STRATEGY FOR RESEARCH & INNOVATION
2013-2014
Strategy for Research and Innovation 2013-14

Context

Since its establishment in 1845, NUI Galway has developed a distinguished reputation for teaching and research. With over 160 years experience of academic excellence, the University is one of Ireland’s foremost educational institutions. Starting from a small base of 68 students in the 1840s, NUI Galway is now home to almost 17,000 students from over 110 countries around the world. In recent years, the University has greatly expanded its range of programmes and enhanced the quality and scale of its teaching and research activities. These developments have been accompanied by a corresponding growth in support services, while the University’s campus has been dramatically transformed through a €400m Capital Development Plan, which has seen the addition of a range of new buildings to support increased activity.

Competitive funding secured for NUI Galway research has grown substantially over the last 12 years. Annual direct research income has increased from less than €10 million in 2000, to €52m in 2009. Despite the economic downturn, NUI Galway secured over €59m in research income in 2011-12. Research income currently represents over 25% of total University income.

Vision:

*NUI Galway as an excellent, globally collaborative, creative, interdisciplinary and entrepreneurial research and training institution that is relevant to economic and societal needs*

Strategy

The overarching objective of our Strategy for Research and Innovation is that NUI Galway be firmly embedded within the top rank of research universities internationally, in selected prioritised areas, benchmarked against the leading international research universities. To meet this objective, the University has identified and prioritised a set of cross-disciplinary research themes, building on our research achievements to date, and is focusing its resources and efforts on these themes through targeted recruitment and resource allocation, and the establishment of a number of specialised research institutes and centres.
Our approach to research is guided by the following principles:

- **The process of prioritisation** in building on the academic strengths of the University, and its strategic corollary in informing all resource allocation decisions.
- **Responsiveness** to the complex nexus of regional, national and international interactions, which include our regional location in one of the largest clusters of the biomedical technologies industry sector in Europe, allied to the national demands to support the achievement of the knowledge and innovation economy and society.
- **Partnership and collaboration** with regional, national and international research organisations (public and private), which enable the achievement of greater effectiveness, complementarities and economies of scale in knowledge dissemination, graduate training and international benchmarking.
- **Organisational restructuring** at the University level to facilitate new interdisciplinary modes of interaction, and the creation of new modalities of delivery in both research and graduate education.
- **Recognition** of the commitment and contribution of our academic research leaders, and the key role and contribution of all research staff, in the implementation of our research and innovation strategy.
- A commitment to **knowledge transfer and innovation**, which is underpinned by an intensification of knowledge dissemination and a particular focus on technology transfer and commercialisation to support the development of the knowledge and innovation economy.

The five thematic research priorities of the University currently are:

i. Biomedical Science and Engineering  
ii. Informatics, Physical and Computational Sciences  
iii. Environment, Marine and Energy  
iv. Applied Social Sciences and Public Policy  
v. Humanities in Context

These thematic research priorities transcend School and College boundaries and are integrated within the overall framework of University strategic foci. NUI Galway places significant emphasis on inter-disciplinary research programmes, and the development and expansion of collaboration and research alliances with economic, social and cultural partners, in areas of regional and national strategic importance. This strategy has resulted in the creation of research clusters in themes that are academically challenging, economically viable, and regionally and nationally relevant.
Goals and Targets - Research

1. NUI Galway will be recognised internationally for its leadership position in its priority research areas. This recognition will stem from the quality of its research outputs as measured by publications in high quality journals; citations; books and monographs; invited presentations and papers at prestigious international conferences; national and international policy papers; and awards. To achieve this leadership position we need to continue the impressive growth trend of recent years in these various measures. A significantly increased number of research outputs will be achieved during the period of this plan, with an average increase of 12% per annum in the number of published books, monographs and peer-reviewed journal articles. Enhanced quality will be evidenced by increased citations and publications in top ranking journals with an increase of 20% per annum in total citations of research publications from NUI Galway staff. Research outputs will be showcased in the institutional repository.

2. In line with the national commitment to Fourth-Level Ireland, NUI Galway will continue to increase its PhD and research masters output. We aim to reach a steady state of c. 200 doctoral graduates per year. To achieve this target, the Research Office will work with the Heads of Schools, the Deans of the Colleges, the Dean of Graduate Studies and the Registrar to continue growth in successful research applications to the various funding agencies. All academic staff will be encouraged to seek research funding from the appropriate funding bodies and will be supported in their efforts, given that the funding obtained from these bodies is the major source of funding for research students.

3. Traditionally PhD students have been clustered in particular disciplines and units, and responsibility for student supervision has been assumed by a subset of academic staff. We will encourage, and, in so far as possible, provide opportunities for all academic units to support research students, especially PhD students. All academic staff must have the opportunity to engage in active research and the formation of PhD students. By 2014, 90% of our full-time academic staff will be participating in structured PhD education programmes, through PhD student supervision and/or contributing to advanced discipline-specific PhD education modules in every three-year period, and will be making applications for external competitive funding awards. The implementation of the IUQB good practice guidelines in respect of PhD programmes provides a solid platform on which to build an excellent PhD student experience.

4. We will create the necessary physical infrastructure to support our priority research themes. Our research ambitions in some areas have been compromised by the lack of availability of space for research staff and students. We will develop research space, funded by private philanthropy and the State’s PRTLI programme, to overcome this problem.
Specifically we will develop new facilities for Science, Engineering and Technology and for the Humanities and Social Sciences

5. We will continue to develop proactive, customer-focused research support services. The University’s research effort is critically dependent on support services in areas such as Human Resources, Research Accounts, Technology Transfer, Research Office etc. While considerable progress has been made in recent years, we will continue to integrate and refine these services in line with the needs of researchers and the various funding agencies.

6. Much of our success in recent years has been based on our ability to link with, contribute to, and learn from partner bodies. Recognising the need for critical mass and the value of synergy, we will continue to develop and expand our collaborative research networks. We are referring specifically to partnerships with research bodies, other third-level institutions including appropriate international collaborations, and relevant public and private bodies.

7. Where appropriate, we will facilitate joint academic appointments with partner institutions in priority research themes. We recognise that in order to achieve critical mass and synergies it is sometimes appropriate to provide for joint academic appointments. This approach has been particularly valuable in the medical sciences and engineering, but it can and will be used in other areas as well.

8. We will continue to disseminate our research findings to the wider community through publication in high-quality peer reviewed journals, conferences, books and monographs.

9. Through our Technology Transfer Office, we will continue to build on our success in protecting and, where feasible, exploiting the intellectual property emerging from our research efforts, through patents, licence deals and start-up companies, where appropriate. We will expand our patent filings and licence agreements by four-fold and five-fold respectively by 2014, with spin-out or start-up companies averaging five per annum over the period of the Strategic Plan. 2009-2014