



Department for  
Business, Energy  
& Industrial Strategy

# South West England and South East Wales Science and Innovation Audit

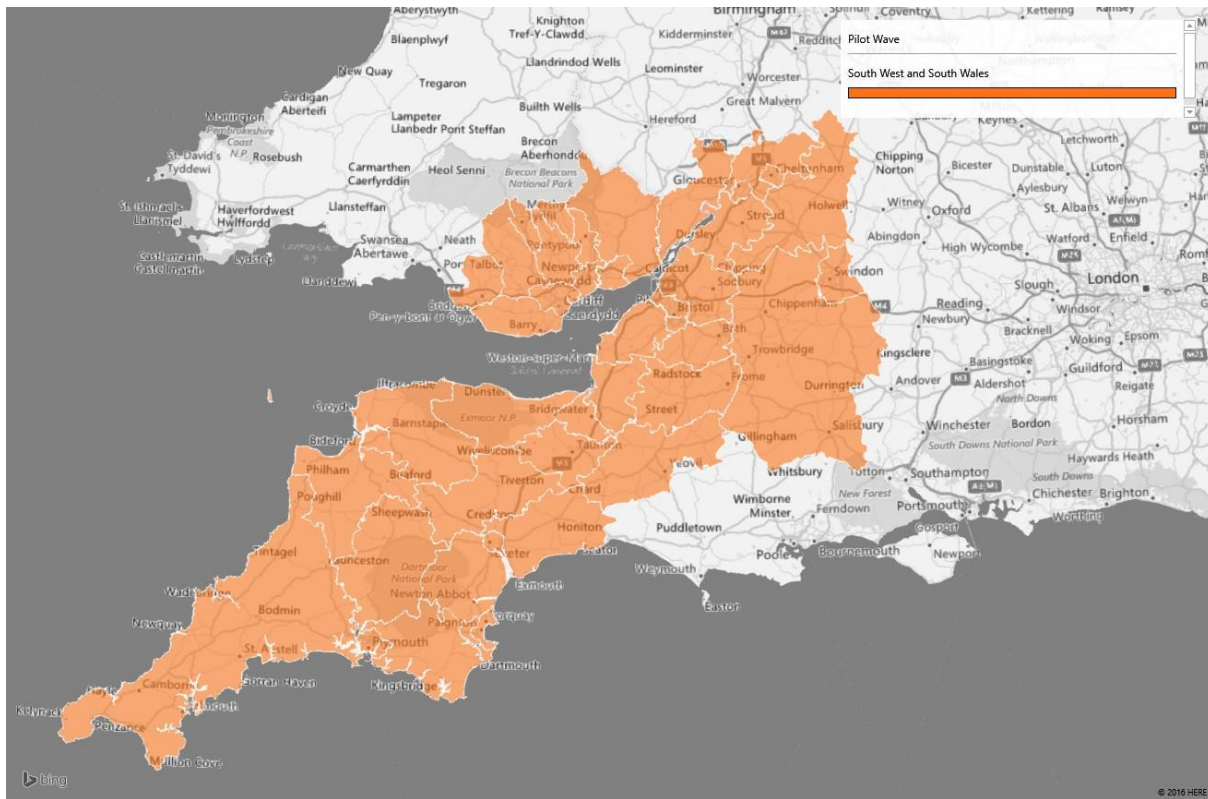
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## Annex L: National Data – Technopolis

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### SIA 03: South West England and South East Wales

#### 1.1 Geography



SIA_ID	LEP	LAU	NUTS3	ONS_CODE
SIA0003	Cornwall and Isles of Scilly	Cornwall		E06000052
SIA0003	Cornwall and Isles of Scilly	Isles of Scilly		E06000053
SIA0003	Gloucestershire	Cheltenham		E07000078
SIA0003	Gloucestershire	Cotswold		E07000079
SIA0003	Gloucestershire	Forest of Dean		E07000080
SIA0003	Gloucestershire	Gloucester		E07000081
SIA0003	Gloucestershire	Stroud		E07000082
SIA0003	Gloucestershire	Tewkesbury		E07000083
SIA0003	Heart of the South West	Torridge		E07000046

SIA_ID	LEP	LAU	NUTS3	ONS_CODE
SIA0003	Heart of the South West	West Devon		E07000047
SIA0003	Heart of the South West	South Hams		E07000044
SIA0003	Heart of the South West	Teignbridge		E07000045
SIA0003	Heart of the South West	Exeter		E07000041
SIA0003	Heart of the South West	East Devon		E07000040
SIA0003	Heart of the South West	Mid Devon		E07000042
SIA0003	Heart of the South West	North Devon		E07000043
SIA0003	Heart of the South West	Plymouth		E06000026
SIA0003	Heart of the South West	West Somerset		E07000191
SIA0003	Heart of the South West	Taunton Deane		E07000190
SIA0003	Heart of the South West	Sedgemoor		E07000188
SIA0003	Heart of the South West	Mendip		E07000187
SIA0003	Heart of the South West	South Somerset		E07000189
SIA0003	Heart of the South West	Torbay		E06000027
SIA0003	Swindon and Wiltshire	Swindon		E06000030
SIA0003	Swindon and Wiltshire	Wiltshire		E06000054
SIA0003	West of England	South Gloucestershire		E06000025
SIA0003	West of England	Bristol, City of		E06000023
SIA0003	West of England	Bath and North East Somerset		E06000022
SIA0003	West of England	North Somerset		E06000024
SIA0003		Bridgend	Central Valleys	W06000013

SIA_ID	LEP	LAU	NUTS3	ONS_CODE
SIA0003		Vale of Glamorgan	Central Valleys	W06000014
SIA0003		Cardiff	Gwent Valleys	W06000015
SIA0003		Rhondda Cynon Taf	Gwent Valleys	W06000016
SIA0003		Caerphilly	Gwent Valleys	W06000018
SIA0003		Blaenau Gwent	Bridgend and Neath Port Talbot	W06000019
SIA0003		Torfaen	Monmouthshire and Newport	W06000020
SIA0003		Monmouthshire	Monmouthshire and Newport	W06000021
SIA0003		Newport	Cardiff and Vale of Glamorgan	W06000022
SIA0003		Merthyr Tydfil	Cardiff and Vale of Glamorgan	W06000024

## 1.2 Thematic areas

SIA_ID	Broad Domain	Sector (as mentioned in the Eol)
SIA0003	Energy	New Energy Systems
SIA0003	Health	
SIA0003	Advanced Manufacturing	Aerospace and Advanced Engineering
SIA0003	Advanced Manufacturing	Next generation microelectronics
SIA0003	Digital	Digital Living Innovation Platform
SIA0003	Bio-economy	Environment and Sustainability
SIA0003	Other	Resilience

### 1.3 Notes

**Note on the Global Research Identifier Database (GRID):** The Global Research Identifier Database (GRID) is an open database of research institutions created by Digital Science. Its objective is to catalogue the world's research organisations. GRID is constructed using national grant data and other open resources, and it uses advanced extraction and cleaning techniques to resolve unstructured text affiliations to unique institution IDs. While GRID tends to be very comprehensive in terms of healthcare facilities, it does not usually cover for example science parks. These were manually compiled for the English LEPs in the BIS Study 'Mapping local comparative advantages in innovation' (Annexes, Table D5 p.326).

The first tables of this report are a non-comprehensive inventory of the institutions and facilities in GRID that fall within your SIA area, generated using the GRID database and your geographical definition of the SIA Area. These queries are based on the 25-01-2016 snapshot of GRID. Technopolis complemented GRID's UK records by updating them to the NUTS2015 classification and adding approximate postcode information through reverse geo-coding, using public APIs available from postcode.io (which use ONS data). GRID can be reused and improved under a Creative Commons Attribution 4.0 International licence. More information about GRID at: <https://grid.ac/pages/policies>

**Note on queries that report on data of the Research Excellence Framework (REF):** Across this document, queries based on REF data also leverage the GRID database, which includes UKPRN identifiers for UK HEIs. In this case, we link the definition of your SIA area, the GRID database, and HEFCE's REF results databases (available at <http://results.ref.ac.uk/DownloadSubmissions/SelectForm>) in order to provide relevant REF results for your area of interest. Aggregation of REF results to combined output/performance at Unit of Assessment level for the whole SIA Area is possible in most cases, using direct or weighted averages. However, this document presents disaggregated data at institution level, as SIA averages can sometimes mask the strengths of particular institutions.

### 1.4 Regional Science and Innovation Assets

#### 1.4.1 Science and innovation assets: Universities and research organisations

**Table 1 Number of research organisations per type (2015) – SIA Area**

Type (GRID)	Number
Archive	3
Company	26
Education	16
Facility	9
Government	26
Healthcare	45

Nonprofit	15
Other	5
Grand Total	145

Source: Global Research Identifier Database (GRID). Digital Science (2016). Available at: <https://grid.ac> Note: Data constructed from public GRID snapshot of 01-2016, using postcode-level matching of institution's main address.

**Table 2 List of research organisations per type (2015) – SIA Area**

LAU	name	type
Bath and North East Somerset	Bath and North East Somerset Council	Government
	Bath Institute for Rheumatic Diseases	Nonprofit
	Bath Labs	Facility
	Bath Spa University	Education
	Royal National Hospital for Rheumatic Diseases	Healthcare
	Royal United Hospital	Healthcare
	Royal United Hospital Bath NHS Trust	Healthcare
	University of Bath	Education
	YTL (United Kingdom)	Company
Bridgend	Control 2K	Company
	Princess of Wales Hospital	Healthcare
Bristol, City of	Association for Science and Discovery Centres	Nonprofit
	At Bristol	Nonprofit
	Bristol City Council	Government
	Bristol Clinical Commissioning Group	Other
	Bristol Eye Hospital	Healthcare
	Bristol Royal Hospital for Children	Healthcare
	Bristol Royal Infirmary	Healthcare
	Highways Agency	Government
	IT Power (United Kingdom)	Company
	Jisc	Nonprofit
	Knowle West Media Centre	Other
	National Co-ordinating Centre for Public Engagement	Government
	National Eye Research Centre	Nonprofit
	NIHR Bristol Cardiovascular Biomedical Research Unit	Government

	NIHR Bristol Nutrition Biomedical Research Unit	Government
	North Bristol NHS Trust	Healthcare
	Simitive (United Kingdom)	Company
	South West Screen	Nonprofit
	Southmead Hospital	Healthcare
	St Michael's Hospital	Healthcare
	Sustrans	Nonprofit
	Ultrahaptics (United Kingdom)	Company
	University Hospitals Bristol NHS Foundation Trust	Healthcare
	University of Bristol	Education
	Victim Support	Nonprofit
	Watershed	Company
	West of England Local Enterprise Partnership (United Kingdom)	Company
	Western Power Distribution (United Kingdom)	Company
Cardiff	Cardiff and Vale University Health Board	Healthcare
	Cardiff Metropolitan University	Education
	Cardiff Royal Infirmary	Healthcare
	Cardiff University	Education
	Chapter Arts Centre	Archive
	Higher Education Funding Council for Wales	Nonprofit
	Natural Resources Wales	Facility
	Research Capacity Building Collaboration Wales	Nonprofit
	Royal Welsh College of Music and Drama	Education
	Science made simple	Other
	Techniquet	Facility
	University Hospital of Wales	Healthcare
	University of South Wales	Education
	University of Wales	Education
Cheltenham	Cheltenham Festivals	Nonprofit
	Cheltenham General Hospital	Healthcare
	University of Gloucestershire	Education
Cornwall	Cornwall Council	Government
	Eden Project	Archive

	Falmouth University	Education
	PV3 Technologies (United Kingdom)	Company
	Royal Cornwall Hospital	Healthcare
	Royal Cornwall Hospital Trust	Healthcare
	University of Exeter Cornwall Campus	Education
	Westcountry Rivers Trust	Nonprofit
Cotswold	PVOH Polymers (United Kingdom)	Company
	Royal Agricultural University	Education
Exeter	Ashwoods Automotive (United Kingdom)	Company
	Exeter City Council	Government
	Hadley Centre	Facility
	Met Office	Government
	Princess Elizabeth Orthopaedic Centre	Healthcare
	Royal Albert Memorial Museum	Archive
	Royal Devon & Exeter NHS Foundation Trust	Healthcare
	Royal Devon and Exeter Hospital	Healthcare
	Scimar Engineering Ltd	Company
	University of Exeter	Education
Forest of Dean	Fountain Way	Healthcare
	Meningitis Research Foundation	Facility
	Raytheon (United Kingdom)	Company
Gloucester	Gloucestershire Hospitals NHS Foundation Trust	Healthcare
	Gloucestershire Royal Hospital	Healthcare
Mendip	Systems Engineering and Assessment (United Kingdom)	Company
Merthyr Tydfil	Prince Charles Hospital	Healthcare
Monmouthshire	Maindiff Court Hospital	Healthcare
Newport	Office for National Statistics	Government
	Royal Gwent Hospital	Healthcare
	St Cadoc's Hospital	Healthcare
	St Woolos Hospital	Healthcare
North Somerset	Weston Area Health NHS Trust	Healthcare
Plymouth	Derriford Hospital	Healthcare
	Marine Biological Association of the United Kingdom	Facility



	Plymouth College of Art	Education
	Plymouth Hospitals NHS Trust	Healthcare
	Plymouth Marine Laboratory	Facility
	Plymouth University	Education
	Sir Alister Hardy Foundation for Ocean Science	Nonprofit
Rhondda Cynon Taf	Royal Glamorgan Hospital	Healthcare
South Gloucestershire	Airbus (United Kingdom)	Company
	Airbus Group (United Kingdom)	Company
	Bristol Institute for Transfusion Sciences	Facility
	Forestry Commission England	Government
	Frenchay Hospital	Healthcare
	Higher Education Funding Council for England	Government
	Infineon Technologies (United Kingdom)	Company
	Inmos	Company
	National Composites Centre	Other
	Oliver Crispin Robotics (United Kingdom)	Company
	University of the West of England	Education
South Hams	New Generation Biogas	Company
South Somerset	Gooch & Housego (United Kingdom)	Company
	J P Kenny	Company
	Yeovil District Hospital	Healthcare
	Yeovil District Hospital NHS Foundation Trust	Healthcare
Stroud	Renishaw (United Kingdom)	Company
Swindon	Arts and Humanities Research Council	Government
	Biotechnology and Biological Sciences Research Council (BBSRC)	Government
	Economic and Social Research Council	Government
	Engineering and Physical Sciences Research Council	Government
	European Space Agency	Other
	Great Western Hospital	Healthcare
	Innovate UK	Government
	Natural Environment Research Council	Government
	Precision Varionic International (United Kingdom)	Company
	Research Councils UK	Government

	Science and Technology Facilities Council	Government
	Swindon Borough Council	Government
	United Kingdom Space Agency	Government
Taunton Deane	Dene Barton Community Hospita	Healthcare
	Musgrove Park Hospital	Healthcare
	Somerset County Council	Government
Tewkesbury	Gloucestershire County Council	Government
	Safran (United Kingdom)	Company
Torbay	South Devon Healthcare NHS Foundation Trust	Healthcare
	Torbay Hospital	Healthcare
Torfaen	Blaenavon Hospital	Healthcare
	Llanfrechfa Grange Hospital	Healthcare
Vale of Glamorgan	University Hospital Llandough	Healthcare
Wiltshire	Avon and Wiltshire Mental Health Partnership NHS Trust	Healthcare
	Council for the Central Laboratory of the Research Councils	Government
	Enigma Diagnostics (United Kingdom)	Company
	Inspire Foundation	Nonprofit
	Parkinson's UK	Nonprofit
	Salisbury District Hospital	Healthcare
	Wessex Regional Genetics Laboratory	Facility
	Wiltshire Council	Government

Source: Global Research Identifier Database (GRID). Digital Science (2016). Available at: <https://grid.ac> Note: Data constructed from public GRID snapshot of 01-2016, using postcode-level matching of institution's main address.

**Table 3 Number of Universities and further education centres (2015)**

	<b>FEC</b>	<b>HEI</b>
Cornwall and Isles of Scilly	2	2
Gloucestershire	3	2
Heart of the South West	9	4
Swindon and Wiltshire	3	
West of England	4	5
South East Wales	6	5

Source: Underlying data for local growth 2013-14. Higher education and local growth. HEFCE (2015). Available at: <http://www.hefce.ac.uk/analysis/maps/>; HEFCW and Colegaucymru

**Table 4 List of Universities and further education centres (2015)**

LEP	Institute name	Campus name
Cornwall and Isles of Scilly	Cornwall College	Entire institution
	Falmouth University	Entire institution
	Truro and Penwith College	Entire institution
	University of Exeter	Cornwall campus
Gloucestershire	Cirencester College	Entire institution
	Gloucestershire College	Entire institution
	Hartpury College	Entire institution
	The Royal Agricultural University	Entire institution
	University of Gloucestershire	Main campus
Heart of the South West	Bridgwater College	Entire institution
	City College Plymouth	Entire institution
	Exeter College	Entire institution
	Petroc	Entire institution
	Plymouth College of Art	Entire institution
	Richard Huish College	Entire institution
	Somerset College	Entire institution
	South Devon College	Entire institution
	Strode College	Entire institution
	University of Exeter	Main campus
	University of Plymouth	Entire institution
	University of St Mark & St John	Entire institution
	Yeovil College	Entire institution
Swindon and Wiltshire	New College Swindon	Entire institution
	Swindon College	Entire institution
	Wiltshire College	Entire institution
West of England	Bath College	Entire institution
	Bath Spa University	Entire institution
	City of Bristol College	Entire institution
	South Gloucestershire and Stroud	Entire institution

	College	
	The Conservatoire for Dance and Drama	BOVTS
	The University of Bath	Entire institution
	University of Bristol	Entire institution
	University of the West of England, Bristol	Entire institution
	Weston College of Further and Higher Education	Entire institution
South East Wales	Cardiff University	Entire institution
	Cardiff Metropolitan University	Entire institution
	The Open University in Wales	Entire institution
	University of South Wales (incl. Royal Welsh College of Music and Drama)	Entire institution
	University of Wales	Entire institution
	Coleg Gwent	Entire institution
	St David's Catholic College	Entire institution
	Cardiff and Vale College	Entire institution
	Coleg y Cymoedd	Entire institution
	The College Merthyr Tydfil	Entire institution
	Bridgend College	Entire institution

Source: Underlying data for local growth 2013-14. Higher education and local growth. HEFCE (2015). Available at: <http://www.hefce.ac.uk/analysis/maps/>; HEFCW and Colegaucymru

#### 1.4.2 Science and innovation talent: Human capital and talent

**Table 5 General S&T staff - % workforce in 'science, research, engineering and technology' professions and associated professions (Jul 2013 - Jun 2014)**

	<b>Cornwall and Isles of Scilly</b>	<b>Gloucestershire</b>	<b>Heart of the South West</b>	<b>Swindon and Wiltshire</b>	<b>West of England</b>	<b>South East Wales</b>
% workforce in 'science, research, engineering and technology' professions and associated professions (Jul 2013 - Jun 2014)	5.2%	7.5%	5.6%	9.1%	10.2%	5.8%
- % all in employment	3.2%	5.7%	4.0%	6.7%	8.2%	3.8%

who are - 21: science, research, engineering and technology professions (SOC2010) (Jul 2013 - Jun 2014 English LEPs and Jan 2015 – Dec 2015 South East Wales)						
% all in employment who are - 31: science, engineering and technology associate professions (SOC2010) (Jul 2013 - Jun 2014 English LEPs and Jan 2015 – Dec 2015 South East Wales)	2.0%	1.8%	1.6%	2.4%	2.0%	2.0%

Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths>; Welsh data calculated as an average of Local Authority Districts, taken from Annual Population Survey [Jul 2013-Jun 2014]. Available at: <https://www.nomisweb.co.uk>.

**Table 6 Retention of local skills (2013/14) – English LEPs and Wales**

LEP	% in London	Retention in HOME REGION (where known) SW
Cornwall and Isles of Scilly	9.6	74.9
Gloucestershire	13.4	60.7
Heart of the South West	11.1	71.6
Swindon and Wiltshire	14.5	61.3
West of England	10.6	72.7
Wales (all, calculated)	5.5%	73.6

Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths> and HESA Destinations of Leavers from Higher Education 2013/14

**Table 7 Qualified working population (2013) England LEPs and Wales Local Authorities in SIA Area**

LEP / LA	% with no qualifications (NVQ) - aged 16-64	% with NVQ3 only - aged 16-	% with NVQ4+ - aged 16-64
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		<b>64</b>	
Cornwall and Isles of Scilly	6.8	19.3	32.1
Gloucestershire	7.3	20.5	35.0
Heart of the South West	6.5	20.5	31.0
Swindon and Wiltshire	7.5	17.6	34.9
West of England	6.2	18.7	38.1
South East Wales	6.5	18.5	38.1
Consortium area average	6.8	19.2	34.9

Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths>; and ONS annual population survey [Jan 2015-Dec 2015] for Welsh Local Authorities. Available at: <https://www.nomisweb.co.uk/>. Note: the South East Wales figure is calculated as an average of each of the Local Authority areas in the area, drawn from the UK Annual Population Survey (12 months to June 2015). The consortium area average is calculated using the figures in the table.

## REF Researchers

*Table 8 REF Researchers - Number of FTE staff Submitted to the REF (SIA Area)*

Institution Name / Unit of Assessment	Total Category A FTE	% of institution Total	% of UK Total
<b>Bath Spa University</b>	<b>74.02</b>	<b>100.00%</b>	
Art and Design: History, Practice and Theory	14.17	19.14%	0.88%
Communication, Cultural and Media Studies, Library and Information Management	7.4	10.00%	0.79%
Education	13.2	17.83%	0.92%
English Language and Literature	21.05	28.44%	1.07%
History	6.2	8.38%	0.35%
Music, Drama, Dance and Performing Arts	12	16.21%	1.05%
<b>Cardiff Metropolitan University</b>	<b>35</b>	<b>100.00%</b>	
Allied Health Professions, Dentistry, Nursing and Pharmacy	12	34.29%	0.44%
Art and Design: History, Practice and Theory	10	28.57%	0.62%
Sport and Exercise Sciences, Leisure and Tourism	13	37.14%	1.65%
<b>Cardiff University</b>	<b>737.7</b>	<b>100.00%</b>	
Allied Health Professions, Dentistry, Nursing and Pharmacy	74.95	10.16%	2.73%

Architecture, Built Environment and Planning	42.2	5.72%	4.12%
Biological Sciences	54.7	7.41%	2.31%
Business and Management Studies	72.6	9.84%	2.19%
Chemistry	23	3.12%	1.87%
Civil and Construction Engineering	14.3	1.94%	3.67%
Clinical Medicine	59.01	8.00%	1.65%
Communication, Cultural and Media Studies, Library and Information Management	13.4	1.82%	1.43%
Computer Science and Informatics	13.73	1.86%	0.67%
Earth Systems and Environmental Sciences	14.99	2.03%	1.09%
Education	20.6	2.79%	1.43%
English Language and Literature	24.01	3.25%	1.22%
General Engineering	33.8	4.58%	1.38%
Geography, Environmental Studies and Archaeology	13.13	1.78%	0.78%
History	14.4	1.95%	0.81%
Law	22	2.98%	1.42%
Mathematical Sciences	24.05	3.26%	1.25%
Modern Languages and Linguistics	14.8	2.01%	1.07%
Music, Drama, Dance and Performing Arts	13.2	1.79%	1.16%
Philosophy	10	1.36%	1.69%
Physics	19.5	2.64%	1.14%
Politics and International Studies	13.03	1.77%	1.02%
Psychology, Psychiatry and Neuroscience	69.33	9.40%	2.75%
Public Health, Health Services and Primary Care	24.29	3.29%	1.79%
Sociology	29.48	4.00%	4.19%
Theology and Religious Studies	9.2	1.25%	2.23%
<b>Falmouth University</b>	<b>50.39</b>	<b>100.00%</b>	
Art and Design: History, Practice and Theory	24.29	48.20%	1.51%
Music, Drama, Dance and Performing Arts	26.1	51.80%	2.29%
<b>Plymouth University</b>	<b>366.06</b>	<b>100.00%</b>	
Agriculture, Veterinary and Food Science	24.45	6.68%	2.35%
Allied Health Professions, Dentistry, Nursing and Pharmacy	34.9	9.53%	1.27%
Architecture, Built Environment and Planning	12.95	3.54%	1.26%
Art and Design: History, Practice and Theory	13.75	3.76%	0.86%

Business and Management Studies	32.6	8.91%	0.98%
Clinical Medicine	14.5	3.96%	0.41%
Computer Science and Informatics	12.4	3.39%	0.61%
Earth Systems and Environmental Sciences	44.92	12.27%	3.26%
Education	24	6.56%	1.66%
Electrical and Electronic Engineering, Metallurgy and Materials	7.8	2.13%	0.73%
English Language and Literature	10.97	3.00%	0.56%
General Engineering	17.2	4.70%	0.70%
Geography, Environmental Studies and Archaeology	29.2	7.98%	1.73%
History	11	3.00%	0.62%
Mathematical Sciences	14.4	3.93%	0.75%
Music, Drama, Dance and Performing Arts	8.2	2.24%	0.72%
Psychology, Psychiatry and Neuroscience	30.8	8.41%	1.22%
Social Work and Social Policy	22.02	6.02%	1.69%
<b>Royal Agricultural University</b>	<b>12</b>	<b>100.00%</b>	
Agriculture, Veterinary and Food Science	12	100.00%	1.15%
<b>University of Bath</b>	<b>461.53</b>	<b>100.00%</b>	
Aeronautical, Mechanical, Chemical and Manufacturing Engineering	61	13.22%	5.30%
Allied Health Professions, Dentistry, Nursing and Pharmacy	54.2	11.74%	1.97%
Architecture, Built Environment and Planning	28.38	6.15%	2.77%
Area Studies	26	5.63%	5.38%
Biological Sciences	24.5	5.31%	1.03%
Business and Management Studies	64.9	14.06%	1.95%
Chemistry	33.1	7.17%	2.69%
Computer Science and Informatics	24	5.20%	1.17%
Electrical and Electronic Engineering, Metallurgy and Materials	20.5	4.44%	1.91%
Mathematical Sciences	44.4	9.62%	2.30%
Physics	23	4.98%	1.35%
Social Work and Social Policy	35.55	7.70%	2.73%
Sport and Exercise Sciences, Leisure and Tourism	22	4.77%	2.78%
<b>University of Bristol</b>	<b>1137.73</b>	<b>100.00%</b>	



Agriculture, Veterinary and Food Science	34.03	2.99%	3.27%
Allied Health Professions, Dentistry, Nursing and Pharmacy	16.18	1.42%	0.59%
Art and Design: History, Practice and Theory	8	0.70%	0.50%
Biological Sciences	64.6	5.68%	2.72%
Business and Management Studies	27.5	2.42%	0.83%
Chemistry	58.6	5.15%	4.77%
Classics	15	1.32%	3.9%
Clinical Medicine	84.45	7.42%	2.4%
Computer Science and Informatics	41.6	3.66%	2.0%
Earth Systems and Environmental Sciences	44.28	3.89%	3.2%
Economics and Econometrics	18.6	1.63%	2.5%
Education	34.5	3.03%	2.4%
English Language and Literature	21	1.85%	1.1%
General Engineering	123.38	10.84%	5.0%
Geography, Environmental Studies and Archaeology	55.75	4.90%	3.3%
History	18.8	1.65%	1.1%
Law	39	3.43%	2.5%
Mathematical Sciences	83.5	7.34%	4.3%
Modern Languages and Linguistics	31.1	2.73%	2.2%
Music, Drama, Dance and Performing Arts	21.5	1.89%	1.9%
Philosophy	14.5	1.27%	2.5%
Physics	44.15	3.88%	2.6%
Politics and International Studies	25.8	2.27%	2.0%
Psychology, Psychiatry and Neuroscience	68.81	6.05%	2.7%
Public Health, Health Services and Primary Care	74.6	6.56%	5.5%
Social Work and Social Policy	35.9	3.16%	2.8%
Sociology	17	1.49%	2.4%
Sport and Exercise Sciences, Leisure and Tourism	7	0.62%	0.9%
Theology and Religious Studies	8.6	0.76%	2.1%
<b>University of Exeter</b>	<b>736.18</b>	<b>100.00%</b>	
Area Studies	14.54	1.98%	3.0%
Biological Sciences	54.58	7.41%	2.3%
Business and Management Studies	49.05	6.66%	1.5%

Classics	19	2.58%	5.0%
Clinical Medicine	24.5	3.33%	0.7%
Computer Science and Informatics	10	1.36%	0.5%
Earth Systems and Environmental Sciences	34.7	4.71%	2.5%
Economics and Econometrics	24.5	3.33%	3.2%
Education	25.92	3.52%	1.8%
English Language and Literature	53.2	7.23%	2.7%
General Engineering	44	5.98%	1.8%
Geography, Environmental Studies and Archaeology	63	8.56%	3.7%
History	41.53	5.64%	2.3%
Law	14.95	2.03%	1.0%
Mathematical Sciences	34.6	4.70%	1.8%
Modern Languages and Linguistics	32	4.35%	2.3%
Music, Drama, Dance and Performing Arts	15.86	2.15%	1.4%
Physics	40.2	5.46%	2.4%
Politics and International Studies	24.2	3.29%	1.9%
Psychology, Psychiatry and Neuroscience	32.3	4.39%	1.3%
Public Health, Health Services and Primary Care	24.85	3.38%	1.8%
Sociology	24.2	3.29%	3.4%
Sport and Exercise Sciences, Leisure and Tourism	23.3	3.16%	2.9%
Theology and Religious Studies	11.2	1.52%	2.7%
<b>University of Gloucestershire</b>	<b>56.1</b>	<b>100.00%</b>	
Architecture, Built Environment and Planning	8.2	14.62%	0.8%
English Language and Literature	9.1	16.22%	0.5%
Geography, Environmental Studies and Archaeology	11.1	19.79%	0.7%
History	4.8	8.56%	0.3%
Sport and Exercise Sciences, Leisure and Tourism	17.6	31.37%	2.2%
Theology and Religious Studies	5.3	9.45%	1.3%
<b>University of South Wales</b>	<b>116.96</b>	<b>100.00%</b>	
Allied Health Professions, Dentistry, Nursing and Pharmacy	7.4	6.33%	0.3%
Art and Design: History, Practice and Theory	6.96	5.95%	0.4%
Business and Management Studies	3	2.56%	0.1%
Computer Science and Informatics	13.5	11.54%	0.7%

English Language and Literature	8	6.84%	0.4%
General Engineering	14.5	12.40%	0.6%
History	7.8	6.67%	0.4%
Mathematical Sciences	9.2	7.87%	0.5%
Music, Drama, Dance and Performing Arts	16	13.68%	1.4%
Psychology, Psychiatry and Neuroscience	9.2	7.87%	0.4%
Social Work and Social Policy	14.4	12.31%	1.1%
Sport and Exercise Sciences, Leisure and Tourism	7	5.98%	0.9%
<b>University of the West of England</b>	<b>299.3</b>	<b>100.00%</b>	
Agriculture, Veterinary and Food Science	13.9	4.64%	1.3%
Allied Health Professions, Dentistry, Nursing and Pharmacy	45.4	15.17%	1.7%
Architecture, Built Environment and Planning	30.7	10.26%	3.0%
Art and Design: History, Practice and Theory	20.6	6.88%	1.3%
Business and Management Studies	34.1	11.39%	1.0%
Communication, Cultural and Media Studies, Library and Information Management	18	6.01%	1.9%
Computer Science and Informatics	14.8	4.94%	0.7%
Education	10.2	3.41%	0.7%
English Language and Literature	12.8	4.28%	0.6%
General Engineering	14	4.68%	0.6%
Geography, Environmental Studies and Archaeology	13.1	4.38%	0.8%
History	13.2	4.41%	0.7%
Law	14	4.68%	0.9%
Modern Languages and Linguistics	9.7	3.24%	0.7%
Philosophy	6	2.00%	1.0%
Politics and International Studies	9	3.01%	0.7%
Social Work and Social Policy	19.8	6.62%	1.5%
<b>University of Wales</b>	<b>12.35</b>	<b>100.00%</b>	
Modern Languages and Linguistics	12.35	100.00%	0.9%

Source: Research Excellence Framework (REF). Results. Higher Education Funding Council for England (HEFCE). Available at: <http://results.ref.ac.uk/>

**Table 9 REF Doctorates - Doctorate degrees awarded (2008-2012) (SIA Area)**

Institution Name / Unit of Assessment	Doctorate Degrees	% of Institution	% of UK Total
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	<b>Awarded</b>	<b>Total</b>	
<b>Bath Spa University</b>	<b>26</b>	<b>100.00%</b>	
Art and Design: History, Practice and Theory	2	7.69%	0.1%
Education	7	26.92%	0.2%
English Language and Literature	14	53.85%	0.5%
History	1	3.85%	0.0%
Music, Drama, Dance and Performing Arts	2	7.69%	0.2%
<b>Cardiff Metropolitan University</b>	<b>103</b>	<b>100.00%</b>	
Allied Health Professions, Dentistry, Nursing and Pharmacy	36	34.95%	0.7%
Art and Design: History, Practice and Theory	14	13.59%	0.8%
Sport and Exercise Sciences, Leisure and Tourism	53	51.46%	5.8%
<b>Cardiff University</b>	<b>1,893</b>	<b>100.00%</b>	
Allied Health Professions, Dentistry, Nursing and Pharmacy	222	11.73%	4.5%
Architecture, Built Environment and Planning	61	3.22%	4.3%
Biological Sciences	147	7.77%	2.2%
Business and Management Studies	113	5.97%	2.4%
Chemistry	168	8.85%	3.5%
Civil and Construction Engineering	49	2.59%	5.9%
Clinical Medicine	151	7.98%	1.9%
Communication, Cultural and Media Studies, Library and Information Management	32	1.69%	3.3%
Computer Science and Informatics	49	2.56%	1.2%
Earth Systems and Environmental Sciences	59	3.12%	2.4%
Education	39	2.06%	1.1%
English Language and Literature	63	3.33%	2.4%
General Engineering	157	8.27%	2.9%
Geography, Environmental Studies and Archaeology	26	1.37%	1.0%
History	29	1.51%	1.3%
Law	21	1.11%	1.3%
Mathematical Sciences	36	1.88%	1.4%
Modern Languages and Linguistics	8	0.42%	0.5%
Music, Drama, Dance and Performing Arts	23	1.19%	1.7%
Philosophy	21	1.08%	2.9%

Physics	53	2.80%	1.5%
Politics and International Studies	23	1.22%	1.0%
Psychology, Psychiatry and Neuroscience	242	12.76%	4.3%
Public Health, Health Services and Primary Care	20	1.06%	1.2%
Sociology	74	3.88%	6.1%
Theology and Religious Studies	11	0.58%	0.8%
<b>Falmouth University</b>	<b>19</b>	<b>100.00%</b>	
Art and Design: History, Practice and Theory	6	31.58%	0.4%
Music, Drama, Dance and Performing Arts	13	68.42%	1.0%
<b>Plymouth University</b>	<b>517</b>	<b>100.00%</b>	
Agriculture, Veterinary and Food Science	54	10.44%	3.1%
Allied Health Professions, Dentistry, Nursing and Pharmacy	14	2.71%	0.3%
Architecture, Built Environment and Planning	7	1.35%	0.5%
Art and Design: History, Practice and Theory	43	8.32%	2.6%
Business and Management Studies	38	7.35%	0.8%
Clinical Medicine	28	5.42%	0.4%
Computer Science and Informatics	21	4.06%	0.5%
Earth Systems and Environmental Sciences	70	13.54%	2.8%
Education	12	2.32%	0.3%
Electrical and Electronic Engineering, Metallurgy and Materials	27	5.22%	0.7%
English Language and Literature	5	0.97%	0.2%
General Engineering	21	4.06%	0.4%
Geography, Environmental Studies and Archaeology	40	7.74%	1.6%
History	6	1.16%	0.3%
Mathematical Sciences	10	1.93%	0.4%
Music, Drama, Dance and Performing Arts	13	2.51%	1.0%
Psychology, Psychiatry and Neuroscience	50	9.67%	0.9%
Social Work and Social Policy	58	11.22%	3.8%
<b>Royal Agricultural University</b>	<b>6</b>	<b>100.00%</b>	
Agriculture, Veterinary and Food Science	6	100.00%	0.3%
<b>University of Bath</b>	<b>951</b>	<b>100.00%</b>	
Aeronautical, Mechanical, Chemical and Manufacturing Engineering	145	15.25%	4.1%

Allied Health Professions, Dentistry, Nursing and Pharmacy	101	10.62%	2.0%
Architecture, Built Environment and Planning	39	4.10%	2.8%
Area Studies	23	2.42%	3.3%
Biological Sciences	84	8.83%	1.3%
Business and Management Studies	108	11.36%	2.2%
Chemistry	105	11.04%	2.2%
Computer Science and Informatics	45	4.73%	1.1%
Electrical and Electronic Engineering, Metallurgy and Materials	53	5.57%	1.4%
Mathematical Sciences	63	6.62%	2.5%
Physics	48	5.05%	1.3%
Social Work and Social Policy	115	12.09%	7.4%
Sport and Exercise Sciences, Leisure and Tourism	22	2.31%	2.4%
<b>University of Bristol</b>	<b>2,202</b>	<b>100.00%</b>	
Agriculture, Veterinary and Food Science	66	2.98%	3.7%
Allied Health Professions, Dentistry, Nursing and Pharmacy	38	1.70%	0.8%
Art and Design: History, Practice and Theory	10	0.47%	0.6%
Biological Sciences	166	7.55%	2.5%
Business and Management Studies	14	0.64%	0.3%
Chemistry	310	14.09%	6.6%
Classics	13	0.59%	2.8%
Clinical Medicine	162	7.34%	2.1%
Computer Science and Informatics	82	3.71%	2.0%
Earth Systems and Environmental Sciences	75	3.41%	3.0%
Economics and Econometrics	21	0.95%	2.8%
Education	181	8.22%	5.0%
English Language and Literature	18	0.83%	0.7%
General Engineering	269	12.20%	4.9%
Geography, Environmental Studies and Archaeology	83	3.75%	3.3%
History	25	1.13%	1.1%
Law	29	1.29%	1.8%
Mathematical Sciences	66	2.98%	2.6%
Modern Languages and Linguistics	7	0.30%	0.4%

Music, Drama, Dance and Performing Arts	31	1.41%	2.4%
Philosophy	27	1.21%	3.7%
Physics	97	4.39%	2.7%
Politics and International Studies	38	1.70%	1.7%
Psychology, Psychiatry and Neuroscience	151	6.86%	2.7%
Public Health, Health Services and Primary Care	61	2.75%	3.6%
Social Work and Social Policy	108	4.91%	7.0%
Sociology	34	1.54%	2.8%
Sport and Exercise Sciences, Leisure and Tourism	8	0.36%	0.9%
Theology and Religious Studies	17	0.75%	1.3%
<b>University of Exeter</b>	<b>1,401</b>	<b>100.00%</b>	
Area Studies	74	5.29%	10.6%
Biological Sciences	103	7.36%	1.6%
Business and Management Studies	76	5.44%	1.6%
Classics	26	1.82%	5.6%
Clinical Medicine	37	2.67%	0.5%
Computer Science and Informatics	18	1.30%	0.4%
Earth Systems and Environmental Sciences	28	2.03%	1.1%
Economics and Econometrics	17	1.23%	1.6%
Education	189	13.45%	5.2%
English Language and Literature	88	6.30%	3.3%
General Engineering	82	5.86%	1.5%
Geography, Environmental Studies and Archaeology	74	5.29%	3.0%
History	75	5.36%	3.3%
Law	13	0.95%	0.8%
Mathematical Sciences	30	2.14%	1.2%
Modern Languages and Linguistics	41	2.96%	2.4%
Music, Drama, Dance and Performing Arts	40	2.87%	3.1%
Physics	72	5.15%	2.0%
Politics and International Studies	69	4.89%	3.1%
Psychology, Psychiatry and Neuroscience	127	9.06%	2.2%
Public Health, Health Services and Primary Care	16	1.16%	1.0%
Sociology	43	3.06%	3.6%
Sport and Exercise Sciences, Leisure and Tourism	36	2.56%	3.9%



Theology and Religious Studies	25	1.81%	1.9%
<b>University of Gloucestershire</b>	<b>35</b>	<b>100.00%</b>	
Architecture, Built Environment and Planning	6	17.14%	0.4%
English Language and Literature	6	17.14%	0.2%
Geography, Environmental Studies and Archaeology	3	8.57%	0.1%
History	1	2.86%	0.0%
Sport and Exercise Sciences, Leisure and Tourism	8	22.86%	0.9%
Theology and Religious Studies	11	31.43%	0.8%
<b>University of South Wales</b>	<b>234</b>	<b>100.00%</b>	
Allied Health Professions, Dentistry, Nursing and Pharmacy	24	10.26%	0.5%
Art and Design: History, Practice and Theory	12	5.13%	0.7%
Business and Management Studies	39	16.67%	0.8%
Computer Science and Informatics	57	24.36%	1.4%
English Language and Literature	7	2.99%	0.3%
General Engineering	30	12.82%	1.2%
History	6	2.56%	0.3%
Mathematical Sciences	10	4.27%	0.4%
Music, Drama, Dance and Performing Arts	19	8.12%	1.4%
Psychology, Psychiatry and Neuroscience	8	3.42%	0.1%
Social Work and Social Policy	11	4.70%	0.7%
Sport and Exercise Sciences, Leisure and Tourism	11	4.70%	1.2%
<b>University of the West of England</b>	<b>368</b>	<b>100.00%</b>	
Agriculture, Veterinary and Food Science	21	5.71%	1.2%
Allied Health Professions, Dentistry, Nursing and Pharmacy	95	25.84%	1.9%
Architecture, Built Environment and Planning	31	8.40%	2.2%
Art and Design: History, Practice and Theory	17	4.69%	1.0%
Business and Management Studies	31	8.42%	0.6%
Communication, Cultural and Media Studies, Library and Information Management	9	2.31%	0.9%
Computer Science and Informatics	56	15.12%	1.3%
Education	18	4.89%	0.5%
English Language and Literature	2	0.54%	0.1%
General Engineering	32	8.59%	0.6%



Geography, Environmental Studies and Archaeology	10	2.74%	0.4%
History	7	1.90%	0.3%
Law	8	2.17%	0.5%
Modern Languages and Linguistics	9	2.45%	0.5%
Philosophy	3	0.68%	0.3%
Politics and International Studies	2	0.41%	0.1%
Social Work and Social Policy	19	5.14%	1.2%
<b>Grand Total</b>	<b>7,754</b>		

Source: Research Excellence Framework (REF). Results. Higher Education Funding Council for England (HEFCE). Available at: <http://results.ref.ac.uk/>

#### 1.4.3 *Student Population*

**Table 10 Number of students per thematic area, HEIs and FEIs (2015) – English LEPs**

<b>Subjects</b>	<b>Cornwall and Isles of Scilly</b>	<b>Gloucestershire</b>	<b>Heart of the South West</b>	<b>Swindon and Wiltshire</b>	<b>West of England</b>	<b>South East Wales</b>
Agriculture & related subjects	220	540	205	10	60	
Architecture, building & planning	10	100	220	10	620	
Biological Sciences	475	745	1,850	70	1,515	
Business & admin studies	200	480	2,005	75	1,920	
Combined	0		185	0	85	
Computer Science	80	180	575	15	680	
Creative arts & design	1,110	440	1,475	95	1,960	
Education	355	250	625	115	530	
Engineering & technology	150	80	1,135	80	1,700	
Geographical_ Studies	130	45	605		435	
Historical & philosophical studies	85	45	620		730	
Initial teacher training	30	130	310	10	145	

languages	190	55	1,385		955	
Law	15	50	550	10	735	
Mass comm & documentation	210	85	120	35	260	
Mathematical sciences		5	265		650	
Medicine & dentistry			355		325	
Physical Sci.	70		475		710	
Social studies	245	235	1,355	70	1,415	
Subjects allied to medicine	60	105	2,430	45	2,620	
Veterinary sciences					145	
<b>Grand Total</b>	<b>3,635</b>	<b>3,570</b>	<b>16,745</b>	<b>640</b>	<b>18,195</b>	<b>82,545</b>

Source: Underlying data for local growth 2013-14. Higher education and local growth. HEFCE (2015). Available at: <http://www.hefce.ac.uk/analysis/maps/>. Welsh data drawn from Enrolments, during the year, at Welsh HEIs by institution, level and mode of study, available at: <https://statswales.gov.wales/Catalogue/Education-and-Skills/Post-16-Education-and-Training/Higher-Education/Students/Enrolments-at-Welsh-HEIs/enrolmentsduringtheyear-by-institution-level-modeofstudy>. More granular data available through customised data extract. See: <https://www.hesa.ac.uk/stats>

#### 1.4.4 *Business Demography*

**Table 11 Enterprises - active, births, deaths and net change (2004-2014)**

LEP	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Cornwall and Isles of Scilly</b>											
Active Enterprises	39,530	39,420	39,450	40,270	40,760	40,800	40,340	39,920	39,670		
Births	2,300	2,175	2,045	2,145	1,930	1,660	1,525	1,715	1,735		
Deaths	2,170	1,955	1,710	1,725	1,665	2,185	1,810	1,840	1,900		
Net Change	130	220	335	420	265	-525	-285	-125	-165		
<b>Gloucestershire</b>											
Active Enterprises	48,750	49,100	49,540	50,770	51,680	51,920	52,510	52,410	52,830		
Births	2,850	2,660	2,570	2,775	2,540	2,245	2,300	2,470	2,605		

Deaths	2,480	2,315	2,155	2,170	2,150	2,555	2,490	2,410	2,635		
Net Change	370	345	415	605	390	-310	-190	60	-30		
<b>Heart of the South West</b>											
Active Enterprises	110,235	111,000	111,825	114,920	117,435	118,640	117,330	116,670	117,240		
Births	7,860	6,925	6,335	6,820	6,250	5,180	4,835	5,405	5,480		
Deaths	6,430	5,975	5,625	5,960	6,005	6,890	5,855	5,640	6,095		
Net Change	1,430	950	710	860	245	-1,710	-1,020	-235	-615		
<b>Swindon and Wiltshire</b>											
Active Enterprises	48,260	48,790	49,540	50,930	51,610	51,930	52,380	52,300	53,000		
Births	2,945	2,895	2,725	2,985	2,695	2,325	2,460	2,685	2,735		
Deaths	2,515	2,310	2,270	2,325	2,180	2,725	2,500	2,285	2,555		
Net Change	430	585	455	660	515	-400	-40	400	180		
<b>West of England</b>											
Active Enterprises	73,960	74,520	75,900	78,630	79,520	80,680	81,470	81,720	83,250		
Births	4,475	4,360	4,350	4,720	4,335	3,830	4,030	4,505	4,670		
Deaths	3,995	3,635	3,335	3,680	3,555	4,560	4,055	3,810	4,255		
Net Change	480	725	1,015	1,040	780	-730	-25	695	415		
<b>South East Wales</b>											
Active enterprises	37395	37895	38365	38900	38900	38960	39015	38350	38220	39590	41540
Births	5270	4900	4445	4310	4220	3925	3640	4025	4020	5760	5965
Deaths	4250	3945	3775	3945	3790	4590	4240	3915	4050	3805	4105
Net change	1020	955	670	365	430	-665	-600	110	-30	195	186

										5	0
<b>Total – consortium area</b>											
Active enterprises	358,130	360,725	364,620	374,420	379,905	382,930	383,045	381,370	384,210		
Births	25,700	23,915	22,470	23,755	21,970	19,165	18,790	20,805	21,245		
Deaths	21,840	20,135	18,870	19,805	19,345	23,505	20,950	19,900	21,490		
Net change	3,860	3,780	3,600	3,950	2,625	-4,340	-2,160	905	-245		

Source: Building Local Advantage. Review of LEP area economies 2014. LEP Network and Athley Consulting (2014). Available at: <http://www.mylocaleconomy.org/review-of-lep-area-economies-2014/> (English LEPs); Stats Wales. Available at: <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Businesses/Business-Demography> (South East Wales, aggregated from Local Authority Districts)

#### 1.4.5 *Productivity*

**Table 12 GVA per capita and GVA per hour worked (2013) – SIA Area**

LEP	Cornwall and Isles of Scilly	Gloucestershire	Heart of the South West	Swindon and Wiltshire	West of England	South East Wales	Consortium area average
Gross Value Added per capita (£s)	15,403	23,269	18,098	23,219	26,820	17,903	20,785
GVA per hour worked (£) (2013)	21.7	28.1	25.2	31.3	30.1	-	27.28 *

Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths> and Stats Wales. Available at: <https://statswales.gov.wales/Catalogue/Sustainable-Development/Sustainable-Development-Indicators/gva-by-measure-welsheconomicregion-year>. Note: \* = average excludes South East Wales, for which this data was not available.

**Table 13 Annual Average Gross Full Time Earnings, workplace based (2014 English LEPs and 2015 South East Wales)**

	Cornwall and Isles of	Gloucestershire	Heart of the South	Swindon and Wiltshire	West of England	South East Wales	Consortium area average
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	<b>Scilly</b>		<b>West</b>	<b>e</b>			
Average annual gross full-time pay, workplace-based	25,468	31,659	27,602	30,771	32,955	24,196	28,775

Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths> (England); Localisation of Industrial Activity across England's LEPs: 2008 & 2012. Enterprise Research Centre (ERC) (2013). Available at: <http://www.enterpriseresearch.ac.uk/publications/localisation-industrial-activity-across-englands-leps-2008-2012/> Neighbourhood statistics. Available at: <http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc126/index.html> (Wales)

#### 1.4.6 *Quality of place / life*

**Table 14 Median rank value in the Halifax Quality of Life survey (2014) – English LEPs**

<b>LEP</b>	<b>Cornwall and Isles of Scilly</b>	<b>Gloucestershire</b>	<b>Heart of the South West</b>	<b>Swindon and Wiltshire</b>	<b>West of England</b>
Highest ranking LA	237	65	125	97	60
Lowest ranking LA	251	240	251	197	251
Median rank	244	129	183	147	140

Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths>

**Table 15 Wales' top 7 areas for quality of life, according to Halifax Quality of Life survey (2015) – Wales Local Authorities**

<b>Wales Local Authorities</b>	<b>Wales Ranking</b>	<b>UK Ranking</b>
<b>Monmouthshire</b>	<b>1</b>	<b>61</b>
Anglesey	2	141
Pembrokeshire	3	149
Flintshire	4	181
<b>Vale of Glamorgan</b>	<b>5</b>	<b>182</b>
Powys	6	209
Ceredigion	7	224

Source: WalesOnline, based on data from Halifax.  
<http://www.walesonline.co.uk/news/wales-news/wales-seven-best-places-live-10620322>

**Table 16 Average travel to work distance (2011)**

LEP	South West England	South East Wales	Consortium area average
Average travel to work time (km)	16.3	15.8	16.1

Source: Nomis Official Labour Market Statistics, using census 2011 data. Available at:  
<https://www.nomisweb.co.uk/census/2011/qs702ew>

**Table 17 Digital infrastructure (2014)**

LEP	South West England	South East Wales	UK
Average download speed (Mbit/s) by Local Authority	21.4	22.8	21.2
Super-Fast Broadband Availability (% premises) by Local Authority	87.2%	93.3%	85.4%

Source: ThinkBroadband. Available at:  
<https://labs.thinkbroadband.com/local/index.php?tab=2>. Averages calculated from regional and Local Authority data

## 1.5 Excellence in Science and Research

### 1.5.1 Scientific production

**Table 18 Number of outputs submitted to the REF, per output type**

Institution / Unit of Assessment	Artefact	Authored book	Chapter in book	Composition	Conference contribution	Design	Digital or visual media	Edited book	Exhibition	Journal article	Other form of assessable output	Patent/published patent application	Performance	Research datasets and databases	Research report for external body	Scholarly edition	Software	Website content	Working paper	Grand Total
<b>Bath Spa University</b>	<b>4</b>	<b>70</b>	<b>54</b>	<b>7</b>	<b>2</b>		<b>10</b>	<b>10</b>	<b>52</b>	<b>91</b>	<b>20</b>		<b>10</b>		<b>2</b>	<b>1</b>				<b>333</b>
Art and Design: History, Practice and Theory	4	1	5		1			2	49	4	8		2							76
Communication, Cultural and Media Studies, Library and Information Management		4	1				3			19	4									31
Education		4	7		1			1		33					2					48
English Language and Literature		53	21				4	5		14	6		5			1				109
History		4	13							9	1									27
Music, Drama, Dance and Performing Arts		4	7	7			3	2	3	12	1		3							42

Institution / Unit of Assessment	Artefact	Authored book	Chapter in book	Composition	Conference contribution	Design	Digital or visual media	Edited book	Exhibition	Journal article	Other form of assessable output	Patent/published patent application	Performance	Research datasets and databases	Research report for external body	Scholarly edition	Software	Website content	Working paper	Grand Total
<b>Cardiff Metropolitan University</b>		1	7		5			1	4	112		a	2							132
Allied Health Professions, Dentistry, Nursing and Pharmacy										45										45
Art and Design: History, Practice and Theory		1	7		3			1	4	24			2							42
Sport and Exercise Sciences, Leisure and Tourism					2					43										45
<b>Cardiff University</b>		148	132	6	16	6		22		2,478	1				13	6			5	2,833
Allied Health Professions, Dentistry, Nursing and Pharmacy			1							275					1					277
Architecture, Built Environment and Planning		10	6		6	6				121					3					152
Biological Sciences										222										222
Business and Management Studies		1	2							267									2	272



<b>Institution / Unit of Assessment</b>	<b>Artefact</b>	<b>Authored book</b>	<b>Chapter in book</b>	<b>Composition</b>	<b>Conference contribution</b>	<b>Design</b>	<b>Digital or visual media</b>	<b>Edited book</b>	<b>Exhibition</b>	<b>Journal article</b>	<b>Other form of assessable output</b>	<b>Patent/published patent application</b>	<b>Performance</b>	<b>Research datasets and databases</b>	<b>Research report for external body</b>	<b>Scholarly edition</b>	<b>Software</b>	<b>Website content</b>	<b>Working paper</b>	<b>Grand Total</b>
Chemistry										103										103
Civil and Construction Engineering										57										57
Clinical Medicine										249										249
Communication, Cultural and Media Studies, Library and Information Management		16	7					2		28					4					57
Computer Science and Informatics					1					55										56
Earth Systems and Environmental Sciences										65										65
Education		5	1							72										78
English Language and Literature		23	23					5		37	1								2	91
General Engineering										112										112
Geography, Environmental Studies and Archaeology		8	12		5			3		18					2					48

<b>Institution / Unit of Assessment</b>	<b>Artefact</b>	<b>Authored book</b>	<b>Chapter in book</b>	<b>Composition</b>	<b>Conference contribution</b>	<b>Design</b>	<b>Digital or visual media</b>	<b>Edited book</b>	<b>Exhibition</b>	<b>Journal article</b>	<b>Other form of assessable output</b>	<b>Patent/published patent application</b>	<b>Performance</b>	<b>Research datasets and databases</b>	<b>Research report for external body</b>	<b>Scholarly edition</b>	<b>Software</b>	<b>Website content</b>	<b>Working paper</b>	<b>Grand Total</b>
History		10	20					2		22						5				59
Law		11	13					1		58					2					85
Mathematical Sciences										80										80
Modern Languages and Linguistics		13	5		1			2		24					1				1	47
Music, Drama, Dance and Performing Arts		7	26	6				2		11										52
Philosophy		5	4							22										31
Physics										74										74
Politics and International Studies		19	4					1		26										50
Psychology, Psychiatry and Neuroscience										260										260
Public Health, Health Services and Primary Care										103										103
Sociology		11	1							101										113

Institution / Unit of Assessment	Artefact	Authored book	Chapter in book	Composition	Conference contribution	Design	Digital or visual media	Edited book	Exhibition	Journal article	Other form of assessable output	Patent/published patent application	Performance	Research datasets and databases	Research report for external body	Scholarly edition	Software	Website content	Working paper	Grand Total
Theology and Religious Studies		9	7		3			4		16						1				40
<b>Falmouth University</b>	<b>2 3</b>	<b>13</b>	<b>38</b>	<b>5</b>	<b>1 5</b>		<b>4</b>	<b>1</b>	<b>22</b>	<b>34</b>	<b>3</b>	<b>1</b>	<b>13</b>		<b>1</b>			<b>2</b>		<b>175</b>
Art and Design: History, Practice and Theory	2 3	5	13		1 4			1	19	16	1				1			2		95
Music, Drama, Dance and Performing Arts		8	25	5	1		4		3	18	2	1	13							80
<b>Plymouth University</b>		<b>72</b>	<b>57</b>	<b>1</b>	<b>6</b>		<b>2</b>	<b>5</b>	<b>26</b>	<b>1,210</b>	<b>1</b>		<b>9</b>		<b>5</b>			<b>1</b>		<b>1,395</b>
Agriculture, Veterinary and Food Science										97					2					99
Allied Health Professions, Dentistry, Nursing and Pharmacy										121										121
Architecture, Built Environment and Planning		8	6							30										44

<b>Institution / Unit of Assessment</b>	<b>Artefact</b>	<b>Authored book</b>	<b>Chapter in book</b>	<b>Composition</b>	<b>Conference contribution</b>	<b>Design</b>	<b>Digital or visual media</b>	<b>Edited book</b>	<b>Exhibition</b>	<b>Journal article</b>	<b>Other form of assessable output</b>	<b>Patent/published patent application</b>	<b>Performance</b>	<b>Research datasets and databases</b>	<b>Research report for external body</b>	<b>Scholarly edition</b>	<b>Software</b>	<b>Website content</b>	<b>Working paper</b>	<b>Grand Total</b>
Art and Design: History, Practice and Theory		9	10				1		24	6			1					1		52
Business and Management Studies		5	1					2		117										125
Clinical Medicine										60										60
Computer Science and Informatics					2					50										52
Earth Systems and Environmental Sciences			1							184										185
Education		6	7		1					68										82
Electrical and Electronic Engineering, Metallurgy and Materials					1					35										36
English Language and Literature		13	9					1		12										35
General Engineering			1		2					64					1					68
Geography, Environmental Studies and Archaeology		8								95										103

Institution / Unit of Assessment	Artefact	Authored book	Chapter in book	Composition	Conference contribution	Design	Digital or visual media	Edited book	Exhibition	Journal article	Other form of assessable output	Patent/published patent application	Performance	Research datasets and databases	Research report for external body	Scholarly edition	Software	Website content	Working paper	Grand Total
History		13	7							22										42
Mathematical Sciences										56										56
Music, Drama, Dance and Performing Arts		3	5	1			1	2	2	12			8							34
Psychology, Psychiatry and Neuroscience										113	1									114
Social Work and Social Policy		7	10							68					2					87
<b>Royal Agricultural University</b>			<b>6</b>		<b>1</b>					<b>37</b>					<b>3</b>					<b>47</b>
Agriculture, Veterinary and Food Science			6		1					37					3					47
<b>University of Bath</b>		<b>29</b>	<b>42</b>		<b>3</b> <b>2</b>					<b>1,518</b>	<b>2</b>				<b>5</b>				<b>1</b>	<b>1,629</b>
Aeronautical, Mechanical, Chemical and Manufacturing Engineering										210										210
Allied Health Professions, Dentistry,										202										202

<b>Institution / Unit of Assessment</b>	<b>Artefact</b>	<b>Authored book</b>	<b>Chapter in book</b>	<b>Composition</b>	<b>Conference contribution</b>	<b>Design</b>	<b>Digital or visual media</b>	<b>Edited book</b>	<b>Exhibition</b>	<b>Journal article</b>	<b>Other form of assessable output</b>	<b>Patent/published patent application</b>	<b>Performance</b>	<b>Research datasets and databases</b>	<b>Research report for external body</b>	<b>Scholarly edition</b>	<b>Software</b>	<b>Website content</b>	<b>Working paper</b>	<b>Grand Total</b>
Nursing and Pharmacy																				
Architecture, Built Environment and Planning		4	7							89										100
Area Studies		13	21							61										95
Biological Sciences										83										83
Business and Management Studies		1								206										207
Chemistry										122										122
Computer Science and Informatics			3		3 2					57										92
Electrical and Electronic Engineering, Metallurgy and Materials										74										74
Mathematical Sciences		1								163										164
Physics										84										84

Institution / Unit of Assessment	Artefact	Authored book	Chapter in book	Composition	Conference contribution	Design	Digital or visual media	Edited book	Exhibition	Journal article	Other form of assessable output	Patent/published patent application	Performance	Research datasets and databases	Research report for external body	Scholarly edition	Software	Website content	Working paper	Grand Total
Social Work and Social Policy		8	11							99	2				5				1	126
Sport and Exercise Sciences, Leisure and Tourism		2								68										70
<b>University of Bristol</b>		<b>146</b>	<b>259</b>	<b>12</b>	<b>6 4</b>			<b>44</b>		<b>3,54 7</b>	<b>27</b>	<b>4</b>	<b>5</b>		<b>32</b>	<b>2</b>	<b>1</b>		<b>7</b>	<b>4,150</b>
Agriculture, Veterinary and Food Science										131										131
Allied Health Professions, Dentistry, Nursing and Pharmacy										67										67
Art and Design: History, Practice and Theory		6	7		1			3		10										27
Biological Sciences										253										253
Business and Management Studies		2	1		1					77					1				3	85
Chemistry			1							235										236
Classics		7	18		1			7		17										50

<b>Institution / Unit of Assessment</b>	<b>Artefact</b>	<b>Authored book</b>	<b>Chapter in book</b>	<b>Composition</b>	<b>Conference contribution</b>	<b>Design</b>	<b>Digital or visual media</b>	<b>Edited book</b>	<b>Exhibition</b>	<b>Journal article</b>	<b>Other form of assessable output</b>	<b>Patent/published patent application</b>	<b>Performance</b>	<b>Research datasets and databases</b>	<b>Research report for external body</b>	<b>Scholarly edition</b>	<b>Software</b>	<b>Website content</b>	<b>Working paper</b>	<b>Grand Total</b>
Clinical Medicine										319										319
Computer Science and Informatics					58					97		4								159
Earth Systems and Environmental Sciences										155										155
Economics and Econometrics			3							56									4	63
Education		11	32		1			2		104	1				3					154
English Language and Literature		8	21					3		24	1					2				59
General Engineering		1								445										446
Geography, Environmental Studies and Archaeology		5	15							161					8		1			190
History		14	20					5		27	2									68
Law		21	35							69					4					129
Mathematical Sciences		1	1							248	21									271



<b>Institution / Unit of Assessment</b>	<b>Artefact</b>	<b>Authored book</b>	<b>Chapter in book</b>	<b>Composition</b>	<b>Conference contribution</b>	<b>Design</b>	<b>Digital or visual media</b>	<b>Edited book</b>	<b>Exhibition</b>	<b>Journal article</b>	<b>Other form of assessable output</b>	<b>Patent/published patent application</b>	<b>Performance</b>	<b>Research datasets and databases</b>	<b>Research report for external body</b>	<b>Scholarly edition</b>	<b>Software</b>	<b>Website content</b>	<b>Working paper</b>	<b>Grand Total</b>
Modern Languages and Linguistics		19	31					6		53										109
Music, Drama, Dance and Performing Arts		10	18	12				5		26	1		5							77
Philosophy		7	7					1		42										57
Physics										191										191
Politics and International Studies		13	11					1		65										90
Psychology, Psychiatry and Neuroscience										262										262
Public Health, Health Services and Primary Care										253										253
Social Work and Social Policy		9	18					2		91					16					136
Sociology		8	9					6		41										64
Sport and Exercise Sciences, Leisure and Tourism										17										17

Institution / Unit of Assessment	Artefact	Authored book	Chapter in book	Composition	Conference contribution	Design	Digital or visual media	Edited book	Exhibition	Journal article	Other form of assessable output	Patent/published patent application	Performance	Research datasets and databases	Research report for external body	Scholarly edition	Software	Website content	Working paper	Grand Total
Theology and Religious Studies		4	11		2			3		11	1									32
<b>University of Exeter</b>		<b>237</b>	<b>194</b>		<b>11</b>			<b>35</b>		<b>2,008</b>	<b>6</b>		<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>		<b>2</b>	<b>16</b>	<b>2,514</b>
Area Studies		14	12							19										45
Biological Sciences										187										187
Business and Management Studies		1	2		1					165									2	171
Classics		17	32					1		18										68
Clinical Medicine										90										90
Computer Science and Informatics					7					31										38
Earth Systems and Environmental Sciences										114										114
Economics and Econometrics		1	1							70									11	83
Education		7	9							84					1					101
English Language and Literature		65	30					7		54	2			1		1	1			161

<b>Institution / Unit of Assessment</b>	<b>Artefact</b>	<b>Authored book</b>	<b>Chapter in book</b>	<b>Composition</b>	<b>Conference contribution</b>	<b>Design</b>	<b>Digital or visual media</b>	<b>Edited book</b>	<b>Exhibition</b>	<b>Journal article</b>	<b>Other form of assessable output</b>	<b>Patent/published patent application</b>	<b>Performance</b>	<b>Research datasets and databases</b>	<b>Research report for external body</b>	<b>Scholarly edition</b>	<b>Software</b>	<b>Website content</b>	<b>Working paper</b>	<b>Grand Total</b>
General Engineering										148										148
Geography, Environmental Studies and Archaeology		20	7					1		181								1		210
History		38	27					10		56									3	134
Law		5	14							37										56
Mathematical Sciences										122										122
Modern Languages and Linguistics		18	25					10		47										100
Music, Drama, Dance and Performing Arts		10	13					2		18	4		2							49
Physics		1			3					142										146
Politics and International Studies		7	5					1		77										90
Psychology, Psychiatry and Neuroscience		1								117										118
Public Health, Health Services and										89										89

Institution / Unit of Assessment	Artefact	Authored book	Chapter in book	Composition	Conference contribution	Design	Digital or visual media	Edited book	Exhibition	Journal article	Other form of assessable output	Patent/published patent application	Performance	Research datasets and databases	Research report for external body	Scholarly edition	Software	Website content	Working paper	Grand Total
Primary Care																				
Sociology		20	10							56										86
Sport and Exercise Sciences, Leisure and Tourism										70										70
Theology and Religious Studies		12	7					3		16										38
<b>University of Gloucestershire</b>		<b>25</b>	<b>29</b>					<b>4</b>		<b>187</b>										<b>245</b>
Architecture, Built Environment and Planning										34										34
English Language and Literature		14	11							17										42
Geography, Environmental Studies and Archaeology										47										47
History		7	6					4		11										28
Sport and Exercise Sciences, Leisure and Tourism										70										70

Institution / Unit of Assessment	Artefact	Authored book	Chapter in book	Composition	Conference contribution	Design	Digital or visual media	Edited book	Exhibition	Journal article	Other form of assessable output	Patent/published patent application	Performance	Research datasets and databases	Research report for external body	Scholarly edition	Software	Website content	Working paper	Grand Total
Theology and Religious Studies		4	12							8										24
<b>University of South Wales</b>		<b>30</b>	<b>39</b>		<b>7</b>		<b>10</b>	<b>9</b>	<b>10</b>	<b>338</b>	<b>1</b>		<b>2</b>		<b>4</b>	<b>1</b>				<b>451</b>
Allied Health Professions, Dentistry, Nursing and Pharmacy										32										32
Art and Design: History, Practice and Theory		2	5				8		9	3										27
Business and Management Studies										12										12
Computer Science and Informatics					7					40										47
English Language and Literature		13	11						1	6										31
General Engineering										53										53
History		9	4					2		19										34
Mathematical Sciences										38										38
Music, Drama, Dance and Performing Arts		4	9				2	7		31	1		2		2	1				59

Institution / Unit of Assessment	Artefact	Authored book	Chapter in book	Composition	Conference contribution	Design	Digital or visual media	Edited book	Exhibition	Journal article	Other form of assessable output	Patent/published patent application	Performance	Research datasets and databases	Research report for external body	Scholarly edition	Software	Website content	Working paper	Grand Total
Psychology, Psychiatry and Neuroscience										30										30
Social Work and Social Policy		2	10							41					2					55
Sport and Exercise Sciences, Leisure and Tourism										33										33
<b>University of the West of England</b>	<b>9</b>	<b>79</b>	<b>129</b>		<b>7</b>		<b>10</b>	<b>10</b>	<b>23</b>	<b>837</b>	<b>9</b>	<b>4</b>	<b>5</b>		<b>3</b>			<b>4</b>	<b>9</b>	<b>1,138</b>
Agriculture, Veterinary and Food Science										53										53
Allied Health Professions, Dentistry, Nursing and Pharmacy										177		1								178
Architecture, Built Environment and Planning		3	4				1			101	1				3			1		114
Art and Design: History, Practice and Theory	7	7	6		3		2	6	23	5	5	2	5						2	73
Business and Management Studies		9								121									1	131

<b>Institution / Unit of Assessment</b>	<b>Artefact</b>	<b>Authored book</b>	<b>Chapter in book</b>	<b>Composition</b>	<b>Conference contribution</b>	<b>Design</b>	<b>Digital or visual media</b>	<b>Edited book</b>	<b>Exhibition</b>	<b>Journal article</b>	<b>Other form of assessable output</b>	<b>Patent/published patent application</b>	<b>Performance</b>	<b>Research datasets and databases</b>	<b>Research report for external body</b>	<b>Scholarly edition</b>	<b>Software</b>	<b>Website content</b>	<b>Working paper</b>	<b>Grand Total</b>
Communication, Cultural and Media Studies, Library and Information Management	2	7	32				7			15	1							3		67
Computer Science and Informatics		2			2					51										55
Education		1	4					1		37										43
English Language and Literature		9	23							13	1									46
General Engineering										50		1								51
Geography, Environmental Studies and Archaeology		2	1		1					47										51
History		6	26					1		16	1								5	55
Law		12	9							28										49
Modern Languages and Linguistics		6	10		1			1		16										34
Philosophy		5	3							12										20
Politics and International Studies		3	7							21								1		32

Institution / Unit of Assessment	Artefact	Authored book	Chapter in book	Composition	Conference contribution	Design	Digital or visual media	Edited book	Exhibition	Journal article	Other form of assessable output	Patent/published patent application	Performance	Research datasets and databases	Research report for external body	Scholarly edition	Software	Website content	Working paper	Grand Total
Social Work and Social Policy		7	4					1		74										86
<b>University of Wales</b>		<b>11</b>	<b>12</b>					<b>4</b>		<b>20</b>				<b>1</b>		<b>1</b> <b>2</b>				<b>60</b>
Modern Languages and Linguistics		11	12					4		20				1		1 2				60
<b>Grand Total</b>	<b>3</b> <b>6</b>	<b>861</b>	<b>998</b>	<b>31</b>	<b>1</b> <b>6</b> <b>6</b>	<b>6</b>	<b>36</b>	<b>14</b> <b>5</b>	<b>13</b> <b>7</b>	<b>12,4</b> <b>17</b>	<b>70</b>	<b>9</b>	<b>48</b>	<b>2</b>	<b>69</b>	<b>2</b> <b>3</b>	<b>1</b>	<b>9</b>	<b>38</b>	<b>15,10</b> <b>2</b>

Source: Research Excellence Framework (REF). Results. Higher Education Funding Council for England (HEFCE). Available at: <http://results.ref.ac.uk/>



### 1.5.2 *Scientific quality*

**Table 19 Output profile of REF in the relevant field**

Institution / Unit of Assessment	Four Star	Three Star	Two Star	One Star	Unclassified	Category A FTE
<b>Bath Spa University</b>						
Art and Design: History, Practice and Theory	18.4	40.8	29.0	10.5	1.3	14.2
Communication, Cultural and Media Studies, Library and Information Management	19.4	38.7	32.2	9.7	0.0	7.4
Education	8.2	32.6	36.8	18.3	4.1	13.2
English Language and Literature	22.9	46.8	19.3	6.4	4.6	21.1
History	3.7	25.9	44.5	25.9	0.0	6.2
Music, Drama, Dance and Performing Arts	16.7	28.5	31.0	23.8	0.0	12.0
<b>Cardiff Metropolitan University</b>						
Allied Health Professions, Dentistry, Nursing and Pharmacy	11.1	66.7	22.2	0.0	0.0	12.0
Art and Design: History, Practice and Theory	10.4	51.1	34.3	2.1	2.1	10.0
Sport and Exercise Sciences, Leisure and Tourism	23.8	56.0	19.0	0.0	1.2	13.0
<b>Cardiff University</b>						
Allied Health Professions, Dentistry, Nursing and Pharmacy	23.1	67.2	9.7	0.0	0.0	75.0
Architecture, Built Environment and Planning	61.4	78.1	44.5	16.0	0.0	42.2
Biological Sciences	31.1	45.0	20.3	2.2	1.4	54.7
Business and Management Studies	27.2	50.7	20.3	1.8	0.0	72.6
Chemistry	22.3	72.8	4.9	0.0	0.0	23.0
Civil and Construction Engineering	24.6	70.1	5.3	0.0	0.0	14.3
Clinical Medicine	33.3	53.4	11.3	0.4	1.6	59.0
Communication, Cultural and Media Studies, Library and Information Management	40.4	42.1	15.7	1.8	0.0	13.4

Computer Science and Informatics	21.4	59.0	19.6	0.0	0.0	13.7
Earth Systems and Environmental Sciences	33.8	60.0	4.7	1.5	0.0	15.0
Education	32.1	43.5	20.6	3.8	0.0	20.6
English Language and Literature	36.3	50.5	9.9	3.3	0.0	24.0
General Engineering	18.8	76.7	3.6	0.0	0.9	33.8
Geography, Environmental Studies and Archaeology	31.3	39.5	25.0	4.2	0.0	13.1
History	35.6	39.0	23.7	1.7	0.0	14.4
Law	22.4	55.2	22.4	0.0	0.0	22.0
Mathematical Sciences	20.0	65.0	15.0	0.0	0.0	24.1
Modern Languages and Linguistics	21.3	61.7	17.0	0.0	0.0	14.8
Music, Drama, Dance and Performing Arts	36.5	40.4	23.1	0.0	0.0	13.2
Philosophy	9.7	54.8	29.0	6.5	0.0	10.0
Physics	21.6	77.0	1.4	0.0	0.0	19.5
Politics and International Studies	22.0	48.0	22.0	8.0	0.0	13.0
Psychology, Psychiatry and Neuroscience	41.5	50.0	8.1	0.4	0.0	69.3
Public Health, Health Services and Primary Care	25.2	45.7	26.2	2.9	0.0	24.3
Sociology	17.7	60.2	20.3	1.8	0.0	29.5
Theology and Religious Studies	35.0	40.0	20.0	5.0	0.0	9.2
<b>Falmouth University</b>						
Art and Design: History, Practice and Theory	3.1	21.6	36.1	28.9	10.3	24.3
Music, Drama, Dance and Performing Arts	9.9	23.4	39.5	21.0	6.2	26.1
<b>Plymouth University</b>						
Agriculture, Veterinary and Food Science	8.1	42.4	41.4	6.1	2.0	24.5
Allied Health Professions, Dentistry, Nursing and Pharmacy	18.2	45.4	33.1	1.6	1.7	34.9
Architecture, Built Environment and Planning	11.4	47.7	34.1	6.8	0.0	13.0
Art and Design: History, Practice and Theory	19.2	40.4	34.6	3.9	1.9	13.8
Business and Management Studies	9.6	35.2	42.4	12.0	0.8	32.6

Clinical Medicine	48.3	36.7	15.0	0.0	0.0	14.5
Computer Science and Informatics	23.1	53.8	21.2	1.9	0.0	12.4
Earth Systems and Environmental Sciences	14.6	64.9	18.3	2.2	0.0	44.9
Education	13.4	35.4	34.1	17.1	0.0	24.0
Electrical and Electronic Engineering, Metallurgy and Materials	0.0	61.1	38.9	0.0	0.0	7.8
English Language and Literature	33.3	36.1	22.3	8.3	0.0	11.0
General Engineering	11.8	57.3	28.0	2.9	0.0	17.2
Geography, Environmental Studies and Archaeology	17.5	44.6	29.2	8.7	0.0	29.2
History	14.3	42.8	40.5	2.4	0.0	11.0
Mathematical Sciences	10.7	57.2	30.3	1.8	0.0	14.4
Music, Drama, Dance and Performing Arts	20.6	29.4	35.3	14.7	0.0	8.2
Psychology, Psychiatry and Neuroscience	19.3	61.4	19.3	0.0	0.0	30.8
Social Work and Social Policy	12.6	51.8	32.2	3.4	0.0	22.0
<b>Royal Agricultural University</b>						
Agriculture, Veterinary and Food Science	4.3	6.3	42.6	34.0	12.8	12.0
<b>University of Bath</b>						
Aeronautical, Mechanical, Chemical and Manufacturing Engineering	13.3	70.0	16.7	0.0	0.0	61.0
Allied Health Professions, Dentistry, Nursing and Pharmacy	35.1	53.0	10.9	1.0	0.0	54.2
Architecture, Built Environment and Planning	35.0	50.0	12.0	3.0	0.0	28.4
Area Studies	18.9	39.0	28.4	12.6	1.1	26.0
Biological Sciences	31.3	51.8	15.7	0.0	1.2	24.5
Business and Management Studies	27.5	50.8	19.8	0.9	1.0	64.9
Chemistry	18.9	78.6	2.5	0.0	0.0	33.1
Computer Science and Informatics	15.2	56.5	27.2	1.1	0.0	24.0
Electrical and Electronic Engineering, Metallurgy and Materials	13.5	73.0	13.5	0.0	0.0	20.5
Mathematical Sciences	21.3	64.7	14.0	0.0	0.0	44.4
Physics	15.5	75.0	9.5	0.0	0.0	23.0
Social Work and Social Policy	22.2	46.8	28.6	1.6	0.8	35.6

Sport and Exercise Sciences, Leisure and Tourism	35.7	48.6	15.7	0.0	0.0	22.0
<b>University of Bristol</b>						
Agriculture, Veterinary and Food Science	23.7	58.0	17.5	0.0	0.8	34.0
Allied Health Professions, Dentistry, Nursing and Pharmacy	29.9	38.8	28.3	1.5	1.5	16.2
Art and Design: History, Practice and Theory	11.1	44.5	40.7	3.7	0.0	8.0
Biological Sciences	26.1	52.6	20.5	0.0	0.8	64.6
Business and Management Studies	15.3	56.5	28.2	0.0	0.0	27.5
Chemistry	28.0	69.5	2.5	0.0	0.0	58.6
Classics	32.0	40.0	28.0	0.0	0.0	15.0
Clinical Medicine	13.5	56.7	28.2	1.3	0.3	84.5
Computer Science and Informatics	23.3	57.2	17.6	1.9	0.0	41.6
Earth Systems and Environmental Sciences	31.0	65.8	3.2	0.0	0.0	44.3
Economics and Econometrics	22.2	58.8	19.0	0.0	0.0	18.6
Education	29.9	39.6	29.2	0.7	0.6	34.5
English Language and Literature	15.3	42.3	32.2	10.2	0.0	21.0
General Engineering	22.2	69.7	7.0	0.9	0.2	123.4
Geography, Environmental Studies and Archaeology	45.7	69.4	70.9	14.0	0.0	55.8
History	26.5	42.6	26.5	4.4	0.0	18.8
Law	24.8	52.7	20.9	1.6	0.0	39.0
Mathematical Sciences	28.4	52.8	17.3	0.8	0.7	83.5
Modern Languages and Linguistics	23.9	44.9	30.3	0.9	0.0	31.1
Music, Drama, Dance and Performing Arts	53.0	94.7	50.0	2.3	0.0	21.5
Philosophy	21.1	54.3	22.8	1.8	0.0	14.5
Physics	18.8	62.9	17.8	0.5	0.0	44.2
Politics and International Studies	13.3	36.7	38.9	11.1	0.0	25.8
Psychology, Psychiatry and Neuroscience	24.0	45.1	27.1	1.9	1.9	68.8
Public Health, Health Services and Primary Care	23.7	55.0	18.9	2.0	0.4	74.6
Social Work and Social Policy	29.4	40.5	26.4	3.7	0.0	35.9
Sociology	23.4	39.1	35.9	1.6	0.0	17.0

Sport and Exercise Sciences, Leisure and Tourism	52.9	47.1	0.0	0.0	0.0	7.0
Theology and Religious Studies	28.1	37.5	31.3	3.1	0.0	8.6
<b>University of Exeter</b>						
Area Studies	26.7	44.4	26.7	2.2	0.0	14.5
Biological Sciences	26.7	55.1	16.6	0.0	1.6	54.6
Business and Management Studies	17.5	50.9	23.4	6.4	1.8	49.1
Classics	22.1	44.1	32.3	1.5	0.0	19.0
Clinical Medicine	35.6	41.1	18.9	0.0	4.4	24.5
Computer Science and Informatics	31.6	50.0	15.8	2.6	0.0	10.0
Earth Systems and Environmental Sciences	22.8	59.7	16.6	0.0	0.9	34.7
Economics and Econometrics	13.3	57.8	19.3	9.6	0.0	24.5
Education	37.6	40.6	21.8	0.0	0.0	25.9
English Language and Literature	28.0	35.4	30.4	6.2	0.0	53.2
General Engineering	20.9	74.4	4.0	0.0	0.7	44.0
Geography, Environmental Studies and Archaeology	42.4	97.6	57.0	2.4	0.6	63.0
History	38.1	38.8	22.4	0.7	0.0	41.5
Law	21.4	60.7	17.9	0.0	0.0	15.0
Mathematical Sciences	15.6	63.9	20.5	0.0	0.0	34.6
Modern Languages and Linguistics	27.0	32.0	36.0	5.0	0.0	32.0
Music, Drama, Dance and Performing Arts	22.4	49.0	20.4	8.2	0.0	15.9
Physics	21.9	65.8	10.2	2.1	0.0	40.2
Politics and International Studies	22.2	53.4	23.3	1.1	0.0	24.2
Psychology, Psychiatry and Neuroscience	31.4	51.7	16.1	0.8	0.0	32.3
Public Health, Health Services and Primary Care	16.9	59.5	21.4	2.2	0.0	24.9
Sociology	19.8	47.6	30.3	2.3	0.0	24.2
Sport and Exercise Sciences, Leisure and Tourism	27.1	55.8	17.1	0.0	0.0	23.3
Theology and Religious Studies	21.1	52.6	21.0	5.3	0.0	11.2
<b>University of Gloucestershire</b>						
Architecture, Built Environment and Planning	29.4	53.0	17.6	0.0	0.0	8.2

English Language and Literature	7.1	31.0	33.3	28.6	0.0	9.1
Geography, Environmental Studies and Archaeology	10.6	34.1	34.0	19.2	2.1	11.1
History	7.1	25.0	39.3	28.6	0.0	4.8
Sport and Exercise Sciences, Leisure and Tourism	5.7	44.3	44.3	5.7	0.0	17.6
Theology and Religious Studies	4.2	29.1	45.9	20.8	0.0	5.3
<b>University of South Wales</b>						
Allied Health Professions, Dentistry, Nursing and Pharmacy	25.0	37.5	37.5	0.0	0.0	7.4
Art and Design: History, Practice and Theory	10.4	51.1	34.3	2.1	2.1	7.0
Computer Science and Informatics	0.0	21.3	68.1	8.5	2.1	13.5
English Language and Literature	19.4	29.0	38.7	12.9	0.0	8.0
General Engineering	1.9	75.5	20.7	0.0	1.9	14.5
History	11.8	52.9	32.4	2.9	0.0	7.8
Mathematical Sciences	0.0	47.4	50.0	2.6	0.0	9.2
Music, Drama, Dance and Performing Arts	11.9	38.9	35.6	11.9	1.7	16.0
Psychology, Psychiatry and Neuroscience	3.3	10.0	66.7	20.0	0.0	9.2
Social Work and Social Policy	21.8	40.0	30.9	5.5	1.8	14.4
Sport and Exercise Sciences, Leisure and Tourism	33.3	45.5	21.2	0.0	0.0	7.0
<b>University of the West of England</b>						
Agriculture, Veterinary and Food Science	9.4	51.0	35.8	3.8	0.0	13.9
Allied Health Professions, Dentistry, Nursing and Pharmacy	12.9	57.3	28.7	1.1	0.0	45.4
Architecture, Built Environment and Planning	3.5	50.0	41.2	5.3	0.0	30.7
Art and Design: History, Practice and Theory	13.7	37.0	42.5	5.4	1.4	20.6
Business and Management Studies	9.9	40.5	43.5	6.1	0.0	34.1
Communication, Cultural and Media Studies, Library and Information Management	20.9	40.3	29.8	7.5	1.5	18.0
Computer Science and Informatics	14.5	51.0	25.4	9.1	0.0	14.8
Education	18.6	34.9	44.2	2.3	0.0	10.2

English Language and Literature	26.1	47.8	19.6	6.5	0.0	12.8
General Engineering	15.7	78.4	5.9	0.0	0.0	14.0
Geography, Environmental Studies and Archaeology	7.8	15.7	49.0	23.6	3.9	13.1
History	1.8	52.7	41.9	3.6	0.0	13.2
Law	6.1	30.6	51.1	12.2	0.0	14.0
Modern Languages and Linguistics	11.8	32.3	47.1	8.8	0.0	9.7
Philosophy	5.0	35.0	50.0	10.0	0.0	6.0
Politics and International Studies	3.1	37.5	40.7	18.7	0.0	9.0
Social Work and Social Policy	7.0	30.2	44.2	18.6	0.0	19.8
<b>University of Wales</b>						
Modern Languages and Linguistics	23.1	32.3	35.4	9.2	0.0	12.4
<b>Grand Total</b>	<b>3,291.3</b>	<b>7,712.7</b>	<b>4,197.8</b>	<b>805.5</b>	<b>92.7</b>	<b>4,092.3</b>

Source: Research Excellence Framework (REF). Results. Higher Education Funding Council for England (HEFCE). Available at: <http://results.ref.ac.uk/>

### 1.5.3 *Scientific specialisation*

#### **English LEPs**

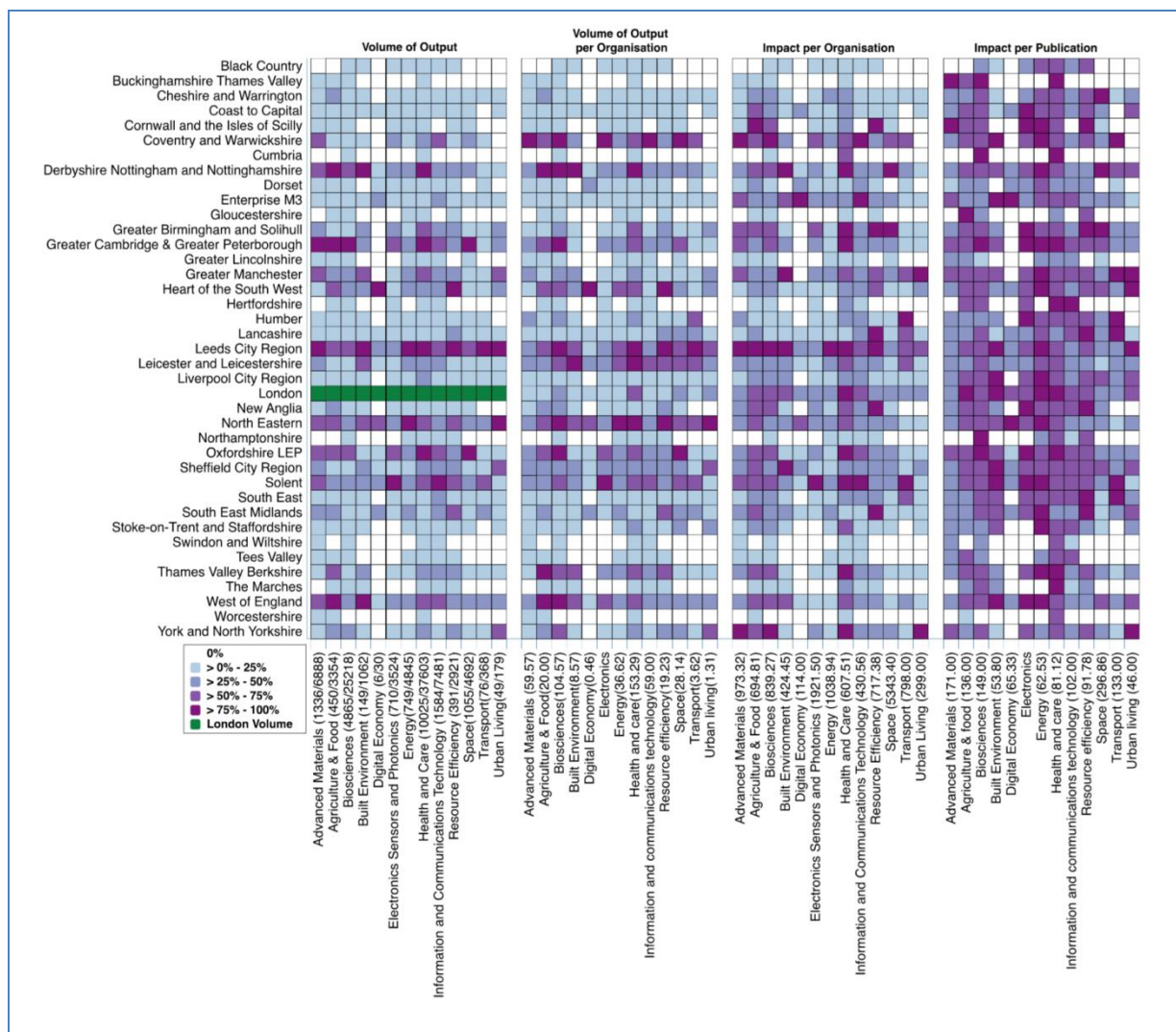
#### *Figure 1 Publication intensity in the Eight 'Great Technologies'*



Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths>

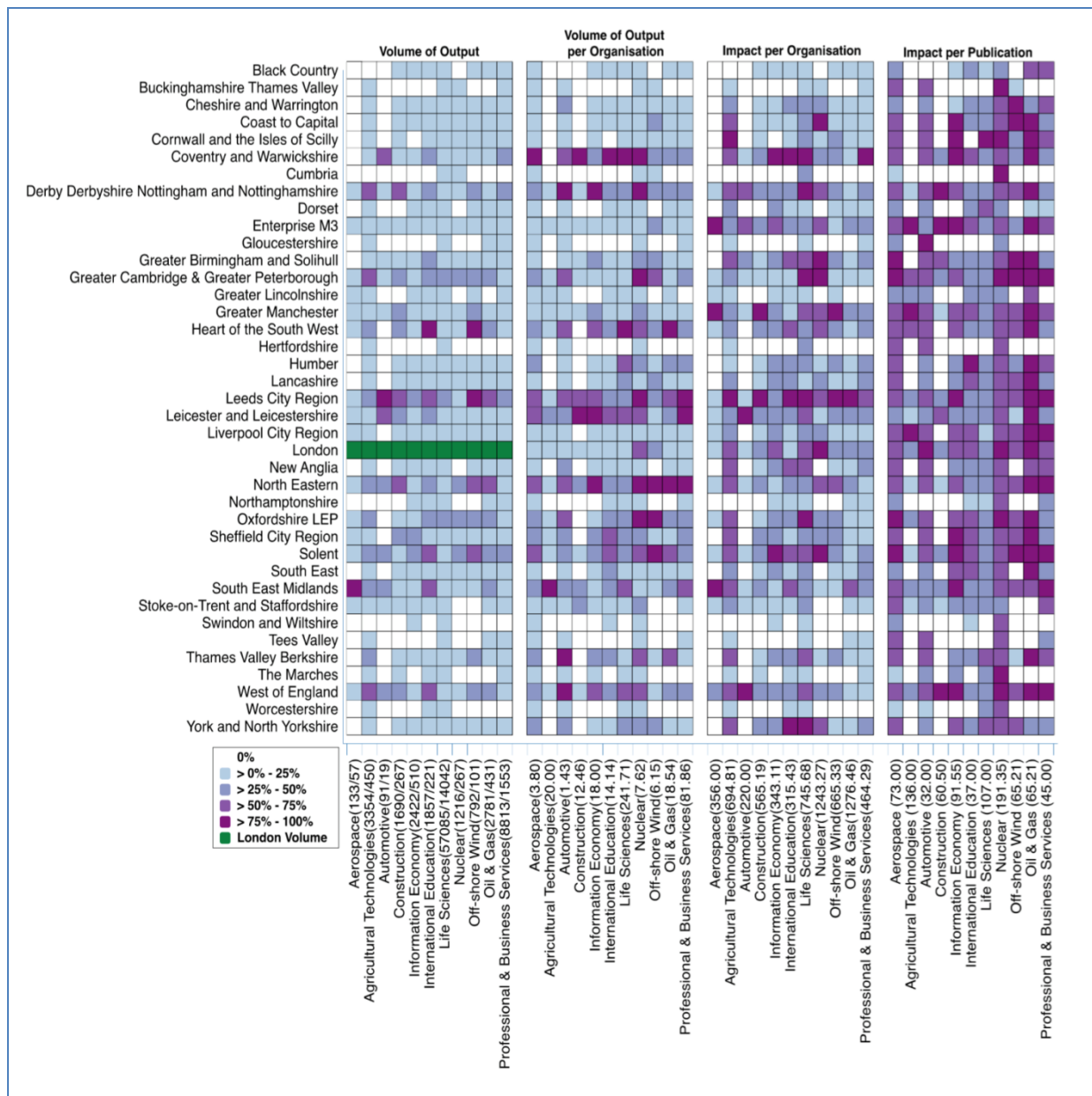
**Figure 2 Relative intensity of publications in areas related to the Industrial Strategy Sectors (2014)**





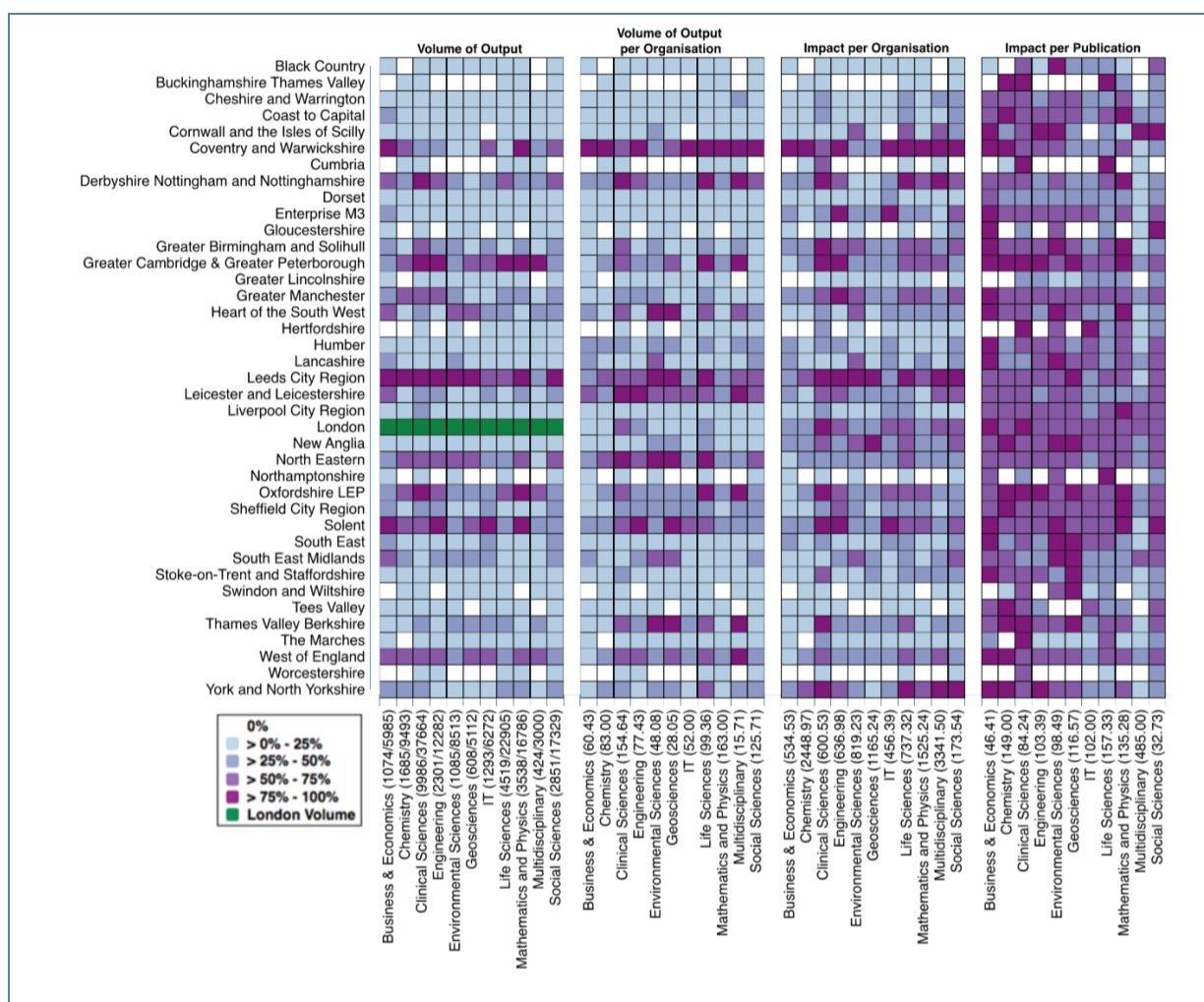
Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths>

**Figure 3 Relative intensity of publications in Innovate UK priority topics (2014)**



Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths>

**Figure 4 Relative intensity of publications in research domains (2014)**



Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths>

## Wales

**Table 20 Impact of publications in broad domains, selected universities in Welsh SIA area**

MNCS	2006–2009	2007–2010	2008–2011	2009–2012	2010–2013	2011–2014
<b>Cardiff University</b>	<b>1.10</b>	<b>1.09</b>	<b>1.08</b>	<b>1.11</b>	<b>1.10</b>	<b>1.12</b>
Biomedical and health sciences	1.07	1.09	1.09	1.11	1.11	1.13
Life and earth sciences	1.32	1.25	1.19	1.13	1.11	1.17
Mathematics and computer science	1.08	1.06	1.12	1.14	1.08	1.13
Physical sciences and engineering	1.20	1.14	1.11	1.12	1.19	1.21

Social sciences and humanities	0.97	0.97	0.99	1.06	0.99	0.98
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Source: CWTS Leiden Ranking, based on Thompson Reuters data. MNCS: “average number of citations of the publications of a university, normalized for field and publication year. An MNCS value of two for instance means that the publications of a university have been cited twice above the average of their field and publication year.” - See more at: <http://www.leidenranking.com/information/indicators#sthash.1T9Yajtd.dpuf>

More information about the research performance of Wales using bibliometric analysis can be found in: International Comparative Performance of the Welsh Research Base 2013. A report prepared by Elsevier for HEW, the Higher Education Funding Council for Wales, and the Welsh Government.

#### 1.5.4 *Strength and competitiveness in Research (national)*

**Table 21 UK Research - Annual number of projects led**

Year	2010	2011	2012	2013	2014	2015	Grand Total
AHRC	96	64	43	39	39	24	305
BBSRC	38	50	71	65	60	94	378
EPSRC	114	100	122	135	100	120	691
ESRC	45	69	46	42	46	33	281
MRC	31	29	43	48	39	44	234
NC3Rs	1	1		2		2	6
NERC	104	97	81	85	67	76	510
STFC	20	15	25	19	18	29	126

Source: Gateway to Research (GtR). Research Councils UK (RCUK) (2016). Available at: <http://gtr.rcuk.ac.uk/> Note: Data is constructed from projects in a public GtR snapshot dated 02-2016, using postcode-level matching of the lead organisation to the SIA area. RCUK can provide custom curated data if we forward a precise definition of the geography and the topics of interest. RCUK have indicated that there would be an approximate 3-week delivery time for these queries.

**Table 22 UK Research - Annual number of organisations**

Year	Number of organisations
2006	45
2007	27
2008	44
2009	56
2010	70
2011	88

2012	132
2013	209
2014	193
2015	209
<b>Grand Total</b>	<b>1,073</b>

Source: Gateway to Research (GtR). Research Councils UK (RCUK) (2016). Available at: <http://gtr.rcuk.ac.uk/> Note: Data is constructed from projects in a public GtR snapshot dated 02-2016, using postcode-level matching of the lead organisation to the SIA area. RCUK can provide custom curated data if we forward a precise definition of the geography and the topics of interest. RCUK have indicated that there would be an approximate 3-week delivery time for these queries.

**Table 23 UK Research - Annual value of funding (£)**

<b>Awarding body</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
AHRC	12,569,358	4,960,981	10,082,622	6,792,239	10,385,274	3,206,105
BBSRC	14,325,224	13,941,663	24,144,566	22,030,120	31,382,179	24,679,921
EPSRC	42,716,761	48,260,716	64,259,822	107,467,553	118,168,810	62,215,790
ESRC	11,158,098	44,142,627	6,714,869	11,721,387	15,321,464	13,985,465
MRC	13,286,806	18,169,079	25,153,463	30,004,922	37,239,846	30,573,583
NC3Rs	337,693	362,955		398,829		164,255
NERC	20,496,175	19,153,441	21,810,539	21,582,720	21,338,025	18,963,163
STFC	7,879,796	2,260,488	10,049,834	5,864,850	2,493,835	7,710,980
<b>Grand Total</b>	<b>122,769,911</b>	<b>151,251,950</b>	<b>162,215,715</b>	<b>205,862,620</b>	<b>236,329,433</b>	<b>161,499,262</b>

Source: Gateway to Research (GtR). Research Councils UK (RCUK) (2016). Available at: <http://gtr.rcuk.ac.uk/> Note: Data is constructed from projects in a public GtR snapshot dated 02-2016, using postcode-level matching of the lead organisation to the SIA area. RCUK can provide custom curated data if we forward a precise definition of the geography and the topics of interest. RCUK have indicated that there would be an approximate 3-week delivery time for these queries.

**Table 24 REF Research Income - Annual value of income (£), domestic sources**



<b>Unit of Assessment</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Aeronautical, Mechanical, Chemical and Manufacturing Engineering	5,454,293	4,450,449	5,112,406	4,823,828	4,213,532
Agriculture, Veterinary and Food Science	6,046,793	4,439,907	3,676,367	3,987,404	3,528,536
Allied Health Professions, Dentistry, Nursing and Pharmacy	17,308,135	18,977,287	16,737,689	15,655,777	16,187,889
Architecture, Built Environment and Planning	5,825,181	6,160,111	6,291,346	7,424,865	5,917,114
Area Studies	542,023	955,102	904,275	620,225	486,217
Art and Design: History, Practice and Theory	1,791,206	1,786,363	1,810,652	1,772,138	1,460,767
Biological Sciences	26,509,397	26,789,935	27,006,426	27,514,198	27,230,909
Business and Management Studies	6,834,792	5,501,275	4,567,856	4,131,368	3,829,804
Chemistry	16,895,583	17,438,233	17,230,931	16,402,431	16,640,203
Civil and Construction Engineering	2,103,729	1,133,225	1,415,757	1,832,852	1,854,183
Classics	257,830	289,996	363,724	389,706	303,407
Clinical Medicine	37,882,031	36,986,653	30,345,965	33,024,992	32,238,355
Communication, Cultural and Media Studies, Library and Information Management	484,900	433,627	325,711	631,134	1,030,912
Computer Science and Informatics	6,110,292	6,017,906	6,218,849	6,343,122	7,529,108
Earth Systems and Environmental Sciences	9,514,754	8,161,127	8,452,740	9,359,291	10,256,681
Economics and Econometrics	1,342,029	1,640,956	1,473,388	1,606,755	1,954,570
Education	3,926,307	4,492,123	4,016,873	3,612,320	4,676,310
Electrical and Electronic Engineering, Metallurgy and Materials	2,004,839	2,020,144	2,416,543	2,237,754	1,708,111
English Language and Literature	636,538	722,100	814,708	964,318	787,455
General Engineering	22,932	21,192	22,302	24,085	33,750

	,818	,896	,146	,144	,627
Geography, Environmental Studies and Archaeology	4,662,895	5,377,172	6,152,531	6,582,149	7,593,049
History	2,361,593	2,210,446	1,723,713	1,666,898	1,665,789
Law	1,366,537	1,563,063	1,623,265	1,624,546	1,114,071
Mathematical Sciences	5,480,460	5,054,810	6,503,785	6,931,666	6,884,435
Modern Languages and Linguistics	520,662	879,837	1,357,451	1,572,020	1,639,379
Music, Drama, Dance and Performing Arts	851,995	982,159	1,253,285	1,278,175	1,176,162
Philosophy	662,793	573,927	415,056	284,273	55,134
Physics	27,325,567	24,886,193	22,310,694	21,964,087	20,326,493
Politics and International Studies	1,010,252	1,361,612	1,293,851	1,197,872	580,592
Psychology, Psychiatry and Neuroscience	18,947,857	18,153,225	17,627,815	18,599,802	20,607,425
Public Health, Health Services and Primary Care	19,826,458	26,692,917	31,825,100	32,262,136	35,119,124
Social Work and Social Policy	3,873,611	3,538,725	4,676,240	4,683,467	5,291,911
Sociology	3,998,939	3,460,199	3,923,519	3,784,275	1,889,704
Sport and Exercise Sciences, Leisure and Tourism	1,349,434	1,668,432	1,841,239	1,712,412	1,912,676
Theology and Religious Studies	732,292	540,118	484,477	289,838	262,350
<b>Grand Total</b>	<b>267,374,815</b>	<b>266,532,250</b>	<b>264,496,373</b>	<b>270,853,238</b>	<b>281,702,984</b>

Source: Research Excellence Framework (REF). Results. Higher Education Funding Council for England (HEFCE). Available at: <http://results.ref.ac.uk/>

#### 1.5.5 *Strength and competitiveness in Research (international)*

**Table 25 REF Research Income - Annual value of income (£), international**

Unit of Assessment	2008	2009	2010	2011	2012
Aeronautical, Mechanical, Chemical and	284,2	273,8	714,1	768,1	1,093,

Manufacturing Engineering	32	77	03	50	166
Agriculture, Veterinary and Food Science	919,143	726,054	576,157	504,527	895,448
Allied Health Professions, Dentistry, Nursing and Pharmacy	2,798,254	3,162,096	2,643,651	2,739,924	3,274,090
Architecture, Built Environment and Planning	1,306,084	1,331,968	1,128,974	1,419,217	1,976,038
Area Studies	188,095	114,827	121,887	165,999	333,165
Art and Design: History, Practice and Theory	194,229	319,189	443,203	791,286	509,168
Biological Sciences	3,796,580	5,625,700	6,478,243	7,209,092	7,120,755
Business and Management Studies	349,944	264,816	337,446	377,914	635,535
Chemistry	2,539,440	2,793,169	3,110,913	3,059,540	4,487,962
Civil and Construction Engineering	72,584	80,660	127,179	295,950	398,024
Classics	19,155	10,120	1,052	22,777	4,283
Clinical Medicine	2,408,387	3,031,383	3,357,156	3,734,333	4,286,279
Communication, Cultural and Media Studies, Library and Information Management	77,463	9,935	23,724	20,083	49,961
Computer Science and Informatics	2,688,106	2,821,552	3,027,242	4,079,481	3,918,756
Earth Systems and Environmental Sciences	2,483,021	2,621,750	3,924,296	5,577,382	7,062,907
Economics and Econometrics	0	9,922	63,908	180,021	94,995
Education	264,684	305,451	610,864	768,968	616,707
Electrical and Electronic Engineering, Metallurgy and Materials	407,157	476,187	604,701	793,897	691,067
English Language and Literature	87,995	208,016	145,496	127,434	119,085
General Engineering	5,275,820	5,172,733	7,654,677	11,069,663	11,702,716
Geography, Environmental Studies and	829,0	868,3	1,204,	1,647,	2,419,



Archaeology	99	39	837	090	609
History	30,053	43,189	43,292	130,965	266,486
Law	53,760	78,452	214,910	266,712	292,958
Mathematical Sciences	379,724	515,784	786,411	1,164,728	1,285,485
Modern Languages and Linguistics	3,892	30,438	44,895	8,852	87,434
Music, Drama, Dance and Performing Arts	13,553	15,043	49,350	53,891	193,502
Philosophy	112,374	89,895	9,235	29,472	218,105
Physics	1,343,617	2,349,436	2,739,779	2,649,247	2,911,616
Politics and International Studies	173,161	386,328	562,318	507,112	458,881
Psychology, Psychiatry and Neuroscience	1,629,019	1,880,274	2,373,818	2,255,805	2,279,358
Public Health, Health Services and Primary Care	1,087,328	900,228	1,335,199	1,432,437	924,603
Social Work and Social Policy	736,744	657,918	992,513	777,661	648,461
Sociology	705,615	613,610	754,230	810,397	1,244,548
Sport and Exercise Sciences, Leisure and Tourism	108,860	235,365	479,561	396,576	466,807
Theology and Religious Studies	46,183	35,897	39,406	12,241	45,034
<b>Grand Total</b>	<b>33,413,355</b>	<b>38,059,601</b>	<b>46,724,626</b>	<b>55,848,824</b>	<b>63,012,994</b>

Source: Research Excellence Framework (REF). Results. Higher Education Funding Council for England (HEFCE). Available at: <http://results.ref.ac.uk/>

## 1.6 Innovation Strengths

### 1.6.1 Private sector investment

**Table 26 Business Enterprise R&D expenditure (BERD), £s per person employed (FTE), 2013 – English LEPs and Wales**

	Cornwall and Isles	Gloucestershire	Heart of the South	Swindon and	West of England	South East
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	<b>of Scilly</b>		<b>West</b>	<b>Wiltshire</b>		<b>Wales</b>
£s per person employed	114	1,079	354	1,682	1,022	533

Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths> and StatsWales. Available at: <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Businesses/Research-and-Development/latestresearchanddevelopmentexpenditure-by-area-expendituretype>; Welsh figures drawn from the UK Annual Population Survey and UK Business Count, both available at <http://www.nomisweb.co.uk>. Note: South East Wales figure reached by estimating the gross R&D expenditure of South East Wales via the number of enterprises that are in South East Wales. This figure (£253.3m) was then divided by the total number of FTE jobs in South East Wales.

**Table 27 Annual value of R & D Tax Credits in £s per person employed (FTE), 2013/14**

	<b>SME R&amp;D scheme</b>		<b>All schemes</b>	
	Number of claims	Amount claimed	Number of claims	Amount claimed
South West England	1,260	55	1,490	80
Wales	495	15	580	25
<b>UK</b>	<b>16,060</b>	<b>780</b>	<b>19,205</b>	<b>1,715</b>

Source: HM Revenue & Customs. Available at: <https://www.gov.uk/government/statistics/regional-analysis-of-research-and-development-tax-credit-claims>

**Table 28 Foreign Direct Investment, 2013 – English LEPs (2013) and Wales (2015)**

<b>FDI indicator</b>	<b>Corn wall and Isles of Scilly</b>	<b>Gloucestershire</b>	<b>Heart of the South West</b>	<b>Swindon and Wiltshire</b>	<b>West of England</b>	<b>Wales</b>
Share of UK (per cent) FDI projects	0.32	0.25	0.70	0.51	1.79	3.8
Total FDI successes	5	4	11	8	28	41

Source: Building Local Advantage. Review of LEP area economies 2014. LEP Network and Athley Consulting (2014). Available at: <http://www.mylocaleconomy.org/review-of-lep-area-economies-2014/> (England); EY's attractiveness survey 2016. Available at:

**Table 29 Investment in the region (2012-2014)**

Region	Indicator	2012	2013	2014
South West (England)	% of amount invested	3	9	5
	% of companies	6	6	7
	Amount invested £(m)	172	371	233
	Number of Companies	49	46	50
	of UK Investee Companies by Region			7
Wales	% of amount invested	2	1	1
	% of companies	4	4	6
	Amount invested £(m)	87	51	51
	Number of Companies	37	29	47
	of UK Investee Companies by Region			6

Source: Private Equity and Venture Capital Report on Investment Activity 2014. British Venture Capital Association Report(BVCA) (2015). Available at:  
<http://www.bvca.co.uk/Portals/0/library/documents/IAR%20Autumn15.pdf>

**Table 30 Investment activity compared to total number of VAT registered local units (2012-2014) – England and Wales**

Region	Indicator	2012	2013	2014
South West (England)	Companies invested in per 1,000 of total VAT registered local units	0.2	0.2	0.2
	Number of private equity backed companies	49	46	50
	Number of VAT registered local units	241,265	241,550	247,965
Wales	Companies invested in per 1,000 of total VAT registered local units	0.3	0.3	0.4
	Number of private equity backed companies	37	29	47
	Number of VAT registered local units	111,680	110,500	113,215

Source: Private Equity and Venture Capital Report on Investment Activity 2014. British Venture Capital Association Report(BVCA) (2015). Available at:  
<http://www.bvca.co.uk/Portals/0/library/documents/IAR%20Autumn15.pdf>

### 1.6.2 Innovate UK investment

**Table 31 Innovate UK Investment in innovation by type (2016)**

Thematic area	Total grant offered (£m)
Advanced Materials	23
Bioscience	22
BISF	1
Catapult	5
Development	10
Digital	31
Electronics, Photonics & Electrical Systems (EPES)	22
Emerging Technologies	2
Energy	81
European	1
Future Cities	1
Healthcare	28
High Value Manufacturing	41
Information & Communication Technology	16
KTP	4
Large	35
Low Impact Buildings	52
Nanotechnology	5
Reponsive	7
Responsive	262
Space Programmes	9
Sustainability	27
Sustainable Agri-Food (SAF) Protection	16
Transport	63
TSB Programmes	70
Urban Living	15
Grand Total	849

Source: Transparency data. Innovate UK funded projects since 2004. Innovate UK (2016). Available at: <https://www.gov.uk/government/publications/innovate-uk-funded-projects>

Note: Data is constructed from projects in the public snapshot of InnovateUK dated 14-04-2016, using postcode-level aggregation of the stated organisation to the SIA Area.

**Table 32 Public expenditure on innovation (2013-14)**

<b>Funding body</b>	<b>South West</b>	<b>Wales</b>
Research Councils research expenditure per head (£)	25	22.8
Higher Education Funding Councils per head (Recurrent research grants) (£)	18.7	22.8
Innovate UK expenditure per head	15.2	2.3

Source: Public Research And Innovation Expenditure (BIS). Geographic breakdown of public research and innovation expenditure. Available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/437447/bis-15-350-Public-expenditure-on-research-and-innovation-2013-14.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437447/bis-15-350-Public-expenditure-on-research-and-innovation-2013-14.pdf)

**Table 33 Innovate UK value of awarded projects/grants in innovation by product (£) (2010-2016) – SIA Area**

	Business, Innovation & Skills Financed	Centre	Collaborative Research & Development	European	Fast Track	Feasibility Study	Innovation Voucher	Knowledge Transfer Partnership	Large Scale Demonstrator	Launchpad	Regional Development Agency	Responsive	Small Business Research Initiative	Smart - Development of Prototype	Smart - Proof of Concept	Smart - Proof of Market	Total
Advanced Materials			2,420,377			119,182											2,539,559
Bioscience			1,007,946			676,641											1,684,587
BISF									9,764,610								9,764,610
Buildings													100,000				100,000
Catalyst		52,612,456															52,612,456
Development			123,455			455,064											578,519
Digital			3,475,341		188,251	423,767				221,915			1,017,100				5,326,374

	Business, Innovation & Skills Financed	Centre	Collaborative Research & Development	European	Fast Track	Feasibility Study	Innovation Voucher	Knowledge Transfer Partnership	Large Scale Demonstrator	Launchpad	Regional Development Agency	Responsive	Small Business Research Initiative	Smart - Development of Prototype	Smart - Proof of Concept	Smart - Proof of Market	Total
Electronics Photonics & Electrical Systems (EPE S)			1,221,470	1,836,142	55,505	518,364											3,631,481
Emerging Technologies						0											0
Energy			10,350,207			1,950,151											12,300,358
European				3,230													3,230

	Business, Innovation & Skills Financed	Centre	Collaborative Research & Development	European	Fast Track	Feasibility Study	Innovation Voucher	Knowledge Transfer Partnership	Large Scale Demonstrator	Launchpad	Regional Development Agency	Responsive	Small Business Research Initiative	Smart - Development of Prototype	Smart - Proof of Concept	Smart - Proof of Market	Total
Futur e Cities			0														0
Healt hcare			7,560 ,739	95,82 7	326,4 39	677,4 39				122,9 25			141,3 19				8,924, 688
High Value Manu factur ing			3,033 ,768	1,564 ,340		2,016 ,666											6,614, 774
Infor matio n & Com muni catio n Tech nolog y			1,304 ,672	668,1 57		180,8 16							0				2,153, 645



	Business, Innovation & Skills Financed	Centre	Collaborative Research & Development	European	Fast Track	Feasibility Study	Innovation Voucher	Knowledge Transfer Partnership	Large Scale Demonstrator	Launchpad	Regional Development Agency	Responsive	Small Business Research Initiative	Smart - Development of Prototype	Smart - Proof of Concept	Smart - Proof of Market	Total
KTP								156,827									156,827
Large	43,820,081		3,787,371			1,170,617			15,334,306								64,112,375
Low Impact Buildings			1,627,790	195,555		3,253,375							2,160,225				7,236,945
Nanotechnology			175,636			5,000											180,636
Responsive							34,968								82,537	38,377	155,882
Responsive				806,857		24,750	1,014,555					246,462	614,906	5,604,837	4,675,939	944,653	13,932,959
Space			170,118		141,565	236,354											548,037

	<b>Business, Innovation &amp; Skills Financed</b>	<b>Centre</b>	<b>Collaborative Research &amp; Development</b>	<b>European</b>	<b>Fast Track</b>	<b>Feasibility Study</b>	<b>Innovation Voucher</b>	<b>Knowledge Transfer Partnership</b>	<b>Large Scale Demonstrator</b>	<b>Launchpad</b>	<b>Regional Development Agency</b>	<b>Responsive</b>	<b>Small Business Research Initiative</b>	<b>Smart - Development of Prototype</b>	<b>Smart - Proof of Concept</b>	<b>Smart - Proof of Market</b>	<b>Total</b>
Programmes																	
Sustainability			1,092,788			527,701											1,620,489
Sustainable Agri-Food SAF Protection			1,803,419			162,149											1,965,568
Transport			9,877,492	139,735	132,615	60,956			183,322	68,283							10,462,403
TSB Programmes								7,836,956			3,367,396						11,204,352

	Business, Innovation & Skills Financed	Centre	Collaborative Research & Development	European	Fast Track	Feasibility Study	Innovation Voucher	Knowledge Transfer Partnership	Large Scale Demonstrator	Launchpad	Regional Development Agency	Responsive	Small Business Research Initiative	Smart - Development of Prototype	Smart - Proof of Concept	Smart - Proof of Market	Total
Unknown																	0
Urban Living			73,419														73,419
<b>Total</b>	<b>43,820,081</b>	<b>52,612,456</b>	<b>49,106,008</b>	<b>5,309,843</b>	<b>844,375</b>	<b>12,458,992</b>	<b>1,049,523</b>	<b>7,993,783</b>	<b>25,282,238</b>	<b>413,123</b>	<b>3,367,396</b>	<b>246,462</b>	<b>4,033,550</b>	<b>5,604,837</b>	<b>4,758,476</b>	<b>983,030</b>	<b>217,884,173</b>

Source: Innovate UK funded projects since 2004. Innovate UK (2016). Available at:

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Note: is constructed from projects in the 14-04-2016 snapshot, using postcode-level aggregation. funded projects since 2004. Innovate UK (2016). Available at:

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Note: is constructed from projects in the 14-04-2016 snapshot, using postcode-level aggregation.

1.6.3 *Innovation in firms***Table 34 % of firms engaged in product or process innovation (2010-2012)**

	<b>South West England (average)</b>	<b>South East Wales</b>	<b>Consortium Area (average)</b>
Collaboration for innovation by local economic area (% of firms)	20	19	19
New to the market product and service innovation by Local Area (% innovating firms)	49	33	41
Percentage of firms undertaking R&D by local economic area (% innovating firms)	16	14	15
Process innovation by local economic area (% innovating firms)	13	9	11
Product and Service Innovation by Local Area (% firms)	21	16	18
Strategic and Marketing innovation by local economic area (% innovating firms)	29	28	29

Source: Benchmarking Local Innovation – The innovation geography of the UK. Enterprise Research Centre (ERC) (2015). Available at: <http://www.enterpriseresearch.ac.uk/wp-content/uploads/2015/05/Benchmarking-Local-Innovation1.pdf>. Note: South West England figure is an average of the LEP areas within the region.

1.6.4 *Entrepreneurship***Table 35 Number of businesses and private sector jobs (2013 and 2014)**

<b>Indicator</b>	<b>Cornwall and Isles of Scilly</b>	<b>Gloucestershire</b>	<b>Heart of the South West</b>	<b>Swindon and Wiltshire</b>	<b>West of England</b>	<b>South East Wales</b>
Businesses	22,943	27,334	68,667	27,832	41,090	32,380
Private sector jobs	134,390	187,763	334,836	212,080	364,458	461,700

Source: UK Growth Dashboard 2015. Enterprise Research Centre (ERC) in partnership with Business Growth Service (2015) Available at: <http://www.enterpriseresearch.ac.uk/uk-growth-dashboard-2015/>; UK Business Count (2013), available at: <http://www.nomisweb.co.uk>; Employment in the public and private sectors by Welsh local authority and status (2013), available at: <https://statswales.gov.wales/Catalogue/Business->

**Table 36 Businesses that reached at least £3m turnover by 2014, as a proportion companies that reached at least £1m turnover by 2011**

Indicator	Unit	Cornwall and Isles of Scilly	Gloucestershire	Heart of the South West	Swindon and Wiltshire	West of England
Fast-growing firms	%	16	15	15	15	16
Net job creation ratio	%	4	4	3	2	1
Net jobs	number	5,292	7,126	8,132	3,477	4,942
Of £1m turnover businesses in 2011 grew to a minimum of £3m by 2014	%	5	7	5	4	7

Source: UK Growth Dashboard 2015. Enterprise Research Centre (ERC) in partnership with Business Growth Service (2015) Available at: <http://www.enterpriseresearch.ac.uk/uk-growth-dashboard-2015/>

**Table 37 Start-ups surviving three years and start-ups reaching £1m turnover**

Indicator	Cornwall and Isles of Scilly	Gloucestershire	Heart of the South West	Swindon and Wiltshire	West of England	South East Wales
3-year survival rate (%)	62	60	57	61	60	70 *
Number of new registered employer businesses	2,044	2,883	5,624	3,150	5,239	316 **
% of 2011 surviving start-ups grew to £1 million turnover by 2014	6	5	5	4	5	

Source: UK Growth Dashboard 2015. Enterprise Research Centre (ERC) in partnership with Business Growth Service (2015) Available at: <http://www.enterpriseresearch.ac.uk/uk-growth-dashboard-2015/>; VAT registered business 3 year survival rates by area and year (\* data is 2002), available at: <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Businesses/VAT-Businesses/VATRegisteredBusiness3YearSurvivalRates-by-Area-Year>; VAT registered business start-ups by area and year (\*\* data is 2007), available at: <https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Businesses/VAT-Businesses/VATRegisteredBusinessStartUps-by-Area-Year>

#### 1.6.5 Innovation activities

**Table 38 HE-BCI income by business type (£ 000s) (2015) – English LEPs and Wales**

<b>Business type</b>	<b>Cornwall and Isles of Scilly</b>	<b>Gloucestershire</b>	<b>Heart of the South West</b>	<b>West of England</b>	<b>Wales</b>
Consultancy Non-commercial	21	121	1,920	5,466	9,922
Consultancy Non-SME	15	70	419	2,015	2,839
Consultancy SME	15	233	1,182	1,700	2,207
Contract research Non-commercial	31	331	21,103	30,926	13,421
Contract research Non-SME	0	14	2,149	13,900	10,101
Contract research SME	0	89	321	595	3,209
Courses for business//and the community Individuals	0	237	80	5,272	4,810
Courses for business//and the community Non-commercial	0	433	1,472	7,006	22,492
Courses for business//and the community Non-SME	0	170	267	1,779	853
Courses for business//and the community SME	0	58	545	223	1,411
Facilities, equipment//services Non-commercial	1	1	446	1,898	363
Facilities, equipment//services Non-SME	0	3	167	1,045	250
Facilities, equipment//services SME	15	1	1,860	1,176	439

Source: Underlying data for local growth 2013-14. Higher education and local growth. HEFCE (2015). Available at: <http://www.hefce.ac.uk/analysis/maps/> and Higher education-business and community interaction survey (HE-BCI). Results of the 2013/14 survey (2015) Available at: <https://www.hesa.ac.uk/pr/3492-press-release-215>

**Table 39 HE-BCI income type (£m) (2015) – English LEPs and Wales**

<b>Indicator</b>	<b>Cornwall and Isles of Scilly</b>	<b>Gloucestershire</b>	<b>Heart of the South West</b>	<b>West of England</b>	<b>Wales</b>
Collaborative research	0	1	20	23	83.1
Intellectual property//(including sale of shares)	0	0	0	2	1.2
Regeneration and//development programmes	2	0	8	1	44.3

Source: Underlying data for local growth 2013-14. Higher education and local growth. HEFCE (2015). Available at: <http://www.hefce.ac.uk/analysis/maps/> and Higher education-business and community interaction survey (HE-BCI). Results of the 2013/14 survey (2015) Available at: <https://www.hesa.ac.uk/pr/3492-press-release-215>

**Table 40 Number and type of HEB-CI interaction (2015) – English LEPs and Wales**

Indicator	Cornwall and Isles of Scilly	Gloucestershire	Heart of the South West	West of England	Wales
Attendees at chargeable performance arts events	3,427	602	4,090	24,791	214,596
Attendees at free public lectures	757	4,537	12,968	52,875	37,009
Consultancy contracts	46	118	604	1,613	2,406
Contract research	3	40	1,107	1,188	954
Facilities and equipment-related services	61	10	435	1,303	1,220
Graduate start-ups established	0	6	25	57	336
New patent applications in year	0	0	30	62	59
Spin-offs still active and survived three years	0	0	24	31	421

Source: Underlying data for local growth 2013-14. Higher education and local growth. HEFCE (2015). Available at: <http://www.hefce.ac.uk/analysis/maps/> and Higher education-business and community interaction survey (HE-BCI). Results of the 2013/14 survey (2015) Available at: <https://www.hesa.ac.uk/pr/3492-press-release-215>

## 1.7 Established Industrial Capacity and Growth Points

**Table 41 Share of employee jobs in industry (location quotient)**

Sector	Cornwall and Isles of Scilly	Gloucestershire	Heart of the South West	Swindon and Wiltshire	West of England
Activities of head offices					2.20
Banks		0.76			1.58
Building societies				12.11	
Computer consultancy activities				1.11	1.11
Construction of domestic buildings	1.19		1.31		

Defence activities				6.69	
Event catering activities				1.59	
First-degree level higher education					1.78
Freight transport by road		1.38	1.58		
General cleaning of buildings		0.65			1.18
General public administration activities	0.61	0.77	1.03	0.77	0.82
General secondary education	1.25	1.63	1.14	1.23	0.94
Hospital activities	0.90	1.04	1.21	0.84	1.04
Hotels and similar accommodation	2.75	1.14	1.32	0.88	
Licensed restaurants	1.55	0.79	0.89		1.13
Maintenance and repair of motor vehicles	1.42		1.41		
Management consultancy activities (other than financial management)		1.13		1.29	1.02
Manufacture of air and spacecraft and related machinery			3.76		4.66
Manufacture of electronic instruments, appliances for measuring, testing, and (...)		9.63			
Operation of warehousing and storage facilities for land transport act. of (...)				1.40	
Other business support service activities n.e.c.		1.18		1.09	
Other engineering activities (not including [...])					1.47
Other human health activities	0.76		0.78		0.91
Other research and experimental development on sciences and eng'ing				4.19	
Other residential care activities	1.25	1.29	1.64		
Other retail sale in non-specialised stores	1.11		1.21		
Other service act. incidental to land transportation, n.e.c. (not				4.34	



incl. rail [...])					
Other social work activities without accommodation n.e.c.	1.29	0.71	0.97	0.62	0.77
Primary education	1.10	1.14	1.05	1.04	0.80
Private security activities					1.73
Public houses and bars	1.76	1.21	1.57	1.16	0.99
Residential care activities for the elderly and disabled	2.05	1.56	1.72	1.25	
Retail sale in non-specialised stores with food, beverages or tobacco (...)	1.50	1.05	1.27	1.10	0.96
Retail sale of clothing in specialised stores	0.89	0.89	0.87	0.81	0.99
Social work activities without accommodation for the elderly and disabled	1.06		1.36		
Technical and vocational secondary education	2.88	1.79			
Temporary employment agency activities	0.50	0.71	0.80	0.83	0.93
Unlicensed restaurants and cafes	1.28				

Source: Localisation of Industrial Activity across England's LEPs: 2008 & 2012. Enterprise Research Centre (ERC) (2013). Available at: <http://www.enterpriseresearch.ac.uk/publications/localisation-industrial-activity-across-englands-leps-2008-2012/>

**Table 42 Geographical concentration of industry (2015, location quotient)**

Industry	LQ (industry)
01 : Crop and animal production, hunting and related service activities	1.75
02 : Forestry and logging	1.23
03 : Fishing and aquaculture	1.72
05 : Mining of coal and lignite	0.00

06 : Extraction of crude petroleum and natural gas	0.00
07 : Mining of metal ores	-
08 : Other mining and quarrying	1.33
09 : Mining support service activities	0.67
10 : Manufacture of food products	1.11
11 : Manufacture of beverages	1.41
12 : Manufacture of tobacco products	0.00
13 : Manufacture of textiles	0.91
14 : Manufacture of wearing apparel	0.51
15 : Manufacture of leather and related products	1.15
16 : Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	1.09
17 : Manufacture of paper and paper products	0.82
18 : Printing and reproduction of recorded media	0.93
19 : Manufacture of coke and refined petroleum products	0.00
20 : Manufacture of chemicals and chemical products	0.96
21 : Manufacture of basic pharmaceutical products and pharmaceutical preparations	0.64
22 : Manufacture of rubber and plastic products	1.12
23 : Manufacture of other non-metallic mineral products	1.26
24 : Manufacture of basic metals	0.88
25 : Manufacture of fabricated metal products, except machinery and equipment	0.99

26 : Manufacture of computer, electronic and optical products	0.98
27 : Manufacture of electrical equipment	0.96
28 : Manufacture of machinery and equipment n.e.c.	0.97
29 : Manufacture of motor vehicles, trailers and semi-trailers	0.91
30 : Manufacture of other transport equipment	1.61
31 : Manufacture of furniture	0.88
32 : Other manufacturing	1.10
33 : Repair and installation of machinery and equipment	1.25
35 : Electricity, gas, steam and air conditioning supply	1.45
36 : Water collection, treatment and supply	1.28
37 : Sewerage	1.16
38 : Waste collection, treatment and disposal activities; materials recovery	1.04
39 : Remediation activities and other waste management services. This division includes the provision of remediation services, i.e. the cleanup of contaminated buildings and sites, soil, surface or ground water.	0.73
41 : Construction of buildings	1.03
42 : Civil engineering	1.16
43 : Specialised construction activities	1.06
45 : Wholesale and retail trade and repair of motor vehicles and motorcycles	1.16
46 : Wholesale trade, except of motor vehicles and motorcycles	0.82
47 : Retail trade, except of motor vehicles and motorcycles	1.01

49 : Land transport and transport via pipelines	0.90
50 : Water transport	1.43
51 : Air transport	0.83
52 : Warehousing and support activities for transportation	0.83
53 : Postal and courier activities	1.01
55 : Accommodation	1.72
56 : Food and beverage service activities	1.13
58 : Publishing activities	0.99
59 : Motion picture, video and television programme production, sound recording and music publishing activities	0.78
60 : Programming and broadcasting activities	0.78
61 : Telecommunications	0.79
62 : Computer programming, consultancy and related activities	0.76
63 : Information service activities	0.76
64 : Financial service activities, except insurance and pension funding	0.60
65 : Insurance, reinsurance and pension funding, except compulsory social security	1.10
66 : Activities auxiliary to financial services and insurance activities	0.99
68 : Real estate activities	0.93
69 : Legal and accounting activities	0.81
70 : Activities of head offices; management consultancy activities	0.78
71 : Architectural and engineering activities; technical testing and analysis	0.87

72 : Scientific research and development	0.82
73 : Advertising and market research	0.77
74 : Other professional, scientific and technical activities	0.91
75 : Veterinary activities	1.40
77 : Rental and leasing activities	1.06
78 : Employment activities	0.69
79 : Travel agency, tour operator and other reservation service and related activities	0.77
80 : Security and investigation activities	0.91
81 : Services to buildings and landscape activities	1.14
82 : Office administrative, office support and other business support activities	0.88
84 : Public administration and defence; compulsory social security	1.67
85 : Education	0.97
86 : Human health activities	0.90
87 : Residential care activities	1.26
88 : Social work activities without accommodation	1.06
90 : Creative, arts and entertainment activities	0.82
91 : Libraries, archives, museums and other cultural activities	1.32
92 : Gambling and betting activities	0.90
93 : Sports activities and amusement and recreation activities	1.15
94 : Activities of membership organisations	1.01

95 : Repair of computers and personal and household goods	0.87
96 : Other personal service activities	0.92
97 : Activities of households as employers of domestic personnel	-
98 : Undifferentiated goods- and services-producing activities of private households for own use	-
99 : Activities of extraterritorial organisations and bodies	0.00

Source: UK Business Count data (2015), available at <http://www.nomisweb.co.uk>

An alternative (but older dataset) exists: Location Quotients for 2011 covering Local Authorities in Wales are available in the underlying data from a previous ONS study. The Spatial Distribution of Industries. Cecilia Campos and Richard Prothero, Regional Economic Analysis (2012). Available at: [http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/dcp171766\\_285278.pdf](http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/dcp171766_285278.pdf)

## 1.8 National and International Engagement

### 1.8.1 International collaborations and engagement - Framework Programmes

Table 43 Participations in FP7 by organisation type

Organisati on type	Higher of seconda ry educatio n est.	Othe r	Private commerci al	Public body (excl.resear ch and education)	Research organisatio ns	Gran d Total	% of UK total
(blank)	2					2	10.0 %
2007	2		2	2	9	15	25.4 %
2008	68	4	42	12	89	215	9.3%
2009	76	5	31	9	65	186	8.8%
2010	100	1	49	9	79	238	9.8%

2011	103	2	43	19	96	263	9.2%
2012	115	2	57	13	69	256	8.7%
2013	136	6	62	15	68	287	8.8%
2014	64	2	19	7	26	118	7.4%
2015	10				4	14	10.5%
<b>Grand Total</b>	<b>676</b>	<b>22</b>	<b>305</b>	<b>86</b>	<b>505</b>	<b>1,594</b>	<b>9.0%</b>

Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths> / European Commission

Table 44 EC contribution in FP7 by organisation type (£)

	<b>Higher of secondary education est.</b>	<b>Other</b>	<b>Private commercial</b>	<b>Public body (excl. research and education)</b>	<b>Research organisations</b>	<b>Grand Total</b>	<b>% of UK total</b>
(blank)	313,550					313,550	8.6%
2007	146,034		99,705	296,982	1,225,216	1,767,937	15.0%
2008	18,998,362	568,139	11,355,315	5,886,370	32,227,523	69,035,709	9.4%
2009	32,008,076	253,816	11,810,292	4,885,016	29,713,772	78,670,973	10.0%
2010	38,868,820	286,203	9,741,684	1,440,516	24,782,288	75,119,511	8.7%

2011	35,246,166	272,747	9,256,691	4,462,474	40,736,607	89,974,685	8.5 %
2012	46,109,249	105,127	12,281,414	6,238,862	25,935,970	90,670,621	7.6 %
2013	64,640,515	1,603,058	20,524,172	4,481,449	27,377,750	118,626,944	8.1 %
2014	41,528,727	676,593	5,228,633	3,041,442	12,571,005	63,046,401	7.8 %
2015	12,985,468				5,081,302	18,066,770	22.3 %
<b>Grand Total</b>	<b>290,844,968</b>	<b>3,765,683</b>	<b>80,297,907</b>	<b>30,733,110</b>	<b>199,651,433</b>	<b>605,293,101</b>	<b>8.6 %</b>

Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths> / European Commission

Table 45 Participations in Horizon 2020 by organisation type

	<b>Higher of secondary education est.</b>	<b>Other</b>	<b>Private commercial</b>	<b>Public body (excl.research and education)</b>	<b>Research organisations</b>	<b>Grand Total</b>	<b>% of UK total</b>
(blank)	59	5	27	7	45	143	10.8%
2014	16	3	1	9	16	45	16.5%
2015	238	26	156	61	274	755	11.0%
2016	113	17	94	28	81	333	10.4%
2017	1				2	3	7.9%
<b>Grand Total</b>	<b>427</b>	<b>51</b>	<b>278</b>	<b>105</b>	<b>418</b>	<b>1,279</b>	<b>10.9%</b>



Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths> / European Commission

Table 46 EC contribution in Horizon 2020 by organisation type

	<b>Higher of secondar y education est.</b>	<b>Other</b>	<b>Private commer cial</b>	<b>Public body (excl.resea rch and education)</b>	<b>Research organisati ons</b>	<b>Grand Total</b>	<b>% of UK total</b>
(blank)	22,074,309	1,168,750	8,011,405	1,740,278	10,662,150	43,656,892	8.9 %
2014	1,529,832	126,506	50,000	4,396,626	1,167,029	7,269,993	9.0 %
2015	109,853,255	7,674,805	46,300,925	44,884,124	125,599,216	334,312,325	11.3 %
2016	60,986,364	4,756,460	39,895,729	43,503,208	61,210,260	210,352,022	11.4 %
2017	183,455				378,910	562,364	6.3 %
<b>Grand Total</b>	<b>194,627,216</b>	<b>13,726,522</b>	<b>94,258,058</b>	<b>94,524,236</b>	<b>199,017,565</b>	<b>596,153,597</b>	<b>11.1 %</b>

Source: Mapping local comparative advantages in innovation. Department for Business, Innovation & Skills (BIS) (2015). Available at: <https://www.gov.uk/government/publications/local-enterprise-partnerships-evidence-on-local-innovation-strengths> / European Commission