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Lead contact	Garry Reid (Director of REO)
Original Prepared by	Professor David Shepherd

# Enhancing Research Success at Bangor University

This document outlines a strategy to enhance research performance in Bangor University.

With this strategy we aim to:

- Improve our research performance and position in the league tables to be consistently recognized as one of the top 40 UK research-led universities.
- Create an environment in which excellent research activity can flourish.
- Build and sustain world-leading research areas and encourage the conduct of internationally excellent research across all fields.
- Increase the visibility and impact of our research activity within and beyond academia.
- Appoint, develop and reward the most able researchers whatever their stage in career.
- Continue to grow post-graduate student numbers, explore innovative funding mechanisms to support interdisciplinary Masters and PhDs, and to provide an excellent postgraduate experience.

This strategy has been written to provide a reference point and as the basis for action at institutional, college and school levels so that research contributes fully to Bangor University's objectives.

The success of this strategy will be dependent on how it is fed into college, and school goals. To that end we have embedded some actions for schools and colleges to consider and embed in the development of their own strategies and goals.

## **Overall Aim**

Bangor University will be seeking to consolidate its position as one of the top universities in Wales and be amongst the top 40 Universities in the UK. Bangor's success should be built around the current base of research in all of its academic disciplines. To create an external profile, a smaller number of research themes will be developed to stand out as distinct, world leading research areas. These themes will reflect Bangor's strengths, help define a Bangor University brand and demonstrate the quality of research in Bangor. These themes will be underscored by greater research excellence in all subject areas. To achieve this we need to improve both the volume and quality of research outputs and further grow and diversify our research income. We must also position ourselves to take full advantage of European, UK and Welsh Government research priorities. We should also seek to capitalize on the university's own unique blend of expertise and its geography to create a unique reputation for high quality research in the context of being a provider of excellent undergraduate education.

This research strategy has to be integrated with the university's strategies for internationalisation, teaching and learning and partnership as well as embrace the opportunities provided by Pontio to ensure a single and consolidated

approach to research development within the university. The strategy should be embodied in an annual planning cycle that asks each school and college to address the strategic drivers and how they are able to address the many and diverse challenges facing Higher Education today and in the years ahead.

### **Improving Research at Bangor University**

The last 3 years of HESA data on research income and QR consistently placed Bangor in the top 50 of UK HEIs (49<sup>th</sup> in 09/10) and as one of the top 3 in Wales. More importantly in terms of research income per capita we rank joint 29<sup>th</sup> along with Southampton and above a host of Russell group universities including UCL, Bristol, Sheffield and Cardiff. This is an excellent level of performance and shows that we are competitive in research funding, and that the basis for excellence exists. However, we have not consistently turned excellence in obtaining grant income into quality outputs, and therefore have fallen short of our aspirations in RAE terms. This existing platform suggests our ambition to be in the top 40 is attainable.

Improving research performance at Bangor is not simple. The key to our research strategy has to be creating a working environment that promotes and supports excellent research. To achieve this we need to consider changes to the way we do things. By removing obstacles to research and putting in place structures and processes that enable research we can create a significant uplift in research quality and volume, and do this across the whole organisation.

#### **1) Improve REF performance**

A good outcome in REF is essential for us to realise our research ambitions. The outcome of the REF will not only impact league table positions and QR, but also how the major research funders view us and possibly determine our eligibility to apply for funding in the future. It is, therefore, vital that we continue to implement a robust strategy for REF that ensures we make a submission that is of sufficient quality to ensure that we are regarded as being a serious research led university and amongst the top 40 of submissions. This is a complex decision-making process, the details of which have been documented throughout the REF 2014 cycle.

Bangor University's strategy for REF2014 was a university led based on greater selectivity of staff to include those with a higher proportion of 3 and 4\* outputs, and develop submissions that do not necessarily follow school or college boundaries.

The emphasis on quality and excellence will persist beyond REF2014 therefore we need to continue to build the platform and conditions upon which research excellence can flourish, which is the basis of the remainder of this strategy document. Additionally, research excellence exercises in the future will likely have a greater reliance on open access outputs, and therefore we need to plan for this eventuality. The experience of REF2014 has highlighted the difficulties that surround the Impact agenda making it clear that for the next REF cycle we must develop a more forward looking and proactive strategy for identifying, recording and optimising impact as soon in the cycle as possible.

Key to achieving these aims is to develop a robust rolling annual REF evaluation programmes with immediate effect.

### **Actions**

- **Develop a process for managing an annual rolling REF assessment based on the data from the REF.**
- Establish a robust and transparent feedback process for individual staff within schools and/or colleges via the PDR process from the rolling REF.
- Develop and implement a strategy to manage impact in 2014
- Actively manage staff to improve research outputs, including developing and implementing local strategies to manage pre-publication peer review/mentorship and grant peer review/mentorship. Ensure that each academic has a yearly publication plan that is based on outputs of quality rather than quantity.
- Encourage and resource open access publishing of research outputs including green and gold options.

## **2) Research Income**

We need to build on our success of obtaining grant income to ensure growth. We need to be in a position to submit stronger applications that are maximised for success. Furthermore in a rapidly changing funding climate the university must be better adapted and faster in responding to the funding opportunities that arise, often at short notice. This requires an organisational step change in our approach to securing funding.

A proactive central research support service that works closely with academics in schools and colleges will:

- Implement and evaluate the new streamlined and fit for purpose research application process.
- Identify funding opportunities and alerts relevant academics and departments in a timely manner, and fully understand funders' requirements.
- Manage responses to funding calls that require institutional support.
- Help tailor proposals to meet the funder's requirements.

### **Actions**

- Actively encourage academics to only apply for the highest quality funding opportunities available to the discipline. Whilst it is recognized that opportunities vary across the academic fields within Bangor

University, priority should be given to funders who offer full economic costing.

- Ensure the research application process within schools includes a robust and effective peer review and/or grant mentorship processes for all proposals.
- Specific mentorship schemes should be developed and implemented for all early career researchers.
- Build internal networks to share experiences and intelligence of funders, including peer reviewer and successfully funded project databases.
- Consider implementing more effective incentives and rewards for high achievement and excellence that are relevant to the field, and consistent with promotions criteria.
- Create a central pump-priming fund to be used for supporting early ideas projects.

Through implementing these actions effectively, we should see an increase in the success rates of applications, and a corresponding increase in grant income across the university.

### **Diversify Research Income**

We will diversify our research income streams. In particular we must increase applications and success in obtaining EU funding, particularly Horizon 2020, which is likely to be the only major funding route that will see growth in the coming years.

Strategically Bangor University needs to take a long term view on the application for, and use of, structural funds. Applications for structural funds will only be supported based on their potential to support future Horizon 2020 applications.

To respond to these challenges the Research and Enterprise Office have formed a new central support team. This team includes support staff with expertise in obtaining Interreg, Structural and FP7 monies, and will ensure:

- Improvement in the visibility of EU funding opportunities.
- Improvement in support for academics building links in Europe.
- Improved support for bid writing.
- Greater support for managing projects post award.
- Develop links with external business to developing new funding opportunities.

### **Actions**

- Actively encourage academics to engage with EU funding potential – particularly Horizon 2020.

- Review Horizon 2020 draft programmes and prioritise areas for potential applications.
- Work with the Research and Enterprise Office's European Funding Support team to develop strong and competitive proposal from the development of ideas to submission.

### **Setting the research agenda**

Bangor academics need to engage more with the key decision and policy makers and take every opportunity to influence the agenda and funding decisions. Academics should proactively engage and not turn down opportunities to be involved. Our management and reward processes need to recognise the contribution of these sort of activities. We will also develop processes to ensure that such engagement contributes to Bangor University's institutional intelligence to inform future bids and investments.

### **Actions**

- Encourage academics to engage in policy making and funding/commissioning body activity as a legitimate part of their role.
- The knowledge gained through this type of engagement should not remain with the individual. Therefore schools/colleges and the research support service need to build a database of current engagement in policy making and funding/commissioning board activity, and develop a process for sharing intelligence.

## **3) Investment in the academic workforce**

### **i) Performance, reward and development**

The greatest gains to research productivity can be made by investing in and developing the staff we already employ. There is a need to invest in developing leadership and management skills to create mechanisms, structures and a culture in which performance is appropriately managed. We need to develop systems and processes to create an environment in which all aspects of an academic's role are valued. In this way we can develop staff that are research specialists or education specialists or all-rounders; with the caveat that no academic staff should be exempt from education commitments.

With the right balance we can deliver excellence in research *and* innovative and attractive degree programmes.

### **Actions**

- Locally implement the Concordat principles as a career development planning pathway for all research staff and ensure academics engage with researcher development opportunities locally, and nationally.

- Schools and colleges should engage in schemes such as Athena Swan, ensuring that principles of good practice in relation to diversity and equality are applied consistently. It is likely that engagement in these schemes will eventually impact on research funding opportunities and therefore it is vital we engage fully in them.
- Schools and colleges need to find appropriate approaches for more successfully managing under-performance, and to manage staff so that they can achieve excellence.
- Schools and/or colleges should develop a mentoring scheme that could be implemented for all levels of staff, but that particularly focuses on the development and support of early career researchers. This should include potential involvement of appropriate mentors from outside of an academic's usual discipline.
- Colleges and schools should ensure that study leave is used in more effective and efficient ways to support the development of higher quality research outputs – including awarding leave to academics that are demonstrating excellence, and, monitoring/evaluating the impact of this leave to individual's outputs.
- Those that demonstrate leadership potential should be identified and supported, including through promotion and through attendance on leadership development programmes.
- To ensure sustainability and the development of research careers all new appointments need to reflect the national and international research agendas, including the funding environment.

## **ii) Investment in early career researchers**

We need to invest in the future through excellent, early career researchers. A fund will be established to invest in and attract high quality early career researchers to Bangor University. This should include the establishment of fully funded 5-year fellowships with the option of permanency if they meet the expected levels of performance. The investment in these appointments will be in areas of strategic importance to meet the goal of establishing world leading research areas within Bangor University.

- Establish a Bangor University Research Fellowship Fund.\*
- Investment will be made in areas of strength and in Schools and/or colleges where there are appropriate support and development mechanisms in place (as suggested throughout this strategy document).

- Encourage early career researchers to engage with initiatives such as the Welsh Crucible, and ensure that learning from being involved in these programmes is shared.
- Create a 'Rising Stars' award to recognize the outstanding achievements of early career researchers.
- **\*Note added after final draft agreed**
  - it is likely that Welsh Government will create a rising stars fund called "Spearhead". If this programme goes ahead we will need to be able to provide match finding to be eligible for support from this scheme.

#### **4) Impact\***

All research has the potential for impact within and beyond academia. Society, the government and funding bodies have been placing an increasing emphasis on how research can have a greater impact beyond academia. At Bangor University impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life beyond academia.

Our continued research funding rests heavily on its ability to demonstrate impact, and in addressing grand societal challenges. At Bangor University we aim to combine knowledge creation of international excellence with innovation to ensure all areas of our research make economic, social and cultural advancements.

Our strategy for impact needs to include actions on working in partnership, communicating with the community, and making knowledge created in the university available to all.

#### **Actions**

- Develop a university-wide strategy that individual academics can engage with, including:
  - identifying existing good practice for capturing impact within the university and in other institutions,
  - developing and implementing processes/approaches to track and capture evidence of impact,
  - developing and implementing a system for collating/storing information from across the university,
  - developing a strategic approach/plan for engagement with the end users of our research throughout the life cycle of research – from idea formulation to communicating findings,

- launch an annual Bangor University Impact Award that recognizes the achievements of individuals and teams in translating research into impact.
- Develop policies and procedures for open access to research data and for open access publishing, which can be implemented within schools and colleges.
- Reinstate inaugural lectures for professorial level appointments and promotions, and collate and make accessible lectures/seminars in other parts of the university accessible to all.
- **\* A separate Impact Strategy is to follow.**

## 5) Doctoral Schools

Bangor University supports several innovative and successful PGR training activities and we have been successful in increasing PGR numbers in recent years via self-investment, KESS and the RCUK DTCs. However, we need a more coherent approach to PGR training and supervision. To realise our potential as a world-leading provider of PGR training we have established a cross-university Doctoral School to share and promote best practice and actively and coherently manage student supervision, training and progression.

The Bangor University Doctoral School has created a cross-university structure to:

- Promote PGR training and development.
- Enhance the stature and recognition of PGR activity within and outside of the University.
- Enhance the quality of PGR induction, education and training.
- Improve PGR student retention and completion rates.
- Ensure pastoral support systems are in place and implemented.
- Improve admissions, marketing, and recruitment of postgraduates.
- Promote sharing of good practice in supervision.
- Enhance supervisor practice.
- Ensure compliance with the Research Council Concordat.
- Develop common PG modules and interdisciplinary training.
- Promote an active learning community (conferences, seminars, colloquia).
- Develop and strengthen synergies between research areas and schools.

### Action

- Colleges to set up their own Doctoral Schools to align local policy and procedures with the University Doctoral.
- Schools to engage actively with the College Doctoral Schools in sharing good practice and procedures.

## **6) Develop Cross-Disciplinary Research**

As part of the development of the research capability and visibility of Bangor University we will develop a small number of research themes that reflect our strengths, and also map onto Welsh Government (Science for Wales), RCUK, EU and other national funding agency's priorities. These will become flagship themes that express to the world our expertise and excellence.

These themes will build on acknowledged strengths in Health, Environment (including energy) and Culture and integrating our intrinsic focus on sustainability. These three themes will be developed as programmes of inter-disciplinary research, linking together extant projects, and providing a platform for growth in new activity and projects. Each of themes will be established around an interdisciplinary research forum with named leads to coordinate and organise theme workshops and events to promote research activity and exchange.

### **Actions**

- Schools and colleges should encourage their academics to engage in university led workshops/events around potential ideas and projects.
  - Promising inter-disciplinary projects will be pump primed, and their development prioritized centrally.
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## Outcomes

Successful implementation of the strategy should be measured by the following outcomes

- A REF outcome that improves the University's standing in UK research to that of a top 40 institution in the UK, and a top institution in Wales.
- Increasing number of academic staff included in REF submissions.
- Greater number of 3 and 4\* quality research outputs
- Increased success rates on funding applications.
- Increased research income.
- Increased income from EU.
- Increased funded collaborations with other HEIs.
- Increased quality research outputs with collaborators.
- Increased funding with and from business sources.
- Development of joint resources and facilities.
- Increased research income based on collaborative approaches.
- Maintain high level of PGR numbers.
- Consolidated PGR training.
- Improved quality of PGR students at entry and completion.
- More cross-school PGR students.
- Involvement in DTC and networks.
- Development of strong Bangor research brands that are recognised internationally, supported by large sustainable income streams and result in increased engagement with the business and third sector community.