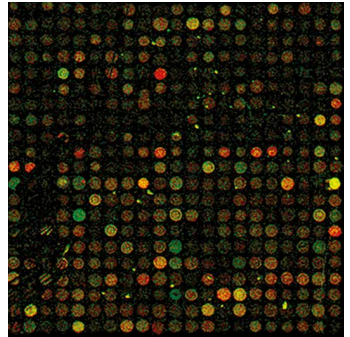
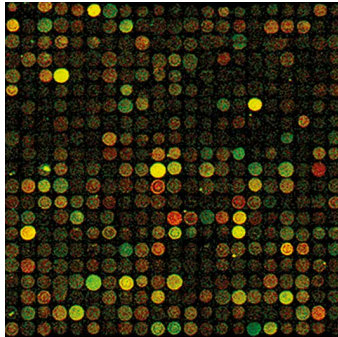
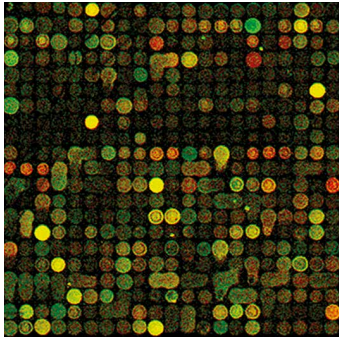


# RESEARCH & INNOVATION WITH PLYMOUTH UNIVERSITY



RESEARCH & INNOVATION  
STRATEGY



## Executive summary

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**As the enterprise university, Plymouth University brings creativity and innovation into the core of its research activity.** Through engagement and partnership with our research partners, businesses, social enterprise, charities, and the public sector we play a distinctive role in the development, application and exchange of knowledge globally, regionally and locally.

- We will carry out research and innovation that is world-leading in terms of originality, significance and rigour, whilst playing a pivotal role in innovation, knowledge exchange, and enterprise.
- We will support the conditions needed for world-class research and innovation to flourish and continue to ensure that our research is built on strong ethical foundations.
- We will help create the highest quality research environment and culture to support research opportunities and partnerships.
- Our research will 'make a difference', addressing fundamental and strategically important questions, and delivering economic, social and cultural impact at regional national and international levels.
- We will connect disciplines in novel ways, engaging with stakeholders and funders and promoting public engagement and understanding.

**We will deliver these aims through enacting the following goals:**

- align our research around world-class institutes and centres;
- establish a sustainable financial base for research and innovation activity by enabling our researchers, supported by our professional staff, to secure funding from a wide range of sources;
- build on our current strengths and develop those areas with potential and strategic fit, including expanding clinically relevant research within our Peninsula Schools of Medicine and Dentistry;
- nurture student learning and the researchers of tomorrow by excelling in research-informed teaching, providing undergraduate opportunities in research, and supporting our post-graduate and PhD students and early-career researchers;
- pursue appropriate research partnerships and collaborations with other universities and regional, national and international organisations and businesses;
- create conditions and pathways that support the exchange of knowledge and technology to businesses and other organisations, including the commercialisation of research outcomes for public good;
- enhance public engagement in, and understanding of, research and innovation through a range of channels and media, including our Community Research Awards scheme.

# Research and innovation at Plymouth University

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**Plymouth University draws inspiration from the spirit of discovery that marks our region's maritime and industrial heritage, and from our unique natural environment.**

Building on both our strengths and our potential, research is characterised by original and innovative activities and by excellence in all key disciplines. Following RAE2008, the University leapt 15 places to join the top 50 universities in the Research Fortnight power table: the greatest improvement of any university. At the end of 2012 Plymouth University had entered the list of the UK's top 50 universities published in the *Sunday Times University Guide*.

Our research is recognised as world-leading and as having a strong emphasis on regional economic development, intellectual capital, and knowledge exchange. We work closely with the private, public, and voluntary sectors. Our research informs our teaching and encourages students to become creative and highly employable graduates through engagement with research active staff solving real-world problems.

Plymouth University is an integral part of the community. As a place of learning and research we have a commitment to help address the challenges of society by advancing knowledge and its applications. At Plymouth University, one of the ways we do this is through our Community Research Awards – connecting our world-class research to the questions posed by those in our community.

## Our research priorities

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**Our research addresses the grand challenges facing the world today.**

To this end, we will focus the investment of resources through strategically focussed Institutes and interdisciplinary research centres that deliver research in key areas. Our research is evidenced through high quality publications, demonstrable impact, and dynamic, long-term international partnerships. These priorities build on identified areas of strength and excellence and are aligned with national priorities as set by Research Councils UK, the Technology Strategy Board, and the European Union's Horizon 2020. In addition, new opportunities will be taken as they arise.

## Our research institutes

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**We currently have six research institutes:**

### **Marine Institute**

With 3000 staff, researchers and students, the Marine Institute is the first and largest such institute in the UK. Research has recognised international excellence in the areas of marine biology; marine chemistry; navigation; oceanography; geoscience and environment; coastal processes; coastal shelf-seas engineering; marine technology and engineering; marine policy and development; shipping and logistics; leisure industries; science communication and law.

### **Institute of Translational and Stratified Medicine (ITSM)**

This institute strengthens the synergies of the Plymouth University Peninsula Schools of Medicine and Dentistry with our associated health-care partners, including Derriford Hospital. It builds on an existing world-class research base and will recruit the best scientists and academic clinicians from around the world to further strengthen its research areas. The institute has a primary focus on neuroscience, stratified medicine, diabetes/obesity and is developing emerging areas such as infection and immunity.

Intrinsic to the activities of the ITSM is the National Institute of Health Research-registered Peninsula Clinical Trials Unit (PenCTU), which has the capability to manage and co-ordinate the entire spectrum of research studies from single centre to large multi-centre clinical trials.

## **Institute of Sustainability Solutions Research**

The focus of the Institute of Sustainability Solutions Research (ISSR) is solutions-based research and outreach in sustainability. It has built an international reputation for impactful research that informs solutions critical to the environmental, social and economic dilemmas which are of relevance to business, government, civil society and the broader community.

## **Institute of Health and Community**

The Institute of Health and Community (IHC) is multi-disciplinary with a vibrant research culture and a focus on innovation and enterprise. The institute currently covers three multi-disciplinary areas: Culture, community and society; Health and social care innovation and Methodological innovations.

## **Pedagogic Research Institute and Observatory**

The Pedagogic Research Institute and Observatory (PedRIO) brings together researchers whose breadth of knowledge and expertise range across all aspects of HE pedagogy, helping us to understand the ways in which students experience higher education in a range of different contexts, and to enhance the opportunities for learning and personal transformation which access to higher education brings.

## **Cognition Institute**

The Cognition Institute is an innovative grouping of world leading researchers from a broad range of disciplines. With leading researchers in experimental psychology, cognitive science, cognitive robotics, computational modeling, biology, bio-medicine, the humanities and the creative arts and is a leading trans-disciplinary grouping for research into human cognition.

## **Aligned both within and across the research institutes are our Research Centres:**

- Biogeochemistry Research Centre
- Agriculture & Rural Sustainability
- Brain, Cognition and Behaviour
- Coastal and Ocean Science and Engineering
- Culture, Community and Society
- Health and Environmental Statistics
- Health and Social Care Innovation
- Mathematical Sciences
- Maritime Logistics, Economics and Finance
- Media, Art and Design Research
- Methodological Innovations
- Research in Earth Sciences
- Research in Environment and Society
- Research in Marine and Coastal Policy
- Research in Translational Biomedicine
- Robotics and Neural Systems
- Security, Communications and Network & Innovation Centre
- Humanities, Music and Performing Arts
- Law and Criminal Justice Centre
- Marine Biology and Ecology Research Centre
- Sustainable Leadership, Governance and Policy
- Service and Enterprise

# Supporting our researchers

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## **We see our staff as innovators in a culture of discovery.**

We value people who are passionate about delivering sustainable research solutions and we encourage interdisciplinary working, urging researchers to develop synergies between research areas both within and beyond the University.

### **We look to staff who:**

- engage in scholarship and encourage the achievement of world-leading international excellence in research and innovation;
- commit to developing an enterprise-based approach in their research;
- relish a dynamic and fast-moving environment characterised by strong competition for funding;
- build high value relationships and connections that deliver excellence in research and innovation;
- contribute to an open, friendly, caring and inclusive community and culture which promotes equality and values diversity;
- provide effective and inspirational support for research students and early-career researchers and research staff;
- seek out research relationships with organisations and business regionally, nationally and internationally, making links and networks wherever opportunities are present;
- foster a spirit of discovery and enterprise, encouraging students undertaking research to be autonomous reflective learners.

### **We empower all students involved in research to:**

- develop their skills portfolio as researchers;
- work in partnership with staff and external stakeholders to become enterprising, capable, adaptable and responsible researchers;
- be independent, rational thinkers and responsive to change.



# Goals and Actions: achieving our research and innovation potential

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**We will further develop our research standing and impact internationally by providing the conditions needed for world-class research and innovation to flourish.** Our goals and actions are aligned to the University Strategy 2020 and we will build on our world-leading and international excellence in priority areas of research and innovation.

## **Goal 1: Align our research around world-class Institutes and Centres.**

### **Actions:**

- review current research activities and opportunities to further develop research strengths informed by external stakeholder views in order to define and maximise current structures;
- work with stakeholders to further strengthen relationships with researchers, regionally, nationally and internationally;
- encourage and apply an interdisciplinary approach to the grand challenges facing research;
- enable the continued development of interdisciplinary research centres and institutes;
- support the continued development of research networking structures. These will facilitate mentoring, review and grant proposal preparation as well as providing platforms for discussion, collaboration and innovation.

**Goal 2: Establish a sustainable financial base for research and innovation activity by enabling our researchers, supported by our professional staff, to secure funding from a wide range of sources.**

**Actions:**

- ensure all grant proposals and/or employer-funded research or consultancy contracts are costed and priced to provide the greatest return to the University and include all allowable categories of expenditure;
- establish and embed a Code of Practice for the submission of grant applications to maximise the University's success rate with funders and develop our capacity to take measured risk;
- proactively engage when major calls for research funding are made, facilitating innovative responses from appropriate multidisciplinary research teams;
- embed guidelines for staff on the commercialisation of intellectual property and provide appropriate staff development;
- increase the volume and return on existing revenue generating activities and diversify revenue streams where appropriate.

**Goal 3: Build on our current strengths and develop those areas with potential and strategic fit, including expanding clinically relevant research within our Peninsula Schools of Medicine and Dentistry.**

**Actions:**

- continuously monitor national and international research agendas to review against current research themes and identify new opportunities;
- continue to recruit high calibre research staff who will deliver on REF and other research and innovation priorities;
- review the performance and strategic development needs of the Research Excellence Framework units of assessment and their relationship with key interdisciplinary themes;
- revise performance systems and performance indicators to meet the research and innovation aspirations of the University;
- enhance the use of IT systems to collect data on research outputs through a streamlined common pathway;
- further develop our strengths in pedagogic research and utilise this to deliver our research informed teaching;
- further strengthen the Institute of Translational and Stratified Medicine, including expansion of senior positions and utilisation of the Peninsula Clinical trials Unit to maximum benefit.

**Goal 4: Nurture student learning and the researchers of tomorrow by excelling in research-informed teaching, providing undergraduate opportunities in research, and supporting our post-graduate and PhD students and early-career researchers.**

**Actions:**

- identify development needs to enable staff to engage with business, enterprise and employers;
- embed a Performance Development Review process for academic and professional staff that facilitates successful engagement with the research, innovation and enterprise agenda and promotes equality of opportunity;
- enhance the support, development and opportunities for early career researchers and those in training, including expansion of activities such as the Researcher Development Programme and Researcher Forum;
- continue to support the UK Research Concordat and the European Charter, building on our success in achieving the European commission HR Excellence in Research Award;
- extend the opportunities for undergraduates to work with academic staff on research projects with high-quality outcomes.

**Goal 5: Pursue appropriate research partnerships and collaborations with other universities and regional, national and international organisations and businesses.**

**Actions:**

- continue our ongoing review of research partners and activities to support the growth of networks and partnerships in key areas;
- build on our international relationships to enhance postgraduate student opportunities;
- promote greater engagement with leading researchers from other countries through schemes such as the International Research Networking and Collaboration awards, Erasmus and the Learned Societies.

**Goal 6: Create conditions and pathways that support the exchange of knowledge and technology with businesses and other organisations, including the commercialisation of research outcomes for public good.**

**Actions:**

- develop environments in which staff can explore commercial opportunities for their research in order to stimulate innovation and wealth creation;
- enhance technology and knowledge exchange through research relevant business opportunities via mechanisms such as the Peninsula Growth Acceleration and Investment Network (GAIN);
- increase commercial income in line with the University Commercialisation Strategy.

**Goal 7: Enhance public engagement in, and understanding of research and innovation through a range of channels and media, including our community research awards scheme.**

**Actions:**

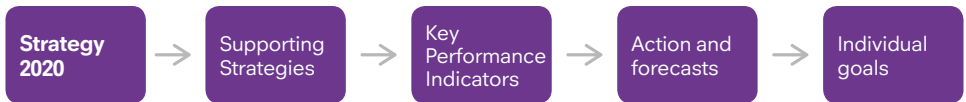
- ensure that the University meets the required standards of the Concordat for Public Engagement in Research;
- proactively market opportunities, outputs and impacts to promote research and innovation within the University and community;
- brand our research by maximising the use of facilities and resources for conferences, symposia, exhibitions and performances;
- continue to develop our research web presence to improve accessibility and coherence across the spectrum of research and enterprise activity;
- nurture the relationships developed with community groups through the Vice-Chancellor's Community Research Awards, extending the regional coverage of the scheme.

# Translating the strategy through the University

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Our strategy is translated and delivered from high-level ambitions to local level actions throughout the University and with our partners. It is a process that connects strategy to people, offering sufficient freedom and flexibility to capture creativity and sustain enterprising behaviours.

Guided by our values and leadership principles, Plymouth University's Strategy 2020 will help deliver strong performance and sustainable outcomes that result in reputational gain as we deliver on our mission of 'Advancing knowledge and transforming lives through education and research'.

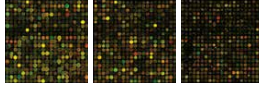


**TEACHING  
& LEARNING  
WITH  
PLYMOUTH  
UNIVERSITY**



TEACHING, LEARNING AND STUDENT EXPERIENCE  
STRATEGY

**RESEARCH  
& INNOVATION  
WITH  
PLYMOUTH  
UNIVERSITY**



RESEARCH & INNOVATION  
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**RAISING  
ASPIRATIONS  
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RAISING ASPIRATIONS AND DRIVING ENGAGEMENT  
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**SUSTAINABILITY  
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