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Ireland's Programme
for Research in Third Level
Institutions

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to any school. They are not blueprints for how schools should be designed. Designers may wish to develop their own schemes using the best of the exemplar concepts. The Emerging Themes section of the book aims to highlight the best ideas and to identify further work that may be required.

Schools for the Future: Exemplar Designs, Concepts and Ideas can be downloaded from www.teachernet.gov.uk/docbank/index.cfm?id=6113.

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IRELAND'S PROGRAMME FOR RESEARCH IN THIRD LEVEL INSTITUTIONS

The largest-ever evaluation of an Irish research programme has concluded that the PRTLTI is “the beginning of a major and most beneficial transformation of the research landscape of Ireland that will help to install an innovation-driven economy”. The PRTLTI, the Programme for Research in Third Level Institutions, is managed by the country’s Higher Education Authority. The comment above was made by Enric Banda of Spain who, along with experts from Finland, the United Kingdom and the United States, chaired the impact assessment of the PRTLTI in 2004.¹

According to the PRTLTI impact assessment report, the Programme “breaks new ground in research funding schemes; especially in its focus on strengthening the linkages between teaching and research, its emphasis on institutional prioritisation of research investments, and its support for institutions working together to create more competitive critical mass of research effort.”

The Programme for Research in Third Level Institutions is funded under Ireland’s National Development Plan 2000-2006, with assistance from the European Regional

Development Fund and with private funding through a public/private financial framework. Within the National Development Plan, the PRTLTI was charged with the task of building world-class infrastructure across all disciplines.

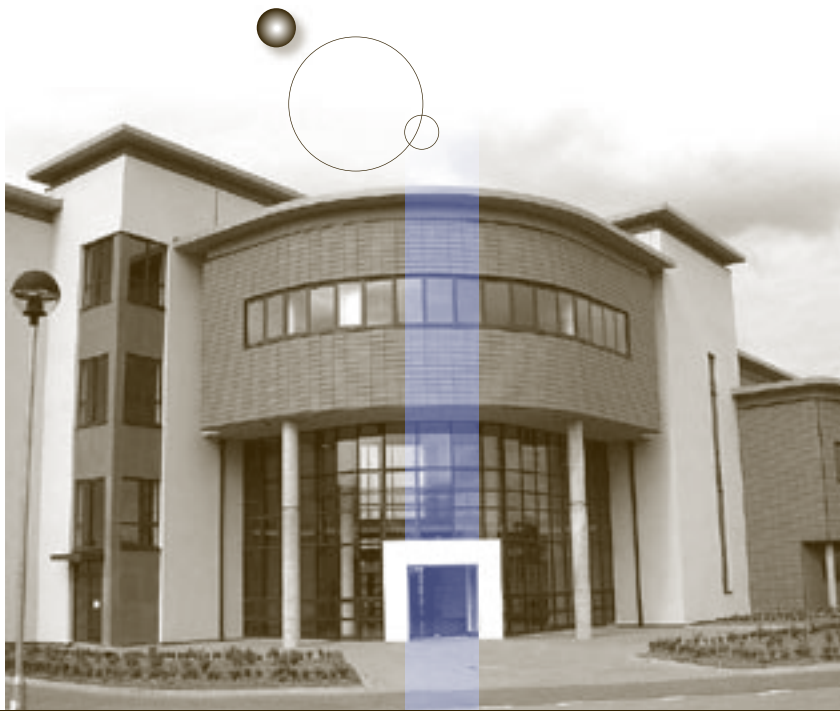
Objectives

The PRTLTI approach is characterised by the following essential elements:

- Supporting institutional research strategies.
- Establishing centres of research excellence.
- Laying the foundations for advanced research in eligible institutions through “baseline” rather than incremental funding.
- Promoting and embedding inter-institutional collaborative research in order to counterbalance limitations of scale in the Irish system.
- Encouraging efficient and effective management of research in the institutions.
- Assisting the development of institutional missions and strategies for research.
- Strengthening the synergies between research and education.
- Providing multi-annual funding for both capital expenditures (buildings and equipment) and recurrent programme costs (people, materials, etc.).



1. Higher Education Authority (2004), “PRTLTI Impact Assessment – Vol. I: Report by the International Assessment Committee”, Dublin.



Biosciences Building housing the Institute of Immunology, National University of Ireland, Maynooth (NUIM)

The Programme was motivated primarily by the following considerations:

- The need for prioritisation, based on institutional strengths, in the face of constrained resources.
- The need to build collaborative inter-institutional programmes to overcome problems of scale and rapidly rising research costs.
- The need to develop a number of centres of critical mass.
- The importance of encouraging trans-disciplinary and interdisciplinary basic research.
- The importance of assisting research strategies in smaller institutions through alliances with larger institutions.
- The benefit of integrated funding packages providing support for infrastructure and recurrent costs.

Achievements

The PRTLII began on a pilot basis in 1998 and the first full cycle was launched 1999.

To date EUR 605 million (EUR 403 million for capital spend, plus EUR 202 million for recurrent spend) has been allocated to 23 of 35 eligible higher education institutions. An international assessment panel adjudicates on the applications.

A total of 62 research programmes, covering science and engineering, social sciences, humanities, and library services have been supported (see Table 1). In addition, the following have been provided:

- 97 000 m² of new research space, including almost 20 000 m² of library space; 5 800 new research spaces and 1 600 new library spaces for researchers.
- New capital equipment for advanced research to the value of EUR 135 million, as well as EUR 260 million for new research buildings.
- 34 senior researchers and professors, 750 principal investigators, 450 postdoctoral appointments, almost 1 000 additional postgraduate posts for research and 70 research assistant posts.
- Facilities for 1 200 postgraduate students, funded from other sources and currently based in PRTLII centres.
- 60 patent applications.
- 22 new courses demonstrating the crucial link between teaching and research.

Table 1. Thematic areas funded	
Thematic area	Thousand EUR
Biosciences/biomedicine	295
Environment and marine	62
Chemical and physical sciences	88
Information and communications technology	59
Social science	30
Humanities	16
Libraries	55
Total	605

Continued investment in research has been identified by the recent OECD Review of Higher Education in Ireland as critical for future progress, for both economic and wider societal development. The report to the Irish government by the Enterprise Strategy Group endorsed this direction and supported the Higher Education Authority's objective that Ireland should position itself within the top three performing countries in the OECD in higher education and research. It is recognised that these are ambitious targets but with the appropriate level of public and private investment, they are attainable.

Experience in the United States and other knowledge-based economies shows that government support for the unpredictable and commercially high-risk areas of basic research and technology transfer, as well as for the education and training of researchers, is necessary in order to provide the platform for increased private investment.

PRTLII centres are attracting substantial national and international attention, and over 2 200 personnel, many

of whom are Irish people returning from abroad, are now engaged in groundbreaking research across a wide range of disciplines.

The development of a world-class research infrastructure has gathered pace under PRTLII. A significant impact of this improvement is the increasing ability of institutions to win research grants and contracts from other agencies both within and outside the country.

Allied to the much improved physical research infrastructure of many higher education institutions, these state-of-the-art resources have given a huge boost to the morale of staff and students.

Collaboration

The investment made under PRTLII has nurtured a number of inter-institutional collaborations most notably in the Dublin Molecular Medicine Centre between the University College Dublin (UCD), Trinity College Dublin (TCD) and the Royal College of Surgeons in Ireland (RCSI), and has helped develop critical mass in a number of areas.

Table 2. PRTLII-funded new facilities

2001	2002	2003/2004	Under construction/ in progress
<ul style="list-style-type: none"> • Institute for the Study of Social Change (UCD) • Biotechnology and Environmental Science (Institute of Technology, Carlow) • Institute of Biopharmaceutical Sciences (RCSI) • Institute for Advanced Materials Science (TCD) 	<ul style="list-style-type: none"> • Centre for the Study of Human Settlement and Historical Change (NUIG) • Nanofabrication Facility (UCC) • BioSciences Institute (UCC) • Materials and Surface Science Institute (University of Limerick) • National Centre for Plasma Science and Technology (DCU) • Research Institute in Networks and Communications Engineering (DCU) • National Centre for Sensor Research (DCU) • Urban Institute Ireland (UCD) • Institute of Immunology (NUIM) • Ussher Library (TCD) 	<ul style="list-style-type: none"> • Conway Institute of Biomolecular and Biomedical Research (UCD) • Dublin Molecular Medicine Centre (UCD/TCD) • Environmental Change Institute (NUIG) • National Centre for Biomedical Engineering Science (NUIG) • National Institute for Regional and Spatial Analysis (NUIM) 	<ul style="list-style-type: none"> • Facility for Optical Characterisation and Spectroscopic (Dublin Institute of Technology) • Institute for Information Technology and Advanced Computation (TCD) • Environmental Research Institute (UCC) • Centre for Biopolymer and Biomolecular Research (Athlone Institute of Technology) • Institute of Neuroscience (TCD)



Conway Institute, University College Dublin (UCD)

Ussher Library,
Trinity College
Dublin
(TCD)



Institute for the Study of Social Change, University College Dublin (UCD)



As a result of the PRTL, the foundations of a world-class infrastructure have been established and Ireland is now seen internationally as a country that is climbing the research ladder at a rapid pace. The benefits are not just the tangible examples of new state-of-the-art laboratories, teaching spaces and libraries. In the opinion of the assessors, "there is clear evidence that PRTL has changed institutional thinking and has brought about an extraordinary transformation in the way third level institutions undertake research."

The report recommends that the government continues to support a flexible and diverse funding system for research in third level institutions in Ireland, a system that offers multiple research opportunities and much potential.

The chairman of the Higher Education Authority, Don Thornhill, said: "From the outset, the PRTL has been subjected to the most rigorous international benchmarking. The progress to date is a tribute to all those who have made it possible. It is imperative that we continue to build on the successes."

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