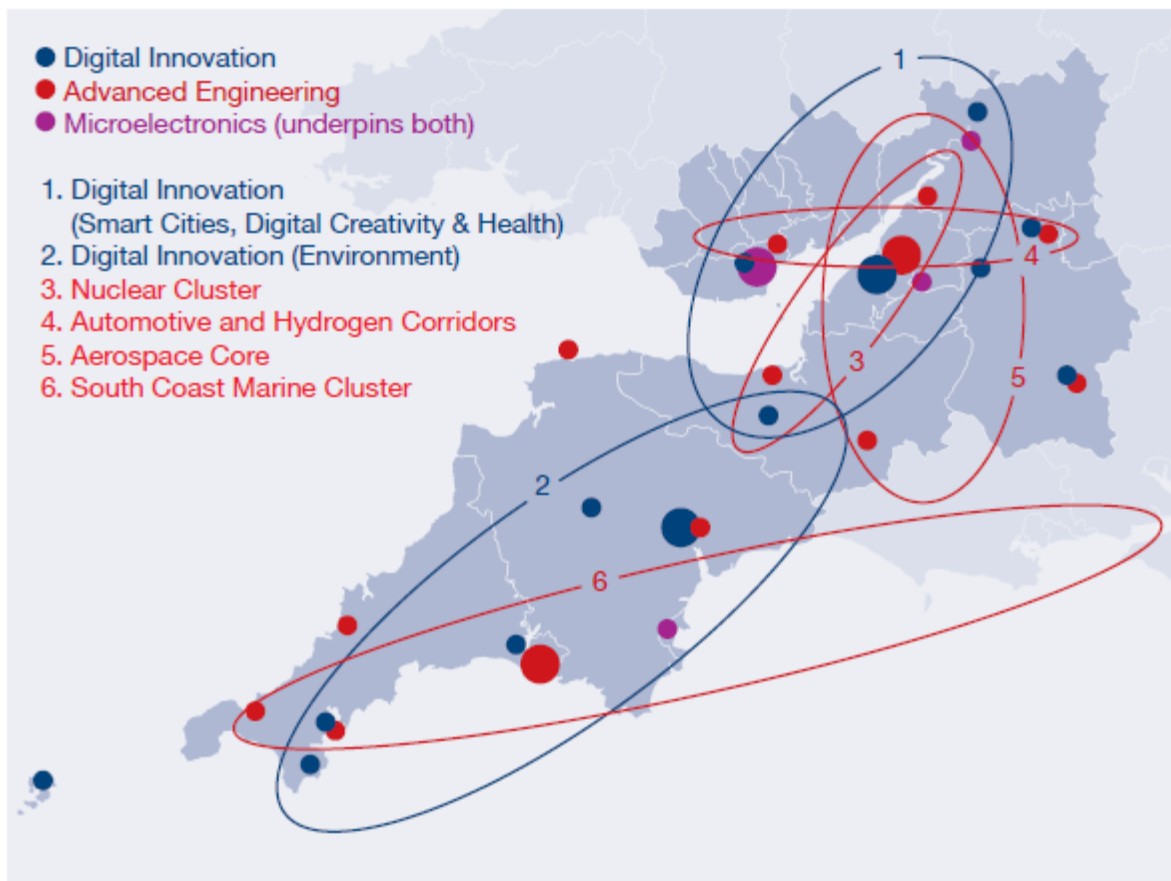
The SIA also recommends the establishment of an integrated network of Digital Innovation Hubs (DIHs) across the SW to bring together academic and industry expertise in underpinning technologies, such as cloud computing and digital communication, with a focus on Smart Cities, Digital Media, Autonomous Systems, Digital Manufacturing, and Digital Health, including an Institute for Environmental Risk and Innovation, focused on



the modelling and simulation of future climate and weather risks, coupled to the new Global Environmental Futures Campus linked to the Met Office.

The chart below shows the interconnected nature of the science and innovation assets in the Heart of the South West and the importance of strong relationships with our neighbours.

**Figure 11: Advanced Engineering and Digital Innovation inter-connected hubs & linked assets**



Source: SW England and South East Wales Science & Innovation Audit  
(note schematic does not reflect scale)

Aerospace and advanced engineering industries employ more than 30,600 people and contribute over £1.7billion to the economy. Businesses in the area also have specialisms in advanced electronics/photonics, medical science and wireless and microwave technologies. Many of these businesses and associated supply chains are located across the LEP area.

Analysis of the comparative advantages of our local assets has identified that the Exeter City Region can make a unique contribution by becoming a globally recognised centre of excellence in weather and environment-related data analytics. Exeter is home to the Met Office, the city leads Europe in combined environmental science, data and

computational infrastructure, hosting 400 researchers in environmental and sustainability science. From 2017, it will also host the most powerful supercomputer in Europe.

The first of the UK's new generation of nuclear reactors being constructed at Hinkley Point will deliver substantial economic benefits across the south west. It is part of our growing low carbon and energy sector and offers £50billion worth of business opportunity in the nuclear sector within a 75-mile radius of Hinkley Point.

The Heart of the South West is a global centre of excellence for marine science and technology, including Plymouth University's Marine Institute and the Plymouth Marine Laboratory, South Yard and the LEPs first Enterprise Zone.

There are 30 working fishing ports across the Heart of the South West, ranging from England's two largest fishery landings at Brixham and Plymouth to smaller traditional operations at locations such as Ilfracombe and Clovelly.

The South West Marine Energy Park, the UK's first, serves the wider south west peninsula, and offers direct access to superb physical assets and resources including the north Devon and north Somerset marine energy coasts, for opportunities in wind, tidal and nuclear energy.

Our mixed economy also serves our traditional strengths. Our tourist and visitor economy attracts millions of visitors per year and our food and drink sector has a significant impact on national GVA (4.2% in 2011). Whilst our largest employment sectors remain public administration, health and education, our Strategic Economic Plan recognises our area as having 'New World' potential if opportunities can be capitalised upon and the right conditions for growth created.

## DRIVERS OF PRODUCTIVITY

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To understand productivity and develop policies to influence it, we need to consider the factors that drive productivity in our economy.

The UK Treasury recognises five key drivers of productivity:

### **1. Skills**

Skills complement physical capital, and are needed to take advantage of investment in new technologies and ways of running a business. Skills alone can determine productivity but so do 'good management', 'creativity' and 'investment'.

### **2. Innovation**

The successful exploitation of new ideas: technology, products or ways of working boost productivity, for example as better equipment works faster. Research and development and general support for innovators is essential.

### **3. Enterprise**

New business opportunities for existing firms and start-ups where competition encourages new ideas and ways of working. This requires support for businesses and entrepreneurs.

### **4. Investment in physical capital**

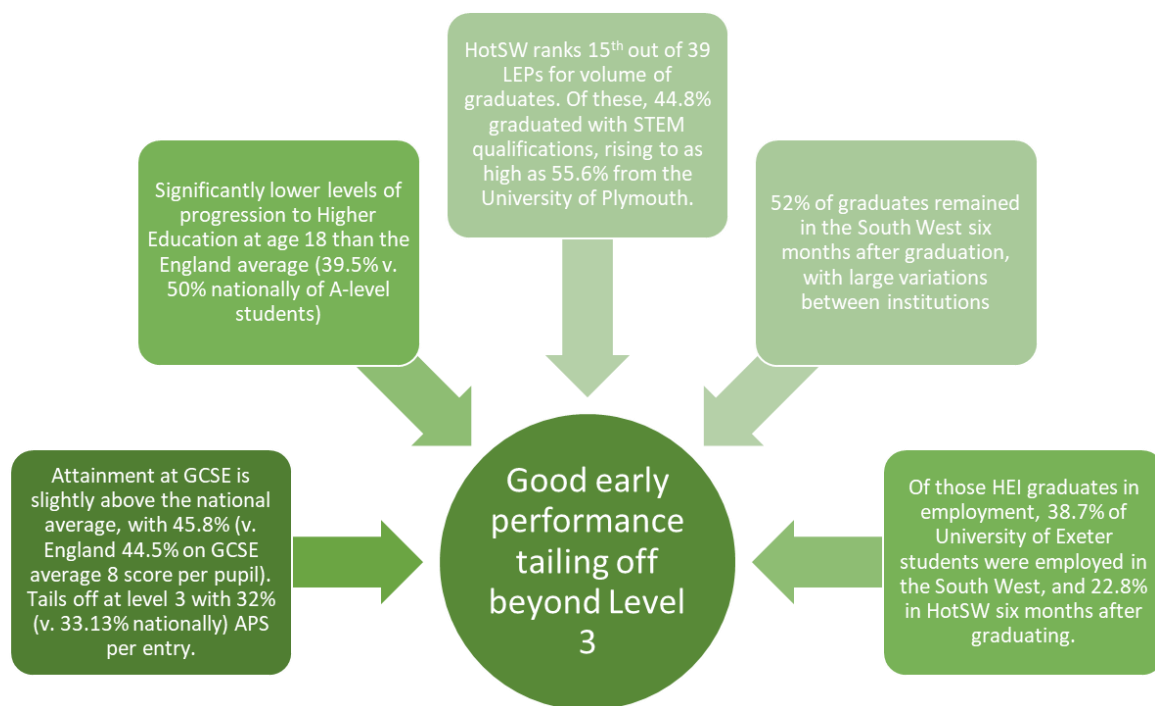
Businesses require machinery, equipment, buildings and infrastructure. More capital generally means that more can be done, better and quicker. Infrastructure and somewhere to 'set up shop' are essential, and investment capital must be available.

### **5. Competition**

Creates incentives to innovate and forces existing firms to be more efficient. National and international markets must be available. Infrastructure is key.

## SKILLS

The diagram below summarises some of the key skills challenges in the Heart of the South West.



*Over the last century, productivity growth has gone hand in hand with rising human capital, as more people have become educated, and to a higher level. However, the UK suffers from several weaknesses in its skills base that have contributed to its longstanding productivity gap with France, Germany and the US.*

*Fixing the Foundations, HM Treasury, 2015*

### The link between skills and productivity

There is a broad body of research to show that investing in skills and learning benefits:

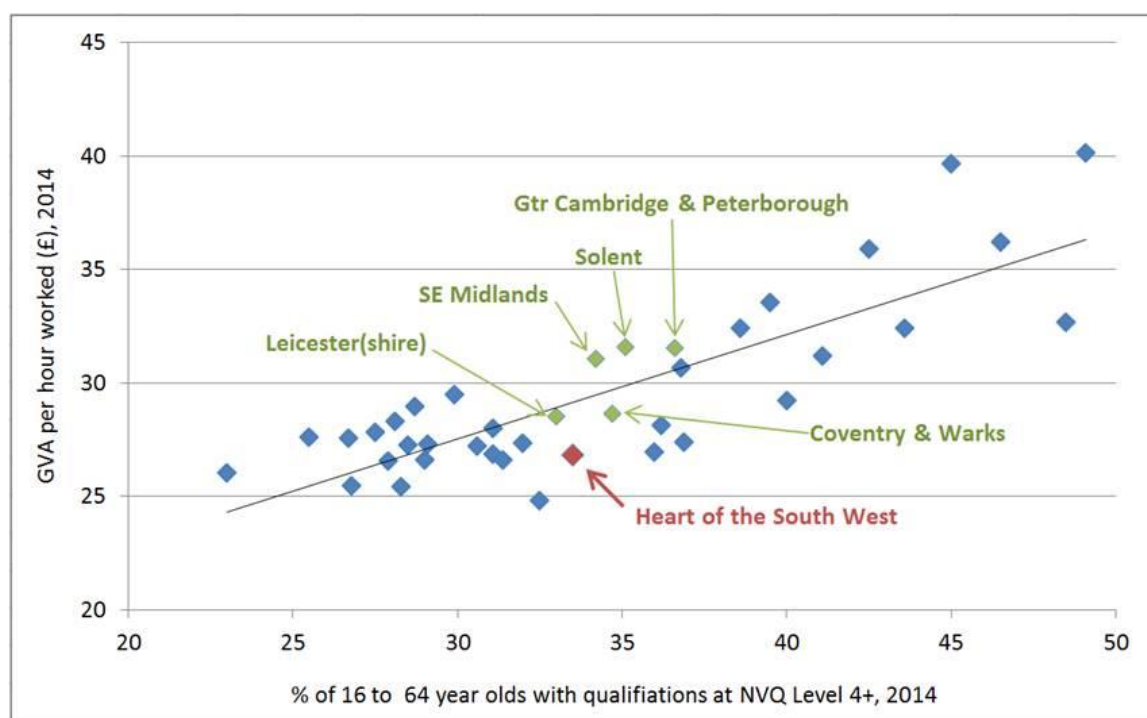
- **Society** through higher employment, a healthier population, greater civic participation and less crime;
- **Individuals** by raising their likelihood of being in employment, leading to improved wages, economic resilience and by contributing to their life-satisfaction;
- **Employers** who gain a more productive and innovative workforce who are better able to adapt to changing economic conditions; and

- **Economies** by increasing employment rates and the productivity of the workforce.

Recent studies have established a causal relationship between from the local skills base and local earnings, productivity and employment growth. This evidence-base includes a report by the CBI which suggests that educational attainment is the single most important driver of productivity<sup>15</sup>.

The existence of a relationship between skills and productivity is evident in Figure 12. The graph also shows that HotSW's productivity (32<sup>nd</sup> out of 39 LEPs) is lower than we would expect for an area that ranks 20<sup>th</sup> out of 39 LEPs for the proportion of its population with qualifications at NVQ Level 4 or above.

**Figure 12: The positive link between productivity & skill levels, England LEPs, 2014**



Source: Annual Population Survey and ONS Productivity data

The challenge in our area not just to drive up skills levels but also to ensure that the skills we have are fully utilised; a challenge related to business ambition and the quality of leadership and management.

## School age education in HotSW

Levels of educational attainment vary across HotSW. The average 8 score per pupil GCSE achievement at the end of Key Stage 4 (45.8) is below the regional average (46.7)

<sup>15</sup> Unlocking Regional Growth: Understanding the Drivers of Productivity Across the UK'S Regions and Nations, December 2016, CBI

but higher than the England average of 44.5; within HotSW, this ranges from 44.1 in Plymouth and 44.9 in Somerset, to 48.2 in Torbay. Only Torbay exceeds the national and regional average for the proportion of students who gain the English Baccalaureate<sup>16</sup>.

**Table 1: GCSE and equivalent results, 2017/18**

	Average attainment 8 score per pupil at the end of Key Stage 4	Average point score per pupil at the end of Key Stage 4 achieving English Baccalaureate
England	44.5	3.85
Devon	45.8	3.98
Plymouth	44.1	3.84
Somerset	44.9	3.86
Torbay	48.2	4.14

Source: Department for Education - GCSE and equivalent results in England 2017/18 (revised)

At the age of eighteen, the average point score per Level 3 entry is lower than the England average in all parts of the HotSW except Torbay. Torbay, with its grammar schools, also performs well for the proportion of A Level students who attain the highest grades, at AAB or better.

**Table 2: Attainment of level 3 state-funded students, 2017/18**

	All Level 3 students: APS per entry	A Level students: APS per entry	Percentage of students achieving grades AAB or better at A level
England	33.13	33.33	21.1
Devon	31.68	31.61	18.6
Plymouth	29.26	29.63	14.8
Somerset	31.64	31.87	17.8
Torbay	35.53	34.68	25.1

Source: SFF49/2016 A level and other 16 to 18 results: 2017/18

## Higher level skills

Given these levels of attainment, the proportion of young people from HotSW who progress to higher education institutions is low. In 2016/17, only 38% of students from

<sup>16</sup> The English Baccalaureate is attained by students secure a grade C or above at GCSE level across a core of five academic subjects – English, mathematics, history or geography, the sciences and a language.

state-funded schools and colleges in Devon and Somerset went on to a UK higher education institution, well below the England average of 50%. Torbay and Plymouth also lagged.

The only areas that perform 'well' against any of the indicators are: Torbay, whose grammar schools account for a higher than average percentage of state-funded students progressing to Russell Group universities; and Plymouth, where take-up of Apprenticeships is high and staying-on rates are higher than might be expected given the lower levels of attainment at Level 3<sup>17</sup>.

**Table 3: Destinations of students from state-funded schools who entered an A Level in 2016/17 from the 2015/16 cohort - % of students with activity recorded in 2016/17 as:**

	Overall sustains education and/or employment destination	Apprentice-ships	Any sustained education destination	Further education college or other FE provider	UK higher education institution	Russell Group (incl. Ox. and Cam.)	Sustained employment destination
England	89	7	61	7	50	12	22
Devon	88	7	52	10	38	10	30
Plymouth	87	12	54	8	42	7	23
Somerset	88	8	49	9	38	10	29
Torbay	88	6	54	11	40	12	28

Source: Source: Department for Education – KS5 Destination, February 2019

Although Somerset lacks a University, the HotSW contains two major Universities and multiple other HEI providers, attracting a significant pool of talent to the region.

In 2016/2017 7,482 students qualified for undergraduate degrees in HotSW universities. 3,351 undergraduate degrees were STEM, which amounts to 44.8% of all degrees. 55.6% of undergraduate degrees from the University of Plymouth were STEM subjects.

Of the known employment destinations of all students (postgraduate and undergraduate) at HotSW universities, 52% remained in the South West six months after graduation. 38.7% of University of Exeter students employed in the UK were employed in the South West, 22.8% were employed in the HotSW LEP area six months after graduating.

Of the 4,676 South West domiciled students who attended a university outside the South West, 38.3% returned to work in the South West six months after graduating. Making the most of the scope that this talent pool offers for driving up productivity is an opportunity and challenge for the LEP<sup>18</sup>.

<sup>17</sup> There may be some evidence to suggest that tuition fees and considerations of debt affordability may have had a slightly disproportionate impact on young people from HotSW. In 2010/11, the year before tuition fees rose to £9,000, young people from HotSW accounted for 2.4% of all UK students. In 2015/16, the proportion was down slightly at 2.3%. Over the same time period, the 15 to 19 age cohort in the LEP area grew, from 3.5% to 3.75%, of the total England cohort in this age band, though the latter figures may be influenced by the expansion of local HEIs.

<sup>18</sup> Higher Education Statistical Agency – Destination of Higher Education Leavers, 2016/17

## Workforce qualifications

Qualification levels among the resident population are broadly on par with the national average with more than one third (36%) holding at least a degree level qualification or equivalent or above. This is well short of the most highly qualified LEP areas, such as Oxfordshire (51%), London (53%) and Thames Valley Berkshire (49%)<sup>19</sup>. There are also big differences in the qualifications held by the residents living in different parts of the LEP area. Residents living in the South Hams and West Devon, for example, are around twice as likely to hold a degree level qualification (or equivalent) than those living in Torbay, North Devon, Sedgemoor and West Somerset.

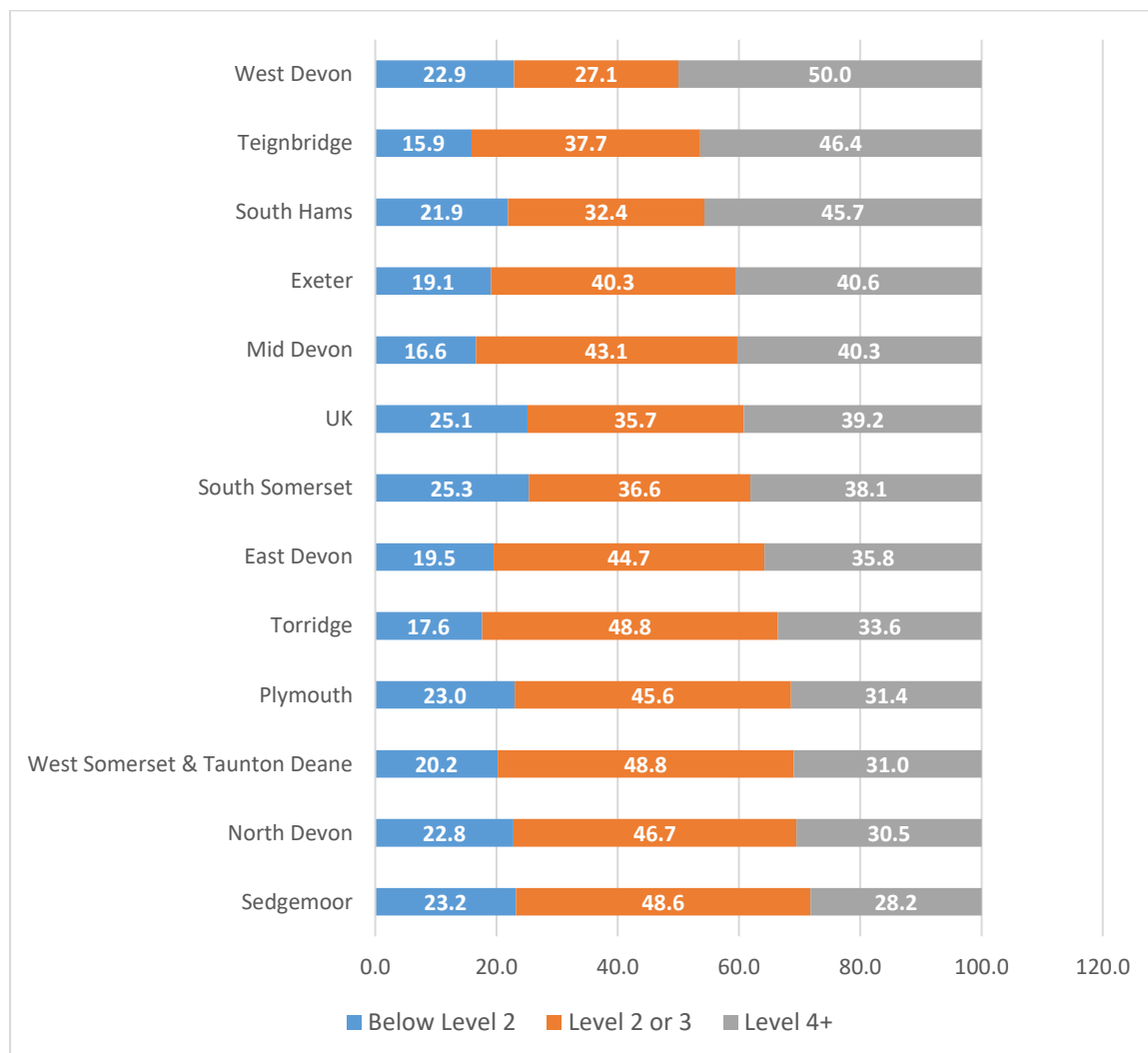
The proportion of the HotSW population whose highest qualification is below Level 2 is smaller than the national average (21% compared to 25%). However this still equates to 212,000 residents whose highest qualification is below the equivalent of five GCSEs. A further 57,400 do not hold any formal qualification at all.

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<sup>19</sup> Annual Population Survey, January to December 2018 (Resident population aged 16 to 64).



**Figure 13: Highest qualification, % of resident population aged 16-64: January to December 2018**



Source: Annual Population Survey, 2019

## Skills imbalances

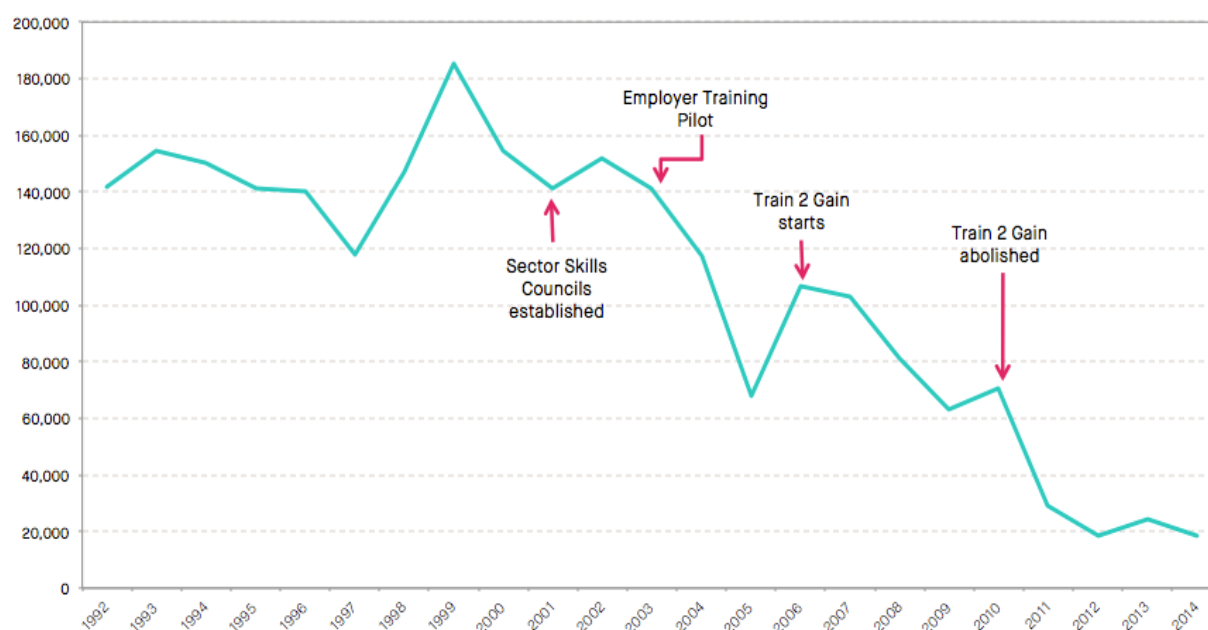
Although only a small proportion of employers report that they have skills shortages (5%), almost one third (29%) of vacancies in 2015 were found to be hard-to-fill to fill due to employers having difficulty finding applicants with appropriate skills. The density of skills shortages in HotSW was among the highest of all the LEP areas – and comparable to those in Enterprise M3, Swindon & Wiltshire and Tees Valley. Employers with skills shortage vacancies report a wide range of negative consequences, such as increased workloads for other staff, difficulties meeting customer demands, loss of business or orders, increased operating costs and delay developing new products or services. All of these difficulties have negative impacts on productivity.

The proportion of employers in HotSW that have employees with 'skills gaps'<sup>20</sup> (14%) is roughly in line with the national average. It is interesting to note that the proportion of employees reported to have skills gaps (5%) is much smaller than the proportion of employees (25%) who are reported to have qualifications and skills that are more advanced than those required for their current job role<sup>21</sup>. This points to a need for a focus on skills utilisation, leadership and management practice and work- related training, rather than just a focus on driving up qualification / skill levels.

## Employer investment in skills

Despite the efforts of governments, the proportion of employees who report having undertaken training that took them away from the workplace has fallen dramatically over the last fifteen years.

**Figure 14: No. of employees attending training outside their workplace: Britain 1992-2014**



Source: LFS / Green et al (2013)<sup>22</sup>

Successive initiatives have had little long-term impact on this decline. Although employers may be finding new ways to meet their skills needs (via informal and on-line

<sup>20</sup> Staff who lack skills required to perform their existing jobs proficiently.

<sup>21</sup> 25% of establishments in the Heart of the South West LEP area reported that they had employees with both qualifications and skills that are more advanced than required for their current job role. This compares to 30% nationally. Within the LEP area, 6.4% of employees were 'underutilised' according to this measure, compared to 7% nationally.

<sup>22</sup> Green et al 2013; <https://www.gov.uk/government/publications/training-away-from-the-workplace-and-reduced-hours-january-1995-to-december-2014> also cited in Fixing a Broken Training System: The case for an apprenticeship levy, Alison Wolf, July 2015

34 ETPs were more generous than T2G, providing wage subsidies

learning, for example) the decline in off-the-job training is a concern and challenges us to find new and better ways of driving employer ownership and investment in skills.

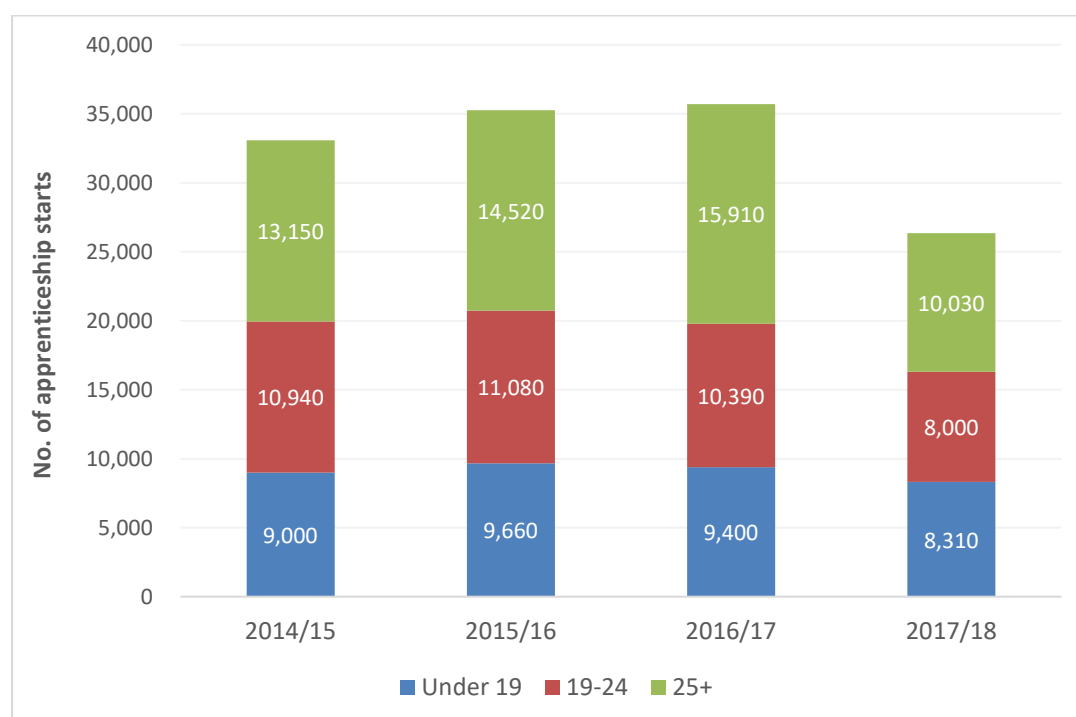
It is a particular concern for the HotSW area, as the latest UK Employer Skills Survey<sup>23</sup> suggests that local employers are less likely to have a training plan or budget than is the case nationally: 64% of establishments surveyed in HotSW reported that they had provided training over the previous 12 months, the joint lowest incidence of training of all the LEP areas (alongside Cumbria, Leeds City Region and The Marches).

## Apprenticeships

The introduction of the Apprenticeship levy provides an important opportunity to encourage employers take a more active role in staff development. This applies not just to new appointees, but to the upskilling and re-skilling of an ageing workforce, which may struggle to keep pace with the rate of technological change. This is an important consideration as, according to the CBI, around 90% people in the workforce today will be in employment in 10 years' time<sup>24</sup>.

Trends in Apprenticeship starts in the HotSW area are shown in Figure 15.

**Figure 15: Apprenticeship starts by age group, HotSW, 2005/06 to 2015/16**



Source: Department for Education

<sup>23</sup> UK Employer Skills Survey, 2015 UKCES

<sup>24</sup> Unlocking Regional Growth, CBI, Op cit

This shows that while there has been dramatic growth in Apprenticeship numbers over the last fifteen years, the number of young people choosing Apprenticeship as an alternative to academic study has changed very little<sup>25</sup>. The introduction of the Apprenticeship Levy from April 2017 alongside the expansion of Apprenticeship Frameworks and Degree Apprenticeships provides a chance to reposition Apprenticeship as an attractive, alternative debt-free pathway to higher level skills for all, including more academically able students.

While the majority of Apprenticeships have traditionally been at intermediate level, this has significantly declined over the recent years, while starts at the advanced and higher levels have gained ground: the proportion of starts at the intermediate level has fallen from 62.5% in 2014/15 to 47% in 2017/18; at the same time, the proportion of starts at the advanced level has grown from 34.4% to 43.1% over the same period, and that at the higher level has more than tripled from 3.1% to 9.9.

The majority of Apprenticeship Starts continue to be in a limited number of sector subject areas, notably Health, public services and care (27% of starts); Business administration and law (23%); Retail and commercial enterprise (14%) and Engineering and manufacturing technologies (16%)<sup>26</sup>. However, the Levy and growth in Apprenticeship Frameworks should provide scope for growth in sector subject areas in which HotSW has a smaller than average proportion of starts, such as: Information and Communication Technology; Arts, media and publishing; Education and training; Leisure, travel and tourism; and Construction, planning and the built environment.

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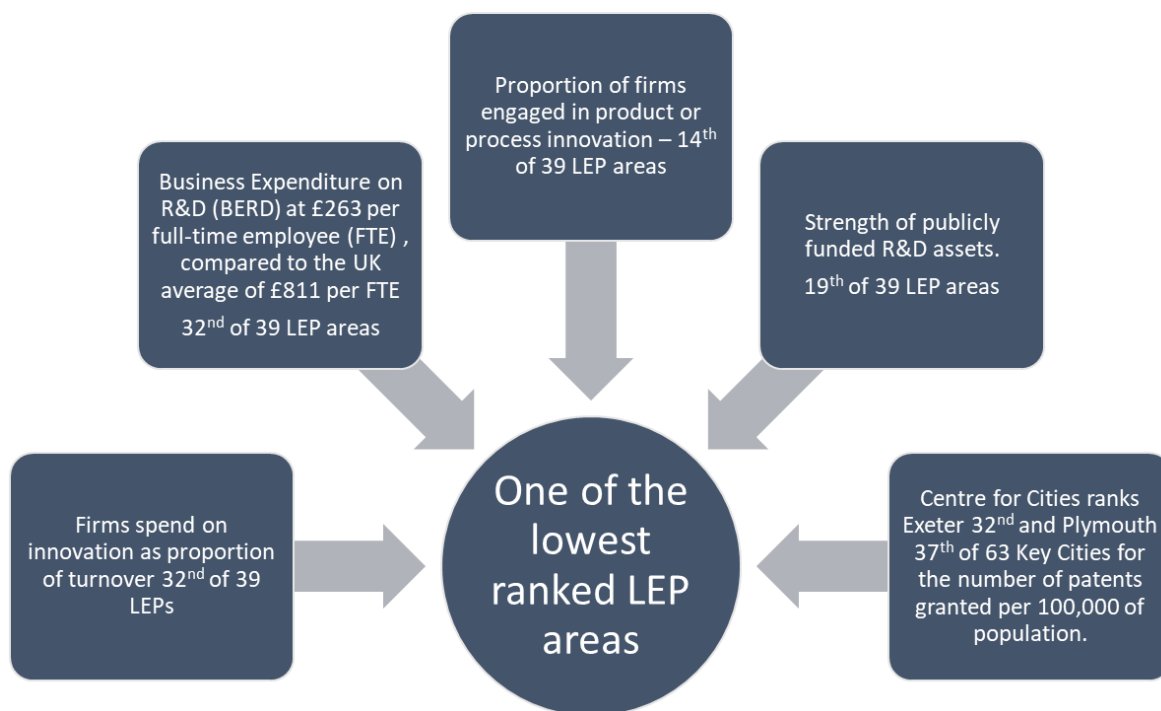
<sup>25</sup> The distribution of apprenticeship starts in 2015/16 by sub-area was such that 7,310 were in Devon (41%), 5,250 in Somerset (30%), 3,560 were in Plymouth (20%) and 1,510 in Torbay. All four areas have followed the same trend over time with numbers peaking in 2011/12 but with some recovery between 2013/14 and 2015/16. Apprenticeship numbers for 2015/16 were lower than in 2011/12 in all parts of the HotSW LEP area except Somerset (which returned to the same level). By contrast, Torbay's was 10% lower, Plymouth 9% lower and Devon 7% lower.

<sup>26</sup> These broadly mirror the profile of starts nationally albeit with a greater emphasis locally on health, public services and care. If we look at the profile of Apprenticeship starts by sector subject area with the local employment HotSW has: a larger share of starts in health, public services and care than might be expected given that 'sectors' share of total employment and a smaller share of starts in retail and commercial enterprise; and a broadly balanced share of starts and employment in engineering and manufacturing technologies.

## INNOVATION

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The diagram below summarises the Innovation performance of the Heart of the South West.



*'Innovation is the successful exploitation of new ideas. New ideas can take the form of new technologies, new products or new corporate structures and ways of working. Such innovations boost productivity, for example as better equipment works faster and more efficiently, or better organisation increases motivation at work.'*

*Fixing the Foundations, HM Treasury, 2015*

The importance of knowledge investments that help to generate new products, processes and ideas or to produce existing goods and services more efficiently is well understood. These innovations lead to returns in the form of increased profit and economic activity as well as wider returns for society as a whole.

Research suggests that:

- public science investment can trigger a 'crowding in' effect, with each extra £1 of public funding leveraging additional private funding of between £1.13 and £1.60<sup>27</sup>; and
- every £1 of public or private funding invested in science and R&D generates a rate of return, measured by an increase in Total Factor Productivity<sup>28</sup> of 20%;

The ability of public research and development (R&D) funding to generate productivity improvements, particularly at an industry-level, depends on the R&D intensity and the 'absorptive capacity' of that industry. This means that the translation of R&D investment into productivity improvements requires the building of 'absorptive capacity', i.e. ecosystems capable of translating R&D into innovative processes, products and services.

There is a considerable body of work that shows the importance of clustering, as firms come together to benefit from the better exchange of ideas, people, supply chains, training, business support and knowledge-exchange opportunities<sup>29</sup>. Identifying the scope that exists to support existing or nascent clusters is an important consideration.

## Current performance and comparator

According to data from the UK Innovation Survey 2017, firms across England spent an average of 1.6% of their expenditure on introducing innovations to market in 2016, rising to over 3.9% in regions such as Yorkshire and the Humber; in the South West, this was 0.9%, one of the lowest in the country, except for Wales and Northern Ireland. Within the South West, HotSW performs similarly poorly on this measure, ranking 32nd of 39 LEPs. Similarly, Business Expenditure on R&D (BERD) per full-time employee (FTE) was £350 in HotSW, ranking the LEP 31<sup>st</sup> of 39 LEP areas, far below leading geographies such as Cambridge, where BERD per FTE was £2,500. This performance is particularly poor when set in an international context. UK investment on public and private R&D is roughly 70% of the OECD average and just over half the level found in leading countries like South Korea, Israel, Japan, Sweden, Finland and Denmark<sup>30</sup>.

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<sup>27</sup> 'Rates of return to investment in science and innovation' Frontier Economics for BIS, July 2014

<sup>28</sup> Total-factor productivity (TFP) accounts for effects in output that are not caused by the traditionally measured inputs of labour and capital. Technology growth and efficiency are the two of the biggest drivers of Total Factor Productivity. It is used as a measure of an economy's long-term technological change or technological dynamism. Total Factor Productivity is often seen as the real driver of growth within an economy and studies reveal that whilst labour and investment are important contributors, Total Factor Productivity may account for up to 60% of growth within economies.

<sup>29</sup> See for example, Michael Porter "Clusters and the New Economics of Competition." Harvard Business Review 1998 and "The Economic Performance of Regions." Regional Studies 37 (6/7): 549-578.

<sup>30</sup> Building our Industrial Strategy, Green Paper, HM Government, January 2017

If we look at the proportion of firms engaged in product or process innovation, again HotSW performs poorly, ranking 33rd of 39 LEP areas. Furthermore, local private sector enterprises are less likely than average to believe that their organisation is a market leader in terms of business approach<sup>31</sup>.

Patent data<sup>32</sup> – another useful indicator of innovative activity – suggest that the LEP area appears mid-table when ranked against other LEP areas in terms of the overall number of patents<sup>33</sup> but ranks close to the bottom of the table when this is expressed on a per capita basis<sup>34</sup>. The Centre for Cities ranks Exeter 32<sup>nd</sup> and Plymouth 37<sup>th</sup> of 64 cities for the number of patents granted per 100,000 of population.

HotSW has relatively small shares of employment in knowledge intensive market services (12%) compared to the national average (19.3%) but the share in high or medium-high technology manufacturing (4.2% v. GB 3.4%) is above the national average. In both cases, however, HotSW ranks among the least knowledge-driven market economies in the country. Partly reflecting this, at 6% HotSW ranks in the lower third of LEP area for its share of employment in science and engineering professional and associate professional occupations<sup>35</sup>.

Despite this, the HotSW LEP area has reasonable strengths in terms of its publicly funded R&D assets. The LEP area ranks 19<sup>th</sup> of 39 LEP areas for the total volume of income generated by Higher Education interactions with the Business Community, via contract research, continuing professional development (CPD), consultancy and facilities and equipment-related services. It ranks 19<sup>th</sup> for income generated from businesses per full-time academic staff member.

In essence the data suggests that although the LEP has some valuable assets that actively support business R&D, much of this work takes place outside the region, and there is scope to encourage a greater focus by such institutions on the local growth and productivity agendas.

If we look at our research expertise, defined by impact of research publications, HotSW has strengths in:

- **Clinical Sciences** - Behavioural Neuroscience, Cognitive Psychology, Psychology and Virology.

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<sup>31</sup> 34% of private sector respondents rated their establishment at least 4 out of 5 on a scale from their establishment very rarely leading the way to often leading the way in terms of business approach.

<sup>32</sup> This is a way of measuring the scale of innovation activity but can be misleading as patents are registered where the head office is not where the invention occurs.

<sup>33</sup> Mapping Local Comparative Advantages in Innovation, EIU and Impact Science

<sup>34</sup> Building Advantage: Local Enterprise Partnership Area Economies in 2014, The LEP network.

<sup>35</sup> Annual Population Survey, 12 months to June 2016.

- **Environmental Sciences** - Energy, Environmental Chemistry, Environmental Science, Renewable Energy.
- **Life Sciences** - Agricultural, Animal Science, Aquatic Science, Ecology, Genetics, Molecular Biology, Physiology, Toxicology.

The UK Government and European Union (EU) are asking regions to differentiate themselves and to foster regional comparative advantage by building on local assets (natural, industrial, intellectual) to become world class in specific technologies or industries. This focus, referred to as 'Smart Specialisation' by the European Commission, also underpins the recent Science and Innovation Audits. The case that a region or institution is able to make about its capacity to exploit Smart Specialisation will be increasingly important to winning R&D 'challenge' funding in future, including the £4.7bn of R&D funding set out in the Government's Industrial Strategy Green Paper.

HotSW LEP has identified eight science and innovation areas of smart specialisation: aerospace, agri-food, big data, environmental futures, healthy ageing, marine, nuclear and electronics/photonics.

The 2016 South West England and South East Wales Science and Innovation Audit was one of only five pilot audits in England<sup>36</sup>. The Science and Innovation Audit has identified world-leading research strengths and innovative industrial capacity in South West England and South East Wales and the enormous potential of the region to prosper in the new knowledge economy and, indeed, to lead in digital innovation and advanced engineering.

It has focused on the pre-eminent strengths in the region in aerospace and high value engineering, microelectronics, new energy systems, digital industries, and environmental technologies. It made it clear that there is considerable potential to better integrate these sectors and to provide greater innovation and translational capacity through focused investment. The audit also identifies the need for skills development in the new technologies being created in the region.

Alongside these opportunities sit concerns that urgent action is required to optimise delivery of the Government's forthcoming Industrial Strategy and to ensure that appropriate national and local investments are made to maintain HotSW's globally competitive position.

The Science and Innovation Audit suggests that, by working with our neighbours, our area can deliver a resurgence in manufacturing, building on the opportunities afforded by digital innovation and the strength of the science base. Economic geography varies enormously from sector to sector. While solutions for some industries may be sourced entirely from within HotSW, other companies and sectors have extensive supply chains

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<sup>36</sup> <http://gw4.ac.uk/sww-sia/>



and widely dispersed R&D relationships. Where this is the case collaboration outside the LEP area will be critical. Such an approach should enable us to build local strengths that complement the capabilities and facilities of others and to work together to drive innovation and productivity across a wider geographic area.

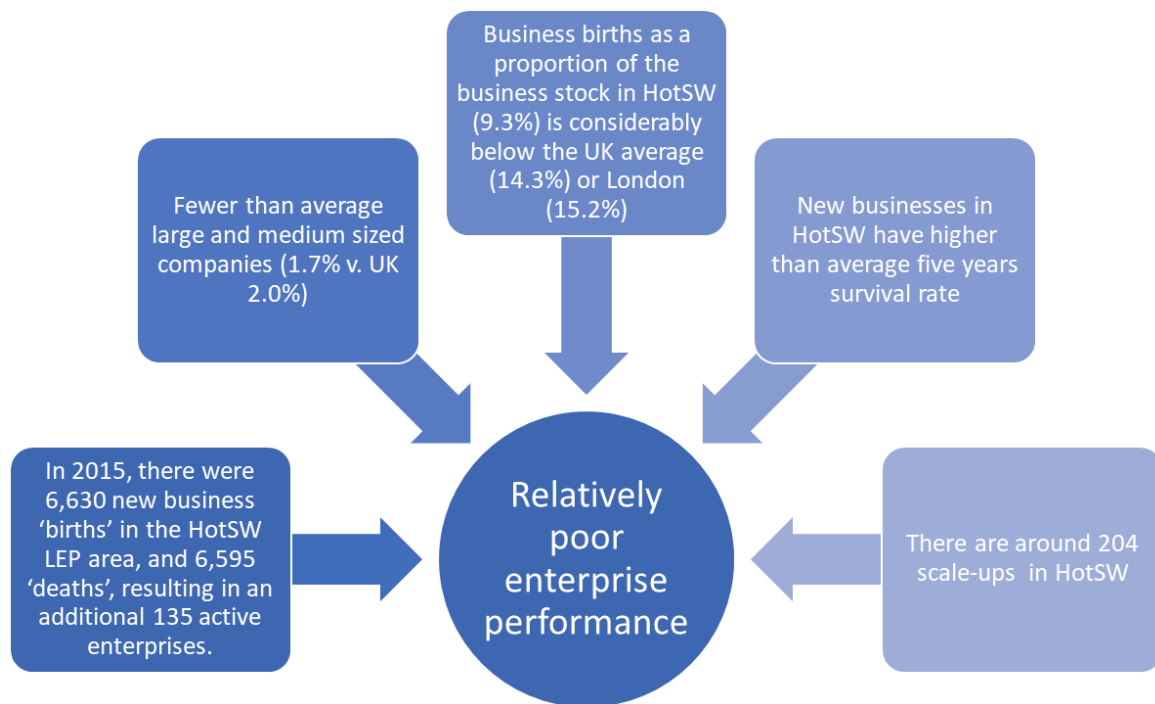
It is also important that we do not think of innovation as being the preserve of an elite few. According to the 2015 Employer Skills Survey, 43% of private sector businesses in HotSW considered themselves to be competing on the basis of quality, sophistication and market leadership<sup>37</sup>. This is lower than the national average (46%) and significantly lower than in leading LEP areas, where around half are competing on this basis. However, the basis on which firms of all sizes and in all sectors compete is a key determinant of their productivity and we would clearly wish to encourage a wide range of enterprises to seek competitive advantage on the basis of the quality and sophistication of their products and / or production methods, rather than on the basis of their labour costs. The nature of our economy is such that new measures may be required to enhance the innovation potential of SMEs across a wide range of sectors, including some such as hospitality, tourism and retail that are largely overlooked by the national Industrial Strategy Green Paper.

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<sup>37</sup> Figures relate to the share of enterprises responding to the UK Employer Skills Survey who reported very high or high product market strategies (i.e. they compete more on product and service quality, sophistication and market leadership than price).

## ENTERPRISE

The diagram below summarises key Enterprise challenges for the Heart of the South West.



*'The seizing of new business opportunities by both start-ups and existing firms' is a critical determinant of productivity. This is because 'New enterprises compete with existing firms by new ideas and technologies increasing competition. Entrepreneurs are able to combine factors of production and new technologies forcing existing firms to adapt or exit the market.'*

Productivity Handbook, Office for National Statistics<sup>38</sup>

In 2017, there were 6,630 new business 'births' in the HotSW LEP area, and 6,495 'deaths', resulting in an additional 135 active businesses. Although this is positive, the most productive and dynamic regions are characterised by high rates of new business formation and destruction. The fact that the number of business births as a proportion of

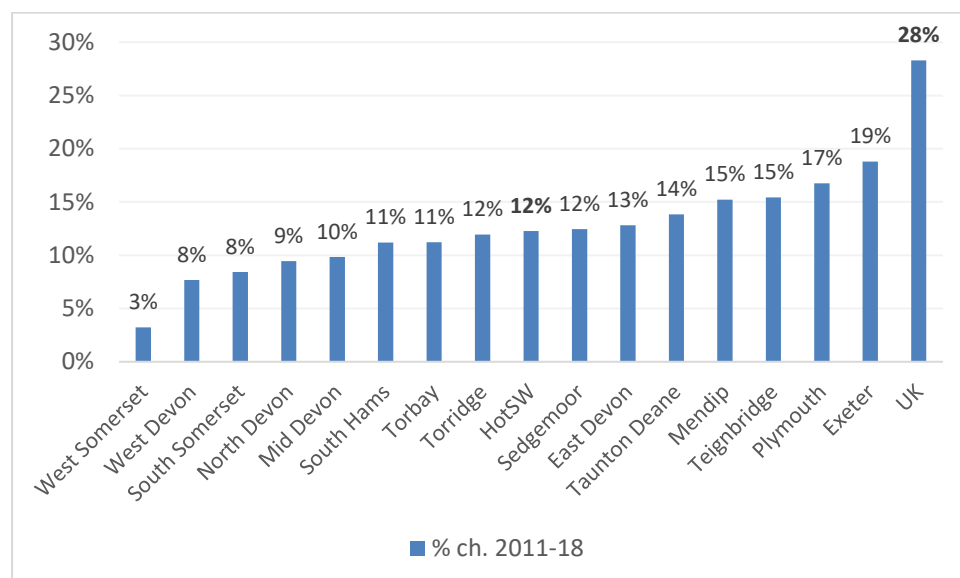
<sup>38</sup> The Productivity Handbook: Productivity Theory and Drivers, Office for National Statistics, 2007

the business stock in HotSW (9.3%) is considerably below the UK average (14.3%) and far below the most productive geographies, such as London (15.2%), is a concern<sup>39</sup>.

This relatively low rate of business creation and risk-taking affects all parts of the LEP area. Even the most dynamic – Plymouth (12.3%) and Torbay (11%) have rates of new business formation lower than the national average. Rates are lowest in West Somerset (7.4%) and Torridge (8.4%). The Centre for Cities 2018 report ranked Exeter and Plymouth among the bottom 10 cities nationally for business start-up in 2017<sup>40</sup>.

The total number of enterprises in the LEP has been growing since 2011, but, again, the rate of growth in all parts of the LEP has been much slower than the national average (Figure 16). Indeed, the HotSW recorded the lowest percentage increase in its business population of all the LEP areas over this period.

**Figure 16: % change in number of enterprises, HotSW, 2011 to 2018**



Source: UK Business Counts (No. of enterprises) via NOMIS

The fact that new businesses in HotSW have higher than average five year survival rate may be positive for individual entrepreneurs. However, it also reflects a lack of competition faced by business operating in local markets that are isolated from the main urban centres, which acts as a brake on productivity growth.

While the vast majority of enterprises, in all areas are very small, the LEP area has fewer than average large and medium sized companies. In 2018, 1.7% of HotSW's enterprises

<sup>39</sup> 2017 Business Demography, ONS

<https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/businessdemographyreferencetable>

<sup>40</sup> <https://www.centreforcities.org/data-tool/#graph=map&city=show-all&indicator=business-start-ups\\single\\2017>

had over 50 employees, compared to 2.0% nationally, and 0.3% had over 250 employees, compared to 0.4% nationally. It may also be the case, but is hard to demonstrate, that HotSW has a slightly higher than average prevalence of 'lifestyle businesses'.

Set against this picture, among the 39 LEP areas, HotSW has:

- the second highest share of sole proprietors (24%) among business owners, a figure well above the national average (17%)<sup>41 42</sup>; and
- the second highest rate of self-employment (accounting for 13% of employment), well above the national average (10.6%).

Among all LEP areas, only the Cornwall and the Isles of Scilly LEP area has a higher proportion of sole-proprietors and people who are self-employed. Although there could be opportunities to support productivity growth among these populations, the high incidence of SMEs, sole traders and self-employment is also likely to be reflective of a lack of employment opportunities within larger firms and institutions, including the expansion of the 'gig economy'<sup>43</sup>.

The private sector accounts for 82.4% of employment in the HotSW area<sup>44</sup>. The proportion of HotSW's employment that is in the public sector has fallen since the recession, to a point 13% lower in 2017 than in 2009. Employment in the private sector declined between 2009 and 2011, but has recovered since and in 2017 was 8% higher than it was in 2009. This is the slowest rate of private sector employment growth recorded by LEP areas, well below the national average of 17%. London accounted for 28.5% of all private sector employment growth in England over the period.

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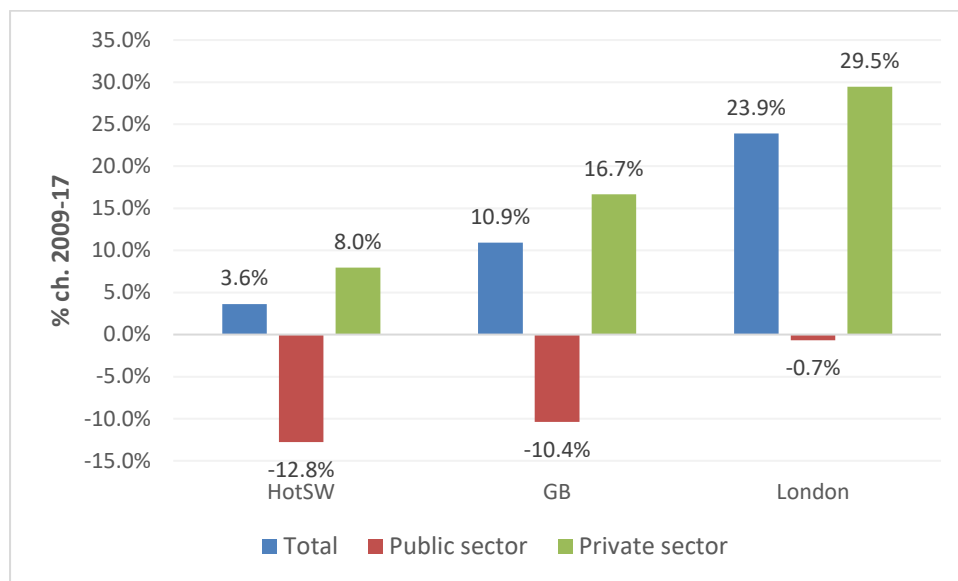
<sup>41</sup> Within the LEP area the share of sole proprietors rises to 31% in West Somerset, 30% in Torridge, 29% in West Devon, 29% in Mid Devon and 29% in North Devon.

<sup>42</sup> UK Business Counts, 2018

<sup>43</sup> The impact of the growth of the 'gig economy' on productivity is unclear, partly because it is an extremely broad and poorly defined concept, taking in many forms of employment. At the theoretical level, the employment of workers only for the hours that they are needed may increase output per hour worked. However, the gig economy is also associated with competition on the basis of low wages / piece rates, leading the expansion of less productive sectors, such as food delivery services.

<sup>44</sup> This is on par with the England average of 82.8%.

**Figure 17 Employment growth in the private and public sector, 2009 v. 2017**



Source: BRES via NOMIS

## Foreign ownership

Analysis of the impact of ownership structure suggests that productivity could be improved in lagging regions by expanding the representation of establishments that are part of multinational organizations, particularly US and other non-UK multinationals. Clearly Brexit may have an impact here, though the nature of that impact is unclear.

The potential supply of foreign direct investment (FDI) is limited and competition is strong internationally for such FDI that is available.

HotSW has low levels of foreign ownership within its business community: around a third of one percent (0.34) of VAT and/or PAYE based enterprises in the LEP area in 2016 had a ultimate parent company based outside the UK. This compares to 2.19% and 2.11% in Thames Valley Berkshire and London respectively, the LEP areas with the highest share of foreign ownership.

## Enterprise Support

The Business Support landscape has been subject to significant reorganisation in recent years. The Growth Hub, which has recently become operational, provides on-line business advice and support and sign-posting to specialist services. The extent to which the specialist services currently available, e.g. to 'gazelle' companies or knowledge-intensive start-ups, are adequate to deliver a productivity-led growth ambition, is open to question. There has always been a strong case for targeting support on high-growth enterprises, where it is likely to have the greatest impact. However, identifying high-growth businesses is extremely difficult and has led to low uptake of some services in the past.

The potential benefits of collaboration between institutions providing business support and knowledge-transfer / innovation services are obvious and provide a rationale for devolution and an emphasis on local partnership working.

## **Social Enterprise and well-being**

There are an estimated 1,090 social enterprises in the HotSW LEP area, with a combined turnover estimated at £1.5bn and an economic output estimated to add £494m of GVA.

In addition to employing around 32,700 people, there are an estimated 34,880 volunteers working in the sector, supporting vulnerable people, contributing to health and wellbeing, improving education and literacy, and creating employment opportunities in the HotSW LEP area<sup>45</sup>.

Although the productive output of these volunteers is not captured in official output or productivity statistics, their contribution to quality of life, the ultimate objective of any strategy, is significant and should not to be underestimated or ignored.

In 2015/16 across Great Britain, work related stress, depression or anxiety accounted for 11.7 million working days lost. This equates to 45% of all days lost due to ill health. Muscular / skeletal problems, which can be stress and tension-related, accounted for a further 33% of days lost. The main factors cited by respondents as causing work related stress, depression or anxiety were workload pressures, including tight deadlines and too much responsibility and a lack of managerial support. Ill health and workplace absence has a clear impact on productivity and strong relationship to the quality of leadership and management practices<sup>46</sup>.

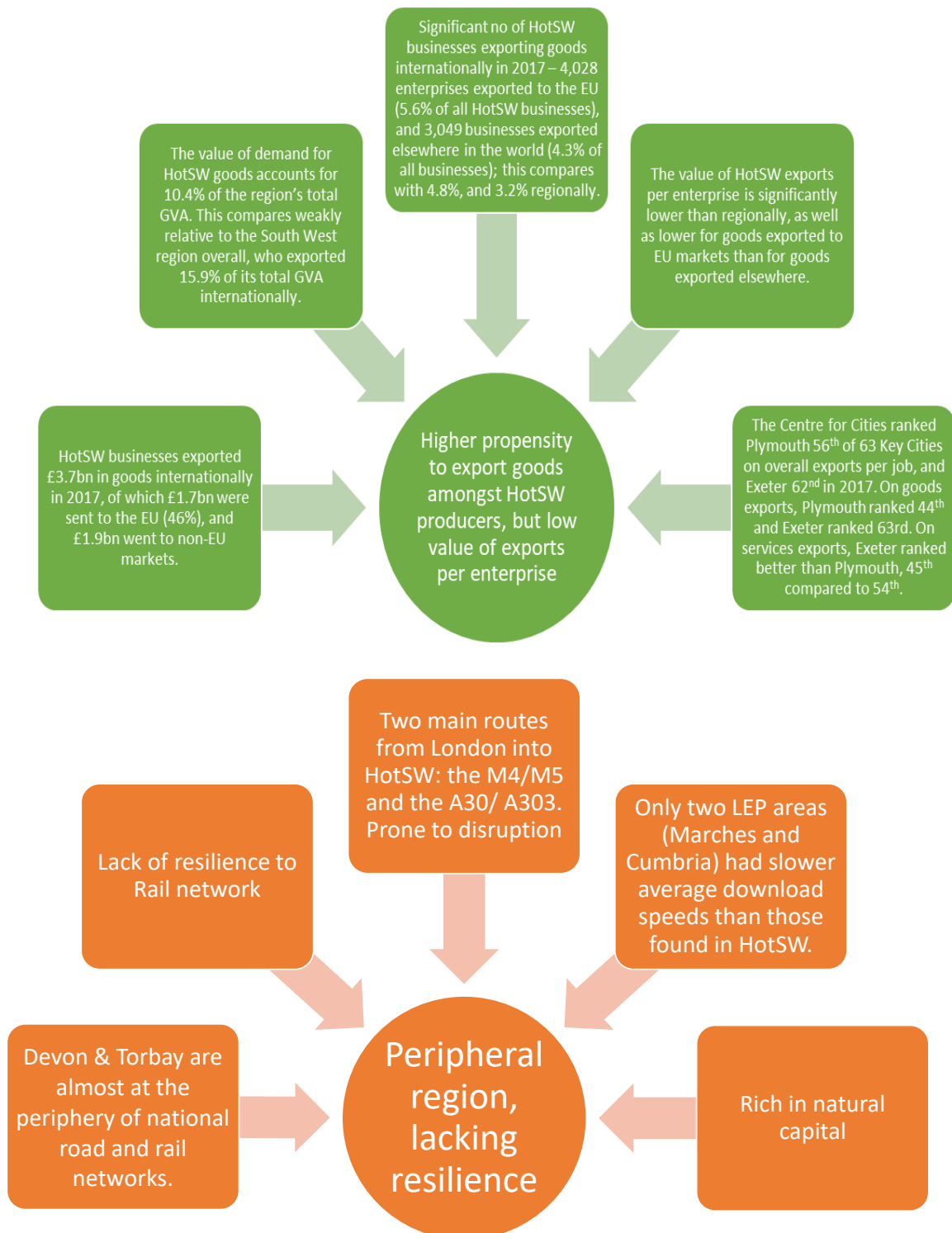
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<sup>45</sup> Heart of the South West Social Enterprise Sector Report, Wavehill Social and Economic Research, March 2016

<sup>46</sup> Labour Force Survey data cited in *Work related Stress, Anxiety and Depression*, Health and Safety Executive, November 2016

## COMPETITION AND INFRASTRUCTURE

The diagrams below summarise key Competition and Infrastructure challenges for the Heart of the South West.



According to the ONS Productivity Handbook,<sup>47</sup> competition *'improves productivity by creating incentives to innovate and ensures that resources are allocated to the most efficient firms. It also forces existing firms to organise work more effectively.'*

A key component of competition is market size and whether the businesses are exporting or competing in national markets. This, in turn, is largely a product of geography and connectivity, i.e. the infrastructure and broadband links that enable businesses to access markets beyond their immediate locality. More peripheral regions tend to be less productive due to competing in smaller more isolated markets in which there is less competition.

## Exporting & market size

Recent CBI research<sup>48</sup> found that productivity can be influenced by whether or not a firm is an exporter. The process of exposing businesses to the competitive pressures of international markets requires them to become more competitive and more innovative.

The research also found that 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<sup>49</sup>.

The CBI estimates that there are a large number of potential exporters who are not exporting today and that in most regions between 10% and 15% of firms have characteristics similar to other firms in their sector that are currently exporting.

The CBI points to the need to help non-exporters to take the leap and venture into international markets. It suggests that targeted and consolidated assistance can be successful in this respect, such as sector-focused trade commissioners to help identify opportunities in new markets, funding to 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.

HotSW exported £3.6bn in 2017, of which £1.7bn were sent to the EU, and £1.9bn went to non-EU markets. The value of this demand for HotSW goods accounts for 10.4% of the region's total GVA. This compares weakly relative to the South West region overall, who exported 15.9% of its total GVA internationally. The number of businesses exporting goods internationally from HotSW was significant – 4,028 enterprises exported to the EU (5.6% of all HotSW businesses), and 3,049 businesses exported elsewhere in the world (4.3% of all HotSW businesses); this compares with 4.8%, and 3.2% respectively for the SW region as a whole. Looking across the proportion of exporters and the value of exports as a proportion of output (GVA), this indicates that the value of HotSW exports per enterprise

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<sup>47</sup> Productivity Theory and Drivers, Office for National Statistics,

<sup>48</sup> *ibid*

<sup>49</sup> Harris and Moffat. Investigation into links between internationalisation and firm performance. November 2014.



is significantly lower than regionally, as well as lower for goods exported to EU markets than for goods exported elsewhere. Sub-regional variation, however, hides pockets of high export propensities within HotSW, in Plymouth and Somerset. Of particular interest is the high value of non-EU exports per enterprise from Somerset (9.1% of its GVA, coming from 4.0% of its business population, both proportions higher than the regional average), and the high proportion of exporting businesses (both to EU and non-EU markets from Plymouth – 8.6% and 8.5% respectively, though of lower value per business relative to the city's output – 6.2% and 5.4%).<sup>50</sup> This is a reflection of the high concentration of manufacturing and engineering activity in these areas, and is an area of both strength and vulnerability for HotSW.

According to the HotSW LEP Business survey, the majority of enterprises feel that exporting is 'not appropriate' to their circumstance and that there is no help that would help them trade more widely. This is unsurprising, but points to the need for targeted assistance. Among those who identified that help would be useful, assistance with Finance was most commonly identified<sup>51</sup>.

## Transport

There are two main economic aims of transport spending<sup>52</sup>.

- 1) To reduce transport costs to businesses and commuters (for example by reducing congestion – and thus saving time - or by reducing fares).
- 2) To stimulate national or local economies by raising the productivity of existing firms and workers or by attracting new firms and private sector investment.

The 2006 Eddington Review estimated that a 5% reduction in travel times nationally would be worth around 0.2% of GDP annually<sup>53</sup>. It recommended that to take advantage of these gains, the key priority should be growing and congested areas where there is growing demand for transport.

The 'What Works Centre' review<sup>54</sup> points out that infrastructure investment can be expensive and that, as a result, productivity benefits can be outweighed by the costs of provision, particularly when infrastructure is used to try to turn around struggling economies. Because infrastructure is durable, places that have seen slow growth also tend to have relatively large amounts of infrastructure per person.

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<sup>50</sup> HMRC Regional Trade Statistics – International Trade in Goods, 2017

<sup>51</sup> Heart of the South West Business Survey reported in Somerset Economic Assessment 2013  
<http://www.somersetintelligence.org.uk/somerset-economic-assessment>

<sup>52</sup> The Eddington Transport Study. Main report: Transport's role in sustaining the UK's productivity and competitiveness, Sir Rod Eddington, December 2006

<sup>53</sup> *ibid*

<sup>54</sup> Evidence Review 7: Transport, 2015. What Work in Local Growth

Econometric analysis by M. Boddy et al<sup>55</sup> looking at the correlation between productivity and travel time from London suggests that peripherality has an important role in explaining regional productivity differentials and that investment in transport infrastructure to reduce journey times to and from London could make a significant difference. This report also points out that the lag is unlikely to be solely due to differences or penalties in terms of travel times, but due to agglomeration effects, suggesting that reducing journey times could potentially spread the positive effects of agglomeration (the better exchange of people, ideas, supply chains etc.) focused on London.

## Current Performance

There are just two main road routes from London into HotSW: the M4/M5 and the A30/ A303/ A358 corridor, of which much is a single carriageway trunk road. Both routes are prone to disruption due to road accidents, adverse weather and congestion, making travel times unpredictable and unreliable. An obvious solution to the risk of dependency on the M5/M4, would be to make the A30/A303/ A358 corridor a dual carriageway from beginning to end, a project that many consider vital. Partners are also working to deliver series of improvements on the A30/A303/ A358 corridor and to address Pinch Point across the LEP area.

Unsurprisingly, average vehicle speeds on locally managed 'A' roads during the weekday morning peak – a measure of congestion – are lower in Plymouth (19.7 mph) and Torbay (23.3 mph), both urban areas, than in Somerset (29.7 mph) and Devon (31.4 mph). In all areas, except Torbay where speeds have remained the same, average speeds in 2013/14 were slower than those in 2006/7.

**Table 4: Estimated road journey times between selected locations: 2016**

	Taunton	Exeter	Plymouth	Birmingham	London
Taunton	X				
Exeter	45m (34 miles)	x			
Plymouth	1h 20m (74 miles)	53m (45 miles)	x		
Birmingham	2h 21m (138 miles)	2h 49m (173 miles)	3h 26m (211 miles)	x	
London	2h 55m (165 miles)	3h 24m (200 miles)	4h 0m (238 miles)	2h 17m (126 miles)	x

Source: The AA Journey Planner

**Table 5: Estimated train journey times between selected locations: 2016**

<sup>55</sup> Regional Productivity Differentials: Explaining the Gap Martin Boddy<sup>1</sup>, John Hudson,<sup>2</sup> Anthony Plumridge<sup>3</sup> and Don J. Webber

	Taunton	Exeter	Plymouth	Birmingham	London
Taunton	X				
Exeter	25m	x			
Plymouth	1h 26m	59m	x		
Birmingham	2h 05m	2h 32m	3h 33m*	x	
London	1h 42m	2h 8m	3h 7m	1h 13m	x

*Note: Fastest service arriving before 9am (\* arrives at 09:58)*

*Source: Trainline.com*

## Broadband

Broadband internet, like many other ICTs, is a 'general purpose technology' and an enabler of innovation in many areas of economic and social life. For firms and their workers, broadband allows for efficiencies in production both by lowering costs (e.g. for data storage, advertising or working with suppliers) and by enabling innovation (e.g. reaching new customers or through the application of new techniques such as data analytics). These productivity gains can translate into higher wages and possibly higher levels of employment, although firms may also shed staff as a result of technological change, as has happened through history. Broadband can also lower the barriers to starting a business, particularly in sectors like retail.

It is important to recognise that there may be winners and losers from these changes. If broadband increases productivity by increasing competition, some firms will go out of business (e.g. conventional retailers). Broadband can help accelerate automation, may penalise less skilled workers doing routine tasks, or provide access to a wider labour pool, including from abroad, which might depress wages locally.

The lessons drawn from the 'What Works Centre' review<sup>56</sup> is that Broadband, like many ICTs, is a 'disruptive' technology that creates winners and losers and is not a silver bullet for local economic development. Improved broadband can have a positive impact on firm productivity but much of the benefit that may accrue is dependent on firms making other structural and strategic changes, e.g. to work organisation or the adoption of applications for supply chain management. Broadband seems to benefit skilled workers more than low- or un-skilled workers. Furthermore, where there is evidence that broadband has had a positive local economic impact, this may be due to in-migration, e.g. tele-working by the skilled freelancers in attractive rural areas. Existing households may not be the biggest beneficiaries.

The review of the evidence on broadband's productivity impacts by the What Works Centre for Local Economic Growth points out that while there may be a need subsidise

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<sup>56</sup> Evidence Review 6: Broadband, 2015, What Works in Local Growth

broadband provision in rural areas, the economic benefits of its introduction into rural areas is not as large as for urban areas (which creates the need for the subsidy).

## Current performance and comparator

HotSW performs poorly in relation to digital connectivity. In 2014, the LEP area was 36<sup>th</sup> out of 39 LEPs for the proportion of internet users with access to broadband at speeds of over 30mb/s. Only two LEP areas (Marches and Cumbria) had slower average download speeds than those found in HotSW<sup>57</sup>.

At the local level, Ofcom data shows that out of 189 UK local authority areas:

- Plymouth has the highest coverage across HotSW, with 92% of postcodes having access to ultrafast broadband (>100Mbit/s), and 90% to speeds >300Mbit/s. This compares with 58%, and 51% respectively for England as a whole <sup>58</sup>
- Exeter has a 84% ultrafast broadband coverage, and 80% coverage of speeds >300Mbit/s, whilst Torbay is more in line with the national average on its coverage, with 52% and 46%, and higher still than the national average for a rural area, with 12% ultrafast coverage
- Fibre broadband is yet to be rolled out across most of HotSW, whilst nationally, 6% of premises are covered by this. Exeter is the exception regionally, where 12% of its premises have access to full fibre broadband.

Despite its variable impacts, the expansion of broadband access and digital technologies is inevitable and areas that do not embrace this shift will be 'left behind' and excluded from an increasing number of areas of social and economic life. In response to this, Connecting Devon and Somerset (CDS) is aiming to provide superfast broadband speeds of over 24Mbps to all premises in Devon and Somerset by 2020. Supported by skills and business support programmes to encourage take-up and the effective use of digital technologies in newly connected areas, CDS is a central pillar to both growth and digital inclusion strategies for the area.

## Capital Investment by firms

Alongside investment in transport and broadband infrastructure, capital investment in new machinery, equipment and buildings is a key driver of productivity. In the words of the ONS Productivity Handbook, *'The more capital workers have at their disposal, generally the better they are able to do their jobs, producing more and better quality output.'*

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<sup>57</sup> Mapping Local Comparative Advantages in Innovation, BIS, July 2015

<sup>58</sup> Ofcom Connected Nations Report 2018

Business investment nationally has generally followed an upward trajectory since the final quarter of 2009<sup>59</sup>. Unfortunately, the spatial patterns of this investment are unknown as data is not published at the subnational level. However, as the Industrial Strategy Green Paper points out, the *'UK has lower levels of fixed capital investment than competitors in other countries. The UK has ranked in the lowest 25 per cent of all OECD countries for 48 of the last 55 years and in the lowest 10 per cent for 16 of the last 21 years. It has also invested on average two to three per cent of GDP less than France, Germany and the US.'*

## Housing

Investment in housing of itself does not increase productivity. GVA per FTE in construction is below the all sector average both in HotSW and the UK, suggesting that having a greater proportion of total employment in construction may actually reduce average productivity. However, such a narrow analysis overlooks the role of inward migration in driving economic growth as well as a host of social considerations.

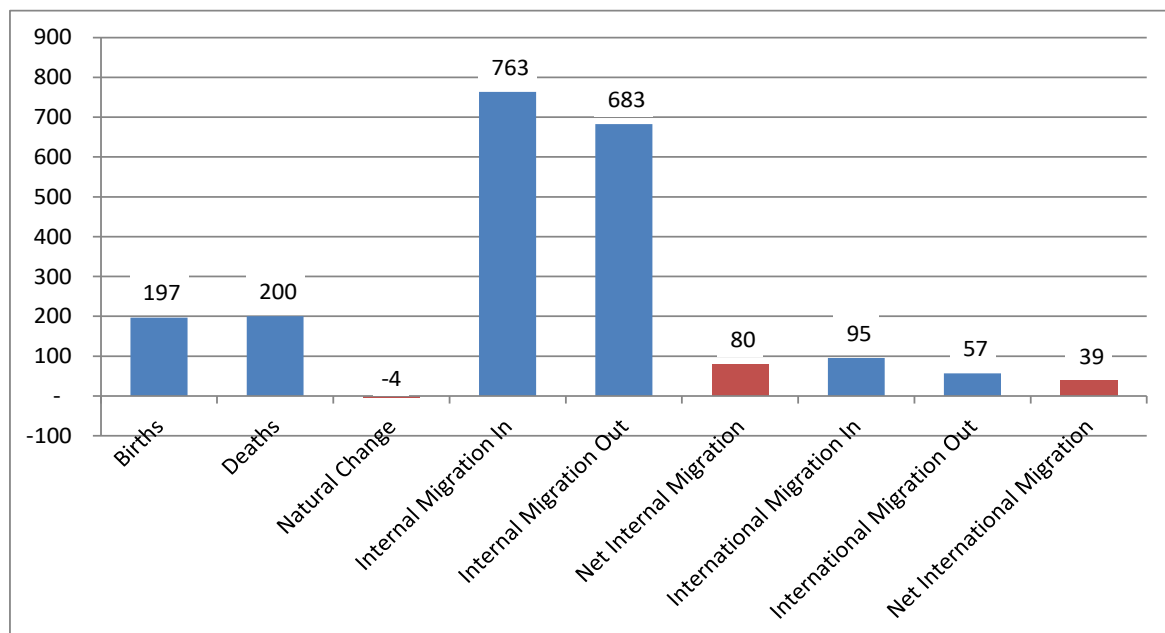
Figure 19 breaks down HotSW's projected population growth for 2015 to 2025 into its various components. Although Brexit has added an element of uncertainty, the population growth is projected to be entirely attributable to net inward migration, predominantly from within the UK.

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<https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/businessinvestment/quarter3julytosept2016provisionalresults>

**Figure 18: Components of projected population change, HotSW 2015 - 2025**



Source: ONS – Population Projections

The impact of this inward migration on productivity, as opposed to economic growth, is difficult to quantify. The statistics include both: older people coming to the region to retire, whose presence may fuel the growth of less productive industries (e.g. care); and significant numbers of adults in their thirties and forties coming to the region with valuable skills and experience picked up in other parts of the country.

Discounting the net outward migration of 1,300 full-time students, according to the Census there were 4,400 net inward migrants to HotSW LEP in 2011, of whom 72% were in the four higher 'Socio-economic Classification groups<sup>60</sup>' and 28% in the four lower NS-SEC groups<sup>61</sup>.

While net inward migration from within the UK accounted for a 0.4% rise the total HotSW population in 2011, it accounted for a 0.8% rise in the population of those working work (or who used to work) in 'Higher managerial, administrative and professional occupations'. These skilled migrants, large numbers of whom may be 'native returners' (i.e. HotSW natives returning after a period spent pursuing careers elsewhere in the country) are acknowledged as an important potential driver for productivity led growth. Clearly the availability and price of housing will be a factor in their decision making,

<sup>60</sup> Higher managerial, administrative and professional occupations, Lower managerial, administrative and professional occupations, Intermediate occupations and Small employers and own account workers

<sup>61</sup> Lower supervisory and technical occupations, Semi-routine occupations, Routine occupations, Never worked and long-term unemployed

along with other considerations around the quality of public services (such as schools), the natural environment and cultural heritage.

Although this is clearly only one reason among many why the high cost of housing relative to wages across much of the HotSW area is a serious concern, Figure 19 shows that in 2018 there no local authority areas within HotSW where the cost of housing was more affordable than the national average (at 9 times the median salary).

**Figure 19: Housing affordability, HotSW District Authorities, 2018**

	Ave house price (y/e Dec 2018)	Median annual pay - gross	Price divided by salary
<b>HotSW</b>	<b>241,475</b>	<b>26,927</b>	<b>9.0</b>
East Devon	288,337	27,597	10.4
Exeter	255,098	28,172	9.1
Mendip	257,966	30,299	8.5
Mid Devon	235,461	27,970	8.4
North Devon	236,866	23,599	10.0
Plymouth	176,901	27,688	6.4
Sedgemoor	227,400	26,958	8.4
South Hams	308,883	28,207	11.0
South Somerset	229,739	27,409	8.4
Taunton Deane	233,582	26,029	9.0
Teignbridge	248,271	24,519	10.1
Torbay	200,296	24,423	8.2
Torridge	230,861	24,139	9.6
West Devon	250,995	26,609	9.4
<b>UK</b>	<b>229,772</b>	<b>29,574</b>	<b>7.8</b>

Source: Annual Survey of Hours & Earnings & House Price Statistics for small areas

In 2018, out of 63 UK cities, Exeter ranks as the 6<sup>th</sup> least affordable and Plymouth the 31<sup>st</sup> least affordable for housing<sup>62</sup>.

## Natural Capital

HotSW is the ideal location to trail blaze natural capital-led productivity growth. It is rich in natural capital, with a spectacular coastline and substantial land areas within National Parks and Areas of Outstanding Natural Beauty.

<sup>62</sup> Centre for Cities data tool <https://www.centreforcities.org/data-tool/#graph=map&city=show-all&indicator=housing-affordability-ratio\single\2018>

The area is reliant on abundant natural assets – and the ecosystem services that derive from them – to power economic growth. Our coastline, moorlands and countryside attract more domestic tourists than any other UK region.

Employment in sectors that depend directly on natural capital, such as agriculture and fisheries, is proportionately higher than any other UK area.

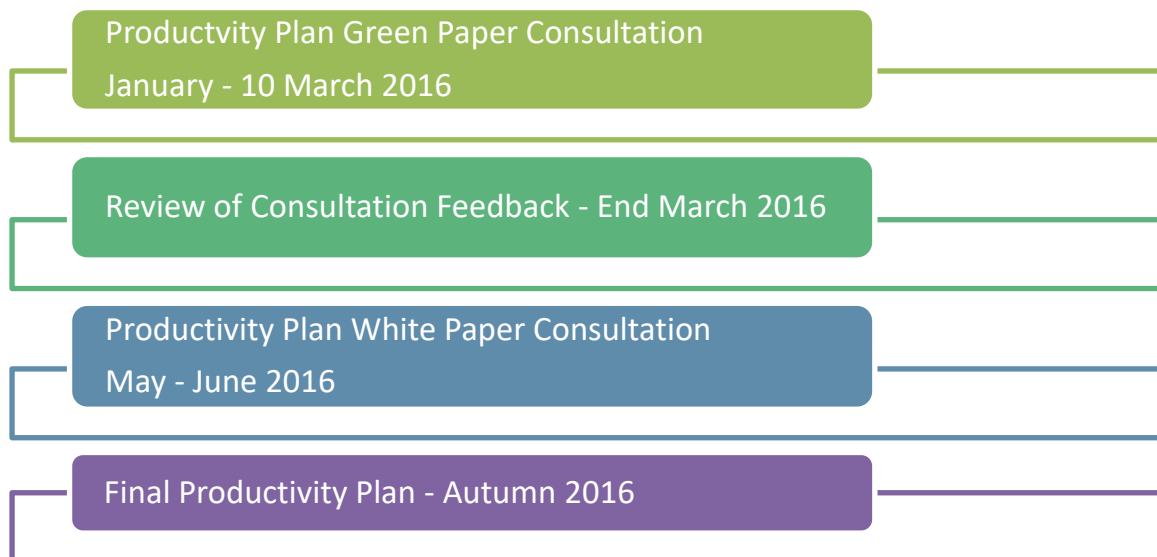
Our natural capital has an important influence on the economic success and demographic trends in our area, attracting skilled inward migration. There is scope to build on this, enticing enterprises and entrepreneurs to move to HotSW for the quality of life that our area offers. However, at the same time, too great an exploitation of our natural capital as a spur for economic growth makes the region vulnerable to natural capital decline, running the risk of 'killing the goose that lays the golden egg'.



## TIMETABLE AND PROCESS

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This consultation paper is the first stage in the development of the Heart of the South West Productivity Plan, with the timetable for the whole process below.



### Heart of the South West Productivity Plan Green Paper

Responses are invited to this Consultation paper. The closing date for written submissions is **10<sup>th</sup> March 2016**.

Written submissions should be sent to: [engagement@torbay.gov.uk](mailto:engagement@torbay.gov.uk)

Set out in the Executive Summary is list of key questions that we would like you to address. These are intended for guidance only so please do not feel limited to these questions if there are other issues you feel should be addressed by the Productivity Plan.

During this period we will be gathering and publishing additional evidence, which will be available on <http://www.torbay.gov.uk/devolution>

We will also be running consultation events with our LEP leadership groups which bring together a wide range of stakeholders, and more widely with businesses and other stakeholder networks, so look out for notification of consultation events.

## **Productivity Plan White Paper Consultation**

Feedback from Stakeholders and the LEP Leadership Groups will be brought together with expert analysis and captured in a Productivity Plan White Paper.

The White Paper will set out the outcomes of the consultation process and will form a further stage in the consultation, setting out what the productivity plan may start to look like. The second stage White Paper Consultation will take place between May –June 2016.

## **Final Productivity Plan**

Following sign off by the LEP, local authorities, the National Parks and the Clinical Commissioning Groups the Plan will published in Autumn 2016.