

Productivity and Prosperity in the Heart of the South West

PROSPECTUS

HEART OF THE SOUTH WEST
PARTNERSHIP

#LIVINGBETTER

With an economy of £35 billion per year and a 1.7 million population, the Heart of the South West is the size of a major UK city. Employment is amongst the highest in Europe and the challenge now is to raise productivity levels to increase prosperity.

The local authorities, national parks and LEP have formed a Heart of the SW partnership, united in developing a Productivity Strategy and a series of opportunities within that which build on the unique assets. The opportunities cover broad economic geographies and are not constrained by administrative boundaries; the partnership is working flexibly with other areas to realise the potential of these.

The ambition is to double the economy to £70 billion over the next 20 years, building 170,000 new homes and creating 163,000 new jobs.

The Heart of the South West Productivity Strategy



Ambition: to double the economy by 2038

Unfold for a map of the area and key statistics...

£35 BILLION ECONOMY
as big as Birmingham or Liverpool



2 National Parks



4 Universities



17 Local
Authorities



10 FE Colleges



Population almost 1.8 million



83,000
Businesses



4,230 Sq miles
1,100,000 Ha



The Heart of the South West LEP is working with its partners to develop the distinctive opportunities that the area has to offer as investment-ready propositions that have the potential to increase productivity and align with the National Industrial Strategy at a local level.

Transforming our economy, and ensuring the benefits of that transformation are felt across our area is essential for its future prosperity. The partnership has identified a series of opportunities which reflect the unique mix of assets, businesses, places and knowledge within our area and each of which represent potential.

Transformational opportunities offer significant potential in growing or emerging markets. Bedrock opportunities are those sectors which are key parts of our economy. Both need to grow to realise our ambition.

The partnership sets out 6 of these opportunities in this document, with the others to be published in early 2019.

Alongside these opportunities, we are strengthening our core offer for all businesses and people, and working hard to ensure the enablers of growth are in place across all our places.

Delivering Productivity Growth



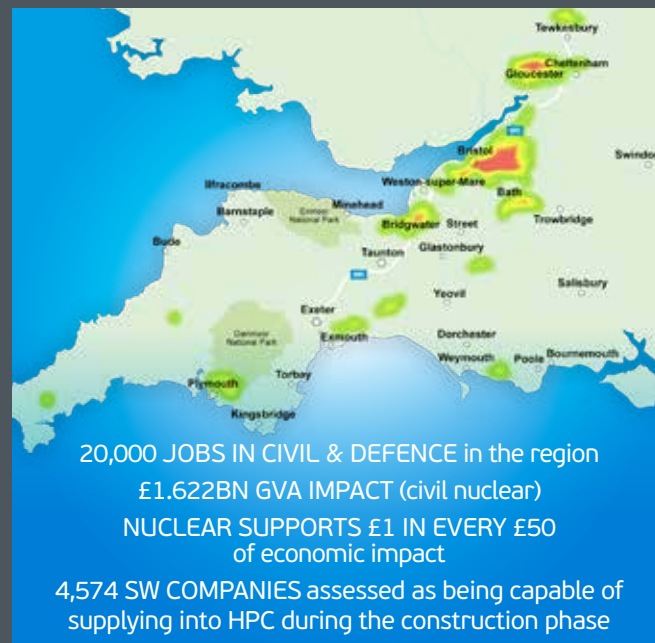
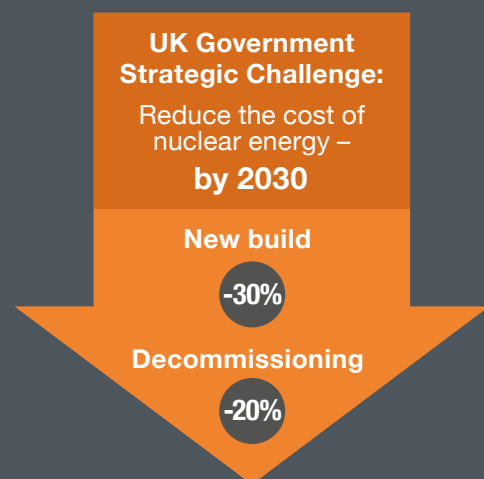
The strategic themes relevant to all of the sectors are:

Leadership and Ideas; Employment, Skills and Learning; Housing; Connectivity and Infrastructure. Cross-cutting themes are: Digital, Inclusive Growth and Natural Assets.



1 ADVANCED ENGINEERING NUCLEAR

Hinkley Point C and the nuclear defence sector represent an opportunity to develop a world-class advanced engineering supply chain, offering highly skilled jobs and global export potential for existing and new businesses. Alongside this, wider supply chain and job opportunities exist around the construction of Hinkley Point C.



The UK's nuclear sector is a £50 billion opportunity, up to £15 billion of which could be delivered by South West companies.

New-build nuclear power stations in the UK and globally are creating engineering, construction and other supply chain opportunities. Civil and defence nuclear decommissioning, especially in submarines, are opening up a multi-billion pound growing market.

Partners across the Heart of the South West are already investing to maximise the potential of this opportunity.

- Working with partners across the South West and Wales, investment in developing the supply chain is enabling many businesses to understand the market, attain the certification needed and win new contracts in advanced engineering and other sectors
- **An extensive skills infrastructure has been developed** which includes the National College for Nuclear in Bridgwater



- The Somerset Energy & Innovation Centre provides strong linkages with the world-class nuclear research capability in the University of Bristol and wider West of England area
- Huntspill Enterprise Zone near Bridgwater will provide a world-class location for businesses across the spectrum
- Nuclear South West provides a clear private sector voice alongside EDF and other major primes

Contributing to the National Industrial Strategy



Ideas

Generating new products and services in the civil and defence nuclear market



People

Creating high skill, high value jobs for the South West



Business Environment

High quality facilities at the Innovation Centre and Enterprise Zone



Infrastructure

Hinkley Point C: a multi-billion pound investment in the UK's strategic energy infrastructure

Our Proposition for Transformational Delivery

An excellent start has been made but there is more to do to unlock this opportunity. This includes:

- Supply chain development: **long-term investment** to support businesses in accessing this market and secure the engineering and export legacy and expand the successful civil programme to the defence sector
- Nuclear innovation: securing a Strength in Places bid to bring the full capability of the University of Bristol and partners to work with businesses in developing new products and services to solve challenges in the nuclear supply chain
- Skills development: securing an Institute of Technology in Heart of the South West and Cornwall & the Isles of Scilly. Working across multiple sectors the IoT will create a pool of high level engineering and digital talent to support growth in South West businesses
- Infrastructure: funding to improve capacity at J23 of the M5 to reduce congestion, support economic growth in the area and development of Hinkley Point C

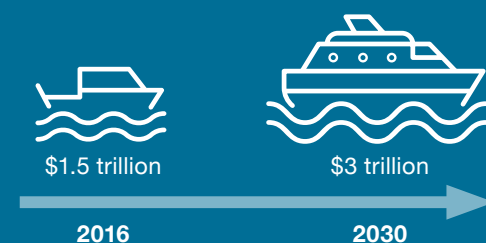


2 MARINE

The UK's southern coast is exceptionally well placed to capitalise on the doubling of the global marine economy by 2030, expanding a high value, research intensive cluster to be a globally significant location.

The Marine and Maritime sector contributes £2.5 billion to the South Coast economy each year. The cluster stretches across the southern coast of the UK from Cornwall & the Isles of Scilly to Hampshire and the Solent and includes coastal and inland communities. Globally significant companies and a rich seam of SMEs are located across the area. World class research institutions excel in marine and environmental technology and advanced manufacturing. The coastline has a globally distinctive and unique set of natural assets for product development and testing.

Global Marine Economy Growth



MARINE AND MARITIME INDUSTRY ACCOUNTS FOR 8% OF UK GVA AND 10% OF EMPLOYMENT – More than any other UK cluster

THE STRONGEST REGION FOR MARINE RESEARCH IN THE WORLD

THE AVERAGE JOB IN THE MARINE INDUSTRY GENERATES £65,000 IN GVA – above the UK-wide level of £50,800

Three major opportunities for the South West...



Advanced Manufacturing

- The cluster accounts for 1 in 4 UK marine jobs
- UK market worth £7.6 billion per year

Offshore Renewables

- UK market to rise to £2.9 billion pa by 2030
- The cluster accounts for 10% of the UK's offshore renewables sector

Marine Autonomy

- A strategic growth opportunity: marine autonomy global market to grow to \$136 billion over the next 15 years
- UK is forecast to secure a 10% share. The majority of marine autonomy platform developers in the UK are located on the south coast

The South Coast Marine Cluster accounts for 8% of the UK's marine and maritime sector.

Investment has been significant

- Oceansgate Enterprise Zone in Plymouth and the Marine Business Technology Centre provide waterfront access for businesses, links to the world-class research institutes and an in-sea test facility for marine autonomy
- A strong cluster group is developing a comprehensive strategy across the whole south coast
- The cluster is working with Maritime UK to develop a marine and maritime sector deal

Contributing to the National Industrial Strategy



Ideas

New products and services for the rapidly expanding global marine market



People

New higher value, higher skilled jobs



Business Environment

World-class facilities for business to develop, test and sell new products and services



Places

Bringing new jobs and opportunities to communities across the south of the UK



AI & Data Economy

Maximising the potential of the data at the UK Hydrographic Office to extend this global excellence to business



Future of mobility

Leading development of the marine autonomy sector



Our Proposition for Transformational Delivery

The potential for high value jobs and business growth is huge, giving access to global markets. Realising this requires:

- Long term sector support: secure the Marine and Maritime sector deal with Government, including a strong south coast component
- Developing new products & services and expanding the marine autonomy offer to add:
 - A Strength in Places bid enabling close cooperation between world-class research institutions and business to develop new products and services
 - An Innovation Centre in Taunton maximising the economic and entrepreneurial opportunities associated with the UK Hydrographic Office's world-leading role in marine geospatial data, as a core component of the centre's offer
- World-class premises: funding to complete the Oceansgate Enterprise Zone, open the waterfront access in the site and enable the Zone to become self-funding
- Skills development: secure an Institute of Technology (IoT) in Heart of the South West and Cornwall & the Isles of Scilly. Working across multiple sectors the IoT will create a pool of high level engineering and digital talent to support growth in South West businesses



3 PHOTONICS



Photonics drives the modern world. It is the technology of light, key to smart phones, data, 5G, photovoltaic cells, autonomous vehicles, laser surgery, lighting, LEDs, cameras, fibre optics and many other future technologies. The Heart of the South West has 4% of the UK photonics industry and is already driving growth.

The global photonics industry almost doubled from £228 billion in 2005 to £447 billion in 2015. The UK photonics industry is worth around £12.9 billion and is forecast to grow at around 8-10% per year.

The Heart of the South West accounts for 4% of the UK sector. Over 170 companies across the area employ more than 3,000 people with research excellence in:

- Microwave photonics
- Quantum optics
- Photonic integrated circuit packaging



The area is home to the R&D facility of one of the fastest growing companies on the Silicon Valley Index in 2017. Around Torbay, the industry leads the Hi-Tech Forum, which has an industry and academic work programme delivering and identifying skills needs and outreach activities between industry and schools.

£8m has been invested in the Electronic and Photonics Innovation Centre in Torbay (EPIC). This will be a state of the art centre of excellence for innovation in microelectronics and photonics.

Complementary markets across the South West where photonics plays a key role as an enabling technology present major growth opportunities. These include the supply chains in marine, aerospace, nuclear, defence and space applications.



Contributing to the National Industrial Strategy



Ideas

New products and services to deliver to an expanding global market



People

A skills infrastructure to match industry need with local provision



Business Environment

Delivering world-class innovation facilities



Places

Creating new high value jobs across the Heart of the SW, including some of its poorest communities



AI & Data Economy

New optical communications have the power to deliver more data in real-time. Key to Superfast Broadband, supporting the growth of data centres, along with 5G technology and the next generation



Clean growth

Next-generation photovoltaic technologies and LED lighting that can be integrated into buildings. Wider adoption of highly efficient laser-cutting marking and welding in manufacturing. More efficient photovoltaic cells



Future of mobility

Leading development of the marine autonomy sector



Ageing population

Photonics is critical for non-intrusive predictive preclinical diagnosis enabling efficient healthcare delivery in the community. Laser surgery is being continuously improved to reduce the downtime of patients

Our Proposition for Transformational Delivery

Highly skilled jobs can be created and businesses expanded to reach global markets in multiple sectors. To secure this we have a clear programme:

- New products and services – develop an integrated photonics design facility in conjunction with the University of Southampton
- Skills development – develop a Hi-Tech & Digital degree programme and strengthen the Higher Education offer with additional HE status and degree awarding powers in Hi-Tech & Digital degree subjects
- To support and attract businesses – develop a business accelerator programme to help existing businesses grow and offer a soft-landing package to new businesses coming to the area
- World-class facilities – photonics requires specialist vibration-free facilities and further investment in EPIC and other local employment sites will strengthen this offer



4 BIG DATA

The explosion of data is opening up a whole new world. “Big Data” means working with the vast data sets from modern technology to reveal new patterns and trends, especially relating to human behaviour. Heart of the South West has globally significant strengths in this rapidly growing market.

The collective and complementary strengths of our assets is unrivalled nationally or internationally. They include the UK Met Office; University of Exeter’s climate change expertise and the new Institute of Data Science and A.I.; the University of Plymouth; Plymouth Marine Laboratory; the UK Hydrographic Office in Taunton (UKHO); Rothamsted Research, the Environmental Futures and Big Data Impact Lab and the SW Centre for Excellence in Satellite Applications. This cluster attracts global organisations such as Amazon Web Services, Microsoft, Google, IBM, World Health Organisation and NASA.

The opportunity is to translate foundational research into commercial products, catalysing the development of a multi-billion pound global market, and attracting regional, national and international businesses.

Environmental Monitoring market

\$14.5bn and growing 8% per year

Internet of Things segment of the Smart Cities Global Market Potential

\$52bn with annual growth rate of c. 23%

Analytics systems focussed on measurement and management of carbon footprint for Transportation and Energy

\$1bn and \$32bn, with annual growth rates of over 15% p.a. and 20% p.a. respectively.

Environmental Consulting

\$28.5bn, growing by approximately 2% each year

Commercial Weather and Climate services market

\$35bn in 2015, having grown by over 30% over 5 years

Significant locations include:

- Greater Exeter had 2,700 digital tech jobs in 2016, up 47% on 2014, contributing £370m in GVA to the local economy. Exeter hosts the largest number of ‘digital economy’ enterprises south west of Bristol;
- Plymouth’s large digital technology sector supports 1,444 digital tech jobs, contributing £161 million in GVA;
- The UKHO in Taunton is a global leader in marine location data with a rapidly expanding data science capacity;
- The region is home to large numbers of innovative companies, such as City Science, ATASS, Black Swan, Oxygen House, Argand, SeeData and Crowd Cube, qinetic, iotec, sponge and BIT

Investment has been significant:

- £97m in the Met Office’s supercomputer capability - the most powerful in the world dedicated to weather and climate
- £6.4m in a new Environmental Future and Big Data Lab based at the Met Office
- A multi million pound investment in the Global Environmental Futures Campus at the Exeter Science Park

- £100m in development of Environmental Science and Data Science capabilities at the University of Exeter
- The UK Hydrographic Office completes a new £55 million HQ facility early 2019

Contributing to the National Industrial Strategy



Ideas

New products and services to deliver to an expanding global market for Environmental Intelligence



People

A skills escalator that will build the skills base and attracts talent in data analytics to meet industry needs



Business Environment

Delivering world-class innovation facilities for start ups, growing business and inward investors



AI & Data Economy

Remove current barriers to commercial exploitation, positioning the region as a global leader in development of a £100bn, rapidly growing, world-wide market for Environmental Intelligence Solutions and marine data



Clean growth

Drive economic growth in regional markets associated with environmental monitoring and data generation, environmental analytics, software production and environmental consultancy



Future of mobility

Development of Exeter as an analytical city and test bed for transport solutions and providing a digital twin for National Infrastructure Commission

Our Proposition for Transformational Delivery

The potential to grow a new global market is significant, creating new products, high value jobs, and improving productivity. To realise this we need to:

- Commercialise our data assets and develop new products and services: investment in a new Environmental Intelligence Accelerator (currently a Strength in Places bid)
- Support new products and services: Innovation Centre in Taunton - maximising the economic and entrepreneurial opportunities from UKHO’s world-leading capability
- Create world-class premises: funding to complete the Global Environmental Futures Campus and related innovation hubs at Exeter Science Park
- Skills Development:
 - Secure the South West Institute of Technology (IoT) in Heart of the South West and Cornwall & the Isles of Scilly. Working across multiple sectors the IoT will work with anchor employers such as the Met Office to create a pool for talent in data analytics
 - Investment in and roll out of the Data Analytics Skills Escalator to the wider region
 - A new Centre for Doctoral Training in Environmental Intelligence Boost STEM education: create the next generation of data analysts through the creation of a Digital and Data Education Hub
- Inward Investment: develop the proposition and international links with business and universities



5 HIGH VALUE TOURISM

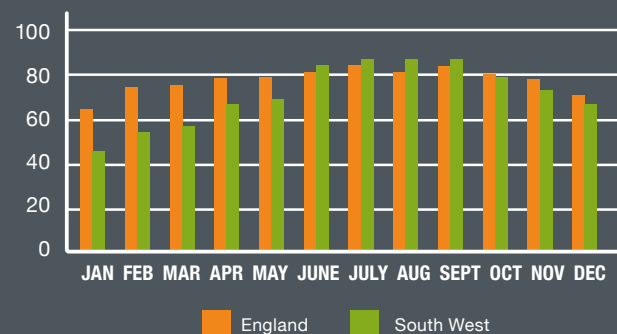
High value tourism is our ambition to secure greater economic value from tourism through extending the season and reaching new, high value, markets.

The distinct opportunity in the Heart of the South West

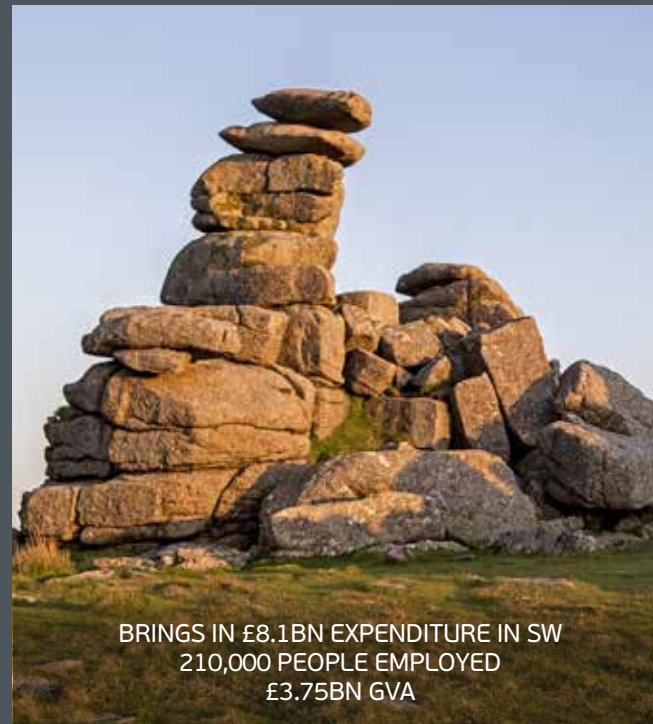
Total visitor expenditure is £8.1 billion across the south west. £1.4 billion of this is in the Heart of the South West which attracts 6.5m trips per year.

Employing approx 12% of our workforce, it is vitally important to us. This volume reflects the breadth and depth of our tourism offer.

The South West Rural Productivity Commission Report highlighted the importance of the sector and the scope for improving productivity – particularly through extending the season. The graph below highlights the difference in room occupancy between the South West and the rest of England.



Source: Visit Britain



BRINGS IN £8.1BN EXPENDITURE IN SW
210,000 PEOPLE EMPLOYED
£3.75BN GVA

Contributing to the National Industrial Strategy



Ideas

Using data and digital applications to create tomorrow's experiences



Business Environment

Tackling low productivity and improving sector performance



People

Creating year-round opportunities and improving skills

Our Proposition for Transformational Delivery

Our vision for the tourism sector is to make the peninsula an exemplar of high value sustainable tourism, 365 days a year.

Working together with our partner LEPs, we are developing proposals for a 'Rural Productivity Partnership' with Government. Our proposals address four key priorities:



Our ask of Government is to work in partnership with us to co-design our 'Rural Productivity Partnership Proposals'. These currently include ideas to:

- Capitalise on Big Data and digital solutions to provide new, immersive experiences for our visitors as well as new insights and intelligence for both businesses and destinations alike
- Capitalise and protect our natural assets, such as the South West Coastal Path, by creating visionary tourism zones that bring together people, wildlife and economic opportunity
- Improve skills through the development of a Virtual Skills Academy
- Maintaining and enhancing our tourism infrastructure and natural assets

6 FARMING, FOOD AND FISHING

Farming, Food and Fishing is the opportunity to capitalise on our existing strengths in land management and food production to create prosperity across the area.

The distinct opportunity in the Heart of the South West

The Heart of the South West has a rich farming, food and fishing heritage, producing a wide range of products from both small artisan producers to internationally recognised names such as *Riverford Farm*, *Yeo Valley*, *Sheppy's Cider* and many more.

We are known for:

- Livestock and Dairy, the South West raises 1/3 of England's cattle and produces 3bn litres of milk a year
- Ports and fishing, with ports in the peninsula landing £68.2m catch in 2015
- Sustainability and pioneering approaches to land management
- Our nationally significant research assets, which are pioneering innovative agri-tech solutions



The sector is experiencing significant changes:

Brexit is expected to provide a once-in-a-lifetime opportunity for fundamental reform of direct support arrangements including a greater focus on public goods such as environment.

At the same time, the digital age is bringing about new opportunities to use **technology and automation**.

Contributing to the National Industrial Strategy



Ideas

Using data and digital applications to transform the industry



Business Environment

Tackling low productivity and improving sector performance



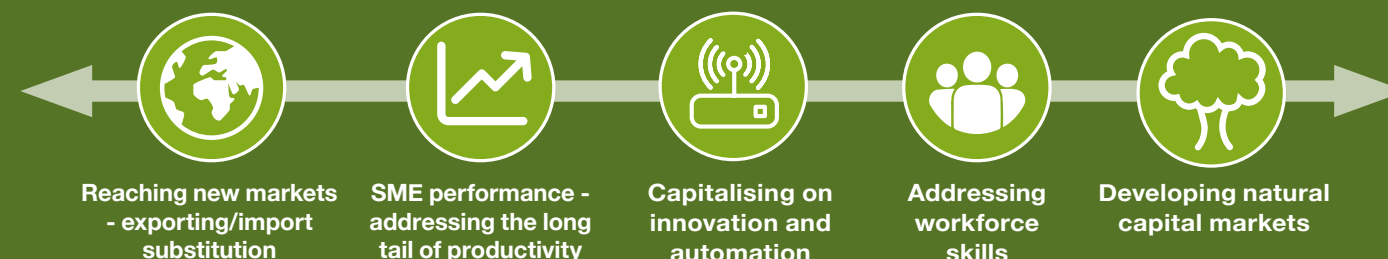
People

Improving the skills of the workforce and SMEs

Our Proposition for Transformational Delivery

Our vision for the farming, food and fishing sector is to develop a world leading, internationally recognised proposition, that is known for its high quality, healthy, competitive and sustainably produced products.

Working together with our partner LEPs, we are developing proposals for a 'Rural Productivity Partnership' with Government. Our proposals address five key priorities:



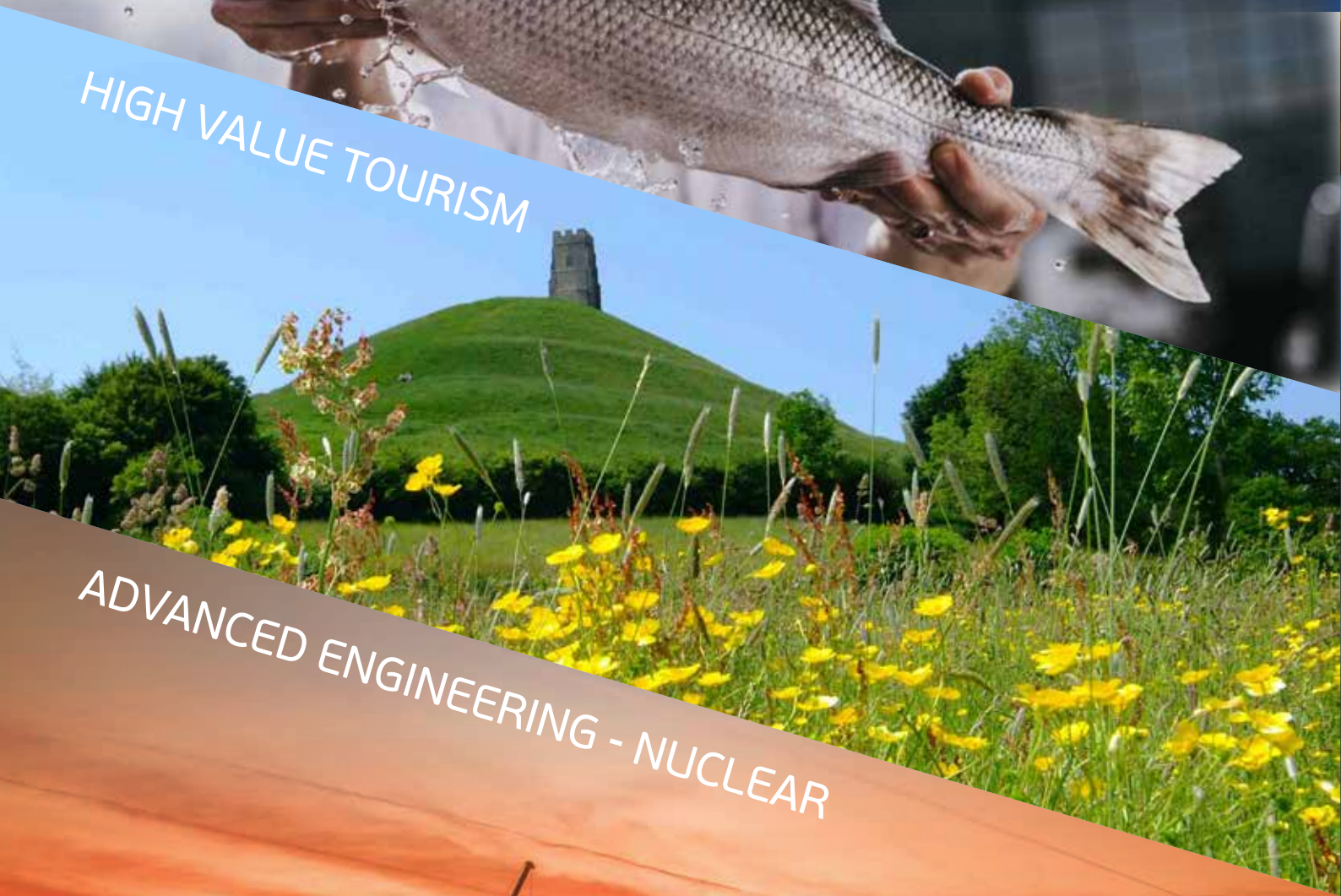
Our ask of Government is to work in partnership with us to co-design our 'Rural Productivity Partnership Proposals'. These currently include ideas to:

- Boost exporting by developing exporting supply chains and overcoming practical barriers
- Pilot new ways to deliver business advice to the sector and enhance our natural capital
- Boost innovation through regional collaboration to transform food production
- Up-skill our workforce through the development of a Virtual Skills Academy





FARMING, FOOD & FISHING



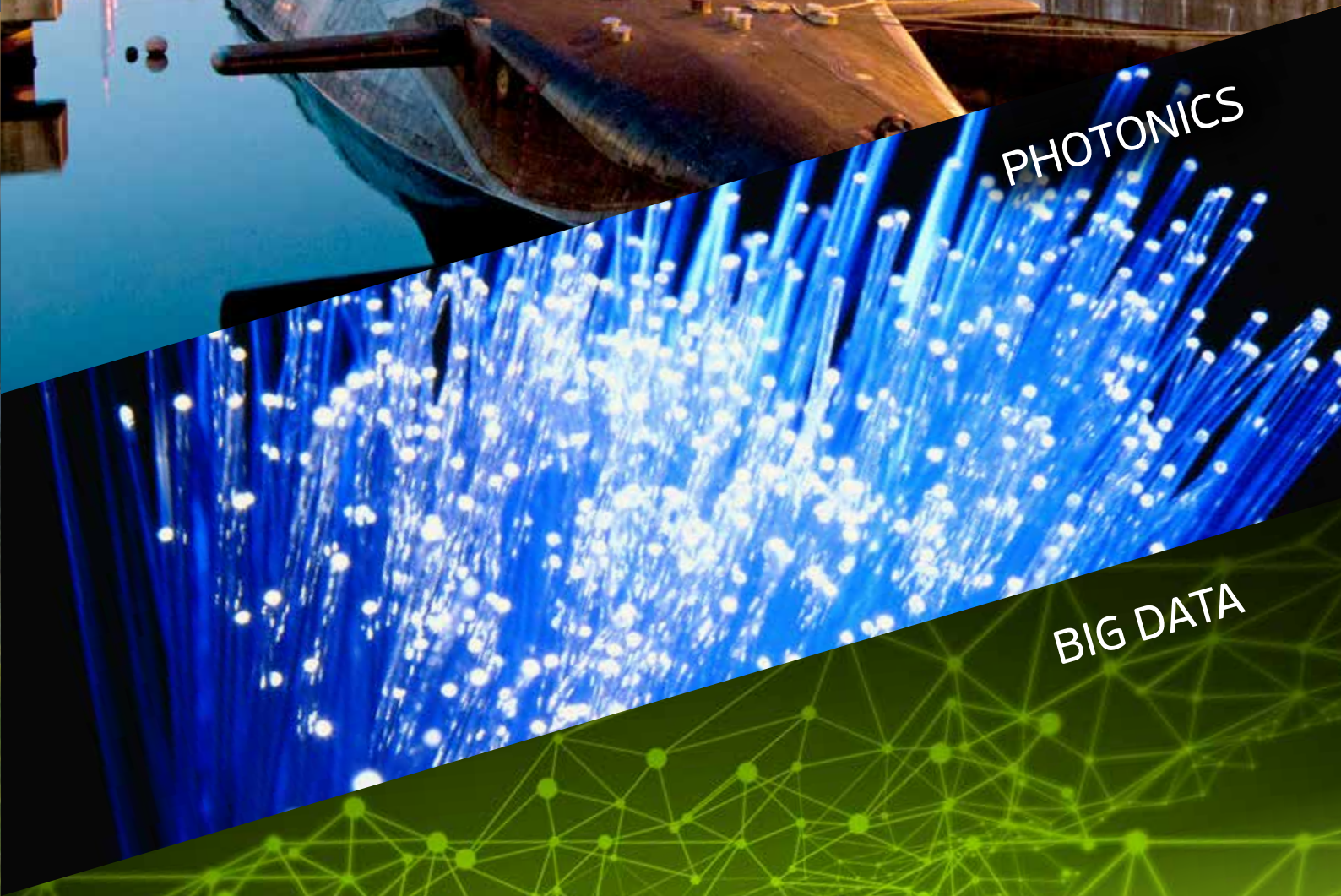
HIGH VALUE TOURISM



ADVANCED ENGINEERING - NUCLEAR



MARINE



PHOTONICS



BIG DATA



The potential within the Heart of the South West is enormous

The opportunities within this document are a route to transforming the productivity and prosperity of one of the most beautiful parts of the country; to raise living standards across our cities, towns, villages and hamlets, in rural and coastal areas.

The LEP area is the largest in England and has major cities, market towns, rural

and coastal communities. We have world-class businesses, research institutions and training providers.

Part of our challenge, and our opportunity, is connecting these parts of the economy so that the benefits of productivity growth are felt by all our citizens and places. These opportunities are part of our response to that challenge.

Our strategic transport links across road and rail need significant improvements to better connect businesses to markets and strengthen resilience; Investment is needed to better connect our communities to local opportunities; and superfast and 5G connectivity will open up national and global markets for business.



#LIVING BETTER

HEART OF THE SOUTH WEST PRODUCTIVITY STRATEGY

www.hotswjointcommittee.org.uk



www.heartofswlep.co.uk