SOLENT
LOCAL
ENTERPRISE
PARTNERSHIP

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www.solentlep.org.uk

01 Solent Area

A population of around **1.3m**

50,000 businesses

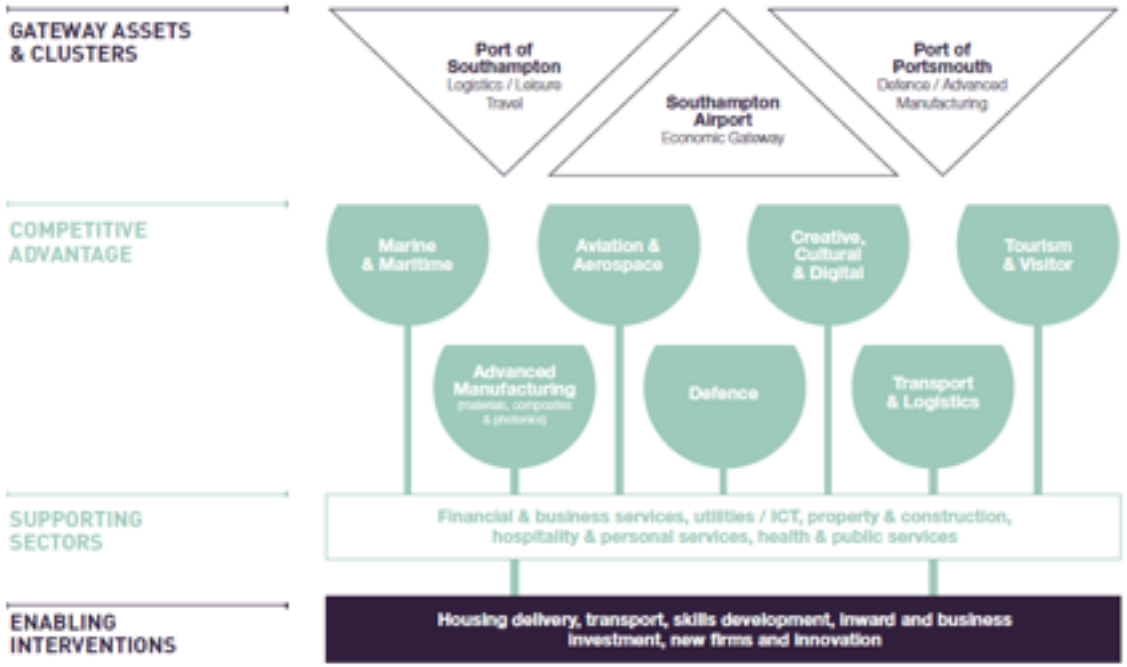
Local GVA of **£25.8bn**

Part of a wider South East economy valued at **£190bn** GVA

A **global** gateway

02 Solent Economy Overview

The Solent Strategic Economic Plan (SEP): Transforming Solent aims to place the Solent on a new and transformative growth trajectory and in order to do this we have set ourselves ambitious targets for growth and productivity. Meeting this aspiration requires the area to create conditions that support growth.



03 Transforming Solent

Our Strategic Economic Plan, *Transforming Solent,* aims to place the Solent on a new growth trajectory, one in which **we raise our growth and productivity** in closer alignment to our neighbours in the South East region.

For the Solent LEP that means that we need to:

- invest in our economic infrastructure;
- develop the skills that our economy needs to succeed;
- ensure that ideas and knowledge are at the forefront of our approach, supporting our businesses to innovate, export and grow; and
- build on our sectoral strengths and recognise our comparative advantage.

The current Solent Growth Deal has brought forward an investment programme that seeks to support this ambition.

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Innovation

04 Innovation

- £4.5m investment in a £25m Global Centre of Excellence for Cancer Immunology in Southampton
- Worked with Ben Ainslie Racing and Portsmouth City Council to secure £7m government funding for a Land Rover Ben Ainslie Racing headquarters in Portsmouth
- DGP Fund established for SMEs developing unmanned marine systems
- Development of new Solent Innovation Strategy underway
- £5m 2016/17 Innovation Fund for projects capable of delivery this year
- New SME Grant programme launching later this year to target firms with high growth potential
- Seeking funding for a new Innovation Fund


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PACEC

Public and Corporate Economic Consultants

Solent LEP Innovation Evidence Base

PACEC: 19th July 2016

Rod Spires, Jonathan Hobson

PACEC | Public and Corporate Economic Consultants

Agenda

Item	
1	Session objectives
2	An introduction to the study
3	Findings to date
	- Solent's innovation eco-system
	- Benchmarking Solent
	- Sector summaries
4	Group discussion
	Break
5	Working Groups: the industry perspective
6	Next Steps & Close

Session objectives

Session objectives

- To update you on progress towards an Innovation Strategy for the Solent;
- To explain the focus of this particular phase of the work;
- To present emerging findings regarding the Solent's 'innovation eco-system';
- To gather industry perspectives on innovation priorities and key issues.

An introduction to the study

An introduction to the study

- Solent LEP has commissioned PACEC to produce an evidence base that can inform an Innovation Strategy for the region;
- Specifically this study will:
  - Rank the Solent's innovation strengths within a UK, European and Global context;
  - Identify and validate areas of potential global competitive and comparative advantage that represent “smart specialisations” in the short and longer-term;
  - Confirm if any sectors of potential have been missed;
  - Identify embryonic innovation strengths in which the Solent has some early seeds of expertise; and
  - Quantify economic growth potential of identified potential global competitive and comparative advantage, both short term through to longer term.

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An introduction to the study

- LEP & sector focus to date
- c.100 documents reviewed
- Seperate section summarising National & EU strategic documentation to be included in report

- Presenting emerging findings;
- Gathering industry perspectives on current & future strengths / opportunities

1: Initiation & orientation → *2: Review of Innovation Context* → *3: Interviews & data analysis* → *4: Workshop to gather industry opinion* → *5: Reporting and dissemination*

- Project Iniation Meeting
- Project Initiation Document
- Outline report structure
- Interview co-ordination

- 30 interviews completed
- Data gathered on IUK investment; BERD; grad retention; employment (NVQ4+); LQs; Business Start Ups; University / Industry Collaboration; Research Excellence; EU benchmarking
- Sectoral employment forecasts produced;
- Patent data received this week from IPO via FOI.

- Analysis of quantitative and qualitative data;
- Reporting against items in terms of reference.

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Solent’s innovation eco-system

Solent's innovation eco-system

- The Solent region has **very strong connectivity to London**, and is **home to significant marine and air travel infrastructure**.
- The area has **comparative strength in education teaching and talent in STEM subjects, engineering and technology, digital and computer science**.
- The Solent benefits from **combined research excellence in Physics, Computer Science & Informatics; Communication, Media Studies and Information Management**.
- While not common across multiple universities, the relative strength of the University of Southampton in **Electrical and Electronic, and General Engineering on a national scale also provides a comparative advantage in these disciplines**.

Solent's innovation eco-system

- The Solent's Further and Higher Education base is also home to several **research centres that are nationally and internationally renowned, including planned facilities that represent more than £100m of investment**, in the areas of marine and maritime, photonics, digital and computer science and autonomous systems; forensics and cyber-security; advanced materials; life sciences immunology and intelligent infrastructure.
- The University of Southampton has **the highest level of university–industry collaboration, with approx. £56.5 million in research and consultancy contracts**, and is one of five universities that form the **SETsquared Partnership**, which is the largest incubator in Europe.
- The Solent provides **extensive business support infrastructure including current and planned facilities totalling more than 600,000 sq ft**, with the majority of facilities at, or close to capacity.

Solent's innovation eco-system

- The South East region has the **highest percentage of active innovative enterprises** (41%); the **highest proportion of businesses engaged in product innovation** (22%); and the **highest percentage of investment in R&D** (29%) of all eight English regions (excluding London).
- Of the eight English regions, the South East benefits from **comparatively high levels of private sector investment at the venture capital and expansion stages**.
- The awareness, willingness, and consistency of private investment represent a clear advantage, **availability of finance for earlier stage / more risky innovation is a key gap**.

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Benchmarking Solent

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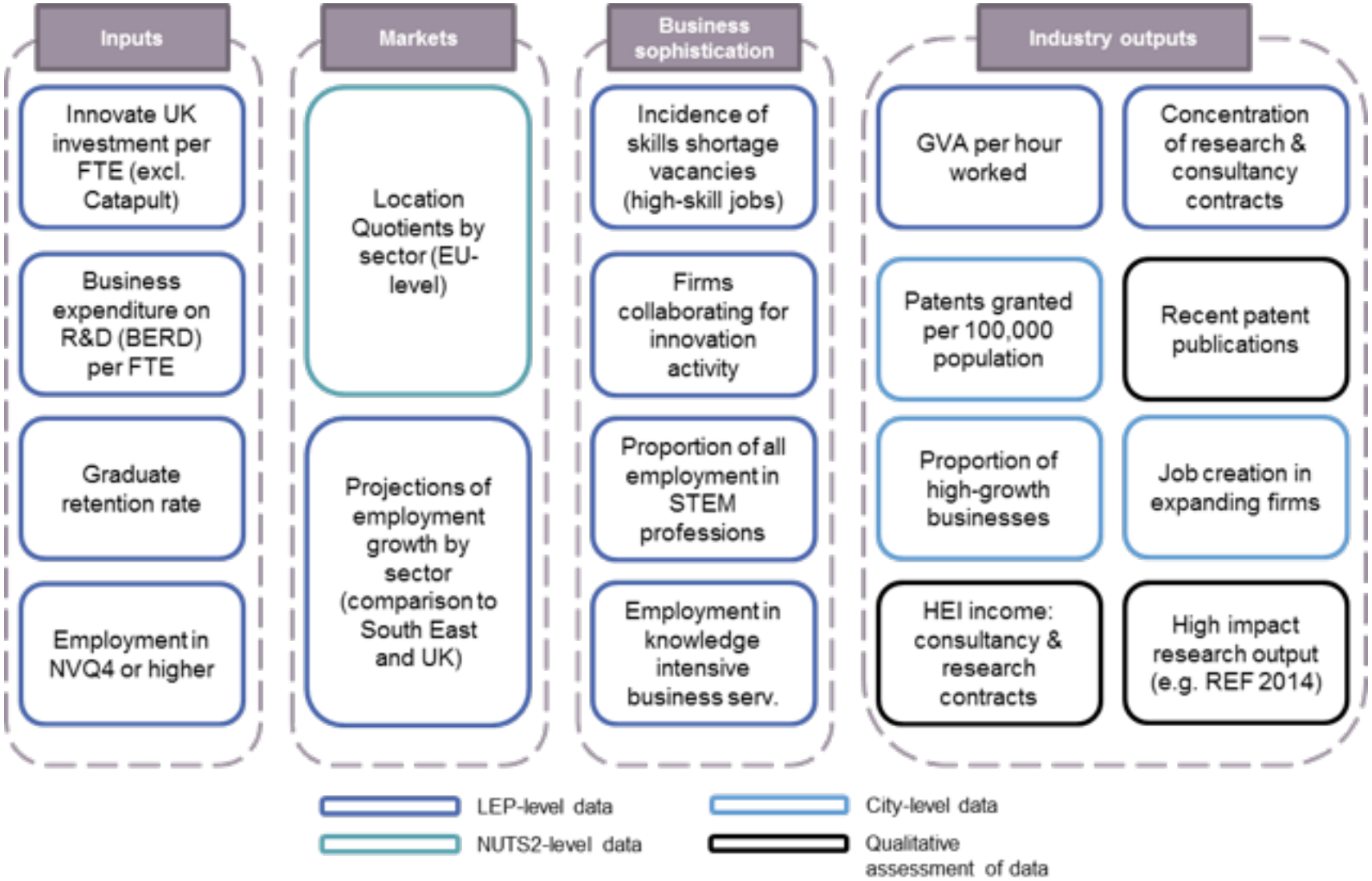
Benchmarking Solent



Benchmarking Solent: Innovation Inputs

- The Solent ranks 7th of all LEPs for Innovate UK investment per FTE (£78.65) but has lower investment in grants than neighbouring Enterprise M3 (£95.14).
- Business expenditure in R&D per FTE is high in the Solent region, at £1,262 per FTE compared to the England average of £811.
- The Solent region also has a **high level of graduate retention (69.0%) compared to other LEPs in southern England**;
- Compared to LEP areas surrounding London (and including London) Solent has a **lower percentage of workers with NVQ4+ qualifications**, and has historically had proportions below the South East average.
- Proportions of NVQ4+ workers for Solent LEP and South East LEP were below 35.0% (the average in England) in 2013, at 34.1% and 30.1% respectively.

Benchmarking Solent: Industry Inputs

Solent innovation sector	EU cluster definition	Regional LQ (EU-level)	
Marine & maritime	Water transportation	3.612	Highest Location Quotient of all UK regions.
Photonics	Light & Electrical Equipment	0.77	Second highest LQ in Southern England.
Digital industries and computer science	Digital Industries	1.787	Second highest LQ of all UK regions.
Advanced materials and composites	Mobility Technologies	0.647	Highest LQ in the South East.
Aerospace and defence	Aerospace & defence	4.079	Mid-range LQ compared to other UK regions
Life sciences	Medical devices	1.947	Highest LQ for Medical Devices of all UK regions.
Cleantech	Environmental Industries	0.918	Top 5 LQs compared to other UK regions
Creative industries	Creative Industries	1.741	Mid-range LQ compared to other UK regions

Benchmarking Solent: Business Sophistication

- The proportion of firms in an economic area collaborating in innovation activity ('collaboration for innovation') as an important measure of innovation in the UK.
- Thirty-one percent of firms in Oxfordshire and 27% of firms in Greater Cambridge & Greater Peterborough were collaborating in innovation activity, which are the highest proportions of all LEP regions.
- Twenty percent of firms in the Solent region are collaborating in innovation activity, marginally lower than in neighbouring LEPs such as Enterprise M3 (24%) and Coast to Capital (22%).
- Thirty two percent of employees in the Solent region are employed in Knowledge Intensive Business Services (KIBS), below the England average of 37%, and notably below neighbouring LEPs including EM3 (43%) and Hertfordshire (41%).

Benchmarking Solent: Innovation Outputs

- Between 2011 and 2014, on average 5.2 jobs were created per expanding firm in Portsmouth and 5.5 per firm in Southampton (compared to 5.3 for the UK). Southampton and Portsmouth perform better on job creation per expanding firm than all other urban regions on the South Coast (including Brighton and Bournemouth).
- Solent LEP GVA per hour worked is £31.01, marginally above the England average (£30.56) but lower than other LEP regions in the South East of England.
- Solent LEP is among the best performing LEPs for SME–university engagement as measured by the ERC. There are 114 SMEs per research contract in the Solent region for 2013–14 (average of 231 in England and most LEP regions surrounding London).
- Southampton and Portsmouth have a high level of patent applications relative to other cities in the UK, with 6.15 and 4.53 patents granted per 100,000 population respectively in 2014 (compared to the UK average of 3.8).

Sector summaries

Sector summary

- Marine & maritime
  - very strong research and industry base across several ‘blue growth’ sub-sectors;
  - providing multiple opportunities for innovative enabling technology;
  - with moderate local growth based on traditional measures i.e. SICs and significant ‘blue growth’ potential growth in the longer-term.
- Photonics
  - very strong research base with further investment planned in the Future Photonics Hub, and international linkages to very strong academic and industry bases;
  - with moderate local growth and enabling technology opportunities across multiple sectors.

Sector summary

- Advanced materials
  - moderately strong research base, with investment planned in related facilities at UoS, UoP and IoW;
  - strong and diverse industry base across marine, aerospace and automotive sectors;
  - moderate local growth based on traditional measures, but significant growth predicted in sub-sectors that Solent enabling technology is well placed to support (O&G, aero, automotive, construction).
- Digital economy and computer science
  - strong research base, including research in open data, autonomous systems, forensics and cyber-security – Nanyang also has strength in VR research;
  - highest growth in digital business turnover of 27 UK clusters between 2010 and 2014, local growth forecast at 4% or 1,500 jobs to 2020;
  - national and (potentially) European funding opportunities.

Sector summary

- Aerospace & defence
  - strong research base across UoS and UoP, including Cyber-Security Academy;
  - strong linkages to MoD and naval defence;
  - significant volume of patents from GKN and Roke Manor;
  - aims for Daedalus site to become aviation cluster;
  - 2015 defence review identifies unmanned air systems and cyber capabilities are areas for funding.
- Life sciences
  - strong research base (100% of research output by UoS Faculty of Health Sciences classed as world leading), IfLS and investment in Centre for Cancer Immunology;
  - strong industry base including businesses at the science park and wider Wessex cluster;
  - Growth of 3% or 2,800 jobs locally and significant growth in digital health.

Sector summary

- Cleantech
  - strong research base across both universities, but relatively low levels of IUK investment in the region to date;
  - moderate industry base with strength in energy efficient systems, off-shore wind and opportunities to collaborate with SW in composite design and manufacture.
- Creative industries
  - moderately strong research base with strength emerging in Southampton Solent and in gaming at UoP and local college;
  - large industry sector but very broadly defined – Centre for Urban & Regional Studies identifies concentration in visual arts in Test Valley & New Forest and software development in Portsmouth and Winchester;
  - Comparatively strong local growth of 5% (2,900 jobs) to 2020 (again broadly defined) but very strong growth among some local VR companies.

Embryonic Innovation Areas

- Composites, sensing and digital / data analytics for marine renewables;

  "The NOC, SMMI, the University of Southampton and Lloyds means there is a powerful collective hub for marine renewables. Composites and data capability in the Solent is stronger".

- Composites, adaptive materials and photonics (nanotechnology) for medical devices, and digital software and data analytics for healthcare and medical applications;

  "We're beginning to see companies emerging with tech for e.g. stroke rehabilitation, health care and medical applications is definitely a growing area".

- Digital software, data analytics and quantum photonics for cyber-security, satellite applications and autonomous systems (aerospace, marine, defence);
- Gaming software development and Virtual Reality systems – key stakeholders in the Solent but requires collaboration with other regions.

Working Groups

Next steps

- Factor industry insights into the evidence base;
- Complete assessment of relative strengths across sectors;
- Finalise assessment of position within EU and International markets;
- Produce final evidence base;
- Develop draft innovation objectives and actions;
- Re-engage with industry and other key stakeholders.