

# Digital Research Yearbook

UK Higher Education

2016



# Digital Research Yearbook

UK Higher Education 2016



#### © Copyright 2016 Digital Science and Research Solutions Ltd

#### ISBN 978-0-9929477-7-4

Copyright in this Digital Research Yearbook belongs to Digital Science and Research Solutions Ltd (DSRS). This constitutes proprietary and confidential information of DSRS. DSRS reserves all rights in and to this Digital Research Yearbook. Any copying, adaptation, distribution, transmission or disclosure of this Digital Research Yearbook (or any part of it), in any form, is strictly prohibited without the prior written consent of DSRS. Written permission must also be obtained before any part of this publication is stored in a retrieval mechanism of any kind.

Whilst all reasonable care has been taken to ensure the accuracy of the publication, neither DSRS nor any of its affiliates makes any representation, warranty, or condition of any kind, in connection with this Digital Research Yearbook or owes or accepts any duty to any person. Without prejudice to the generality of the foregoing, DSRS does not warrant or represent that the Digital Research Yearbook is correct, complete, up to date, or fit for any particular purpose. This Digital Research Yearbook is being provided for internal use and information only and any reliance placed on any part of it is done entirely at the risk of any person placing such reliance.

This Digital Research Yearbook has been compiled and produced by



Custom reporting and analysis to help you make better decisions faster.

#### FOR MORE INFORMATION ABOUT OUR SERVICES AND PRODUCTS

Digital Science and Research Solutions Ltd The Campus, 4 Crinan Street, London NI 9XW, UK Email: consultancy@digital-science.com

Web: digital-science.com

## Table of contents

## Introduction

The Introduction to the Research Yearbook summarises the content, highlights key data exhibits and provides an introductory interpretation to the institutional profiles.

	introductory interpretation to the institutional profiles.			
				Page
	Rationale			1
	Sector groups and basis of comparison			
	Institutional profiles			
	Institutional details			
	Researcher Indicator Wheel			
	Funding Transect			
	Research Fingerprint			
	BrainScans of research performance and diversity			
	Sector groups and tables			
	List of profiled institutions			
	Institutional Profiles			
	127			
	The substantive content of the Research Yearbook is an alphabet key data exhibits described in the Introduction.	tical series of two page Institu	tional Profiles emplo	oying the
	Institution profiles			16-247
	institution promes			10-2-17
	Appendix			
	The appendix to the Research Yearbook summarises the principa analysed. The data for each primary research activity indicator in that is profiled.			tion
	Colde des annual de			240.240
	How the data are compiled		•••••	248-249
	Tables of research activity indicators			250-275

Sam 8210 Sam 8210 9310 Sam 5311 Sali

### Introduction and rationale

The **Digital Research Yearbook: UK Higher Education 2016** is a comprehensive overview of research activity in a core part of the national research base. Universities and Higher Education Colleges are responsible for a high proportion of basic, innovative research and train most of the highly qualified people who underpin any knowledge-based economy. The Research Yearbook profiles and compares research input, capacity and outcomes for these institutions.

The **Digital Research Yearbook** covers institutions that receive core funding for research (also called QR) from one of the UK's regional Higher Education Funding Councils (HEFCs). These are HEFCE for England, DELNI for Northern Ireland, SFC for Scotland and HEFCW for Wales.

To be eligible for inclusion, institutions had to have been awarded at least five research grants from any source recorded by the **Dimensions** grants database and at least £1 million QR core funding during the REF2014 census period. There are 116 institutions that meet these criteria.

The **Digital Research Yearbook** includes information at institutional level, across broad subject domains and with the potential to explore down to a finer subject level. The contents are supported by Digital Science's extensive consultancy experience in working with research data. The **Digital Research Yearbook** contains three main sections:

- Introduction and background information
- Profiles of individual institutions with research performance, including the **Digital Science BrainScan**, benchmarked against each institution's peer sector group
- · Ranked tables of research performance indicators by institution and by subject area

## Sector groups and basis of comparison

The UK higher education research base has grown and developed over a long period, with some institutions established centuries ago and many recent and extensive changes in funding and structure. This evolution has led to an exceptionally dynamic, flexible and productive educational and research environment. However, differences in age, size and mission mean that direct comparison between institutions is not always very informative.

We have allotted institutions to five sector groups, so as to improve the basis for fair comparison. The groups are broadly based on age, which tends to be linked to size, funding and research capacity. The groups are similar to some of the sector lobby groups, which are also broadly led by history and mission. However, among our sector groups, there are also some significant, data-driven differences.

The table listing the members of the five sector groups, and a brief note on how the groups were selected, immediately precedes the institutional profiles. In broad terms the groups are:

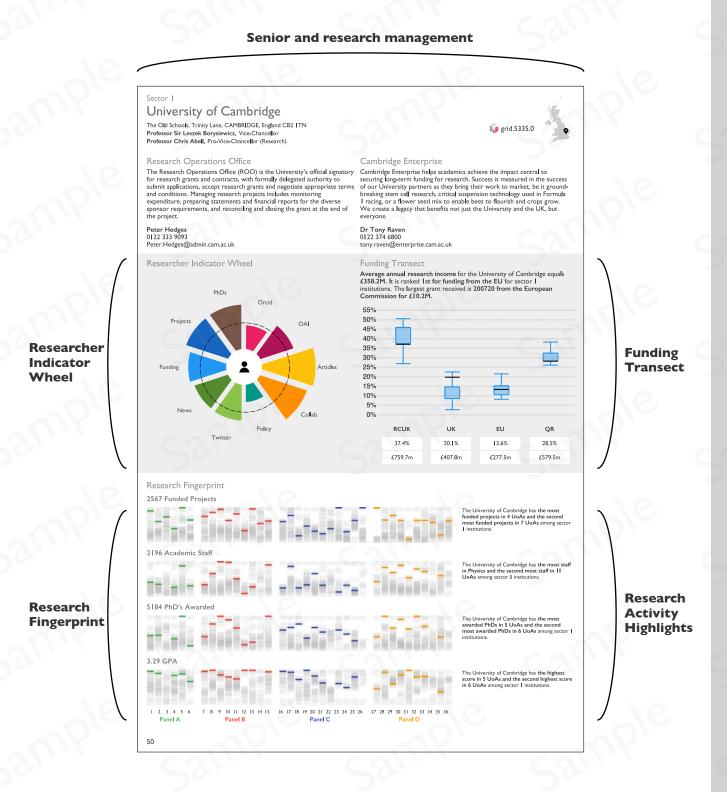
- 1. Larger, usually civic, universities and colleges, generally established prior to 1945
- 2. Other universities, generally established between 1945 and 1992
- 3. Universities generally established in 1993 following the Further & Higher Education Act
- 4. Smaller and more recent higher education establishments
- 5. Specialist institutions of various ages

The specialist institutions cannot be compared with one another, as their missions overlap very little. They are instead benchmarked within their portfolio area against sector group 2 (the 1945-92 group) where possible. Some specialist colleges in the visual and performing arts are not profiled here as the nature of their specialisation makes a data-driven analysis inappropriate.

## Institutional profiles

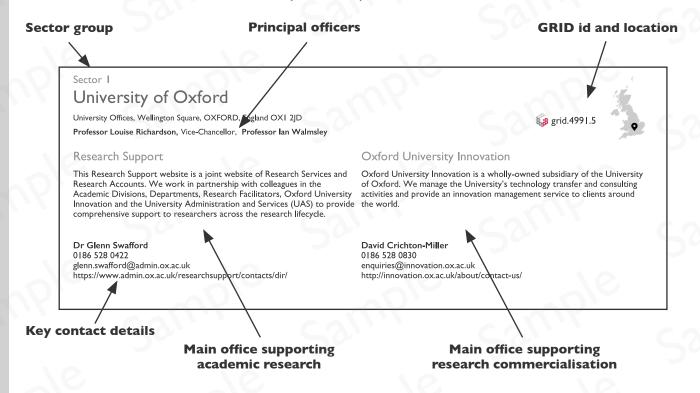
Section 2 of the **Digital Research Yearbook** profiles research management and activity in each institution. It is an alphabetical sequence of detailed two-page analyses which describe research from a diversity of perspectives and benchmark institutions in comparison to the average performance in one of the four sector groups. Each analysis identifies the institution and the sector group with which its performance is compared. These profiles will be useful to anyone interested in research activity and performance, either as a manager, a competitor or a customer.

The key analytical exhibits are shown in more detail on the following pages.



## Institutional details

Each left-hand page is headed by core information for the institution. This identifies the institution's name, its leadership, and the contact details for its research and commercial activity. There is a short descriptor of the relevant office functions, because the title and role of these offices can vary substantially between institutions.



We have contacted every institution about these details, to check that we have identified the offices that are responsible in these areas correctly, and that contact details and descriptions are up to date. Information about research management will be updated annually to reflect changes and to improve **Digital Research Yearbook** coverage. We anticipate that institutions will recognise the value of such information becoming available in a ready-reference and highly accessible format.

We asked institutions about the key manager with overall research responsibility. This is usually a member of the Senior Management Team and is often, but not always, a Pro-Vice-Chancellor or Deputy Principal. People in these posts are frequently senior academic staff and may occupy the post on a cyclical basis.

The institutional address and central telephone number provide a route to senior managers and research offices. Many institutions have offices dealing specifically with research grants and contracts and with research exploitation and industrial collaboration. Sometimes there are two offices, one of which handles public sector research grants from Research Councils and charities while a second is responsible for industrial liaison, academic consultancy and commercial R&D contracts. We have sought to include information about both wherever possible.

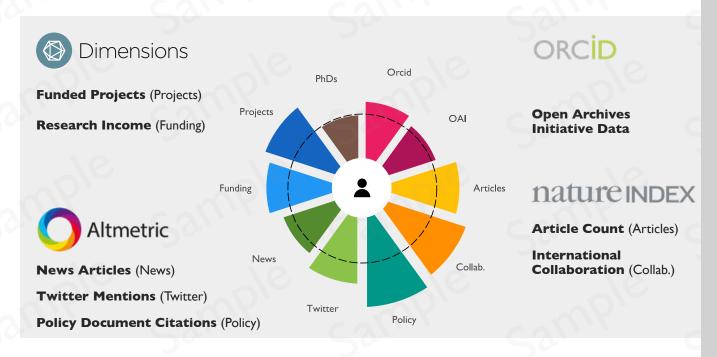
## Researcher Indicator Wheel

The **Researcher Indicator Wheel** is about a subset of metrics describing individual research activity. Each spoke of the wheel indicates the relative activity of individual academics at an institution and compares the average for that institution with the average for the same indicators across the peer institutions in that sector group. The spoke lengths are normalised to the maximum value.

The data in the **Researcher Indicator Wheel** describe activity at the level of **individual researchers**. Each activity metric in the wheel is represented by a coloured spoke. The potential length of each spoke is the **maximum value** in the sector group for that activity metric. **Spoke length** shows the value for each activity per researcher normalised to the maximum value.

The institution's spoke length can be compared with a reference value, or **benchmark**, which is shown by a dashed circle. This is calculated for the relevant institutional sector group. It is the mean for researchers across the sector group.

A diverse circle of data sources form the spokes. All indicators are normalised by **staff count**: the FTE numbers of active researchers submitted to **REF2014**. Activity per researcher gives a fair comparison between institutions that vary greatly in size. It is true, however, that activity also varies by subject area, e.g. science projects typically cost more on average than do arts projects.



The **ORCID** indicator shows what proportion of researchers have registered an ORCID account and specified their current affiliation with the institution (this includes employment data from the ORCID 2015 file and excludes education data). The indicator shows whether that is more or fewer than peer institutions. ORCID provides a persistent digital identifier that distinguishes each researcher and, through integration in research manuscripts and grants, supports automated linkages between professional activities. This ensures that work is properly recognized and it also enables better information management.

The **Open Archive Initiative** indicator shows the average number per researcher of items (including datasets, theses, journal articles or grant proposals) deposited via this system (number of indexed items at June 2016). The amount of materials published through OAI is dependant on researcher productivity and institutional support for Open Archive publishing. This includes software solutions as well as institutional policies on how work should be disseminated openly.

**Altmetric.com** tracks attention given by media and policy to research publications. Each mention of an identifiable journal article - usually, where a DOI is cited - is tracked and data are collated for analysis. Altmetric.com provides several spokes to the indicator wheel.

- **The policy** papers spoke is a count of the number of times that journal articles submitted to REF2014 have been cited in public policy documents.
- The **Twitter** spoke is a count of the number of times that tweets have mentioned articles submitted to REF2014.
- The **News** spoke is a count of the number of mentions of articles submitted to REF2014 in mainstream news media.

Each of these counts is normalised per researcher.

**Nature Index** data provide a slice of data about articles in a select set of journals tracked by Nature and analysed in the annual Nature Index. This is deliberately not a comprehensive bibliometric analysis but a more focussed perspective on the highest impact part of the annual publication portfolio. It is not comprehensive across disciplines but focusses on those areas of science and technology where journals are the primary output medium.

- Publications is the count per researcher of articles in the Nature Index for 2012-2015.
- Collaboration is the percentage of collaborating authors from non UK institutions.

**Dimensions** data catalogue \$1 trillion of research funding from 250 research funders including national research councils, major research charities, the European Research Council and the European Commission.

- **Funding** is the institutional grants' awarded value for 2008-2013, per researcher.
- Project count is the number of projects per researcher contributing to that funding total.

PhD awards are the count per researcher from data submitted to REF2014 for the REF census period 2008-2013.

## How can I interpret the Researcher Indicator Wheel?

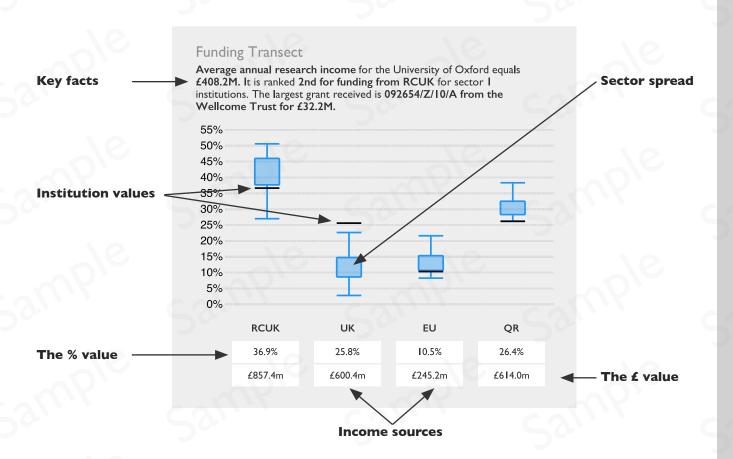
Single indicators are usually of limited value, though they may be a quick reference point. It is also of limited value to look at total activity because larger universities have more staff, tend to bring in more money and train more students, and publish more. That tells research managers what they already know.

A more rounded and balanced picture comes from linking a series of indicators, and then normalising the data for staff numbers so that larger and smaller institutions can be compared. Each indicator has a value in itself, so you can see the activity at each institution alongside its peer group. Some indicators are a direct metric of research activity - like funding - while others are an indirect measure of research engagement - like ORCID identifiers. When you compare between indicators you get additional information, for example about the balance between funding and output.

This builds up a picture of the research environment rather than just a single aspect of achievement. It provides a better basis for contemporary management information rather than historical evaluation. The picture for one institution is readily compared with that for another, enabling simultaneous comparison of average individual research profiles across a basket of activity.

## Funding Transect

The box and whisker plot for each funding source shows the frequency distribution across institutions in the relevant sector group, with higher funding levels towards the top. Within each shape there is a solid black line that denotes the location of the institution within the overall sector spread.



Four principal sources of institutional research funding are analysed here.

- RCUK **Dimensions** records of research project funding from Research Council UK organisations funded from the Science Budget.
- UK **Dimensions** records of research project funding from major UK research charities, from government and other major public sources including the Royal Society and the British Academy.
- EU **Dimensions** records of research project funding from European Commission Framework programmes and the European Research Council.
- QR mainstream core funding allocated as a block grant from the Higher Education Funding Councils (HEFCE for England, DELNI for Northern Ireland, SFC for Scotland, HEFCW for Wales).

Each source is analysed as a percentage of the total research funding for the institution, to show both the volume from that source and the degree to which the institution is dependent on that funding type.

Each plot shows the spread of percentages for that funding type, across the institutions in the relevant sector group. The solid black line locates the specific institution in that spread. The box depicts the interquartile range with whiskers showing the 5th and 95th percentile.

Additional information describes the overall research income status of the institution and identifies its largest recent grant. The table below the transect plots shows the absolute funding from each source as well as the specific relative value that the marker indicates above.

## How can I interpret the Funding Transect?

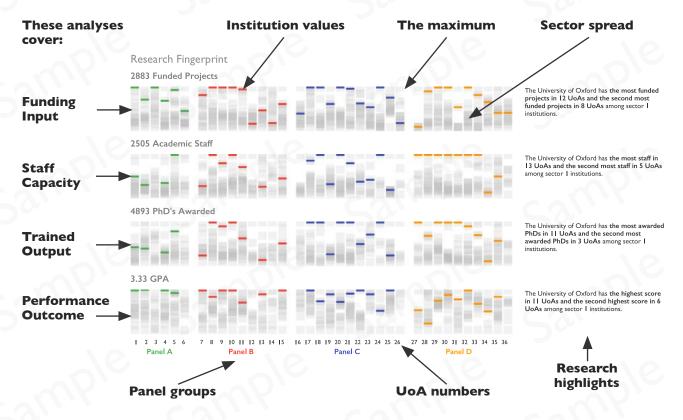
No institution with a significant research portfolio relies on funding from just one source. Variation in the balance of support across institutions is of interest. This analysis summarises data for four major streams of research income: core QR funding geared to RAE/REF scores; specific Research Council project funding; major UK research charities and public sector R&D funds; and European FP and ERC funds.

The typical balance for each of these funding sources varies from about 10% to 40% of total research income. There are some more extreme values. High dependency on one source, such as QR, naturally means that a lower percentage of income is being brought in by specific research projects. Where research activity is largely funded from specific grants and contracts so the relative share for core QR falls.

It is likely to be beneficial to have a spread of funding sources. Diverse income streams are also likely to be an indicator of research activity that has been of wide interest and value for multiple stakeholders in terms of both relevance (for funders) and promise (for peer reviewers).

## Research Fingerprint

The **Research Fingerprint** is a profile of the institution's research make-up. The data are displayed across the disciplinary Units of Assessment (UOAs) used in REF2014 and grouped by Main Panel. Each UOA column shows the sectoral spread of institutional activity. Within each column there is a coloured bar, among the grey spread, that denotes the location of the specific institution.



The **Research Fingerprint** brings together four parts of an institutional research profile at a disciplinary level, represented by the RAE/REF Units of Assessment (UOAs).

- Each block of graphics identifies a total for the relevant activity and then shows how this is spread across UOAs.
- The institution's position is marked by a coloured line in the sector spread.
- The spread for all the institutions in the sector group is shown by the grey lines, where greater intensity indicates
  more institutions.
- The spread is normalised against the maximum within each UOA.

#### The four components profiled are:

- Input to the research system, represented by the number of projects indexed in the **Dimensions** grants database. The institutional project total is given as a reference and the graphic then shows how these are spread across each UOA and highlights recent funding achievements.
- Capacity of the research system, represented by the FTE numbers of research active staff submitted to REF2014.
- · Output related to that capacity, represented by the numbers of PhD awards during the REF2014 census period.
- Outcome of research investment, represented by the Grade Point Average (GPA) achieved by that institution's UOA in REF2014.

## How can I interpret the Research Fingerprint?

High performance on any one indicator in any one UOA may be good news, but it is the comparisons across different activity areas and within the related UOAs of each main panel that will be more interesting.

Size is a main driver of research activity, and staff capacity will affect both grant income and training output. The comparison between an institution's position on all three of these within any one UOA will show how successful its staff are being at acquiring resources and at building future knowledge capacity.

Training productivity is a better output measure than, for example, journal articles. Publications vary a great deal in substance and significance. People are a more consistent unit measure and better reflect the capability of the institution to sustain the research base and add to the pool of highly skilled people who can then use their knowledge across the wide economy.

The Grade Point Average (GPA) assigned during the REF assessment process is a synthesised judgment, by peer review, across a portfolio of evidence. It is therefore arguably more balanced and comprehensive than a summary citation analysis.

Comparisons across UOAs within a Main Panel and between Main Panels suggest how diverse or specialist an institution's research may be. This can be a useful aid to interpreting the **Funding Transect**, because institutions with a greater science and technology capacity are likely to be bringing in more money for those more costly research areas.

## Research Highlights

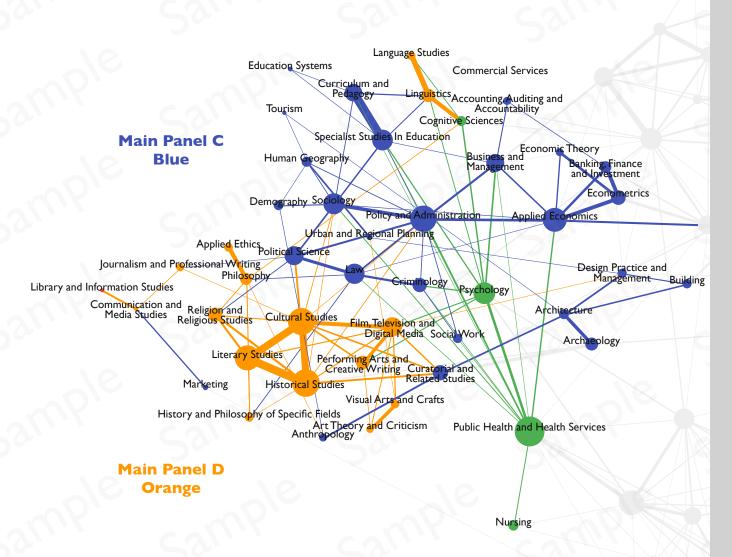
The snippets of information about key research achievements both highlight an institution's successes and remind the user of the wealth of detail that lies beneath the **Research Fingerprint** summary graphics.

Reading snippets across institutions also provides comparative background on research successes and draws attention to the pervasive spread of achievement among UK research institutions.

## BrainScans of research performance and diversity

The **Digital Science BrainScans** of research funding and research impact analyse and compare the subject-based spread of activity for inputs and outcomes. They show both the range of an institution's research grasp and the degree to which funding or outcome alone would fully describe its research profile.

The **Digital Science BrainScans** are based on an analysis of the text content of research projects in the **Dimensions** grants database and of impact case studies in the REF2014 database. They can also be produced for analyses of journal article summaries and content. Any one document may have text that links it to more than one discipline, so this also reveals the extent of interdisciplinary links in an institution's research.



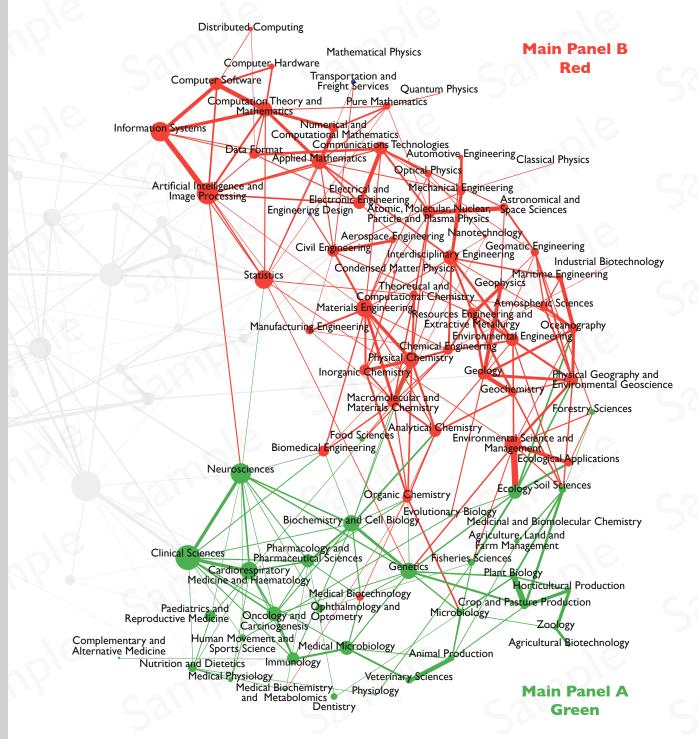
Text is analysed for words and phrases that have previously been associated through validated test material (training sets) with particular research fields. In this instance the text has been reconciled to the Australia/New Zealand Standard Research Classification Fields of Research (FoRs). The FoRs are structured in a hierarchical system which has 22 Divisions at the 2-digit level and 157 Groups at the 4-digit level (there are also 1,238 Fields at the 6-digit level but these are not used here).

Each institutional **Digital Science BrainScan** is superimposed on a network created by an analysis of all relevant documents for all UK institutions (see diagrams on page 11 and 12). This creates the underpinning layout of subject areas and determines how close to one another the FoRs are positioned. This proximity is driven by the UK data and not by the original ANZSRC classification.

The nodes in the network are the FoRs. The node is colour-highlighted on the institutional graphic if the institution is active in that subject and the size of the node reflects the scale of that activity. Lines joining nodes indicate the level of interdisciplinarity by showing where a document (grant or case study) has two FoRs in common.

The **Digital Science BrainScan** does not show the range of departments in an institution, but the underpinning intellectual activity that the institution exhibits. It may also reveal opportunities for synergies that research management had not previously recognised.

The **BrainScan map** has been created by drawing on all the available data for the UK institutions in order to create a national reference network. Each node in the map is one of the I57 ANZSRC Fields of Research, which are labelled here for reference purposes. Each node is coloured by reference to its intellectual proximity to the REF2014 Main Panels. The scans for individual institutions are then mapped onto this - using the full map as a fixed frame - so that they can be compared with the national background, between institutions and between input and outcome for the same institution. In the institutional graphics the background map, shown here, is greyed out except in the FoRs (NOT departments or UOAs) where the institution shows signs of intellectual activity.



## BrainScan Highlights

The snippets of information about research funding and impact highlight where an institution has a particular concentration of activity. These may be specific FoR areas or they may be strong interdisciplinary links. Because these emerge from the data analysis, they may not always have been evident to institutional managers. They can therefore be helpful pointers towards realising research potential.

Reading snippets across institutions also provides comparative background on research successes and draws attention to the pervasive spread of achievement among UK research institutions, particularly in the analysis of research impact.

## Sector groups

The UK higher education institutions included in the **Digital Research Yearbook** are all funded by one of the HE Funding Councils in England, Northern Ireland, Wales or Scotland. To be eligible for inclusion, institutions had to have been awarded at least five research grants from any source recorded by the **Dimensions** research awards database and at least £1 million QR core funding during the REF2014 census period.

It is not informative to compare the research profile of large, long established institutions directly with more recent foundations or with specialist institutions. They will obviously be different. The **Digital Research Yearbook** provides a more informative basis for comparison by using sector groups of institutions with relatively similar history and scale. These groups bear some resemblance to various sector representative groups but also diverge in significant respects and are not intended to mimic those groups.

In the institutional pages, the reference benchmark used for each institution is the average activity or performance for the relevant Sector group, which is identified on each institutional page.

**Sector group 1** has 18 member institutions. These are generally universities and colleges founded before 1914, often with strong civic origins.

Queen's University Belfast University of Birmingham University of Bristol University of Cambridge Cardiff University University of Edinburgh University of Glasgow University of Leeds University of Liverpool Imperial College London King's College London
University College London
University of Manchester
Newcastle University
University of Nottingham
University of Oxford
University of Sheffield
University of Southampton

**Sector group 2** has 36 member institutions. These are generally universities and colleges founded after 1945, although some have an older origin as colleges of other universities.

Aberystwyth University
Aston University
University of Bath
Bangor University
University of Bradford
Cranfield University
University of Dundee
Durham University
University of East Anglia
University of Essex
University of Exeter
University of Hull
Heriot-Watt University

University of Aberdeen

Keele University
University of Kent
Lancaster University
University of Leicester
Birkbeck, University of London
Brunel University London

City University London
Queen Mary University of London
Royal Holloway University of London
Loughborough University
Open University
University of Reading
University of St Andrews
University of Salford
University of Stirling
University of Strathclyde
University of Surrey
University of Sussex
Swansea University

University of Ulster University of York

University of Warwick

**Sector group 3** has 35 member institutions. These are universities founded after the 1992 Further and Higher Education Act which removed the binary line between universities and polytechnics.

Robert Gordon University Abertay University University of Bedfordshire University of Bolton University of Brighton Coventry University Edinburgh Napier University Glasgow Caledonian University University of Greenwich University of Hertfordshire University of Huddersfield Kingston University University of Central Lancashire Leeds Beckett University De Montfort University University of Lincoln Liverpool John Moores University University of East London London Metropolitan University London South Bank University

Manchester Metropolitan University
Middlesex University
Northumbria University
Nottingham Trent University
Oxford Brookes University
Plymouth University
University of Portsmouth
Sheffield Hallam University
Staffordshire University
University of Sunderland
Teesside University
University of the West of England
University of the West of Scotland
University of Westminster
University of Wolverhampton

**Sector group 4** has 19 member institutions. These are generally smaller and more recent institutions that are currently developing their research profile.

Anglia Ruskin University
Bath Spa University
Birmingham City University
Bournemouth University
Cardiff Metropolitan University
University of Chester
University of Cumbria
Edge Hill University
Falmouth University
University of Gloucestershire
University of the Highlands & Islands

Harper Adams University
Liverpool Hope University
University of Northampton
Queen Margaret University
University of Roehampton
University of South Wales
University of Wales, Trinity Saint David
University of Winchester
York St John University

**Sector group 5** has 8 member institutions. These are specialist institutions with a more focussed research portfolio than most universities. Their specialism is often relatively strong. The reference sector group is usually Sector group 2, but comparisons are restricted to just those areas that each institution supports. \* Some specialist colleges in the visual and performing arts are not profiled here as the nature of their specialisation makes a data-driven analysis inappropriate.

Goldsmiths University of London
Institute of Cancer Research
London Business School
London School of Economics & Political Science
London School of Hygiene & Tropical Medicine
Royal Veterinary College
St George's, University of London
School of Oriental & African Studies

\* Not included
University of the Arts London
University for the Creative Arts
Courtauld Institute of Art
Glasgow School of Art
Guildhall School of Music & Drama
Norwich University of the Arts
Royal Academy of Music
Royal Central School of Speech & Drama
Royal College of Art
Royal College of Music
Royal Northern College of Music

Sam 8210 Sam 8210 9310 Sam 5311 Sali

## Institution list

Name	Page	Name	Page
University of Aberdeen	16	Birkbeck, University of London	132
Abertay University	18	Brunel University London	134
Aberystwyth University	20	London Business School	136
Anglia Ruskin University	22	City University London	138
Aston University	24	Goldsmiths University of London	140
Bangor University	26	Imperial College London	142
University of Bath	28	Institute of Cancer Research	144
Bath Spa University	30	King's College London	146
University of Bedfordshire	32	London Metropolitan University	148
Queen's University Belfast	34	Queen Mary University of London	150
University of Birmingham	36	Royal Veterinary College	152
Birmingham City University	38	Royal Holloway University of London	154
University of Bolton	40	London School of Economics and Political Science	156
Bournemouth University	42	London School of Hygiene & Tropical Medicine	158
University of Bradford	44	School of Oriental and African Studies	160
University of Brighton	46	London South Bank University	162
University of Bristol	48	St George's, University of London	164
University of Cambridge	50	University College London	166
Cardiff University	52	Loughborough University	168
Cardiff Metropolitan University	54	University of Manchester	170
University of Central Lancashire	56	Manchester Metropolitan University	172
University of Chester	58	Middlesex University	174
Coventry University	60	Newcastle University	176
Cranfield University	62	University of Northampton	178
University of Cumbria	64	Northumbria University	180
University of Dundee	66	University of Nottingham	182
Durham University	68	Nottingham Trent University	184
University of East Anglia	70	Open University	186
University of East London	72	University of Oxford	188
University of Edinburgh	74	Oxford Brookes University	190
Edinburgh Napier University	76	Plymouth University	192
Queen Margaret University	78	University of Portsmouth	194
University of Essex	80	University of Reading	196
University of Exeter	82	Robert Gordon University	198
Falmouth University	84	University of Roehampton	200
University of Glasgow	86	University of Robertampton  University of Salford	202
Glasgow Caledonian University	88	University of Sheffield	204
University of Gloucestershire	90	Sheffield Hallam University	206
University of Greenwich	92	University of South Wales	208
Harper Adams University	94	University of South Wales  University of Southampton	210
Heriot-Watt University	96	University of St Andrews	212
University of Hertfordshire	98	Staffordshire University	214
University of the Highlands and Islands	100	University of Stirling	216
University of Huddersfield	100	University of Strathclyde	218
University of Hull	102	University of Sunderland	220
Keele University	104	University of Surrey	222
University of Kent	108	University of Sussex	224
·	110	•	226
Kingston University		Swansea University	
Lancaster University	112	Teesside University	228
University of Leeds	1 1	University of Woles Tripity Saint David	230
Leeds Beckett University	116	University of Wales, Trinity Saint David	232
University of Leicester	118	University of Warwick	234
De Montfort University	120	University of the West of England	236
University of Lincoln	122	University of the West of Scotland	238
University of Liverpool	124	University of Westminster	240
Edge Hill University	126	University of Winchester	242
Liverpool Hope University	128	University of Wolverhampton	244
Liverpool John Moores University	130	University of York	246

### Bangor University

BANGOR, Wales LL57 2DG Professor John Hughes, Vice-Chancellor Professor Jo Rycroft-Malone, Pro-Vice-Chancellor (Research)



#### Research and Enterprise Office

The support provided by the Research Support Team includes: Identifying Funding Opportunities, Managing BU wide funding calls, Pre-Award Support to Researchers, Researcher Training & Development, Costing and Pricing, Financial Administration of Grants, Contracts & Legal Agreements, Supporting Strategic Initiatives, Delivering Major Programmes (KESS), Research Assessment Exercise, and Supporting Impactful Research.

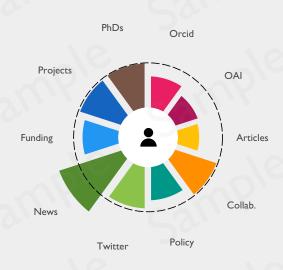
Dr Garry Reid 0124 835 1151 Ext:2602 g.reid@bangor.ac.uk

#### Research and Enterprise Office

Bangor University is committed to growing entrepreneurial activity amongst its academic community and actively supports such activity by directing it into the most appropriate domain whether it be the filing, licensing or assignment of a patent; the formation of a Spin-out Company, or the provision of consultancy services.

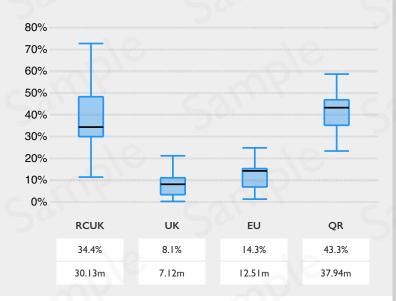
Dr Garry Reid 01248 351151 Ext:2602 g.reid@bangor.ac.uk

#### Researcher Indicator Wheel



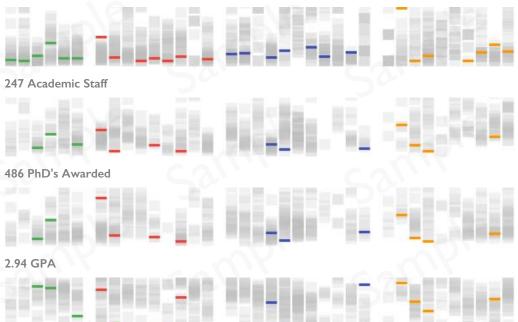
### **Funding Transect**

Average annual research income for Bangor University equals £15.9M. It is ranked 24th for funding from the EU for sector 2 institutions. The largest grant received is ES/G035954/I from the ESRC for £3.4M.



### Research Fingerprint





16 17 18 19 20 21 22 23 24 25 26

Panel C

27 28 29 30 31 32 33 34 35 36

Panel D

10 11 12 13 14 15

Panel B

Bangor University has the most funded projects in Modern Languages and Linguistics and above average funded projects in 3 UoAs among sector 2 institutions.

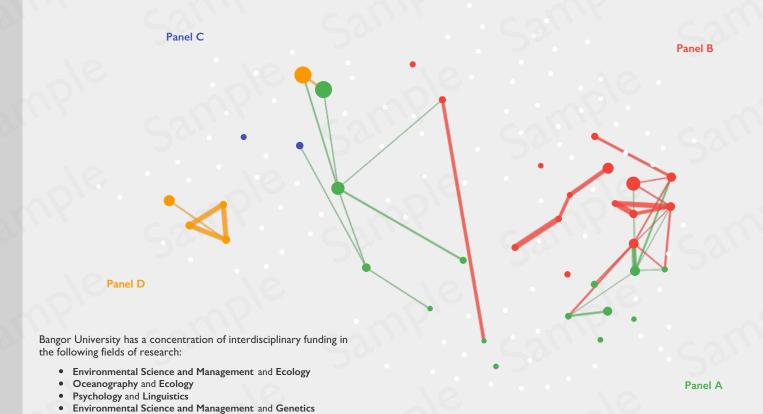
Bangor University has above average staff count in 2 UoAs among sector 2 institutions.

Bangor University has the second most awarded PhDs in 2 UoAs and above average awarded PhDs in 3 UoAs among sector 2 institutions.

Bangor University has the second highest score in Sport and Exercise Sciences, Leisure and Tourism and above average score in 6 UoAs among sector 2 institutions.

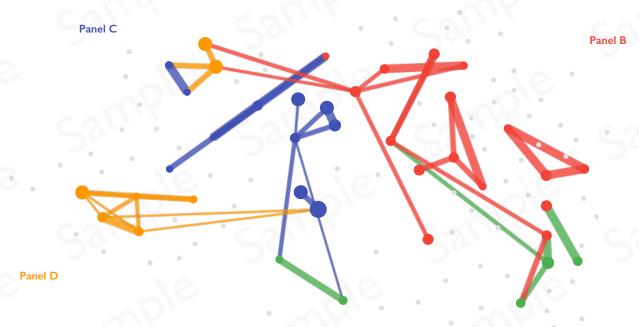
3 4

### Funding BrainScan



### Impact BrainScan

Neurosciences and Psychology



Bangor University has a concentration of interdisciplinary impact in the following fields of research:

- Econometrics and Banking, Finance and Investment
   Applied Economics and Banking, Finance and Investment
- Environmental Science and Management and Ecology
- Public Health and Health Services and Applied Economics
- Curriculum and Pedagogy and Linguistics

### University of Cambridge

The Old Schools, Trinity Lane, CAMBRIDGE, England CB2 ITN Professor Sir Leszek Borysiewicz, Vice-Chancellor Professor Chris Abell, Pro-Vice-Chancellor (Research)



#### Research Operations Office

The Research Operations Office (ROO) is the University's official signatory for research grants and contracts, with formally delegated authority to submit applications, accept research grants and negotiate appropriate terms and conditions. Managing research projects includes monitoring expenditure, preparing statements and financial reports for the diverse sponsor requirements, and reconciling and closing the grant at the end of the project.

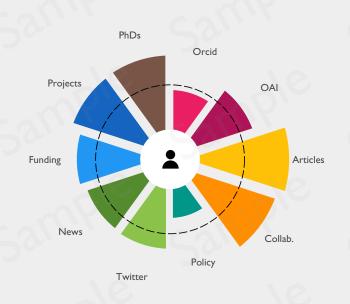
Peter Hedges 0122 333 9093 Peter.Hedges@admin.cam.ac.uk

#### Cambridge Enterprise

Cambridge Enterprise helps academics achieve the impact central to securing long-term funding for research. Success is measured in the success of our University partners as they bring their work to market, be it ground-breaking stem cell research, critical suspension technology used in Formula I racing, or a flower seed mix to enable bees to flourish and crops grow. We create a legacy that benefits not just the University and the UK, but everyone.

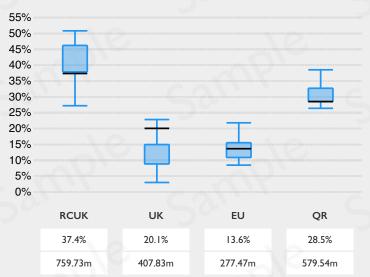
Dr Tony Raven 0122 374 6800 tony.raven@enterprise.cam.ac.uk

#### Researcher Indicator Wheel



#### **Funding Transect**

Average annual research income for the University of Cambridge equals £358.2M. It is ranked 1st for funding from the EU for sector 1 institutions. The largest grant received is 200720 from the European Commission for £10.2M.



### Research Fingerprint

2567 Funded Projects



Panel C

Panel D

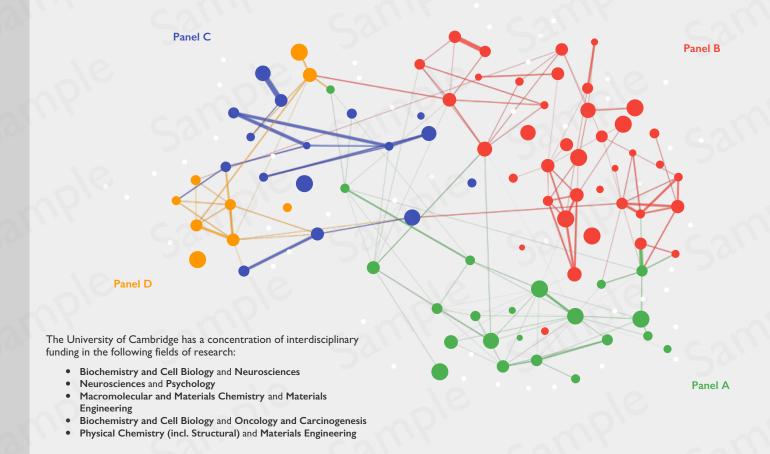
The University of Cambridge has the most funded projects in 4 UoAs and the second most funded projects in 7 UoAs among sector I institutions.

The University of Cambridge has the most staff in Physics and the second most staff in I I UoAs among sector I institutions.

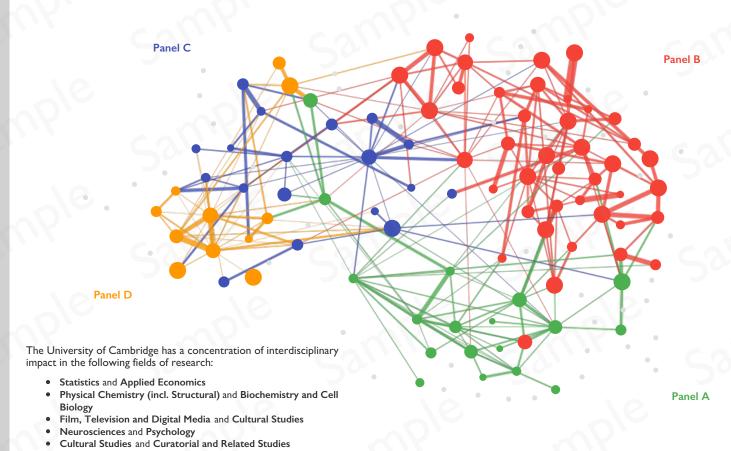
The University of Cambridge has the most awarded PhDs in 5 UoAs and the second most awarded PhDs in 6 UoAs among sector 1 institutions.

The University of Cambridge has the highest score in 5 UoAs and the second highest score in 6 UoAs among sector 1 institutions.

### Funding BrainScan



## Impact BrainScan



### Edinburgh Napier University

219 Colington Road, EDINBURGH, Scotland EH14 IDJ Professor Andrea Nolan, Principal and Vice-Chancellor Professor Jessie Kennedy, Dean (Research and Innovation)



#### Research and Innovation

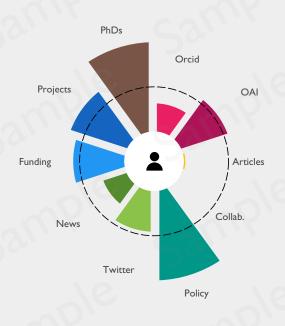
As an Edinburgh Napier University research student you will have a dedicated team of supervisors with research expertise in your field. Your supervisors will meet with you on a regular basis to help guide your research project. To complement this supervision you will meet with your supervisory panel at least twice a year for a formal review of your progress, to make sure you're on track and give you further support.

#### Research and Innovation

With nearly 1,000 academics working at Edinburgh Napier University, we have the expertise to understand your requirements and develop solutions, regardless of your field. Just get in touch and we can bring together a team of experts to work on your problem.

rio@napier.ac.uk

#### Researcher Indicator Wheel



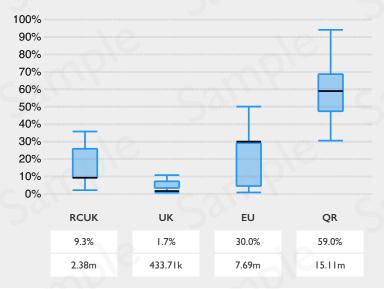
rio@napier.ac.uk

#### **Funding Transect**

27 28 29 30 31 32 33 34 35 36

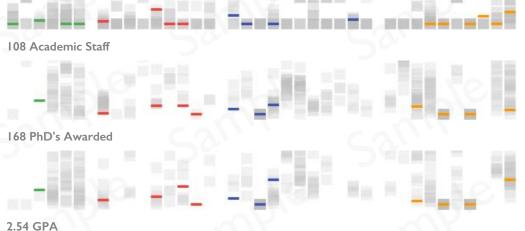
Panel D

Average annual research income for Edinburgh Napier University equals £4.8M. It is ranked 9th for funding from the EU for sector 3 institutions. The largest grant received is 233846 from the European Commission for £1.3M.



### Research Fingerprint





16 17 18 19 20 21 22 23 24 25 26

Panel C

Edinburgh Napier University has the most funded projects in Civil and Construction Engineering and above average funded projects in 5 UoAs among sector 3 institutions.

Edinburgh Napier University has the most staff in Civil and Construction Engineering and above average staff count in 4 UoAs among sector 3 institutions.

Edinburgh Napier University has the most awarded PhDs in Civil and Construction Engineering and above average awarded PhDs in 7 UoAs among sector 3 institutions.

Edinburgh Napier University has the highest score in Civil and Construction Engineering and above average score in 10 UoAs among sector 3 institutions.

3 4 5

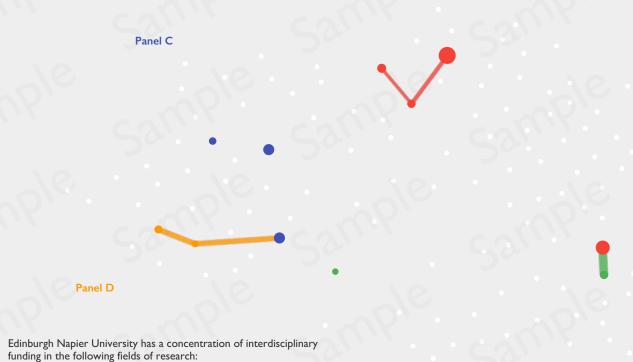
Panel A

10 11 12 13 14 15

Panel B

Panel B

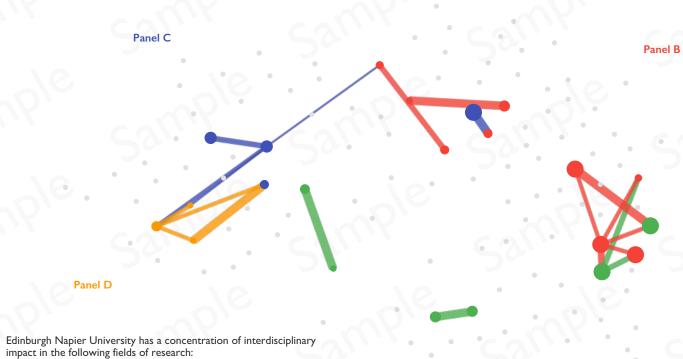
## Funding BrainScan



• Environmental Science and Management and Ecology

#### Panel A

### Impact BrainScan



- Environmental Science and Management and Ecology
- Public Health and Health Services and Psychology
- Policy and Administration and Literary Studies
- Statistics and Information Systems
- Civil Engineering and Engineering Design

### University of Exeter

Mail Room The Old Library, Prince of Wales Road, EXETER, England EX4 4SB Professor Sir Steve Smith, Vice-Chancellor and Chief Executive Professor Nicholas J Talbot, Deputy Vice-Chancellor (Research and Impact)



#### Research Services

We provide professional support for researchers in a number of areas including: funding support, bid development, networks and events, and more. We also manage the University's research strategy - it is our job to help you make an impact.

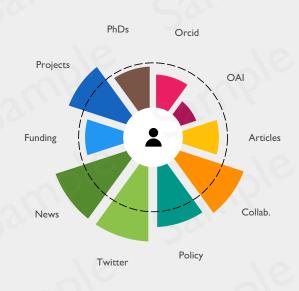
Dr Andy Richards 0139 272 3456 rkt@exeter.ac.uk

#### Research and Knowledge Transfer

Research & Knowledge Transfer supports IP and Commercialisation interests across the University. Intellectual Property (IP) is mainly in the form of patents, copyright, and trademarks, and is an important asset for the University, underpinning the value of many of the University's transactions with external organisations.

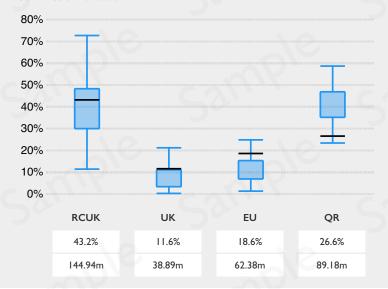
Dr Neil Hayes 0139 272 3180 N.W.Hayes@exeter.ac.uk

### Researcher Indicator Wheel



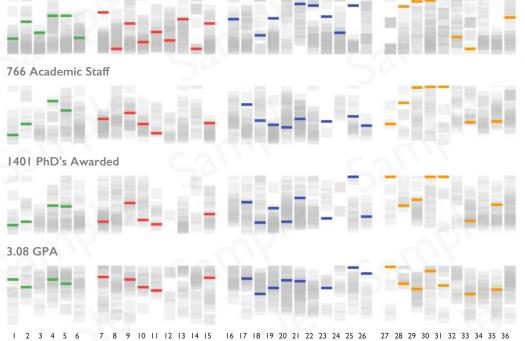
#### **Funding Transect**

Average annual research income for the University of Exeter equals £58.9M. It is ranked 2nd for funding from the EU for sector 2 institutions. The largest grant received is 603864 from the European Commission for £6.8M.



### Research Fingerprint





Panel C

Panel D

The University of Exeter has the most funded projects in 6 UoAs and the second most funded projects in 7 UoAs among sector 2 institutions.

The University of Exeter has the most staff in 2 UoAs and the second most staff in 2 UoAs among sector 2 institutions.

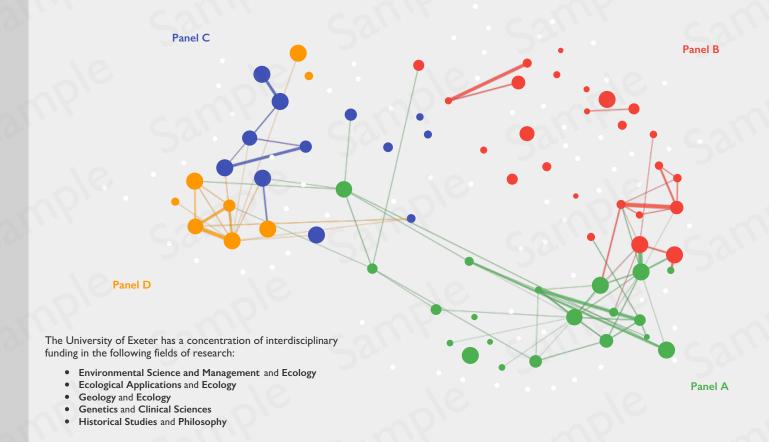
The University of Exeter has the most awarded PhDs in 4 UoAs and the second most awarded PhDs in 2 UoAs among sector 2 institutions.

The University of Exeter has the highest score in Area Studies and the second highest score in 2 UoAs among sector 2 institutions.

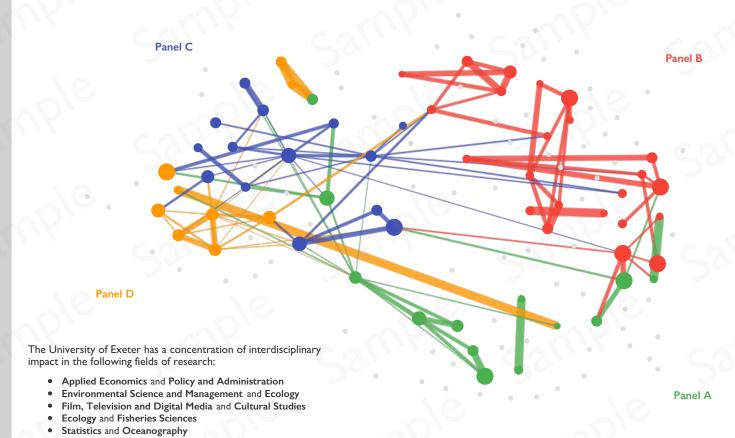
Panel A

Panel B

### Funding BrainScan



## Impact BrainScan





Work smart. Discover more.

Part of the **Digital Science** family



**BIORAFT** 



















To order a copy of the Yearbook, visit www.digital-science.com/yearbook