



UCC

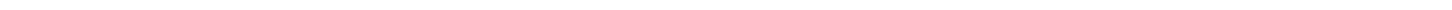
Coláiste na hOllscoile Corcaigh, Éire
University College Cork, Ireland

UNIVERSITY COLLEGE CORK
COLÁISTE NA hOLLSCOILE CORCAIGH

QUALITY PROMOTION COMMITTEE

Research Quality Review
2009





Membership

- Mr. Diarmuid Collins, Bursar
- Dr. Maeve Conrick, College of Arts, Celtic Studies & Social Sciences
- Professor Paul Giller, Registrar & Vice-President for Academic Affairs
- Mr Eoin Hayes, President, Students' Union (2009/10)
- Mr. Cal Diolúin, President, Students' Union (2008/09)
- Mr. Martin Hayes, Director, Computer Centre (retired December 2009)
- Cllr Tom Higgins, Governor (from January 2009)
- Professor Ken Higgs, College of Science, Engineering & Food Science
- Dr. Anne Mills, Admissions Officer
- Mr. Paul Moriarty, Head, Student Counselling & Development Service
- Dr. Michael B. Murphy, President (Chair)
- Mr. John O'Callaghan, Governor
- Dr. Seamus O'Reilly, College of Business & Law
- Dr. Norma Ryan, Director of Quality Promotion (Secretary)
- Professor Helen Whelton, College of Medicine & Health

Table of Contents

UCC Research Quality Review	7
Panel A	16
a. Alimentary Pharmabiotic Centre	18
i. Psychiatry	20
b. School of Medicine	21
i. Medical Education Unit	21
ii. Department of Medicine (inc. Radiology)	22
iii. Department of Surgery (inc. Anaesthesia)	24
iv. Department of Paediatrics & Child Health	25
v. Department of Obstetrics & Gynaecology	27
vi. Department of Pathology (inc. Medical Microbiology)	29
Panel B	32
a. Department of Epidemiology & Public Health	34
b. Department of General Practice	36
c. Oral Health Services Research Centre	38
Panel C	40
a. School of Clinical Therapies	43
b. School of Dentistry	46
c. School of Nursing & Midwifery	53
d. School of Pharmacy	57
Panel D	63
a. Analytical & Biological Chemistry Research Facility	65
b. Department of Anatomy	67
c. Department of Biochemistry	70
d. Department of Food & Nutritional Sciences	72
e. Department of Microbiology, incorporating the BIOMERIT Research Centre	74
f. Department of Pharmacology & Therapeutics	77
g. Department of Physiology	80
Panel E	83
a. Department of Chemistry	86
b. Department of Geology	89
c. Department of Physics	91
d. Department of Zoology, Ecology & Plant Science (ZEPS)	94
e. Environmental Research Institute	98
f. Tyndall National Institute	102

Table of Contents

Panel F	108
a. Boole Centre for Research in Informatics	111
b. Department of Computer Science	113
c. School of Mathematical Sciences	116
<i>(incorporating Mathematics, Applied Mathematics and Statistics)</i>	
Panel G	119
a. Department of Chemical & Process Engineering	122
b. Tyndall National Institute	126
c. Department of Microelectronic Engineering	128
d. Department of Electrical & Electronic Engineering	129
e. Department of Civil & Environmental Engineering	131
Panel H	135
a. Department of Archaeology	137
b. Department of Geography	141
c. Cork Centre for Architectural Education	144
Panel I	147
a. Centre for Policy Studies	150
b. Department of Accounting, Finance & Information Systems	152
c. Department of Economics	157
d. Department of Food Business & Development	161
e. Department of Management & Marketing	165
Panel J	168
a. Department of Applied Social Studies	171
b. Department of Government	175
c. Department of Law	178
d. Department of Sociology	182
Panel K	185
a. Department of Applied Psychology	187
b. Department of Education (Including Sports Studies)	191
c. Early Childhood Studies	197
Panel L	201
Department of Early & Medieval Irish	204
Department of English	211
Department of Modern Irish	216



Panel M	226
Department of French	230
Department of German	233
Department of Hispanic Studies	236
Department of Italian	239
Irish Institute of Chinese Studies	243
Panel N	245
Department of History	252
Discipline of History of Art	254
Department of Classics	257
Department of Philosophy	259
Roinn an Bhéaloidis – Folklore & Ethnology	262
Study of Religions	265
Panel O	267
Department of Music	270
Drama & Theatre Studies	275



Introduction

As part of the University's Quality Assurance/Quality Improvement process, the University Management Team proposed, and the Quality Promotion Committee and Governing Body of UCC approved, the conduct of an institutional Research Quality Review during 2008/09.

Appropriate metrics under which the review was conducted emerged following significant engagement and consultation across the institution, overseen by the Academic Council Research Committee. A Research Review Implementation Group was established which, informed by an examination of research assessment processes in other jurisdictions, developed the detailed review process adopted by UCC.

This document outlines the objectives of the review, a brief overview, the key criteria used for assessment and the general outcomes.

Objectives of the Research Quality Review

To provide an objective assessment of the quality and level of research activity at UCC at Department/School/Research Institute level, benchmarked on a disciplinary basis

To allow for assessment of areas of specialisation within the academic units

To provide an overview of the status of research on a broad disciplinary-based level across the University, facilitating an assessment of strengths and weaknesses, and to generate recommendations for future development

To inform strategic planning in UCC

Brief Overview of the Process

The Academic Council, on 7th March 2008, endorsed the proposal from the University Management Team to conduct a quality review of all research activity in UCC, following extensive consultation and discussion with the academic community led by the AC Research Committee. The structure of the review,

detailed guidelines and templates were developed by the Research Review Implementation Group and approved by the Quality Promotion Committee and the Governing Body.

Each academic unit was assigned to a disciplinary panel, following consultation and on the recommendation of the Research Review Implementation Group (see Appendix A for details). A template for the submissions to the review panels was developed and agreed. The information requested from each unit included:

- Publications portfolio for last 5 years for all academic and research staff of the academic unit
- Research grants and awards over the last 5 years
- Unit research portfolio (to include short summaries of staff research, research strategy and research environment of the unit)
- Description of how research is organised within the unit (e.g. research groups, clusters, etc.)
- Postgraduate research activity (numbers graduated over last 5 years and currently registered)
- Scholarly activity of staff over last 5 years
- Detailed complete research and scholarly CV covering full career (as per template or in equivalent format) for all academic and research staff.

The review was based on the establishment of fifteen international Peer Review Panels, involving some 115 external experts drawn from top-ranking universities and institutes from Europe, Asia and USA, and chaired by senior academics with significant research review experience. A pilot review was conducted in October 2008 of two of the panels (one humanities and one science). Following the successful completion of the pilot, the University proceeded with the review of the research of all the remaining academic units in UCC, including research institutes and centres. Given that the motivation of the review was to have a deep and long-term evaluation of research performance across all disciplines in the University, this required visits by panels to UCC to view facilities and meet with staff, students and officers of the University. The constraints on the appointment of expert

reviewers to panels required that panels would evaluate more than one specialism and thus not all specialisms within a discipline would have been evaluated by an expert in that specialism

Submissions were prepared by the academic units, including research outputs from all academic staff and researchers of the units, and made available to review panels on-line on a secure web site, along with the guidelines and the criteria for assessment. During the three-and-a-half day site visit the review panels received presentation from academic units on research activity; held meetings with staff and graduate students; held meetings with relevant Officers of the University including the President; conducted visits to the facilities of the relevant academic units; reviewed research outputs; and commenced drafting the review report according to guidelines provided by UCC and using the criteria for assessment determined by Academic Council.

Criteria for assessment:

Research performance was evaluated, with a separate assessment for each department/school/research centre, under the following criteria:

- (i) Published output
- (ii) Research related activities
- (iii) Funding
- (iv) Peer esteem

An overall assessment was given to each department/school/research centre. Individual staff assessment did not form part of the review process. Comments were also made on postgraduate training and the quality of the research environment.

The University Research Review Implementation Group developed a scoring system with descriptors for the above criteria to assist the reviewers in making judgements. Details may be found in Appendix B. The overall score is not simply a summary of information contained in detailed scores, but is also informed by the judgment by the panels of overall quality in the research efforts of the units. Conversely, detailed scores,

such as the quality profile of published output, contain important information not present in the overall score.

General Outcomes

1. Research Review Reports

The Review Report from each Review Panel was completed for each academic unit. Units were asked to respond to the findings and recommendations and to develop a quality improvement plan, along with an amended research strategic plan for the unit. The College(s) in which the unit is located was also required to develop a revised research strategic plan informed by the individual reports and quality improvement plans of the relevant units. In addition recommendations from the Panels to the University are being examined and acted on. Following the successful completion of this exercise UCC will revise its research strategic plan.

2. Overall assessment

Overall the review has been very successful, with many recommendations for improvement made to both the University and to the individual academic units. Following completion of the review and consideration of the panels' scoring across all criteria, the Academic Council Research Committee concluded that:

- The review has provided a deep and broad independent overview of the state of research throughout the university, which will be invaluable in future strategic planning.
- In addition, the very significant body of data gathered in the process will be of considerable assistance in developing improved research information systems at UCC.
- The range of different aspects of research scored gives robustness to the evaluations provided in the review. Analysis of available scores gives no indication that panels differed in their rating tendencies and use of rating scales.
- The numerical scores and the detailed commentaries and advice of the panels will provide an extremely

valuable resource in strategic planning of research at all levels in the university (from school to University Strategic Planning) and in the allocation of resources, including capital investment, appointment of new staff and annual resourcing of units.

3. Overview

Much of the research being conducted was judged by the Panels to be of international standards and standing. One of the very encouraging aspects of the review has been the independent evaluation and validation that many parts of the University are performing at the highest level, a significant number of units at a very good level, but some improvement is required in other areas. Among the strong positive messages is the outstanding conclusion that approximately 10% of the UCC research output reviewed was rated as “world-leading” by our international peers, with almost 40% of the research output being judged to be “excellent” or better.

The life-time research records of all UCC academic and research staff was assessed, with a particular focus on research activity in the five years before the review took place. Because of this approach the Research Quality Review provides, perhaps uniquely, a comprehensive, non-selective, profile of the quality of research effort and achievement across the institution. Three quality levels are focussed upon particularly in the overview below:

Outstanding: Quality that is of world-leading standard; the research work or activity will be outstanding, displaying a very high level of originality, significance to the discipline and rigour; it will be innovative and potentially agenda-setting in research and/or policy fields.

Excellent: Quality that is of excellent standard in terms of originality, significance and rigour; the research work or activity has had or is likely to have a significant impact on research and/or policy agendas.

Good: Quality that demonstrates significance to the discipline and rigour to a very good standard; the

research work has had or is likely to have a significant impact on research and/or policy agendas.

Research at UCC is carried out in dedicated Research Institutes (i.e. Alimentary Pharmabiotic Centre, Analytical & Biological Chemistry Research Facility, Boole Centre for Research in Informatics, Environmental Research Institute and National Tyndall Research Institute) and Academic Units which, in addition to fulfilling their research role, are heavily involved in undergraduate and postgraduate teaching. Because many individual academics engage in research in both Research Institutes and Academic Units, the quality of UCC’s research activity is best understood by considering Research Institutes and Academic Units separately. Where there was clear overlap between the academic disciplines in Research Institutes and Academic Units, the same visiting Panels assessed research activity in both.

Research Institutes: Four Panels assessed the research achievements of some 300 academic staff and research staff and over 3,400 journal papers, books, conference presentations, patents etc., arising from their research activity over the previous five years. Some 18% of this **Research Output** was considered to be *outstanding*, with a further 36% regarded as being of excellent standard in terms of originality, significance and rigour. A further 22% of UCC’s Academic Unit Research Output was considered to be of a *very good* standard, likely to have a significant impact on research and/or policy agendas. The **Research Esteem** of the contributing academic and research staff was also assessed by Panels. Some 43% of staff were considered to have had *outstanding* reputations, 23% were judged to have had *excellent* impact and recognition, while the impact and recognition of further 17% was considered “*good*”.

Panels also assessed the four Research Institutes in terms of success in generating **Research Funding** and **Research Related** Activities of staff, and in each case were considered outstanding or excellent.

In short, over half of the research output from UCC’s Research Institutes in the past five years was of *outstanding* or *excellent*, international quality, while

almost two-thirds of the staff had *excellent* or better research reputations. The Research Institutes were themselves considered *outstanding* or *excellent* overall.

Academic Units: The academic records of almost 1,100 academic staff and research staff, working in sixty-one different academic units, and some 13,500 journal papers, books, conference presentations, patents etc., produced over the previous five years, were considered by fifteen different Panels. Some 9% of this **Research Output** was considered *outstanding*, to be of world-leading standard, with a further 27% regarded as being of *excellent* standard in terms of originality, significance and rigour. A further 31% of UCC's Academic Unit Research Output was considered to be of a very good standard, likely to have a significant impact on research and/or policy agendas. **Research Esteem** was judged in terms of the contribution of academic and research staff to scholarship, policy and practice, as well as the contributions made to the sustainability of scholarly academic activity, and to the appropriate research and policy communities were also assessed. Some 10% were considered to have had *outstanding* impact and recognition, a further 26% were considered to have had *excel-*

lent impact and recognition. The impact and recognition of another 31% of staff was considered "good".

The visiting Panels also assessed Academic Units in terms of other indicators of research quality. Approximately half of all of UCC's sixty-one academic units were considered *outstanding* or *excellent* in terms of success in generating **Research Funding**, and **Research Related Activities** of staff. In overall terms, one academic unit was considered to be *outstanding* and half of the remaining units were considered *excellent*. About one-third of the staff were *outstanding* or *excellent* in terms of Research Esteem, in the opinion of international peers. In overall terms, in half of the groups assessed, at least some, and in some cases the majority, of the research activity considered to be of an *excellent* standard of scholarship and virtually all other research activity is of a good standard of scholarship. In almost 90% of the academic units assessed, the majority of the research activity represented a good or better standard of scholarship and virtually all other research activity is of a good or fair standard of scholarship.

UCC Units of Assessment

Discipline/Department/School/Research centre	Discipline/Department/School/Research centre
<p>Panel A</p> <p>Alimentary Pharmabiotic Centre</p> <p>School of Medicine, incorporating the following units</p> <ul style="list-style-type: none"> • Medicine (including Radiology & the Centre for Research in Vascular Biology) • Medical Education Unit • Obstetrics & Gynaecology • Paediatrics & Child Health • Pathology(including Medical Microbiology) • Psychiatry • Surgery (including Anaesthesia) 	<p>Panel E</p> <p>Chemistry</p> <p>Environmental Research Institute</p> <ul style="list-style-type: none"> • Coastal & Marine Resources Centre (CMRC) <p>Geology</p> <p>Physics</p> <p>Tyndall National Institute</p> <p>Zoology, Ecology & Plant Science</p>
<p>Panel B</p> <p>Epidemiology & Public Health</p> <p>General Practice</p> <p>Oral Health Services Research Centre</p>	<p>Panel F</p> <p>Boole Centre for Research in Informatics</p> <p>Computer Science</p> <p>School of Mathematical Sciences (incorporating <i>Mathematics, Applied Mathematics and Statistics</i>)</p>
<p>Panel C</p> <p>Clinical Therapies</p> <ul style="list-style-type: none"> • Department of Occupational Science and Occupational Therapy • Speech & Hearing Sciences <p>School of Dentistry</p> <p>Nursing & Midwifery</p> <p>Pharmacy</p>	<p>Panel G</p> <p>Process & Chemical Engineering</p> <p>Civil & Environmental Engineering</p> <p>Electrical & Electronic Engineering</p> <p>Microelectronic Engineering</p> <p>Tyndall National Institute</p>
<p>Panel D</p> <p>ABCRCF</p> <p>Anatomy</p> <p>Biochemistry</p> <p>Food & Nutritional Sciences</p> <p>Microbiology</p> <p>Pharmacology & Therapeutics</p> <p>Physiology</p>	<p>Panel H</p> <p>Archaeology</p> <p>Cork Centre for Architectural Education</p> <p>Geography</p>
	<p>Panel I</p> <p>Accounting & Finance & Business Information Systems</p> <p>Centre for Policy Studies</p> <p>Economics</p> <p>Food Business & Development</p> <p>Management & Marketing</p>

Discipline/Department/School/Research centre
<p><u>Panel J</u></p> <p>Applied Social Studies Government Law Sociology</p>
<p><u>Panel K</u></p> <p>Applied Psychology Education (including Sports Studies) Early Childhood Studies</p>
<p><u>Panel L</u></p> <p>Early and Medieval Irish English Modern Irish</p>
<p><u>Panel M</u></p> <p>Chinese Studies French German Hispanic Studies Italian</p>
<p><u>Panel N</u></p> <p>Béaloideas: Folklore & Ethnology Classics History (including European Integration Studies) Philosophy Study of Religions History of Art</p>
<p><u>Panel O</u></p> <p>Drama & Theatre Studies Music</p>

Quality Assessment Levels and Definitions

Introduction

Panels are asked to provide a quality assessment profile which will cover each of the four assessment criteria

- (i) Published output
- (ii) Research related activities
- (iii) Funding
- (iv) Peer esteem

Panels are also asked to provide an overall research assessment based on the unit which will be derived from an integrated overall assessment of research activity of the unit as a whole.

Quality Profile for individual assessment criteria

Panels recognise the diverse range of disciplines represented by the units of assessment assigned to them. Set out below are the broad parameters for the assessment of the quality of research for each of the six individual assessment criteria within which individual panels may exercise a degree of variation. The quality levels refer to quality standards of scholarship that are the norm within the international academic community.

Quality Level	Definition
Level 5	quality that is of world-leading standard; the research work or activity will be outstanding, displaying a very high level of originality, significance to the discipline and rigour; it will be innovative, potentially agenda-setting in research and/or policy fields
Level 4	quality that is of excellent standard in terms of originality, significance and rigour; the research work or activity has had or is likely to have a significant impact on research and/or policy agendas

Level 3	quality that demonstrates significance to the discipline and rigour to a very good standard; the research work has had or is likely to have a significant impact on research and/or policy agendas
Level 2	quality that demonstrates significance to the discipline and rigour to an adequate standard; the research work or activity has only had or is likely to have a marginal impact upon existing paradigms and agendas within the discipline.
Level 1	quality that falls below the adequate standard of recognised work within the discipline; the research work or activity has had no impact nor is it likely to have an impact upon existing paradigms and agendas within the discipline.

The activity or standing of each member of the department/unit will be rated in terms of originality, significance and rigour for the purposes of determining the overall department/unit rating. Contribution to theory or practice, the value of the research in terms of capacity building, and its impact in economic, social or cultural terms, will form components of this rating where appropriate. Basic, applied and practice-based work will be assessed against the same criteria in terms of standards within their field. Where there is disagreement about a grading, an additional reader will be asked to arbitrate. Where appropriate, a panel may call for specialist advice or cross-referral to another panel.

‘World-leading’ quality denotes an absolute standard of quality in each unit of assessment.

‘World leading’, ‘excellent’, ‘very good’ and ‘adequate’ in this context refer to quality standards. They do not refer to the nature or geographical scope of particular

subjects, nor to the locus of research nor its place of dissemination.

Each panel is asked to rate each submission under four major headings and based on the requirements laid down by the university for the submission.

Published output

The panel is asked to indicate the percentage of research outputs produced by the unit which would be categorised according to the scale of quality levels provided in paragraph 2 above. Cognisance should be taken both of the quality and quantity of research output and all outputs will be judged according to the criteria of originality, significance and rigour.

	Quality Level				
	5	4	3	2	1
% of published output of unit					

Peer esteem

In measuring the quality of esteem indicators and defining a profile, each panel will make a judgement about the level of impact and recognition of the members of the department/academic unit on research, scholarship, policy and practice; and the contributions made to the sustainability of scholarly academic activity, and of the appropriate research and policy communities. This assessment will be based on a statement in the submission describing the esteem within which the department as a whole is held, and on a listing for all academic and research staff of all their significant indicators of esteem presented in their CVs. These criteria will lead to the definition of an agreed profile based on the following quality level descriptors. The panel is asked to indicate the percentage of staff whose overall research performance based on the submitted CVs in Appendix A of the Submission Form) is judged to be at each of the five quality levels:

Quality level	Descriptor
5	outstanding impact and recognition
4	excellent impact and recognition
3	good impact and recognition
2	recognition of an adequate contribution
1	lack of evidence of an adequate contribution or impact in terms of esteem indicators

	Quality Level				
	5	4	3	2	1
% of staff whose peer esteem rating lies in each category					

Research-related activities

The panel is asked to give a single quality level for the collective research-related activities of the unit based on the professional judgement of the peer reviewers and based on the following quality level descriptors:

Quality level	Descriptor
5	evidence of an outstanding performance in research-related activities
4	evidence of an excellent performance in research-related activities
3	evidence of a good performance in research-related activities
2	evidence of an adequate performance in research-related activities
1	lack of evidence of an adequate performance in research-related activities

Research income

The panel is asked to give a single quality level for the collective activities related to postgraduate training of the unit based on the professional judgement of the peer reviewers and based on the following quality level descriptors:

Quality level	Descriptor
5	evidence of outstanding performance in research income generation
4	evidence of excellent performance in research income generation
3	evidence of good performance in research income generation
2	evidence of an adequate performance in performance in research income generation
1	lack of evidence of an adequate performance in performance in research income generation

Overall Assessment of the unit

The panel is asked to give a single quality score for all the collective research activities of the unit based on the professional judgement of the peer reviewers.

Quality Score	Definition
Category 5:	The majority of research activity as assessed under the various criteria is of an excellent standard of scholarship and virtually all other research activity is of a good standard of scholarship.
Category 4:	Some of the research activity as assessed under the various criteria is of an excellent standard of scholarship and virtually all other research is of a good standard of scholarship.
Category 3:	The majority of research activity as assessed under the various criteria is of a good standard of scholarship and virtually all other research activity is of a fair standard of scholarship.
Category 2:	The majority of research activity as assessed under the various criteria is of a fair standard of scholarship.
Category 1:	Some of the research activity is of a fair standard of scholarship.

Quality Score	Definition
Unclassified:	None or virtually none of the research activity is of a fair standard of scholarship.

Excellent standard of scholarship: research which is recognised as world-leading, excellent, innovative, potentially agenda-setting in the research and/or policy field, displaying a high level of originality, significance and rigour and which has attracted or is likely to attract serious interest within academic communities.

Good standard of scholarship: research of undisputed relevance for academic communities, significantly advancing research and/or policy agendas and which is widely recognised in terms of its originality, significance and rigour.

Fair standard of scholarship: research of possible relevance for academic communities, contributing to existing paradigms and research and/or policy agendas and which is recognised in terms of its originality, significance and rigour.

Panels are also asked to comment on overall research activity and performance in the context of the research environment that the unit is working under.

Panel A

Alimentary Pharmabiotic Centre

- Psychiatry

School of Medicine

- Medical Education Unit
- Department of Medicine (inc. Radiology)
- Department of Surgery (inc. Anaesthesia)
- Department of Paediatrics & Child Health
- Department of Obstetrics & Gynaecology
- Department of Pathology (inc. Medical Microbiology)



Panel Members

- Professor Shaun Brennecke, Department of Obstetrics & Gynaecology, University of Melbourne, Australia
- Professor Stephen Cooper, Division of Psychiatry, Queen's University Belfast, Northern Ireland
- Professor Pierre Cornelis, Institute for Molecular Biology and Biotechnology, Vrije Universiteit Brussels, Belgium
- Professor Adrian Dixon (CHAIR), Department of Radiology, University of Cambridge, UK
- Professor Eugen Faist, Department of Surgery, Ludwig-Maximilians University, Munich, Germany
- Professor Manuel Galinanes, Department of Cardiovascular Sciences, University of Leicester, UK
- Professor David A. Levison, Division of Pathology & Neuroscience, University of Dundee, Scotland
- Dr. Jane Lucas, Division of Infection, Inflammation and Repair: Child Health Group, University of Southampton, UK

Site visit

The site visit was conducted over 3.5 days from 10 – 13 February 2009 and included visits to institute, departmental and library facilities in UCC and meetings with:

- Professor Paul Giller, Registrar & Senior Vice-President Academic
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Michael Berndt, Head, College of Medicine & Health
- Mr. Brendan Cremen, Office of Technology Transfer
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian

- Professor Alan Kelly, Dean, Graduate Studies
- Ms. Michelle Nelson, Head, Graduate Studies Office
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Professor David Kerins, Head of School and staff of School of Medicine
- Professor Fergus Shanahan, Head of Institute and staff of Alimentary Pharmabiotic Centre

An exit presentation of the principal findings of the Panel was made to the heads of the Institute and School in the afternoon of the fourth day.

Introduction: Scope and context of this review

The Panel appreciates the efforts made by the organizers who prepared for the visit and the helpful contributions from staff members making presentations. It is appreciated that such visits can be stressful for all but the Panel hope that the recommendations will prove constructive.

The Panel was mindful of the inevitable geographical and political constraints consequent on a medical school based in a city of only c180,000 and in a country with 6 medical schools for a population of c5 million. Some members of the panel come from cities with local populations well over 1 million.

The Panel members were also aware of the quality review conducted seven years earlier. Indeed one panel member had been on that review which provided some continuity. Apart from the individual Departmental submissions, the Panel was made aware of the long term 2007-2011 UCC Strategy for Research.

Mission statement:

To provide doctors of the future with a world class, student-centered education, based on current knowledge, informed by research and with an awareness of societal needs.

The Alimentary Pharmabiotic Centre (APC) is subdivided into 6 Core themes:

- **Core 1: Microbe-microbe interactions.** The group accomplishments include the discovery of thuricin, a peptide with an antibiotic activity against the gut pathogen *Clostridium difficile*. Other activities include the production of salivarin peptides as bacteriocins with probiotic activities. Other bacteriocins are screened for. The publication record is excellent with 38 publications since 2007 including some in prestigious journals such as *PloS pathogens*, *Molecular Microbiology* and *ISME journal*. Funding is impressive with a €22,000,000 grant from the National Functional Food Research Centre.
- **Core 2: Host Response.** This is a large group with 11 post-doctoral scientists. The major accomplishment is the discovery of the involvement of Treg cells in transfer of inflammatory suppression induced by bifidobacterial feeding. More than 30 publications can be recorded since 2007, including in *PloS pathogens*, *Environmental Microbiology*, *Gut*, and *Current Opinion in Gastroenterology*. There is an important grant coming from GSK.
- **Core 3: Pathogenicity.** This group is looking at the importance of horizontal gene transfer between pathogens and commensal microorganisms in the gut. They discovered the importance of the Bile salt Hydrolase gene for the survival of gut bacteria. This has led to the interesting concept of patho-biology whereby genes allowing survival of pathogens such as *Listeria* can be used to construct probiotic strains with better chances of survival. Different techniques have been developed such as IVET, and tools for *Listeria* genetics. Pathways leading to inflammation are also being investigated as well as the role of isoprenoids in immunity via gamma/delta T-cells. Publication record is excellent with 17 papers including two in *PNAS* and one in *Infection and Immunity*. Funding is good.

- **Core 4: Genomics and bioinformatics.** This group has been busy with the sequencing of genomes from different *Bifidobacter*. They have also developed microarrays to study the 2007 influence of gut conditions in vitro on gene expression in *Lactobacillus salivarius* and *Bifidobacter breve*. They also managed to generate knock out libraries. 18 publications have been produced by the group since 2003, including a recent review in *Nature Review in Microbiology*, one *PNAS*, and one *Molecular Microbiology*. Funding is impressive with more than 5 million euro.
- **Core 5: Metabolism and metagenomics.** The group investigates the effect of probiotics on bifidobacteria (infant trials). Another study concerns animal trials for the effect of linoleic acid on *Bifidobacterium breve*, the antibacterial effect of conjugated fatty acids on MRSA and *E. Coli*, and bile salt hydrolase metagenome (see Core 1). There are 22 publications since 2007. Funding is excellent (more than 5 million euro).
- **Core 6: Neurogastroenterology.** This group is interested in proinflammatory biomarkers, and the products of Tryptophan metabolism in the development and in relation to IBS. The group has a very good publication record with 40 publications including one in *Lancet*. Links with neuro-endocrine responses are being established from human and novel animal models. The group has very good funding with more than 3 million euro acquired.

APC has also developed powerful and up-to-date Technical platforms which can be useful for other Departments as well.

Postgraduate Training

They could manage to train more PhD students if funding permitted.

Funding

Outstanding. The Centre has several very large industrial grants and single large resources.

Peer Esteem

No individual CVs were returned for scoring apart from the Centre Director and thus this aspect cannot be assessed further.

Overall Research Activity and Performance

Despite asking as many people as possible, members of the panel were still unclear, at the end of the review, about the exact relationship between the Alimentary Pharmabiotic Centre and the Department of Medicine, University College Cork,. There are clearly overlapping roles and multi-disciplinary research is very much to be encouraged. Nevertheless it is thought possible that there might be some conflict of interest in the future, especially if personnel or roles change in the future. The University is advised to consider

this relationship and clearly identify the lines of responsibility.

Recommendations

It is recommended that consideration be given to:

1. Diversification of resources- not relying on single large grants
2. Training of more PhD students
3. Increased synergy with Medical School Departments

Overall Conclusion

An outstanding centre with much research of international quality.

ALIMENTARY PHARMABIOTIC CENTRE

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		75%	95%
2.	Research Related Activities	5	
3.	Funding	5	
4.	Peer Esteem	5 overall	
	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		Could not be determined in the absence of staff CVs	

Overall Assessment: Level 5

DEPARTMENT OF PSYCHIATRY

The Department of Psychiatry is very small but highly productive and has an international reputation in the field of biology of mood disorders.

Current work is focussed on:

understanding the pathophysiology of IBS and how brain-gut pathways might contribute to understanding the causes of IBS as well as the psychiatric co-morbidities; and

the potential links between GI disturbances and mood disorders, again looking in both directions. This work is in collaboration with the APC and has resulted in a very good stream of grant income as well as high quality publications. A translational programme of research has been established linking good animal models with parallel clinical studies.

There are also appropriate links with Pharmacology. This is an area where the combination of the APC's breadth of research with such psychiatric expertise is most unusual worldwide. The general theme of biological research in mood disorders is one where development could occur without significant competition elsewhere in Ireland.

There is also interest in a specialised area of psychoanalysis with some reasonable publications, but this is unlikely to be an area where significant expansion or development can occur.

Research Environment

The unit has good facilities for research and a reasonable space allocation.

The unit maintains appropriate collaborations within UCC.

Issues

It is difficult to provide overall scores as there are only two staff members who have very different areas of expertise.

Recommendations

1. The College of Medicine & Health indicates that 'Neuroscience, Mental Health and Pain' is one a number of 'Focus Areas' for research. The website for

the 'Cork Neuroscience Group' indicates around 40 basic science and clinical research staff, across three Schools, with research in this particular Focus Area. This encompasses diverse areas of work, including biological psychiatry/psychopharmacology, neurophysiology, neurological disorders, mental health services and pain. Within the Panel 'A' remit, biological psychiatry and neurophysiology were clearly successful. The Panel recommends development of a clear, focussed research strategy for Neuroscience, building on existing strengths, if the College of Medicine and Health is to develop Neuroscience research.

2. Biological psychiatry/psychopharmacology, for example, has developed over four years to around 20 externally funded research staff with active collaborations between Psychiatry, Pharmacy/Pharmacology and Anatomy and investment in further tenured academic staff in this area would seem appropriate.

3. The collaboration between Psychiatry and the APC has been mutually beneficial and should be fostered given the unique opportunity provided for understanding brain/gut interactions.

DEPARTMENT OF PSYCHIATRY

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		40%	75%
2.	Research Related Activities	3	
3.	Funding	5	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		50%	100%

Overall Assessment: Level 4

The Medical Education Unit was only recently established in 2005. Many staff are relatively junior and the majority have only arrived since 2006. A strategy for their education related research has been outlined but it is too early to properly evaluate how effectively this is being addressed. It was felt it would be inappropriate to try to allocate a score until there is a clear core of relevant publications and extramural funding. Nevertheless their activities in this area seem to be well regarded by their peers within Ireland and senior members of staff have been invited to give lectures at Institutions across Ireland. There appears to be very good potential for development of publishable work of practical utility and it seems clear that all staff are actively promoting good educational approaches in the Medical School.

One difficulty in evaluating this Unit is that a significant number of staff conduct their research in relation to other research areas/groupings, particularly Paediatrics and Medicine. The Panel has evaluated these research outputs in relation to those Units where they are, in the main, of high quality. Some staff have contributed to good quality publications in areas relating to aspects of Psychology and Ethics that do not fit neatly into existing research structures in Panel A but which have considerable relevance to the day-to-day practice of medicine.

Quality Profile

The submission provided was essentially a list of staff research profiles without any over-arching strategy for this Department which surprised the panel members. However, the presentation later in the afternoon from the Head of the School of Medicine put things into perspective and the Panel was later presented with the contents of that presentation which illustrated the main themes of research. It is noticeable that several important areas were not well represented in the School's strategy, namely Oncology, Neurosciences and Musculoskeletal - presumably by design.

The individual personal submissions are mainly of high quality with many extremely strong internationally regarded clinical scientists within this group, many of whom have only recently moved to Cork. Thus, one newish recruit has made significant impact in the research of various aspects of platelet activity (a lot of this work was done in Australia); this will no doubt provide major impetus in haematological research.

The recent arrival of an expert on the interface between cardiology/physiology/pathology and the introduction of new imaging facilities should produce interesting pre-clinical and ultimately clinical work on the interaction between blood vessels cardiac tissue and repair. There has obviously been some good work performed in nutrition regarding vitamin D and sodium interaction. There is interesting animal work on hypertension and the vascular effects of angiotensin II receptors in preparation.

The recent arrival of a Professor of Radiology should provide important support for other workers in this campus. It was pleasing to see his close interaction with many groups on site, some of which have already led to some imaging publications in international journals. In common with the need for Pathology resources, it is essential that the University and the hospital authorities work together to create adequate imaging infrastructure from what could be termed 'Service Departments'. For example the access to modern CT and MR facilities is woefully behind what is needed for modern

medical research and clinical practice (e.g. only 4 slice CT available in 2009).

Within clinical pharmacology, there is some interesting work on polypharmacy and the effects of various agents on the normal and aging on endothelium and vascular function. A senior member of the department has extensive experience in relationship of bone marrow derived vascular progenitor cells and is using this to develop genetic tools to track mobilisation. There are good links with the APC with many workers having a high international profile.

Topics under review included:

- Alimentary Pharmabiotic Centre (see previous section - assessed separately)
- Centre of Research in Vascular Biology.
- This group is looking at progenitor cells in atherosclerosis, restenosis and pulmonary vascular disease, Platelet-progenitor biology Immunophenotyping, and chemokine signalling pathways. Workers are also investigating the vessel wall, next generation stents and tissue engineered cardiovascular devices. The panel members did not see the animal facilities but they were impressed by the new laboratory space which had recently been opened in the Bio-Sciences Institute (BSI).
- The work of the Molecular Virology Diagnostic & Research Laboratory is focused on Hepatitis C, Human Immunodeficiency Virus, Hepatitis B and Human Papilloma virus.
- Everyone looks forward eagerly to the new Clinical Research Facility (CRF) - Planned €11 million investment in CRF at Cork University Hospital (CUH) funded by HRB. This will allow expansion of research space to accommodate expansion of existing programmes, to allow the initiation of new programmes and to permit recruitment of new researchers and their programmes.
- The Department is proud of its continued participation in a national network for the promotion of clinical research and the training of clinician scientists.

Issues

Despite asking as many people as possible, members of the Panel were still unclear, at the end of the review, about the exact relationship between the Alimentary Pharmabiotic Centre and the Department of Medicine at University College Cork. There are clearly overlapping roles and multi-disciplinary research is very much to be encouraged. Nevertheless it is thought possible that there might be some conflict of interest in the future, especially if personnel or roles change in the future. The University is advised to consider this relationship and clearly identify the lines of responsibility.

Recommendations

- Provide adequate support for the several outstanding new recruits.
- Ensure there is adequate clinical research space to translate basic science to bedside.
- Consolidate the corporate cohesion of Medicine across the campus (Grand Rounds, Research Away Days, etc.).
- Increase the coherence of Oncological Research across all sites

DEPARTMENT OF MEDICINE (INCLUDING RADIOLOGY)

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		70%	90%
2.	Research Related Activities	5	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 4 and above
		70%	90%

Overall Assessment: Level 4

DEPARTMENT OF SURGERY (INCLUDING ANAESTHESIA)

Quality Profile

The excellent research of this Department is in a very narrow but topical field related to post operative sepsis, septic shock, healing and aspects of inflammation, with links to molecular medicine. This is very important to all branches of surgery and other fields of medicine but some might say that much of this work could be performed in a Department of Immunology. It is amazing that such work has been possible in such poor laboratory facilities.

The Panel was disappointed that there was no presentation from the Surgical Department. Furthermore there was no real opportunity for discussion. It was noticeable that the tour of the limited research facilities was hosted by an enthusiastic MD student and a technician.

Research Environment

The laboratory infrastructure is assessed as very poor, but, despite this, the overall academic environment seems to produce enthusiastic young research workers

Overall Research Activity and Performance

The Department produces good work in this relatively narrow surgical field.

Issues

Critical Care – Little research seems to be being pursued in this area – acute care is a crucial area of modern medicine/surgery. This seems surprising in view of the interest in inflammation. Further development in this area would generate even greater scientific collaboration and output and attract grant giving bodies funding/support.

Space - There are major issues related to laboratory space for surgery.

Recommendations

1. It is recommended that consideration be given to further consolidation of links with APC.
2. To promote involvement of research supervision among a broader range of Departmental staff.

3. To facilitate more clinical research trials in main stream surgical therapeutic topics (as opposed to immunological or basic science).
4. To update their website entry!

Overall Conclusion

The University should consider whether this field of surgery is where its major research endeavours in surgery should lie. The relative lack of current funding and reduced recent publications is a cause for concern.

DEPARTMENT OF SURGERY (INCLUDING ANAESTHESIA)

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		60%	90%
2.	Research Related Activities	4	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		65%	85%

Overall Assessment: Level 4

Quality Profile

The Department of Paediatrics & Child Health is small, but has shown significant growth since the appointment of a new professor in 2005, and including the appointment of two new Senior Lecturers. The increase in academic staff has been accompanied by success in high quality publications, attraction of external funding (including international) and development of postgraduate research training.

The research activity has primarily focused within Paediatric Allergy and Neonatal Brain Research. Collaborations to investigate nutrition and probiotics in premature infants are in place. The Allergy Group has a major focus on quality of life. They are acting as leaders within an international collaboration to develop disease specific research tools for use in children and their families. The Neonatal Brain Research group have identified a clinically important area for research, and have been successful at attracting funding. They have developed interdisciplinary collaborations within the University, resulting in successful outputs. The development of an Irish Birth cohort (BASELINE study) with a neonatal biobank is potentially valuable; the researchers will need to define hypotheses to ensure data and samples are collected at appropriate time points.

New Neonatal facilities have improved the working environment of the Neonatal Neurophysiology Group. The research accommodation is otherwise inadequate. Healthy volunteer children are currently investigated in clinical areas. The group has no formalised access to laboratory space or equipment. The allergy group is currently concentrating research in areas that limit the need for laboratory or paediatric Clinical Research Facilities. Their internationally recognised expertise in allergen thresholds and characterising allergic phenotypes cannot be met unless the accommodation deficits are addressed.

The postgraduate students have been successful in publishing data from their studies in good quality specialist journals. Some have subsequently become Lecturers within the department where they are performing independently locally and internationally.

Funding

There was no external funding in the early years of the review. More recently there has been an excellent spread of research income from national and international sources.

Research Environment

The laboratory and clinical research space is totally inadequate but the overall academic environment produces good quality research.

Recommendations

1. Although the Department of Paediatrics & Child Health is small in size, it has demonstrated an ability to grow both in size and internationally-recognised academic standing. It should be encouraged to continue to lobby for increased accommodation for clinical and laboratory research, to allow continued expansion. Consideration should be given to some appropriate temporary sharing of laboratory space with Obstetrics.
2. The Department has recently generated grant income from national and international sources. It should continue to seek further funding from diverse sources. This will enable development of its PhD programme and postdoctoral science base.
3. The Department has identified major areas of strength within UCC with which the research interests of the Department can be meshed (e.g. APC and Food & Nutritional Sciences). The Department should be encouraged to develop these collaborations within UCC, for academic stimulation and to develop access to equipment for investigation of immune function, genotyping proteomics, etc.

DEPARTMENT OF PAEDIATRICS AND CHILD HEALTH

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		40%	80%
2.	Research Related Activities	4	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		60%	80%

Overall Assessment: Level 4

Quality Profile

Over the 5 year review period, members of the Department have invested much time and effort in important policy development initiatives, amalgamating three small Maternity Departments into a single large facility and developing an associated research centre in that new hospital (it is worthy of note that various members of the Department have contributed to the funding of this centre).

The Anu Research Centre is now poised to become a world standard Perinatal and Reproductive Medicine research facility.

The Department is to be congratulated on its efforts during the review period. It is poised now to reap very substantial academic returns from these efforts.

Published Output

Minimal publications in the early years of the review period because efforts were directed at capacity building, but there has been a marked improvement in the last 1-2 years in association with increasing staffing levels.

Postgraduate Training

Limited training facilities and supervisory staff were evident in the early years of the review. There are now excellent facilities (e.g. outstanding surgical simulation and laboratory facilities) and sufficient supervisory staff to ensure a substantial increase in trainee enrolment and completions over the next 5 years.

Research Related Activities

Excellent efforts are evident in establishing an environment to optimise clinical care quality and research capacity at local and national levels. The Anu Research Centre is the envy of all researchers in Cork. The NPEC should produce audit data to improve the quality of perinatal care at a national level and be useful for international comparators.

Funding

The assessment reflects limited funding in the early years of the period of the review, but improved funding is now occurring as staff levels increase.

Research Environment

World class facilities are now in place. Dynamic and visionary leadership is present. Critical mass of quality staff is now recruited.

Overall Research Activity and Performance

The Department now holds huge promise for a bright future.

Issues

The potential of the NPEC will only be fully achieved if ALL units throughout the country participate. Apparently not all units do as yet. There must also be an electronic data capture and management system to optimise the NPEC's research productivity.

Recommendations

It is recommended that consideration be given to:

1. Full utilisation of the available research space as soon as possible including collaboration with other UCC Departments less well endowed with research space.
2. Assuming the national lead in targeted research endeavours such as biomarker and genomic research.
3. Noting that NPEC will generate mainly audit data and that the SCOPE initiative is primarily a sample collection endeavour, more hypothesis driven research is required.

Overall Conclusion

Outstanding facilities and opportunities have been created, and staff now have to deliver on the research front.

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		45%	85%
2.	Research Related Activities	5	
3.	Funding	3	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		38%	88%

Overall Assessment: Level 3

Quality Profile

Since 2003 a new Professor of Medical Microbiology has been appointed. Some new equipment has been and is being installed, including Class 3 facilities. 7 Academic profiles were submitted staff (5 full-time, 2 part-time) but 3 are not research active. Indeed there has been a gradual decline in research output over the recent years. Furthermore the panel was surprised that there was not more collaborative research with other units with interest in closely related areas. One exception is a developing link between microbiology and the APC. The areas of interest could usefully be more closely aligned with the strategic aims of the School. Tissue banking facilities do not appear to have been developed. The recent appointment of a lecturer with immunological skills provides an opportunity for collaborative work in inflammatory bowel disease.

There is some interest in the development of collaborative research in relation to genetics of neurological disorders and the panel noted the development of collaborative activities in this area with other units including CUH Neurology and UCC/CUH Anaesthetics, but this does not yet seem to have generated a critical mass of associated publications or grant activity. This should perhaps be considered within the Panel's suggested strategic review of the Neuroscience area as outlined in Recommendation No.1 in the Psychiatry section of this report.

Postgraduate Training

Because of the limited research now being carried out, there is only minor opportunity for research training.

Research Related Activities

Apart from a small number of invited lectures there does not appear to be much activity. This is perhaps not surprising in view of the heavy clinical load and the high teaching duties.

Research Environment

Apart from the new Class 3 facilities, there is little of international class.

Recommendations

1. Human genetics: the expertise on genomic research in the Department provides opportunities for collaborative research with other departments which could be mutually beneficial.
2. Toll-like receptors research: this recently initiated research is promising and the panel recommends close collaboration with APC in the area of innate immunity and inflammation.
3. Medical Microbiology: the panel recommends a clear definition of the future research strategy in relation to the needs of the Hospital and taking into account the research being pursued in other UCC Microbiology departments and at the APC.
4. The Department should be encouraged to set up a tissue bank to help support and collaborate with research strengths in the School.

Overall Conclusion

It is hoped that the new Class 3 facilities will stimulate new areas of research and encourage more collaborative research. In view of the strategic importance of pathology to the entire campus, strengthening this area would appear to be a matter of key strategic importance.

DEPARTMENT OF PATHOLOGY (INCLUDING MEDICAL MICROBIOLOGY)

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		30%	80%
2.	Research Related Activities	2	
3.	Funding	3	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 4 and above
		40%	80%

Overall Assessment: Level 2

OVERALL CONCLUSION

Executive Recommendations to the College and University

1. The Panel was surprised that there was an apparent mismatch between the UCC 5 year strategic plan (2007-11) and the way in which Panel A was organised and the way in which the research work was presented. In particular, there appeared to be a lack of strategic direction in the following:
 2. Oncology: The absence of a Professor of Oncology and a city wide research endeavour was considered to be a glaring omission. The Panel was informed that there are several independent foci of activity in this area led by enthusiastic individuals. It is considered that an integrated facility is essential if the University is serious about Oncological Research and if the Health Service is serious about providing optimal care for their patients.
 3. Imaging and Pathology: Again the University and the Hospital Authorities need to work together to supply first class diagnostic facilities. No modern healthcare facility can function, or indeed pursue leading edge research without ready access to modern diagnostics.
 4. Neurosciences: Here again there seemed little overall strategy with no obvious co-ordination between neurology, neurosurgery, psychiatry, neuroradiology, etc., even though substantial bodies of good work are occurring within Cork as referred to in the reports of both the Psychiatry and Paediatric Departments.
 5. Clinical Research Governance: The Panel was surprised that the process of clinical governance was not more robust. The forthcoming Clinical Research Centre offers great potential for improved site wide facilities and enhanced supervision of Research. However, before then, there needs to be much greater clarity in terms of policing and auditing Good Clinical Research Practice. The concept of sponsors and guarantors for research projects and publications is now required by grant giving agencies and journals. It seems a high priority to bring this aspect up to the level now found in many major Clinical Academic Centres (e.g. Southampton).
 6. Despite asking as many people as possible, members of the panel were still unclear, at the end of the review, about the exact relationship between the Alimentary Pharmabiotic Centre and the Department of Medicine at University College Cork,. There are clearly overlapping roles and multi-disciplinary research is very much to be encouraged. Nevertheless it is thought possible that there might be some conflict of interest in the future, especially if personnel or roles change in the future. The University is advised to consider this relationship and clearly identify the lines of responsibility.
 7. UCC Regulations: The Panel heard on several occasions that the current university regulations with regards to promotion and recruitment are too inflexible and have not kept pace with contemporary medical academic competition. The need for quick strategic decisions is essential if UCC wishes to remain at the forefront of what is now a highly competitive market.
 8. Space: The Panel was concerned that space constraints were limiting research potential with noticeable disparities between what was available for different Departments. The Panel recommend a flexible approach to space allocation with ongoing review of requirements.

Panel B

Department of Epidemiology & Public Health

Department of General Practice

Oral Health Services Research Centre



Panel Members

- Professor Peter Allebeck CHAIR, Department of Social Medicine, Karolinska Institutet, Sweden
- Professor Martin Downer, Consultant in Dental Public Health Eastman, Dental Institute for Oral Health Care Sciences, London, UK
- Professor David Fitzmaurice, Division of Primary Care, Public and Occupational Health University of Birmingham, UK
- Professor Jill Morrison, Head, Undergraduate Medical School, University of Glasgow, Scotland
- Professor Richard Thomson, The Institute of Health and Society, Newcastle University, UK

Site visit

The site visit was conducted over 3.5 days from 5 – 8 May 2009 and included visits to departmental and library facilities in UCC and meetings with:

- Professor Paul Giller, Registrar & Senior Vice-President Academic
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Michael Berndt, Head, College of Medicine & Health
- Mr. Brendan Cremen, Office of Technology Transfer
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian
- Professor Alan Kelly, Dean, Graduate Studies
- Ms. Michelle Nelson, Head, Graduate Studies Office
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Professor Colin Bradley, Head of Department, and staff of Department of General Practice

- Professor Ivan Perry, Head of Department, and staff of Department of Epidemiology & Public Health
- Professor Helen Whelton, Director, and staff of Oral Health Services Research Centre

An exit presentation of the principal findings of the Panel was made to Heads of the departments and Centre in the afternoon of the fourth day.

Introduction: Scope and context of this review

The Panel members are honoured to be appointed as reviewers on the Research Quality Assessment of University College Cork, and would like to congratulate the University on this impressive undertaking. The members of the Panel are also grateful for the hospitality and the excellent support before and during the time of the review, particularly from the Quality Promotion Unit.

Members of the Panel have reviewed the submissions and conducted site visits and meetings with staff in the above three departments. The Panel has been exposed to three very different types of departments in terms of size, staffing, funding and research output. The Panel hopes that its views and recommendations will be helpful to the University in its future strategic planning.

Quality Profile

Published Output

The publication record for a department only instigated in 1997 with one senior appointment has been impressive and has also shown a continuing upward trend in both quality and quantity. The department has managed a good balance between publication in high impact international journals and in local (Irish) national journals to influence national policy as appropriate. The latest high quality senior appointments and the upward grant income should see continuance of the rising quantity and quality of publication. The Panel would also commend the peer reviewed publication from large nationally commissioned research as well as influential reports to funders such as HSE. It is clear that the research outputs have had considerable impact in both national health policy, but also internationally, for example the evaluation of the work place smoking ban which has been influential upon other countries' policies.

The Panel recommends that the department should continue with targeting at international high impact journals.

Postgraduate Training

The Panel was impressed by the considerable development of teaching in both masters and undergraduate programme. The MPH and Masters in Occupational Health have good student numbers. PhD numbers have been increasing although to date mostly supervised by Professor Perry. The success in the HSR PhD Scholar Programme in HSR will further support doctoral students. The new senior appointments will also provide additional supervisory potential, for PhD students.

The Panel recommends that the new senior appointments take on PhD students as a priority.

The Panel recommends that the increasing wealth of large datasets (SLAN, cancer registry, etc.) within EPH be increasingly used as a platform for masters and doctoral degree projects.

Research Related Activities

The Panel notes that some members of the Department have a high profile in research related activities and peer esteem. For example, it is impressive that the department took on the organisation of a successful Society for Social Medicine and International Epidemiological Association Conference. Furthermore, the Department has managed to contribute to, and influence, national research and health care policy (through HRB and HSE). Staff of the Department contribute to national review panels and advisory boards. There are good collaborative links with the National Cancer Registry and the National Suicide Research Foundation that have translated into productive research outputs. Our sense is that there is some excellent performance in research, and further development of research related activity within the department will occur through additional new appointments.

Funding

Funding, given the size and short history of the Department, has been very impressive and rising rapidly. The HSRI application may well further boost this, if successful.

Peer Esteem

Peer esteem is good and appropriate to the level of the staff within the department, with some staff with very high esteem.

Research Environment

The environment is good, with evidence of strong leadership, good team working and collaboration, and a supportive academic culture that promotes good practice and personal development. The split site staffing, partly reflecting the successful growth of the department, causes some problems, as does the lack of co-siting with cognate disciplines and groups.

Overall Assessment

The Department, which was formed in 1997 with one senior appointment, has grown rapidly and shows excellent standard of scholarship and research, deliv-

ered alongside the development of an impressive array of teaching at undergraduate and post-graduate level. There is considerable potential for further development, growth and expanding international recognition and status. It clearly has evident and effective leadership.

Overall Research Activity and Performance

This is excellent with more to come if appropriately supported and resourced.

Issues

There are space constraints, with split site working, as well as a heavy undergraduate and postgraduate teaching load.

Recommendations

The Panel recommends that

- The Department should continue with targeting at international high impact journals.
- The new senior appointments take on PhD students as a priority.
- The increasing wealth of large datasets (SLAN, cancer registry etc.) within EPH be increasingly used as a platform for masters and doctoral degree projects.
- The Department should continue to focus on its clear strengths in research (e.g. diet and health, cardiovascular disease) and consider, if successful with the bid for PRTL15 Health Services Research Institute, how to further bridge present strengths into the new proposal.
- As the work programme matures further, consideration should be given to development and evaluation of public health interventions in the areas of strength e.g. to address the obesity epidemic or cardiovascular risk factor reduction.

The Department has considerable potential to build on a very successful first decade. This would be enhanced by:

- A move to higher quality accommodation on a single site (e.g. Western Gateway building) co-located with other cognate disciplines such as computing, statistics, primary care, behavioural sciences and oral health services research.
- Further investment in senior posts.
- Pursuit of grants from international sources such as Wellcome Trust and NIH.
- Building on very successful within Ireland collaborations and by developing collaboration internationally with the UK and Europe.

Overall Conclusion

The Panel was impressed by the development and performance of the Department under its effective leadership within only 10 years of its foundation within the Medical School. The Panel congratulates the Department on its considerable progress and commends it to the University for priority support.

DEPARTMENT OF EPIDEMIOLOGY AND PUBLIC HEALTH

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		26%	62%
2.	Research Related Activities	4	
3.	Funding	4 (close to 5)	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		10%	31%

Overall Assessment: Level 4

Quality Profile

Published Output

The published output for the Department of General Practice overall is generally poor but obvious difficulties exist in terms of time availability, with clinical and teaching commitments dominating. This should improve with recent grants obtained, and the development of the diabetes interest group. There are few publications from the lecturers. Research in general, and especially publications from grants, does not appear to have been prioritised.

Postgraduate Training

There is a poor record over the census period, and it is difficult to see this improving without expansion of staff. There are also barriers to engaging general practitioners so the department may need to explore opportunities to supervise doctoral students from other disciplines.

Research Related Activities

There is evidence of reasonable engagement by some staff, with reasonable engagement at national level. Again it is difficult to see this improving without an increase in staff. Relationship with ICGP is obviously important but may be reducing time available for developing grant applications.

Funding

Good grant income is evident recently, and this should be a trigger to expand research staff. Given the time pressures involved the grant income recently is very good and if it had been sustained over the whole period would have led to a better level of assessment.

Peer Esteem

This is reasonable considering the obstacles. Editorship of EJGP is obviously evidence of esteem for the member of staff involved.

Research Environment

This is difficult in terms of lack of critical mass and split across different sites. There is a need to consider collaborating both across the College and with other pri-

mary care departments. The Department would benefit from closer collaboration and a possible merger with the Department of Epidemiology & Public Health and other cognate disciplines.

Overall Assessment

There is too much clinical and teaching commitment to provide reasonable opportunity for research development. Growing interest in diabetes may prove fruitful in the future. The Department will need investment in senior staff to develop further.

Overall Research Activity and Performance

This is generally poor but is improving in terms of funding. This needs to convert to publications.

Issues

- Lack of critical mass
- Too much clinical commitment
- Too much teaching commitment.

Recommendations

1. Development of collaborations and possibly merger with other College departments.
2. Development of collaborations with other University departments of General Practice.
3. Need to increase staff numbers.
4. Need to provide co-location of all staff, possibly also with other cognate disciplines.
5. Explore postgraduate collaboration with other cognate disciplines.

Overall Conclusion

Nothing has really changed since the 2002/3 quality review. However, despite huge obstacles, the department has managed to attract significant funding over the past two years. There is an obvious need to join forces with other University departments, especially Epidemiology & Public Health and the Oral Health Services Research Centre.

DEPARTMENT OF GENERAL PRACTICE

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		0%	60%
2.	Research Related Activities	2	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		0%	25%

Overall Assessment: Level 1

Quality Profile

Published Output

The level of peer reviewed journal publications seems to have reduced in the last two years on the list provided, although the Panel was reassured that a number of papers were currently in preparation, submitted or accepted for publication. Over the period of the review, it appears that a lot of time and effort has gone into the commissioned reports on the national and north-south surveys rather than peer reviewed publications. Much effort has gone into industry commissioned research, from which scientific publishing has not been prioritised.

The Panel recommends that staff try to produce peer reviewed journal papers from all of their research activities especially the large national surveys as these are more likely to make an impact at an international level than reports. They might also consider achieving publications from their commercial research where possible. They should also encourage students to publish from their Masters' projects and PhDs. The Panel strongly supports the Centre's plan to encourage publication during, and not after, completion of PhDs.

Postgraduate Training

Despite a lack of senior supervisor capacity, there is an increasing number of PhD students registered and the Panel is strongly supportive of collaboration/co-supervision within the University, with Public Health as well as other disciplines, in order to increase supervision capacity, and also to attract new PhD students.

The Panel recommends that the Centre should review the MDPH program to determine if it is viable in the long term as numbers have been low and it is not offered every year. It is suggested that the Centre considers further strategies to increase the recruitment of international students (non EU) onto this course.

Research Related Activities

The Panel was impressed by the international consultancy initiatives developed by the Centre e.g. with Canada, USA, WHO, London, and Malaysia, but rec-

ognised that these are heavily dependent on a small number of senior staff.

The Panel recommends that junior researchers should be encouraged to become more involved in peer reviewing journals, contributing to writing grants and related activities.

Funding

The level of funding is good considering the small number of senior staff available to write grants and generate other funding. The level of funding is increasing. The Panel strongly supports the PRTL15: HSRI bid with Public Health among other collaborators and we support continued collaborations of this type.

The Panel would recommend that the Centre reduces its reliance on industry funding, for example by creating at least one more senior post that would generate more substantive grant funding, as well as contributing to PhD supervision. The Panel also recommends that the Centre considers applying for more substantial international funding e.g. NIH, Wellcome, perhaps in collaboration with other collaborators at the university.

Peer Esteem

This is strong for the two senior members of the group, but the remaining research staff are at a relatively early stage of their research careers.

The Panel recommends that staff at an early stage of their career are given guidance about appropriate peer esteem activities from more senior staff who would be able to gradually pass relevant responsibilities over to these staff.

Research Environment

The Centre is currently sited next to the Dental School in purpose built premises with good facilities including laboratory and examination areas. The Centre would, however, like to be co-located with Public Health in the new Western Gateway building. This would have clear advantages in terms of providing critical mass and encouraging more joint research projects. However it would be advantageous to maintain a foothold in the Dental School.

The Panel recommends careful consideration of this issue so that the advantages of co-location with Public Health are not diminished by losing contact with the Dental School.

The group is also constrained by its need to attract funding from commercial companies to retain staff and meet mortgage payments on their current building.

Overall Research Activity and Performance

This is a dynamic research group under impressive leadership with a good level of research activity and performance during the period of the review.

Issues

The rate limiting factor for further improvement and expansion is the small number of senior level staff available to supervise and support PhD students and write grants.

Recommendations

- Create at least one post at senior level.
- Consider physical location of group within overall strategic planning.
- Review viability of MDPH programme.

Overall Conclusion

This has been a dynamic and productive research group that should continue to improve its performance with additional support.

ORAL HEALTH SERVICES RESEARCH CENTRE

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		7%	47%
2.	Research Related Activities	3	
3.	Funding	3	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		28%	28%

Overall Assessment: Level 3

Panel C

School of Clinical Therapies

School of Dentistry

School of Nursing & Midwifery

School of Pharmacy



Panel Members

- Professor Claire Ballinger, School of Health and Social Care, Glasgow Caledonian University, Scotland
- Professor Christine Bond, Department of General Practice & Primary Care, University of Aberdeen, Scotland
- Professor Iain Chapple, The School of Dentistry, University of Birmingham, UK
- Professor James Law, Director, Centre for Integrated Healthcare Research Programme, Queen Margaret University College, Edinburgh, Scotland
- Professor Brendan McCormack (CHAIR), Professor/Director Nursing Research & Practice Development, University of Ulster, Northern Ireland
- Professor Peter Mossey, Unit of Dental and Oral Health, Dundee Dental Hospital, University of Dundee, Scotland
- Professor Nicholas Singewald, Head of Neuroparmacology Unit, Universität Innsbruck, Austria
- Professor Ann Whall, School of Nursing, University of Michigan, USA

Site visit

The site visit was conducted over 3.5 days from 2 – 5 February 2009 and included visits to School and library facilities in UCC and meetings with:

- Professor Paul Giller, Registrar & Senior Vice-President Academic
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Michael Berndt, Head, College of Medicine & Health
- Mr. Brendan Cremen, Office of Technology Transfer
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian

- Professor Patrick Fitzpatrick, Head, College of Science, Engineering & Food Science
- Professor Alan Kelly, Dean, Graduate Studies
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Professor Finbarr Allen, Head of School, and staff of School of Dentistry
- Professor Gill Chard, Head of School, and staff of School of Clinical Therapies
- Professor Geraldine McCarthy, Head of School, and staff of School of Nursing & Midwifery
- Professor Caitriona O'Driscoll, Head of School, and staff of School of Pharmacy

An exit presentation of the principal findings of the Panel was made to Heads of the schools in the afternoon of the fourth day.

Background

The eight-member panel met over three days, following a programme designed by UCC's Quality Promotion Unit. The activities engaged in to inform the review included:

- meetings with university senior management team,
- visits to the individual schools/centres,
- meeting with managers and staff in the individual schools and centres,
- review of documentation submitted by schools/centres,
- reading of published research outputs,
- subject specialist and whole review team discussions.

Working Principles

- In establishing its ways of working, the review team developed the following principles and methods:

-
- Familiarisation with the review structures and processes and agreeing shared understandings of each component.
 - Open discussion as a team and identifying key questions to be asked as the review progressed through each stage.
 - Clarification of assumptions through discussion and challenge.
 - Consideration of the stage of development of the different units of assessment/specialities and the impact of this on research activity.
 - Balance of expectations on individual schools/centres with expectations of the university as a whole and also against the background of external pressures (e.g. clinical service delivery).
 - Establishment of agreed definitions pertaining to different standards of research (e.g. world leader, international, etc.) based on those put forward by the Quality Promotion Unit.
 - Agreement regarding the meaning of 'research active'. Through discussion the Panel agreed three 'levels':
 - Research Active: a staff member who has three publications in international peer-reviewed journals in the review period (2003-September 2008).
 - Early Career Researcher: a staff member who has two publications in peer reviewed journals that are national or international in the review period (2003-September 2008).
 - Non-Research Active: a staff member who has less than two publications in national or international peer-reviewed journals in the review period (2003-September 2008)

Report Structure

Given the heterogeneity of the different schools, the Panel decided to produce individual reports for each school. In addition, it was decided to identify themes that were common to all schools and to produce these as 'overarching issues and recommendations' to be considered by the University, College and Schools collectively.

Therefore the report is structured around the individual reports with a final set of overarching recommendations.

Quality Profile

Published Output

The submission demonstrated a developing research profile with some strengths but with a number of publications which were not possible to include either because they were conference abstracts or because they would not technically be classified as research. As with other disciplines considered by the Panel, there seemed to be a lack of clarity in terms of the publications selected by some individuals and the Panel needed to review those submitted in the light of individuals' CVs. The Panel had a discussion about the relationship between Irish "national" and UK "national" publications. While the Panel recognises the value of publishing in the former as far as clinical readership is concerned, the Panel would stress the need to become engaged with a wider audience. There is an opportunity for the mentorship of the developing researchers by raising expectations about where they publish and in terms of the department's publication strategy.

Postgraduate Training

The Panel agreed to focus on MRES and PhD level postgraduate training under this heading. Although a number of staff have received their PhDs relatively recently there was only one PhD conferred within the School during the timeframe of the review. Whilst the Panel recognises that it is difficult for small departments/units to sustain PhD programmes, this would be possible across a graduate school either within the College/University or with other AHP departments across Ireland. The Panel would encourage the School to seek full external funding for PhDs, perhaps with an increased focus on attracting international students. The Speech and Hearing element of the School is generally stronger in terms of its capacity to supervise PhD students.

Research Related Activities

The Panel looked for evidence of international conferences and visits, hosting visiting academics of international repute and involvement with editorial bodies. Both staff groups have clear international rep-

resentation and this is reflected in some of the activity. The Panel feels that there are now clear opportunities to capitalise on existing links and develop new connections which would have the potential to foster international collaborations. There is a strong local (Irish) emphasis in much of the research related activity which is fine as a starting point but should not be seen as an end in itself.

Funding

There was one substantive externally funded grant (SFI) and a number of small institutional or pump priming grants which is commendable. It is important that such grants start linking into research profiles/programmes and publications in order to develop specific research themes. Care needs to be taken that the School develops a funding strategy identifying and supporting individuals who have the capacity to draw in research income, and topics which have the potential to be funded from a number of sources. It would be very helpful for staff to continue to form strategic collaborations with more experienced grant writers in other departments.

One type of funding which the school might usefully consider is Knowledge Transfer or Knowledge Exchange funding in collaboration with businesses or public sector organisations. In some cases this may simply be a matter of re-badging existing consultancy activity but it could also be an opportunity to develop mutually beneficial collaborations with government departments and local service providers in health, education and social work. It might be possible for the income generated to support some small research initiatives.

Peer Esteem

The Panel focused on invitations to present at a national and international level and involvement in national and international policy. The Panel acknowledged the widespread contribution made to Irish meetings/conferences and gave particular credit for those who organised such meetings or who had been invited to contribute. The Panel also gave credit for the development of disciplinary/professional theory

related to practice and education at a national or international level. This need not be research as such but it does feed into peer esteem which is relevant to a clinically focused department. The Panel concluded that the school was strong at a local level but now needs to focus on raising the level of esteem beyond Ireland and at international level.

Research Environment

The physical environment has been developed to include shared clinical/research space. This is well appointed although it may be that potential opportunities are being missed in researching the detail of clinical experience. For example, audio and video recording is not routinely available in the way that it is in the nursing clinical facilities. It may be that there are potential synergies across schools which could be further exploited. The Speech and Hearing Department has a good developing instrumentation facility ideal for use with students and research staff. The Occupational Therapy Department also has excellent dedicated clinical facilities although this may be less of an issue for them given the nature of much of their research. There are obviously opportunities for expanding facilities in future, both through research grant funding and infrastructure support from the university.

It is clear that the School has responded to the University's drive to increase PhD numbers and it currently has nine PhDs registered. The supervision of these students needs to be carefully monitored at the School level and through the graduate school to ensure that the ratio of supervisors to PhD students remains realistic. To a certain extent this is a developmental matter but needs to be watched if the School is to avoid downstream log jams. It would also be useful to instigate a cross school research seminar programme to foster collaborative research if this does not already exist.

Even with the increase in numbers of postgraduate students there is still a question about the training and experience of these individuals (and those that follow them) in terms of the research culture across the College of Medicine and Health. It would be advantageous if the different Schools within the College worked together on this, for example through shared

supervision across disciplines. Indeed The Panel discussed the possibility of mandating cross collaborative supervision.

Overall Research Activity and Performance

This is a relatively new School with a small staff group, and recent change in Head. Most research/scholarship activity falls within national or local level, but there is an evident enthusiasm for research, and willingness to explore possible collaborations across the two subject areas and more widely. The staff group is also comparatively young and this is reflected in the level of publications. However, a significant number are now registered for PhD studies. Within the paperwork and presentation seen by the Panel, both groups discussed discipline specific research themes, and the Panel recommends, as an initial step, that these are refined and focused to identify commonalities which become the basis for a new cross School research strategy which would then link to the College research strategy.

In comparison to some of the other Schools considered by the Panel, Clinical Therapies is relatively fortunate in terms of staff/student ratio. This is an opportunity for staff to focus more activity on research, through effective use of the Annual Performance Review process (for example in terms of target number of publications, sabbatical planning, etc.). The Panel recognises that, in a small department, the division of teaching and research responsibilities can be difficult, but feels that consideration of this process would be beneficial to ensure that research is prioritised for the most productive individuals. An aspect of this is how teaching and scholarship is recognised in terms of promotion and whilst such decisions are unlikely to be made at School level, the Panel believes it would be helpful for staff to be cognisant of the issues. This, in turn, might facilitate directing staff to their strengths in terms of both teaching and research.

With respect to research grant applications and publications, consideration needs to be given to the fostering of strategic partnerships with staff out with the School, especially those with a stronger track record of successful submissions at an international level. This would serve a number of functions including: the potential

for mentoring; support for writing for high impact journals; becoming more focused in terms of research themes/programmes; writing for and considering research benefits for multiple audiences (e.g. clinician, service user and academic audiences).

The focus of the department to date has been the development of teaching programmes and staff expertise to deliver these. There is now an opportunity for the department to start becoming more engaged with the external landscape, within Ireland, the UK, Europe and internationally. For example, the new Therapy Research document (Department of Health and Children 2008) was referred to in the documentation received, and it would be helpful if the departmental strategy mapped directly onto this document (for example timescales, themes). There are likely to be other documents about national priorities (for example in fields of stroke, long term conditions, mental health and wellbeing, dementia, children and young people) which could inform the development of research and scholarship.

Recommendations

1. To develop a single research strategy across the School including both a funding and a publication strategy linking the aims of the School to those of the College and University and against external drivers in the wider Irish context more generally.
2. To focus research, integrating themes across the two Departments and, where possible, with those of other schools in the College.
3. To further develop research collaborations across the College.
4. To manage the balance between internal and external PhD candidates, building capacity without overwhelming supervisors.
5. To make the division of research and teaching responsibilities transparent, with an expectation of scholarship activity for all staff but to focus research support on the most research active members of staff.

6. To use Annual Performance Review as a process to manage and direct the research and scholarship activity of staff.
7. To engage with the rest of the College to optimise support for postgraduate students through the new College Graduate School.
8. To consider pump priming embryonic research groupings to support the emergence of coherent research themes.

Overall Conclusion

The School has made great progress since its inception in 2004. The initial phase has understandably seen a focus on the setting up of the key undergraduate programmes. The research profile has also started developing but has, to date, been bottom up i.e. concentrating on the interests of the individual researcher. This is an ideal time to consolidate existing activity and provide focus to take the school into its next phase.

SCHOOL OF CLINICAL THERAPIES

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		25%	67%
2.	Research Related Activities	2	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		0%	24%

Overall Assessment: Level 2

Quality Profile

Published Output

The evolution of Clinical Dentistry as a research intensive discipline is a relatively recent event and is significantly inhibited by the clinical and teaching contact loads of staff. The latter vary between 80-100%, which is atypical, even for Clinical Dentistry, where student-staff ratios in teaching areas are by necessity high due to the invasive nature of student procedures.

- The Panel classified 33% of existing staff as research active, but recognised that 4 current staff members are studying for PhDs vocationally and one is due to embark upon a PhD. This also has to be analysed within the context of only 9 of the existing 21.0 FTE academic staff having PhDs. Of staff with PhDs 67% are research active.
- One of the early career grade lecturers (currently studying for a PhD), was classified as research active according to this Panel's criteria of 2 internationally peer reviewed research publications.
- The research active staff are performing at a level of excellence and rigour that is comparable with the best units in the UK and Europe, with 75% of them making contributions of international excellence that are likely to impact significantly upon research and policy agendas.
- Particular current strengths are the Oral Health Services Research Centre (OHSRC), oral health quality of life and dentofacial development areas. The two former areas could build upon each others strengths through increased collaboration and the latter needs to maintain momentum.
- Transparently absent is research in basic biological and pathological processes of oral diseases, but there is potential here (see below).
- New areas with great potential include studies into oral and systemic disease links, collaborating with Biochemistry within Cork and also externally. This particular area would be strengthened by the appointment of a Chair in Oral Biology, which is a key strategic objective in the Dental School strategic plan, and one the Panel fully supports.

- There was a perceived lack of understanding about what constituted a world leading or internationally excellent research output across the School and the Panel was unable to include some substantial, robust and important outputs that clearly inform public policy in Ireland. This was a particular feature of the OHSRC, where the nature of much of the excellent work is such that it does not immediately lend itself to publication in international peer reviewed journals and is in danger of understating its impact and value due to the traditional nature of outputs from such a discipline.
- There was also an inevitable degree of joint publishing amongst staff, which limited the abilities of staff to identify independent outputs. This is always a problem in research teams and one that the School needs to consider for future strategic reviews.
- A small number of staff are producing some excellent work, which is truly collaborative and high impact. Those collaborations are outwith national collaborators and include UK, Europe and the USA.
- Care needs to be exercised in future to ensure the outputs have a truly international applicability and are generalisable in their impact, rather than focusing solely upon Irish populations.

Recommendations

1. It is strategically unwise to attempt to achieve research activity from all staff in orphan disciplines like Dentistry and the Panel recommends a model be developed whereby those with established research track records and those with potential are afforded protected research time and those who are not research active, provide a higher commitment to teaching.
2. The University needs to urgently develop a career pathway that recognises excellence in teaching and "world leading" teaching staff as equivalent in academic scholarship to world leading research staff and this needs embedding within the establishment's culture.
3. Given current teaching and clinical loads some financial investment against an agreed strategic research plan is necessary. The Dental School

research strategy, which is currently in place, is excellent and forward looking, but in the absence of substantial financial investment by the University Centre it is overambitious and undeliverable.

4. The Panel recommends that the School focuses on two research theme areas initially, where critical mass can develop further on existing levels of international research excellence.
5. The Panel fully supports the positive ethos of encouraging new career researchers to collaborate within and outwith the University and recommends that such key staff, who are the future researchers of the Dental School, be afforded protected research time, with a view to one or two new themes emerging from their activities in the future.
6. The Panel supports very strongly the appointment of a Chair in Oral Biology, which if necessary could be a joint appointment with Biochemistry/Biosciences to help grow inter-school collaborations, but this post should be based within the Dental School. In order to attract high calibre applicants a laboratory infrastructure should be established (wet labs) and some pump prime funding for technical support also provided.
7. The OHSRC is an internationally excellent centre and the Panel encourages greater collaboration with Dentistry and the cross-transfer of expertise and facilities for clinical trials.

Postgraduate Training

There has been a long track record of clinical and taught postgraduate training programs, consistent with a Dental School substantially funded for teaching rather than research, and with very heavy clinical commitments. Since 2007 there has been a very impressive increase in research student numbers to 21 PhDs; 11 within the Dental School and 10 within the Oral Health Services Research Centre (OHSRC). This represents an impressive and considerable commitment by existing staff, but given teaching and clinical loads is unlikely to be sustainable without a negative impact upon teaching quality or high fail-

ure rates amongst PhD students. The Panel applauds the positive manner in which the existing staff has embraced this initiative, fully aware of the limited time they have to deliver on the strategy and the limited central support currently in place to assist them. The motivation and commitment of those staff is recognised by the review Panel.

The 10 PhD students within the OHSRC however should perhaps not be considered under this panel as well as under a Public Health panel and were unclear why the OHSRC was being split in its submission. This sends out an undesirable external message about conflicts in focus and priorities, yet the Director of the OHSRC and School of Dentistry have an extremely positive, healthy and productive working relationship, which is crucial to the future of both centres.

The 21 PhD students are currently being supervised by a staff cohort of only 9 staff with PhDs and for 8 of those 9 staff, clinical teaching and service occupy 90% of their time. This is not sustainable without adverse consequence for the students and the staff.

The College and University need to consider lobbying health services for funds to support substantive health service appointments in key areas, as has happened in Orthodontics.

The Panel strongly applauds the appointment of the Director of the OHSRC as Research Director for the Dental School, since this will lead to the development of clear strategic research goals, governance systems, and provide a more structured training for early career research staff. This will be complementary to the excellent research strategy now in place and is essential to enable the conversion of this research vision into reality.

In addition to the PhD students there are 6 DCLinDent students. The latter represents a highly innovative program which the Panel commends as very forward looking and prestigious; it will however place further burden on already over-committed staff.

The majority of the PhD students are new in 2008 and therefore it is not possible to assess conversion rates to a completed thesis.

All students have personal PC, internet and library access and the facilities within the OHSRC are exceptional. Several students have a single supervisor, which can be limiting and indeed dangerous from a pastoral as well as professional development stand point.

The Panel was very concerned by a lack of functional strategic support, guidance and policy within the University to underpin such a huge increase in PhD student numbers. This seems to have been a reactive initiative and one that has created vulnerability.

The Graduate School is currently “virtual” and likely to remain so and the dissemination of existing guidelines, such as the Code of Practice for Research Supervision is vital, yet appears not to be happening down to school level.

Recommendations

1. There is an urgent need to develop a fully functional and proactive staff and student support service for postgraduate PhD programs, which includes core structured aspects of education in research methodology, supervisor and mentor training, student progress committees and procedures for managing student complaints and concerns and for identifying failing students.
2. Much of the above is planned, but should have been in place before the drive to increase PhD student numbers from 20% to 30% of student registrations.
3. The Panel recommends a move towards dual supervision, ideally involving co-supervisors from within the College and wider University to encourage cross-discipline collaboration and innovation as well as a cross-discipline appreciation of the opportunities and challenges faced by individual schools.
4. There may be a need to reduce current PhD student numbers, at least until younger staff have completed their own PhDs and to ensure that a quality doctoral training is protected and staff have sufficient time to spend with their PhD students.

Research Related Activities

There is a small cohort of staff who are not engaging in research related activities consistent with their academic appointments. A small number are performing at a world leading and internationally leading level and the majority are delivering an impressive amount of international and national activity. This profile is entirely expected given:

- The apparent reliance of the health service entirely upon academic staff for specialist care delivery, both secondary and tertiary. Only two staff appear to be funded from health services monies and they do not appear on the UCC Dentistry FTE list and are within the Orthodontic unit. There appears to be a worryingly narrow view of Oral and Dental Health within the government, that is not compatible with a modern western healthcare economy, whereby health service investment appears focused towards Orthodontic services, apparently ignoring the high prevalence rates of organic oral/dental diseases, such as caries, periodontal diseases and tooth surface/tooth loss.
- The existence of the Royal College of Surgeons of Ireland supported by only two Irish Dental Schools. The substantial portfolio of RCSI educational activities (surrounding national and international education programs, examining and administration) represents a considerable drain upon staff time and resource.

The Panel were frankly astonished at the apparent reliance of the national healthcare services upon UCC staff to deliver specialist healthcare services to Southern Ireland. The University is therefore subsidising substantially the delivery of specialist oral health care and this places unreasonable clinical loads on most clinical academic staff. The only area exempt from this is the OHSRC, and it is thus unsurprising that the OHSRC is the major deliverer of research of international standing. There are clear lessons here.

The Panel also deduced that there was a significant mis-match in health service funding between Dublin and Cork Dental Schools/Hospitals and this is no

longer justifiable on historical grounds. The government needs to address this issue urgently through a transparent resource allocation model, or UCC will struggle to move forward on the government's research agenda for a 4th level Ireland in Oral and Dental Health. The latter are fundamental to general health and wellbeing and the evidence base for this is irrefutable.

Recommendations

1. The Panel strongly encourages UCC to urgently engage in dialogue with national health service funding agencies to establish a common resource allocation model for southern Ireland, which is equitable between the two national schools. Similar discussions also need to take place for education funding, which the Panel gleaned from staff may also be allocated in a historical rather than formulaic model. This will release staff time in Cork to engage in focused and productive research programs.
2. The Panel advises staff to review the balance of their research related activities and focus what time they have towards delivering research outputs of high quality in international peer reviewed journals.
3. The Panel encourages the staff of the School of Dentistry to review the balance of their clinical, teaching and research activities and to support the Head of School in developing greater flexibility in timetabling their activities, such that those productive in research are released to work to their strengths and those less focused on research, support research indirectly by delivering more substantial amounts of teaching and clinical service.

Funding

Research income generation is currently being generated by a few staff only and of those staff only one or two are consistently performing as PIs. Over the review period approximately €4.6 million has been generated, which is a very respectable figure for Oral and Dental Research. The majority of this income (€4.0M) has been generated by the OHSRC and represents, in the view of the Panel, an exceptional per-

formance. There is an over reliance however on HRB funding, which limits outputs to those more nationally focused, rather than of international significance. The recent move towards acquisition of funding from non-Exchequer sources, such as NIH is to be applauded.

Recommendations

1. The Dental School need to develop a culture of external funding for their research. There are signs that this is already in process, but it must continue to evolve and this will necessitate collaborative applications with other schools within UCC.
2. The OHSRC could help to develop a culture of research income generation within the Dental School and to guide and mentor staff in developing a funding portfolio. This should start with smaller grant applications to develop pilot and proof of principle data that may underpin large grant applications.
3. The average research income generation per research active staff member in the UK RAE 2008, was approximately £34K per annum, therefore staff should not be discouraged from seeking external funding on the assumption that large sums are necessarily required to fund their work. Similarly, it is only necessary for one or two staff to start generating regular research income streams, to produce a significant improvement in R&D income generation.
4. The Panel encourages staff to talk to industry about common areas of research and development interest. In this regard they need to focus on their key research strengths and be more opportunistic in their approaches to industrial partners.
5. The Panel also supports the move by the OHSRC to diversify their funding away from HRB funding towards European grants and those from international sources such as NIH.
6. The international collaborations being developed are a positive move and should evolve towards joint PI applications for non-Exchequer funding with collaborators.

Peer Esteem

Levels of peer esteem are high and the Dental School have been particularly successful in influencing international research agenda's through appointments to International Association for Dental Research (IADR) Research Groups and also Irish Divisional activities within the IADR. The latter is a unique opportunity and the Panel encourages greater exploitation of such international links in the development of international research partnerships.

The Royal College of Surgeon's activities are also beneficial to the Dental School in terms of international links, opportunities and reputation, but the staff involved should ensure their large time commitments taken up by such activities are focused as much as possible towards taking forward their research agenda.

Recommendations

1. Staff should reflect carefully on how peer esteem is translating into research outputs and research inputs (income generation) and should rationalise their commitments to maximise tangible benefits in terms of their research rather than their professional reputations.
2. Staff should utilise their unique links into the IADR to develop international collaborations as exemplified by the publications on water line decontamination, where European and international funding and collaborative research outputs can provide a tangible benefit.

Research Environment

There has been a demonstrable paradigm shift in the research ethos of the School of Dentistry over the last few years and the Panel congratulates the former and in particular the current Head of School in managing to move forward the research agenda without disengaging staff. This achievement should not be underestimated, and has been skillfully managed in a difficult environment. The Panel detected a genuine research culture developing amongst staff who have traditionally not been research focused. The Panel congratulates the staff on their positive engagement, their efforts to

start moving outside their comfort zone and the support (through their positive actions) that they have given the new Head of School in implementing such positive changes.

There is a chronic shortage of wet laboratory space and some degree of capital investment is needed to provide a basic laboratory infrastructure, perhaps associated with a new appointment in Oral Biology.

The materials science facility has improved but space is modest and will severely limit further development in this area. The enthusiasm of the former Head of School after ten years of administration is impressive and the Panel compliments this and the sabbatical period afforded by UCC to help re-invigorate this area of traditional strength. However, there is a need to urgently engage and train younger staff in this area, from both Restorative Dentistry and Orthodontics, to try and develop critical mass and succession planning. The academic Materials Scientist is key to these developments.

Recommendations

1. The Panel recommends that the former Head of School consider developing further the collaborations within UCC such that younger career staff may benefit from materials science resources out with the Dental School, to allow the continued development of this area following the retirement of the current leaders in this field within the Dental School.
2. The development of a collaboration between an early career research lecturer and the department of Biochemistry is strategically astute and highly commended. This has provided access to research facilities and expertise outwith the Dental School and is an excellent initiative. The Panel implores UCC to positively encourage departments/research institutes (whose primary focus is research) to facilitate dental academics and to support them in developing such collaborations, which are essential for the future. Whilst the immediate benefits of such collaborations may take time to emerge and develop, experience in Europe and North America supports the positive outcomes of such basic-clinical science partnerships as benefiting both parties.

3. UCC needs to seriously consider resourcing the Dental School to achieve their strategic research objectives, because a very modest investment in this area will deliver disproportionately large improvements in research outputs and thus represent excellent value for money. This is evidenced by the demonstrable rapid rise in research quality in the UK in Schools where the University Centres have invested in dental research and the stasis/decline in Dental Schools where there has been no such investment. Current teaching and clinical loads will not enable the Dental School to sustain its improved performance and the positive changes seen in their research ethos and environment in recent years. In excess of 700 hours teaching contact time in Dentistry per year and up to 560 hours spent on clinical service are not a recipe for growing research, yet the potential is substantial and the desire amongst staff is clearly evident. The benefits of reduced teaching and clinical loads in dental research are evident from the success of the OHSRC model.

Overall Assessment

Overall Research Activity and Performance

The overall assessment is that the majority of research activity is of a good standard of scholarship and virtually all other research activity is of a fair standard of scholarship. However, there is a small but significant amount of activity that is of an excellent standard. There is a need to increase the number of research active staff, but this will require investment pump priming to reduce teaching and clinical loads. The attitude of the staff is extremely positive and there has been an impressive shift in ethos towards a more research focused atmosphere in recent years.

Issues

The major issues the Panel identified related to inhibitory teaching and clinical loads, a need for cross-college and University collaboration with centres of excellence, such as Biochemistry, Food and Nutritional Sciences and the Tyndall National Institute, and a need to develop agreed work balance models that allow research active staff more time for research

and which protect early career lecturer's research time. The health service funders must look towards ways in which they can fund the services they receive from academic UCC employed staff, and the University must urgently develop the Graduate School support networks and encourage dual supervision of PhD students.

Recommendations

It is recommended that consideration be given to the following issues:

1. The School of Dentistry should try not to develop too many research theme areas, but focus critical mass into two areas presently and allow future areas to evolve in a supportive and collaborative manner.
2. The development of a work distribution model that maximises the strengths and interests of individual staff in either research or teaching.
3. Collaborative opportunities within UCC for grant funding/research involving Dentistry are significant, in areas such as Biochemistry, Food & Nutritional Sciences and the Tyndall National Institute.
4. Joint supervision of PhD students cross-specialty. Dentistry should avail themselves of the systems and support processes being developed currently by the Graduate School, in particular with respect to structured courses, mentoring and supervision, progress review boards etc.
5. Those staff more prolific in their publishing should focus on quality, even if this is at the expense of quantity.
6. Early career researchers should have protected research time.
7. Clinical service commitments should be reduced for staff active in research and early career researchers.
8. Staff should explore non-exchequer funding streams. Even modest sums of grant income will provide pilot data to build capacity and underpin applications for larger grants.

SCHOOL OF DENTISTRY

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		30%	75%
2.	Research Related Activities		
3.	Funding		
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		20%	39%

Overall Assessment: Level 3/4

Quality Profile

Published Output

Of the 46 staff submitted, 15 (32%) were determined as 'research active'; 9 (20%) as 'early career researchers' and 22 (48%) as 'not research active'. The Panel believes this to be a typical profile of schools of nursing internationally. For a relatively new school the Panel believes that the research outputs in general demonstrate a significant contribution to the discipline and are of a very good standard of rigour. 63.5% of publications are of an international standard. There were 63 published outputs from 46 staff submitted¹ in the review period. Of these 15 staff (30%) (designated as research active) produced 45 of these outputs (71%). The outputs have had or are likely to have a significant impact on research or policy agendas. The outputs show a good degree of initiative, support and the beginnings of collaboration.

Whilst there is some evidence of collaborative working among research staff the potential for collaborative working leading to co-authored outputs is not being maximised. The Panel would therefore hope that small groups of scholars would begin to work together more formally in their publications to enhance the potential international impact of the outputs. There is evidence of the beginnings of methodological themes emerging, and the group may want to consider further developing methodological expertise in particular areas and become nationally and internationally known for these, for example Grounded Theory and historical research. The work on 'ethics and philosophic analysis' is world-leading and needs to be highlighted as a key strength of the School.

Issues for the school to consider are:

There is a need to focus on the early career researchers and identify strategies to enable their growth as research active staff.

A decision needs to be made about staff who are non-research active and their role in and contribution to

¹ Although 50 staff are listed in the School submission document, only 46 curriculum vitae were submitted and thus it is this number the Panel worked on (the missing CVs relate to staff on maternity or long-term sick leave).

research. The inclusive approach to staff in research adopted by the university (i.e. all staff included in research) does not appear to help the School develop its research profile and focus its activities and support of those staff who are research active.

Postgraduate Training

The Panel was very impressed with the focus and attention on postgraduate training. The number of students has increased from 2 to 17 in the review period. The number of students completing the doctoral studies is low, however, 2 students are due to complete the doctoral studies in 2009 and a further 2 students are due to complete in 2010. There appears to be a good infrastructure for supporting doctoral education and research. There was clear evidence of a strong collegial environment for doctoral research that is highly valued by students and staff.

Issues that the school should consider in terms of future development and growth are:

- There is a need to increase the numbers of staff who are qualified to supervise doctoral students. Currently this is reliant on a few and this needs to change if the capacity for doctoral education is to grow. The Panel understands that the current focus is on staff from the School gaining doctoral qualifications but questions the sustainability of that model in the medium term without the growth in senior staff.
- There is clear evidence of students receiving research training. The Panel would recommend the formalisation of this training.
- In order to develop the diversity of intellectual input the Panel would like to see an increased focus on 'non-staff' doctoral students. However, The Panel recognises that this relates to the need to increase capacity of senior staff in the School.
- A large number of students have graduated from taught Masters programmes (less so from research Masters) and the Panel would like to see a greater connection being made between graduates from these programmes and doctoral applicants.

Research Related Activities

The School of Nursing & Midwifery has established itself in a strong leadership position in nursing nationally and staff in the School have participated or lead a number of Irish nursing policy or strategy developments. It has established good international connections and it has clearly benefited from the strong relationship it has developed with Professor Joyce Fitzpatrick who has worked collaboratively with the Head of School in developing its strategic position. There is a high rate of conference attendance among staff. A number of staff have organised conference activities and academic meetings/events. Staff also participate in peer-review activities and a number of staff are members of international editorial boards.

Issues that the school should consider are:

- Continue to increase editorial board membership.
- Increase the number of cross-university and external collaborations.
- Increase the connections between scholarship activities (e.g. conference attending, meetings, editorial activities) and research activities. What the Panel means here is: there are a few staff who have a high rate of conference attendance but few associated research outputs in the form of peer-reviewed publications (some of these fall into the 'not research active' category because of their lack of publication outputs). This needs to be addressed.

Funding

The School has a good track record in grant acquisition. These grants come from a wide range of sources largely within Ireland. Fifty-nine grants were awarded in the period, ranging from €750 to over €4million² with a large number of grants being <€5000. This grant profile reflects a dominance of relatively small grants being acquired by staff.

Whilst on one hand this profile reflects the stage of development of the School (and is to be applauded) on the other hand it raises some issues that the School may need to pay attention to:

- The focus on small grants can 'drain' resources of the School and have a negative impact on the acquisition of larger international grants. What the Panel means here is that a similar amount of administration is needed for a small grant as is needed for a large one. With limited infrastructure available to manage research grants this needs to be given serious consideration as a viable strategy.
- There is little evidence of small grants being used as a platform for larger grants. There is some beginning evidence of this but the Panel would recommend this as a deliberate strategy for moving forward.
- There is a tendency towards a dependency on 'in-house' grants among staff and this needs to be challenged. It is perfectly appropriate for this approach for junior staff who are getting established but other staff should be applying to external competitive sources.
- The major grants are awarded to a small (2-3) number of senior staff in the School, whilst other senior staff have little or no record of grant acquisition. This needs to be addressed.
- There is little evidence of multidisciplinary/collaborative grants and the Panel is confident from its discussions with staff that this is a future focus for the School. Clearly, increasing the number of senior staff, ensuring that existing senior staff develop collaborative relationships and having existing staff complete their doctoral studies will help this objective.

Peer Esteem

In this category the Panel focused on the ways in which staff had their work recognised by others (internal and external to the university). There is clear evidence of staff being recognised for their work. The majority of staff (45.6%) have national recognition, reflected in conference invitations, participation in policy development and contribution to strategy and practice development locally and nationally. Fewer staff are having an impact internationally. A significantly high number of staff (24%) are having little or no impact locally or nationally and this needs to be addressed.

² This was a multi-site collaborative grant and so a significantly less figure was awarded to the UCC School of nursing in particular

Issues for the school to consider are:

- The School should review its range of partnerships and collaborations and explore ways in which the national recognition can be built upon towards an international standard.
- There is a need to explore the reasons why a significant number of staff do not appear to be having their work recognised by peers. The Panel would suggest that this is addressed in a performance review strategy.
- Staff who may not be ‘research active’ or ‘early career researchers’ should still be able to contribute to scholarly activities that can impact on policy and practice. Thus strategies should be explored to identify ways in which the 24% of staff who appear not to be having an impact, can be helped to develop knowledge translation, knowledge transfer/exchange and practice development profiles.

Research Environment

The School of Nursing & Midwifery is located in an excellent facility – the Brookfield Campus. The physical facilities available are of an excellent quality, providing creative and useful space for the research activities of the School. The majority of doctoral students are staff so currently there is little pressure on the provision of work-space for doctoral students. However, the Panel is satisfied that the School can meet this demand when the doctoral student profile changes in the future. The environment is very supportive and staff and students voluntarily described the quality of the support provided and valued this highly. The relationship with Professor Joyce Fitzpatrick (USA) has clearly benefited the research activities of the School and the mentorship and guidance provided is evident. An excellent collegial environment exists.

Some issues that the School should consider are:

- A large number of days (approx 1,000) were lost to sickness and absence in the period.³

³ The Panel did accept this is outside the control of the School but felt the issue should be highlighted.

- Some staff identified the need for more mentorship of newly graduated doctoral students to help them develop as supervisors. A mentorship programme for these staff would be encouraged.
- The library facilities are excellent. However, the Panel believes there is more that could be done to extend the nature of the relationships between library staff and academic staff in supporting research activities, for example, library/information specialists working collaboratively with research staff as a member of the research team. This would have benefits for all involved.
- The School currently uses a ‘development fund’ to support research activities. This fund is particularly important for staff who are doing PhDs. It appears that this fund is currently under ‘threat’ and the loss of this fund would have serious implications for the School and its ability to support so many doctoral students who are staff members. The Panel recommends that this development fund is allowed to continue.

Overall Assessment

Recommendations

Recommendations have been made throughout the report relating to specific areas of activity. However, in considering these specific recommendations, overarching recommendations that the Panel would highlight are:

1. The School is supporting too many research themes in its existing strategy. However, the themes proposed by the College of Medicine and Health appear to be too narrow and ‘medical’ to reflect the diversity of research potential in the School of Nursing. The Panel recommends therefore that the School explores ways of focusing its research activities around 2-3 key themes that can dovetail with those of the College of Medicine and Health but are not embedded in them.
2. Serious consideration needs to be given to how the School balances the demands of teaching with research. Currently the university operates an inclusive model (i.e. all staff being research active)

and the evidence from this review would suggest that this does not benefit the research profile of the school. A more 'exclusive' model may have greater benefit (i.e. focus on those staff who are research active and early career researchers) and build their potential as internationally recognised researchers.

3. A parallel strategy should be considered for those staff who are 'not research active' through a focus on knowledge transfer, knowledge exchange and knowledge utilisation activities with an emphasis on multidisciplinary activity. These scholarly activities can be used to enhance teaching activities, cre-

ate greater engagement with peers and industry and provide a platform for these staff to potentially develop a research profile.

4. The School of Nursing & Midwifery is having much success in its research endeavours and has much to be proud of nationally and internationally. It is the view of the Panel that these successes are not being profiled to their full extent and the Panel recommends that the School develops a stronger external communication strategy to profile its work, develop external collaborations and build its potential as an international leader.

CATHERINE McCAULEY SCHOOL OF NURSING AND MIDWIFERY

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		11%	65%
2.	Research Related Activities	3	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		17%	30%

Overall Assessment: Level 3

The School of Pharmacy comprises 15 academic staff and eight research staff. The review focuses only on the academic staff. In general all sections reflect the staff profile with smaller numbers of senior staff with established areas of expertise and larger numbers of junior and middle ranking staff who are in early or mid career.

Quality Profile

Published Output

The overall profile for research active staff is relatively strong with individuals producing work of considerable originality which is world leading and published in very high impact journals. Of the five staff with little or no published output at an international or national standard (i.e. classified as research inactive), one has secured significant grant income during the past year and three are supervising PhD students so it would therefore be expected that subsequent research reviews would present a different picture. By categorising the staff as currently research active, research inactive or early career, and taking into account their stage of career, it can be seen that those with limited outputs of a lower quality are generally performing at the expected level.

Postgraduate Training

There is evidence of generally good performance in postgraduate training. The School has introduced two taught MSc programmes since it was established as well as developing and delivering the undergraduate curriculum. Despite the high teaching contact hours of the staff, they are supervising a good and increasing cohort of PhD students, currently approximately 16, of whom half are funded by IRCSET studentships. Three members of staff generate income through teaching on professional development courses, for example nurse prescribing, to generate funding for student stipends. This is commended but has opportunity costs and may not be a long term option.

PhD and other student research is reportedly used to generate pilot data to support subsequent grant applications, which is again commended.

It is as yet too early to report on successful student completion but there is evidence that the more experienced staff have had successful completions elsewhere.

PhD workload is unevenly distributed across staff. Two holders of lecturer posts have no current PhD students.

UCC is moving towards a more structured PhD programme which has been implemented to a varying extent across Colleges and Schools. The School of Pharmacy has been one of the earlier adopters of the more structured, quality assured format, and recognition of a four year period of study as the norm. This is again commended. It is unclear to what extent PhD peer support groups are facilitated e.g. discussion forums. The physical environment for PhD students is good with modern write up facilities and personal desk spaces as well as laboratory space where required.

There is no explicit strategy for career development beyond successful PhD completion. New postdoctoral fellowships awarded by the Irish Exchequer should provide opportunity for further increasing staff capacity and nurturing potential highflyers.

Research Related Activities

The general performance in research related activities is good. Given the relative newness of the School and the profile of seniority amongst the staff (i.e. three Professors and two Senior Lecturers compared to ten Lecturer grade staff) it is not surprising that many staff members have yet to develop a portfolio of research related activities such as presenting invited papers, being members of Editorial Boards etc. Three members of staff are very active with a broad range of relevant excellent, scholarly, and professional activities. However all staff, particularly those at the senior level should seek an appropriate balance of academic roles beyond their immediate research and accept opportunities wherever possible. It is only in this way that the external reputation of the School will be raised more widely, and importantly internationally.

Funding

The School has an excellent record of external research funding and shows a good year-on-year increase, reflecting staffing establishment. In the last year research income equates to approximately €400,000 per academic post-holder. However there is an over reliance on Irish Exchequer funding which represents 80% of the total funding during the census period (Internal funding 6%, Industry 7%, International 7%), and in the last year 93% (Internal funding 3%, Industry 4%).

In the census period one member of staff has brought in 43% of the funding and a second 16%. Overall 86% of funding has been brought in by five members of staff as lead applicants. Excluding three 'research inactive' staff who are only relatively recently appointed, four members of staff have each brought in less than 1% of the funding.

Reasons for this could be explored e.g. reviewing workload to ensure individual expertise is appropriately channelled and research income is optimised.

Peer Esteem

This profile reflects the immaturity of the School and the numbers of junior staff, with a majority having a peer esteem rating of 2 or less. In general, but not always, this is the level commensurate with their stage of career. Three members of staff have outstanding or excellent impact and recognition beyond Ireland, and they should be regarded as role models for more junior staff.

Research Environment

Overall the research environment is considered to be good. The purpose built facility is an asset with adequate equipment to support scientific research. There has been recent acquisition of some large state of the art items of equipment with some only recently commissioned and not yet in full use.

There is however much that should be improved. For example the animal facilities are located three miles away making research with small animals inefficient and sometimes impossible and limiting the grants for

which applications can be made. A state of the art animal facility with an appropriate SPF unit attached, for breeding for example mutant mice, is essential and should ideally be co-located with laboratories. There is also a need for additional technical support not only for the growing range of specialised equipment (as above), but also for computing. Furthermore the lack of a server for research staff and a centralised automatic backup system for research data presents challenges for research governance and data security. The Panel has been advised that there are core recommended options for staff, such as the use of national university networks for backup, but this does not seem to have been well communicated to the wider staff, who reported the use of personal external hard drives for this purpose.

The high teaching load of approximately 300 contact hours per annum for key leading research active staff limits their ability to build teams and compromises time for dedicated research. It also affects the ethos of the School. It may not be appropriate to expect all academic staff to conduct research or to lead individual programmes.

Overall Research Activity and Performance

Our comments reflect that some of the research is of an excellent standard but it should be appreciated that some of the remaining activity is fair rather than good.

Four members of the academic staff have CVs with evidence of excellent standards of scholarship and innovative research and the vast majority of other staff are engaged in some research activity. One member of staff, currently without published output of national or international standard, has recently generated significant grant income and it is appreciated that there is always a lag between gaining research awards and generating output.

Issues

- The score of 3/4 is considered an excellent one to have achieved during the short time frame of the School's existence. However whilst there are areas of research excellence, there is also a wide spread of areas of interest and lack of critical mass in any one area.

- There is every indication that the score will increase as greater proportions of staff become research active and increase the quantity and quality of their research output and other activities to match those of the strongest members of staff. It is unclear if there is a structured approach to this through regular staff appraisal, identification of career development needs and training.
 - The staff strategy as included in the written submission suggests all staff should have their own team by 2012. The Panel queries whether is achievable, desirable or sustainable. In contrast the overview from the Head of School highlighted the need for coherence, consolidation and concentration. The Panel would support these principles to which it would add collaboration.
 - The high teaching workload has been identified by the School themselves as a rate limiting factor to developing more research, and there is a tension between this and the expectation that all staff will become research team leaders. Consideration should be given to reducing the teaching load of key research staff and to increasing the staff establishment to provide additional teaching capacity. This does not mean that researchers should not teach; the Panel strongly believes in the holistic academic model which combines, teaching, research and contribution to the wider academic community, but the relative balance across these activities will vary depending on individuals' strengths, and stage of career, to the mutual benefit of the individual and the University.
 - Other concerns highlighted by the School and supported by the reviewers are the distance from the School to the animal facilities and lack of specific technical support.
- ity areas, but the areas of excellence would be the focus for future investment and support e.g. in strategic staff development, new appointments, facilities and equipment.
2. Whilst the written submission includes clinical practice and practice research as part of the research strategy, in practice to date there appears to have been a greater emphasis on the traditional science based areas rather than the pharmaceutical care and pharmacy practice research programmes. The staff in this area emphasised their particularly high teaching loads. This programme of work would benefit from greater theoretical underpinning through linkage with disciplines such as health economics, health psychology, and sociology, and greater relevance to the needs of the health service through links with other health care groups, especially medicine and nursing and their professional pharmacy bodies.
 3. Within the scientific areas of pharmaceuticals (drug delivery), pharmaceutical/medicinal chemistry, pharmacology, immunology and microbiology, consideration should be given to reducing the range of topics, developing a true molecule to medicine to man approach, and linking to the pharmacy practice team. Ideally this should be aligned to a thematic vertical strand linked to existing Centres in the University such as the Alimentary Probiotic Centre. In this way a critical mass would be developed leading to international esteem and recognition.
 4. In order to achieve the above a more detailed strategic plan for the School of Pharmacy should be produced to address both research and teaching goals for the next 5-10 years. It should support the main objectives of the wider College and University strategic plans and include for example:
 - a. Research direction and focus
 - b. Interaction between the groups in the School and between the School and the wider University to add depth to the research

Recommendations

1. It is recommended that consideration be given to identifying the areas of real potential and developing critical mass around these with the overall objective of increasing international visibility and being recognised as a centre of research excellence. This would not necessarily preclude the development of new ideas and support for more minor-

- c. Staff development, support, career progression, and succession planning
 - d. Relevance of research to wider professional needs
 - e. Building external relationships with other academic institutions, the industry, the research funders and the profession
 - f. Mechanisms to achieve agreed objectives such as the establishment of a School research committee
 - g. Addressing the conflicting demands of delivering quality teaching and research with only a relatively small staff base.
5. Whilst it is not within the remit of the Panel to address teaching issues, and the Panel has not been fully informed about this area of activity, there might be opportunities to work more efficiently in teaching without compromising quality through use of technology based pedagogy to supplement the small group teaching.

Overall Conclusion

The overall conclusion of the Panel is that the School should be congratulated on their achievements since the School was established in 2003.

However the current research reputation of the School is concentrated around a small number of key individuals some of whom were already established before moving to Cork. This leaves the School in a vulnerable position. It is essential that a structured approach should be taken to succession planning to identify and support a cadre of future senior members of staff with similar international profiles and areas of research excellence.

The strategic plan should be agreed and reviewed regularly, including the contribution of individuals to delivering on School objectives.

In order to fully achieve its undoubted potential, the School must be supported by the College and University with further investment in staff and facilities. In particular state of the art animal facilities are essential for the conduct of world class research.

SCHOOL OF PHARMACY

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		64%	74%
2.	Research Related Activities	3	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		20%	27%

Overall Assessment: Level 3/4

Overarching Issues And Recommendations For All Units Assessed

1. The Panel noted that there was much potential for inter-departmental, cross-school, and cross-college, research collaboration which was currently unexploited. The Panel identified research foci in each school that had the potential to be developed as interdisciplinary research areas (for example, areas of work in nursing [e.g. cancer research] that could be developed in collaboration with pharmacy and medicine; dental/oral health and food sciences; periodontal research and biochemistry; clinical therapies and engineering). Our discussions with the Head of the College of Medicine indicate that this is a key focus of his future research strategy and the Panel fully endorses this. However, the Panel believes there is much work to be done in creating a collaborative and collegiate research community and that this needs proactive facilitation and financial incentivisation.
2. In building a collaborative community of researchers the Panel noted the potential for the development of a 'Health Services Research Institute' as a means of formalising collaborations internal to the University, nationally and internationally. Examples of these research institutes exist in the UK (such as the UKCRC Public Health Research Centre of Excellence, Northern Ireland; the Scottish Health Research Networks <http://www.ukcrc.org/infrastructure/networks/crnscotland.aspx>; and HealthQWest (cross-Institutional research consortium) at Glasgow Caledonian University www.healthqwest.org/). The Panel identified high quality researchers in all units of assessment and there is much potential to further build the expertise of these researchers, strengthen their collaborations and secure major grants to establish a UCC-based Health Services Research Institute as a world-leading research centre.
3. The Panel identified the need for researchers across all units of assessment to grow their awareness of the wider context in which research takes place. It is necessary for researchers in the current academic and societal context to proactively engage with policy makers in order to build better dialogue, gain support for relevant research, help embed research into practice and establish research outputs on the international stage.
4. Most schools/centres have a good track record in securing research funding and the Panel acknowledges in particular those successes with European programmes. However, there is a tendency to be over-reliant on the Irish HSE for research funding. The Panel believes this to be a 'risky' strategy given the insecurity of HSE funding and the potential knock-on effect on the availability of research resources. The Panel recommends therefore that a proactive strategy should be put in place to ensure that researchers are aware of, and participate in, international political, policy and strategic agendas that can impact on research funding in particular and also that there is more proactive approach to lobbying and engaging with international research funders (e.g. The Wellcome Trust).
5. The Panel was impressed with the efforts made to engage in research by staff with demanding teaching loads, often well above the University's expected norm of 150 contact hours per year. The Panel is aware that the University does not operate a workload model for the allocation of different components of academic activity and this is problematic for a number of the schools/centres (as highlighted in individual School reports). The Panel recommends that the University and/or College consider the adoption of a workload model to guide decision-making. In adopting such a model, The Panel strongly recommends that the University 'protects' research-active staff and early career grade researchers. The Panel is aware of other universities, both in the UK and internationally, that have adopted such a strategy and that this has been highly successful in building research capacity, maximising research income and ensuring high-quality research outputs, without compromising teaching quality. Currently, all School staff are considered by the University to be 'research active'. However, based on the criteria the Panel developed to guide the review (based on international evidence and experience) up to 50%

of existing staff in different Schools are deemed to be non-research active. As the University progresses its research strategy it will be important to consider the impact of this large group of non-research active staff on the overall assessment of performance (lessons learned from the UK Research Assessment Exercise [RAE] are important to consider in this respect). Two important issues to consider in moving forward in this way are:

- h. Implement effective management of academic staff through the development of strategic plans and a performance review system
 - b. Build in flexibility in time-tabling in order to maximise academic impact.
6. Overt valuing and rewarding of teaching, pedagogy, enterprise, knowledge translation and knowledge exchange activities through the development of a parallel career track for 'non-research active' academic staff.
7. The Panel identified that the units submitted in Panel C did not make the most of academic enterprise, knowledge transfer and knowledge exchange activities. Indeed in discussions with members of the university senior management team, the Panel identified a lack of recognition of the potential of these activities. The Schools submitted in Panel C have the capability to capitalise on academic enterprise, knowledge transfer and exchange activities. Indeed these activities can achieve the following:
 - (i) enhance a school's research profile (in terms of recognition for its commitment to engagement with industry and service partners and the translation of new knowledge into practice);
 - (ii) act as a platform for building research profiles and research income streams through engagement with collaborative partners and
 - (iii) provide a focus of activity for school staff who do not have/may not wish to develop a formal research career.The Panel strongly recommends that these opportunities are explored and their potential maximised.
8. The Panel were concerned that the University Graduate School appears to operate as a 'virtual entity' without significant authority for the way in which doctoral programmes are managed within Colleges/

Schools. The Panel recommends that the university considers how the research experience of post-graduate students is managed. The Panel recommends that the Graduate School is the 'hub' of such management and should have its role enhanced as such and with clear authority and accountability for doing so. The Panel identified a variety of issues pertaining to the management of the progression of doctoral students and the monitoring of the quality of supervision (identified in individual school reports) that could be addressed through an effective Graduate School with responsibility for the management of rigorous governance structures and processes. Examples of effective graduate schools exist in universities in the UK and the Panel would be keen to recommend such models where they exist.

Summary

Overall, the Panel was impressed with the commitment and passion for research that it experienced in the individual schools. Many of these schools are 'new' to research and the Panel has tried as far as possible to take this into consideration in this review and recommendations. All the schools are in a strong position to develop and each has a sound platform upon which to build. The Panel has made a variety of recommendations, specific to the individual schools, but also recommendations for the College and the University Senior Management Team. The Panel believes that with focused strategic planning and decision-making these schools have an excellent research future and the potential to make significant international contributions.

Panel D

Analytical & Biological Chemistry Research Facility

Department of Anatomy

Department of Biochemistry

Department of Food & Nutritional Sciences

Department of Microbiology, incorporating the BIOMERIT Research Centre

Department of Pharmacology & Therapeutics

Department of Physiology



Panel members

- Professor Brian Clark (CHAIR), Institute of Molecular Biology, University of Aarhus, Denmark
- Professor Daniela Corda, Dipto. Di Biologia Cellulare ed Oncologia, Consorzio Mario Negri Sud, Italy
- Professor Antoine Danchin, Département Genomes et Genetique, Institut Pasteur, France
- Professor Rod Dimaline, School of Biomedical Sciences, University of Liverpool, UK
- Professor John Mitchell, School of Biosciences, University of Nottingham, UK
- Professor Søren Molin, Department of Systems Biology, Technical University of Denmark, Denmark
- Professor Daniela Rhodes, MRC Laboratory of Molecular Biology, University of Cambridge, UK
- Dr. Clare Stanford, Department of Pharmacology, University College London, UK
- Professor Jerry Wells, Head of Host-Microbe-Interactomics Group, Wageningen University, The Netherlands
- Professor Gary Williamson, Department of Food Science/ Functional Foods, University of Leeds, UK
- Dr. Susan Wray, Senior Investigator, Neuroscience, National Institutes of Health, Maryland, USA

Site visit

The site visit was conducted over 3.5 days from 23 – 26 February 2009 and included visits to departmental and library facilities in UCC and meetings with:

- Dr. Michael Murphy, President
- Professor Paul Giller, Registrar & Senior Vice-President Academic
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Michael Berndt, Head, College of Medicine & Health

- Mr. Brendan Cremen, Office of Technology Transfer
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian
- Professor Patrick Fitzpatrick, Head, College of Science, Engineering & Food Science
- Ms. Michelle Nelson, Head, Graduate Studies Office
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Professor Kevin Cashman, Head of School, and staff of School of Food & Nutritional Sciences
- Professor Richard Greene, Head of Department, and staff of Department of Anatomy
- Dr. Patrick Harrison, Acting Head of Department, and staff of Department of Physiology
- Professor Anita Maguire, Head of Institute, and staff of ABCRF
- Professor Rosemary O'Connor, Head of Department, and staff of Department of Biochemistry
- Professor Fergal O'Gara, Head of Department, and staff of Department of Microbiology
- Professor Frank van Pelt, Head of Department, and staff of Department of Pharmacology & Therapeutics

An exit presentation of the principal findings of the Panel was made to the Heads of Centres and departments in the afternoon of the fourth day.

Panel D Members

- Professor Brian Clark
- Professor Daniela Rhodes
- Professor Daniela Corda

Introduction: Scope and context of this review

In general, assessments were made difficult by the written information provided and the schedule of the site visit. The required entries specified in the report form generated a huge number of pages in which relevant information such as the research of each PI was lost amongst a sea of much less important details such as meeting attendance. In future, a better designed report form should be used so that the relevant information about the research and teaching is accessible to the reviewers in a concise format. Besides the criticism of the report format, the evaluation was further made difficult by incomplete submissions by staff members. Although instructions were provided for preparing the report not all Units adhered to this. For some units relevant information such as the brief summary on each PI achievements, three best publications and, importantly, a summary of their significant and innovative results, and strategic plans for the next five years, were missing in many cases. The evaluation was further made unsatisfactory by the short time allocated to visiting the units and talking to the staff. However, ABCRF performed very well in reporting appropriately as requested by the Quality Promotion Committee.

ABCRF is a praiseworthy initiative by the University. Overall the Panel was very impressed by the report and the presentation of the unit by the Director. She demonstrated a great talent as a motivated, enthusiastic leader fully aware of the work of her department. Our meeting with the scientific staff made a similar strongly positive impression on us. Although the unit's research has a strong technical element they play and will play an important role via their chemistry-biology-pharmacy interface. In particular the advanced training programme is of great benefit to the pharmaceutical industry and hence to the Irish society.

Quality Profile

Published Output

The Panel appreciates that this is a new initiative and this is reflected in the modest number of publications. Significant weight was thus laid on future plans and potential. Future publication policy needs to be more ambitious.

Postgraduate Training

The Panel was impressed by the quality and motivation of the students and by the fact that many came from outside Ireland.

Funding

The funding is clearly excellent, but primarily from Irish funding agencies or industry. In future EU funding should be applied for.

Peer Esteem

The Panel felt unable to evaluate this question accurately.

Research Environment

The Panel was very impressed by the facilities and the enthusiasm of the principal investigators.

Overall Research Activity and Performance

The strengths of the Unit include the great leadership and enthusiasm of all the staff. These include also the high motivation and quality of the students and post-doctoral fellows. The different projects appear to have great potential; the Unit has a well-formulated strategic plan for the next five years; the unit aims at excellent results. The Panel was convinced that this Unit is likely to perform extremely well, and should be supported accordingly.

Weaknesses include a relatively low number of publications, which the Panel has already commented on, due to the young age of the Institute. Also the number of senior PIs should increase, but the leadership is fully aware of this and recent adverts for a

Stokes Professor in Organic Chemistry and a Stokes Lectureship in Molecular Modelling are strategically very important in this context.

Recommendations

One of the important aspects of this Unit is to work at the junction between chemistry, biology and pharmacy. Giving more emphasis to biology would considerably strengthen the Unit and its research. Thought should be given to recruiting a senior PI at this level and increase the number of students or postdoctoral fellows coming from biological studies. More contacts with the life sciences and biology Departments of the University could help the unit in structuring this aim.

Overall Conclusion

The aims of ABCRF are very impressive and some of the areas of research are outstanding and innovative. The Panel believes the Unit will be very productive. In addition, the Unit fulfils an important role: it has an impact on policy development and in strengthening the interface between industry and academia. In addition, the emphasis on training PhD students and postdoctoral fellows is clearly very important nationally and internationally to the pharmaceutical industry and has significant potential benefits for Irish exports.

ABCRF: ANALYTICAL & BIOLOGICAL CHEMICAL RESEARCH FACILITY

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		50%	85%
2.	Research Related Activities	3	
3.	Funding	5	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		50%	100%

Overall Assessment: Level 4

Panel D Members

- Professor Rod Dimaline
- Dr. Clare Stanford
- Dr. Susan Wray

Introduction: Scope and context of this review

1. The reviewers felt that the assessment form itself was limiting, with not enough scientific detail provided. In addition:
 - a. Conference/proceeding reference section produced too many listed items to reasonably look through. Recommend maximum of 2-3/review year.
 - b. Although research output was being reviewed, departments should have had the opportunity to provide teaching hours on the assessment form.
2. The review panel felt that the time allotted to tour each department was inadequate. This was extremely frustrating for the reviewers and was exacerbated by the departmental presentations that repeated, almost verbatim, information in the document. The reviewers found this an enormous waste of limited time.
3. Highlighting papers published by postgraduate students in published paper listing would have been helpful and an important criterion for analyzing published output as well as postgraduate training.
4. The exit presentation with the departments seemed inappropriate and placed an undue burden on the panel as well as the departments and risks premature finalization of the panel's overall conclusions.

Specific comments for Anatomy:

As with some other departments, the submission included material from outside the review period. This should have been an appendix, if allowed at all. Certainly important items outside the review period could have been highlighted by a staff member in their research section.

The reviewers noted that in the Self-Assessment report the overall funding to the unit was difficult to assess, information in the individual assessments often contained information from outside the period being reviewed and the 3 most relevant papers for the review period were occasionally not identified. The individual assessments did contain brief, but adequate descriptions of their research.

Quality Profile

Published Output

Several excellent publications were produced during the assessment period. A few of these publications may, over time, be judged as work of the highest quality level but, due to their recent publication date, total significance of the work could not be accurately assessed. Nearly half of the staff is producing very good to excellent papers. Almost half of the graduate students with conferred degrees appeared to have published papers in solid journals, with several of these candidates having multiple papers. Not all graduate student projects (especially in a three year program) will be appropriate for the higher tier journals, but the exercise of putting together data and writing up a scientific manuscript certainly is an important aspect of graduate training and as such accounts for the slightly high percentage in category 2.

Growth of research activity and publications is anticipated as the newest two staff members become established and vacant positions are filled.

Postgraduate Training

Working space: this score primarily reflects the fact that both the staff and students commented on the geographical separation of office/teaching space in Windle from the research space in the BSU making supervision extremely difficult. Hopefully this will be resolved by relocation of the department to a single location, but faster alternative solutions should be examined. Certainly the lack of postdoctoral fellows compounds this problem and thus the staff should prioritise funding for postdoctoral fellows. The apparent drivers for recruitment of postgraduates rather than postdoctoral fellows were noted. Notwithstand-

ing these issues the students praised the department and their postgraduate experience and many have solid publications from the postgraduate training (see above).

Research Related Activities

The staff participate in a wide range of research related activities including invited talks (both national and international), reviewing grants and papers, and organizing national and international meetings. Several members participate in neuroscience congresses and have been instrumental in establishing and/or strengthening both the general neuroscience community in Ireland, as well as subgroups focused on their specific research interests. These research related activities have increased the exposure of these organizations both nationally and internationally. In addition, several members are also involved in translational meetings focused on human disorders associated with their research interest. Finally, the commitment of this department to imaging core facilities is highly commended and clearly strengthens the Department, the University and the National Scientific Community.

Funding

Several core facility and external grants have been obtained. Funding given directly to the Department was not clearly indicated on the assessment form. When this issue was brought up during the departmental tour, clarification was not obtained. Rather, it appeared that funding proportions to the unit were also unclear to staff. The Panel applauds the Department for bringing major core imaging facilities to the University. However, no clear indication of the percent of funding to personnel in the unit versus the running of core facilities was given. This made absolute research money difficult to calculate. However, the establishment of the core facilities, with one still to arrive, certainly strengthens both the Department and University. Grants to specific staff members are clearly increasing. Funding was primarily from SFI. Again it was unclear how much of the funding was being utilized by the Department.

With the new core facilities in place and a growing network of neuroscientists (in this Department, at the

University and throughout Ireland) one would anticipate growth in funding to continue as collaborations are started and as new staff become established. However, five staff positions still need to be filled.

Peer Esteem

The overall international profile of the Department is anticipated to grow as the Neuroscience groups at the University and across the country coalesce and the core image facilities become fully functional.

Research Environment

This Department has a multidisciplinary staff with a growing strength in neuroscience and imaging. The strength in imaging is enhanced by the recent hiring of the Head of Department who can bridge multi-imaging projects; from teaching to clinical. However, the Department needs to take advantage of already established research groups in limbic function, dopaminergic neurons and Parkinson's, and neurogenesis, development and diseases, with new hires in each of these subgroups recommended. Even with six Teaching non-research staff, it appeared that the teaching load was still very high possibly due to unfilled positions. It was clear that the staff is committed to quality teaching but the specific roles of non-research staff was unclear as were the hours of teaching by the research staff. However, the disconnected location of primarily teaching versus postgraduate students and research laboratories clearly impedes the overall productivity of this Department.

The lack of a Biological Services Unit on the main campus was identified as problematic.

Overall Research Activity and Performance

This Department is poised to grow and restructuring and expansion of research space should be emphasized during creation of a School of Life Sciences. Clusters of scientifically oriented programs should be encouraged with recruitment of new faculty to strengthen existing clusters. In addition, exciting changes to traditional teaching approaches with respect to gross anatomy may offer an additional source of revenue and facilitate research time. Scientific liaisons between basic

and clinical researchers with an emphasis on imaging cores should be encouraged.

Issues

- Research space containing core facilities is expanding while individual research space remains relatively small and crowded.
- The Department would benefit if the five unfilled research positions were re-opened.
- It was unclear whether technical support staff already in the Department are being utilized to help run the core facilities. If this is the case, appointment of a core facility manager may be appropriate in the future.

Recommendations

Consideration be given to:

1. Attract incoming faculty. A number of positions were left open as the former chair departed. These positions should be filled and the Department expanded.

2. Increase space. Research space needs to increase for present faculty and certainly when new faculty are added.

3. Internal funding to support imaging facilities.

Overall Conclusion

The Anatomy Department has solid funding and a productive group of scientists with a focus in neuroscience. The Department has coalesced into three groups studying:

1. limbic function,
2. dopaminergic neurons and Parkinson's,
3. neurogenesis, development and diseases.

The Department has a major strength in imaging, providing state-of-the-art facilities to their colleagues, including light, confocal, time-lapse and electron microscopy with the addition of a two-photon microscope soon to arrive.

Initiatives to strengthen existing department are recommended including additional staff, increased space, and support personnel for microscopy suites.

DEPARTMENT OF ANATOMY

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		20%	45%
2.	Research Related Activities	4	
3.	Funding	3 (individual) 4 (core facilities)	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		10%	60%

Overall Assessment: Level 3.5

Panel D Members

- Professor Brian Clark
- Professor Daniela Rhodes
- Professor Daniela Corda

Introduction: Scope and context of this review

The assessment was made difficult by the written information provided and the schedule of the site visit. The required entries specified in the report form generated a huge number of pages (over 600 for Biochemistry) in which relevant information such as the research of each PI was lost amongst a sea of much less important details such as meeting attendance. In future, a better designed report form should be used so that the relevant information about the research and teaching is accessible to the reviewers in a concise format. Besides the criticism of the report format, the evaluation was further made difficult by incomplete submissions by staff members. Although instructions were provided for preparing the report not all Units adhered to this. For some units relevant information such as the brief summary on each PI achievements, three best publications and, importantly, a summary of their significant and innovative results, and strategic plans for the next five years were missing in many cases. This made the evaluation as a whole very difficult. The evaluation was further made unsatisfactory by the short time allocated to visiting the units and talking to the staff.

For Biochemistry the lack of time visiting the unit was in part remedied by asking some of the staff to give talks on their work. This was very informative and mostly impressive. We were disappointed that the overall strategic plan focused on operational aspects such as laboratory space or collaborations and did not indicate the scientific vision for the development of this Unit. In future a more targeted description or ideas of the type of research envisaged should be presented.

Quality Profile

Published Output

The average number of citations per paper given in paragraph 3.1 of the submission did not refer to the aver-

age number of citations for the review period (2003 – 2008) and is not accurate for the period reviewed. It is accurate for the period indicated by the Department in the submission.

Postgraduate Training

The Panel was impressed by the quality and motivation of the students and by the fact that about 50% came from outside Ireland.

Funding

The funding is clearly excellent, but primarily from Irish funding agencies. In future EU funding should be applied for.

Research Environment

Research cooperation is hampered by lack of proximity. The disposition of the laboratories in three locations does not favour interactions, efficient sharing of equipment and collegial spirit. All efforts should be made to unite Biochemistry, if not in one building, in close proximity.

Overall Research Activity and Performance

The Unit carries out research of excellent quality and does an excellent job teaching and training graduate students. The large number of publications produced by the Unit, many of which are of high quality, impressed the members of the Panel. Whereas several PIs perform at a high level, a system should be put in place to improve coordination and a common plan for the development of the Unit. The incomplete assembly of the report presented to the Panel highlighted the lack of cohesion. Although the Panel was highly impressed by the excellent quality of the recently recruited PIs, this further diversified the activities of the Unit, which is rather small. More emphasis should be given to strengthening topics that are already present in the Unit.

Issues

As noted before, the split location of the Unit is a drawback.

While the Panel appreciates that diversity of research areas facilitates teaching and the availability of a variety of subjects to students, it is felt that the researchers are spreading themselves too thinly. Although the Unit acknowledges this, they do not have in place a strategy to improve cohesion, or think this is an important issue. This is surprising, since similar recommendations were given by the previous evaluators of this Unit.

The staff pointed out that they have a high teaching and administrative load, preventing them concentrating on research as much as they would like.

Recommendations

It is recommended that consideration be given to:

As noted before, it is essential to assemble the parts of the Unit in one location. The Unit could benefit from

an internal Steering Committee to improve cohesion in research and collegiality. The Unit should consider the benefits of putting in place an external Advisory Board. It will be important to nurture the career development of the young, recent appointments.

Overall Conclusion

The Panel had a very positive impression of the overall quality of research carried out by Biochemistry. The assessment was clouded by the incomplete required documentation. The lack of highlighting the three best papers and future scientific plans was an unfortunate omission. Several of the established staff are strong and are very productive. The Panel was particularly impressed by the excellent potential of new appointments that will take the Unit in new directions. Altogether the Unit rates very good to excellent internationally.

DEPARTMENT OF BIOCHEMISTRY

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		45%	75%
2.	Research Related Activities	4	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		60%	100%

Overall Assessment: Level 4

Panel D Members

- Professor Gary Williamson
- Professor John Mitchell

Introduction: Scope and context of this review

The Panel were asked to assess the activities of the Food and Nutritional Sciences Department and were initially sent a very large document which was too large for the time of the assessment. More defined and concise information would have been more appropriate. The presentation given by the Head of Department was helpful in focusing the departmental information. The visit to the Department was very helpful and well conducted, and the panel felt very well looked after during the visit.

Quality Profile

Published Output

Overall, the Department seems to have a very good to excellent publication record over the period 2003-8 in the area of food science and nutrition. Although publications listed are in the area of Food Science and Nutrition, there is a wide variation in output from individual members of staff. It was difficult to make a percentage estimate based on given output and the high number of published papers. The Panel read the 3 selected publications but cannot read all 500 to make a % of total publications. This highlights an apparent weakness in this exercise in the Department: the choice of 3 selected publications. Having seen an impressive full publications list of 4-500 publications in total, there was a really poor choice of 3 selected publications for some members, e.g. a patent (which although a good piece of work, was not included as it is confidential), sometimes more than 3 publications selected, not always research papers (book chapters, reviews, opinion – these are more measures of esteem), some were outside the period of review, 2 papers were submitted twice for different members of staff. The Panel would have liked to have seen 3 unique research papers from each member of staff, but 15 did not fit into this category and so could not be evaluated. The Department now has a substantial amount of basic research in all areas, which is combined well with the more applied elements

to make a suitably rounded research programme, and is an improvement from previous evaluations.

Postgraduate Training

PhD students that were seen (4 representatives) seemed very happy in the Department. A lot of emphasis on supervision of PhD students by postdoctoral fellows in some groups, which may limit the research carried out by some postdoctoral fellows but at least gives them teaching expertise. The Food Graduate Development Programme is encouraging and should increase career prospects of postgraduates in the future. There is a good international mix of students and postdoctoral fellows.

Research Related Activities

The extent of this across the department was very variable, and a consideration for the future is how to increase these activities for the less-experienced members of staff. Some highlights were the work on nutrient recommendations from the nutrition research, and interactions with industry from the food science and technology research.

Funding

This is a very well funded department from external funds (much from Ireland itself). It will be a challenge in the future for the Department to attract funding from the EU and industry in the current economic climate.

Peer Esteem

Very variable peer esteem across the Department, some staff had almost no peer esteem markers, some were only established within Ireland whereas some were very international. There is a problem with highly cited members of the Department having retired or facing imminent retirement, and a lack of any recruitment of staff since 2001. This would indicate potential problems for the future with lack of new blood.

Research Environment

The Department has very impressive building and space, some state of the art equipment and a new

human studies facility. Some equipment is ageing and will need to be replaced in some areas.

Overall Research Activity and Performance

Overall the Panel was impressed by the enthusiasm of staff and students and the level of research activity within the Department, evidenced by the excellent performance in attracting funding. The strengths are (1) biopolymer area as reflected by highly cited author ratings for 2 members of staff, and (2) the integration of the nutritional sciences staff whose combined output is very impressive. The morale is very good, but care needs to be taken that key staff are replaced. The Panel is also aware of the strong knowledge transfer activities which are not directly part of the assessment exercise.

Issues and Recommendations

It is recommended that consideration be given to:

1. Replacement of key staff with young blood. The retirement or impending retirement of key staff will have implications for the major research area within the Department. Consideration could be given to continuing the association by the Department with retired staff for some period of time to

ensure continuity to coach young blood perhaps taken from the excellent pool of postdoctoral fellows. The University claims to be investing in Food and Health research, but this has not filtered down to this Department in terms of new staff recruitment. Given the subject area, it would be expected that this Department was one of the main drivers of the Diet and Health initiative.

2. Food Research Institute plans: integration provides opportunities for collaboration and communication, but how could the quality of information (not the quantity) be improved? This institute should ensure this, and not just increase the administrative load. University could consider a good administrator for this Institute but funded by the University, not taken from the departmental budget. This could help the communication between University and Department, since there were some problems apparent in the preparation of the documents for this exercise.

Overall Conclusion

An excellent Department but facing some staff replacement problems in the future, and of course a more demanding future funding climate.

DEPARTMENT OF FOOD & NUTRITIONAL SCIENCES

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		45%	75%
2.	Research Related Activities	4	
3.	Funding	5	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		35%	63%

Overall Assessment: Level 4

DEPARTMENT OF MICROBIOLOGY

incorporating the BIOMERIT RESEARCH CENTRE

Panel D Members

- Professor Antoine Danchin
- Professor Soren Molin
- Professor Jerry Wells

Introduction: Scope and context of this review

The Department of Microbiology and the BIOMERIT Research Centre had submitted a 1010 page document ahead of the site visit comprising factual information about staff, publications, funding, conference participation, etc. The submission also contained a CV for all staff members. A strategy section in the submission outlined some very general points concerning future organisational issues and a SWOT analysis, detailed the strategic planning process and included research activities planned for the period 2008 to 2012. The presentation by the Head of Department to the Panel did include plans for the formation of a School of Life Sciences, including research themes and clusters and plans for emerging areas. The plans for research activities for 2008 – 2012 presented covered the development of existing portfolios and the development of new areas. The Panel requested interviews with a number of staff members and a selection of students. All wishes from the Panel were met and everybody was most helpful. It was clear that there was a generally good atmosphere among both staff and students.

The Department hosts a Research Centre – BIOMERIT – but as the members of this centre overlap with the Department Staff the Panel found no reason to evaluate them separately. Thus all the comments in the following text applies to both the Department and the research centre, BIOMERIT.

The evaluation is based on what it has been possible to conclude from the site visit and examination of the 1010 page submission document. Conversations with the staff and students certainly helped to generate a clearer picture of the science and future research plans within the Department and BIOMERIT.

Quality Profile

Postgraduate Training

Postgraduate students in the Department of Microbiology and the BIOMERIT Research Centre were generally very content with their research environment and training. The quality of supervision was not uniform across the Department but this could be improved through liaison with the Academic Council Graduate Studies Committee and the formation of clear policies regarding the documentation of meetings, the frequency of meetings with the supervisor and other members of the supervisory committee as well as a process for obtaining written feedback on the quality of supervision and training. The impression of the Panel was that the supervisory responsibility of some of the post-doctoral fellows was substantial. Presently it seems post-doctoral fellows are not formally recognised as co-supervisors by the University but if they are indeed performing this role there should be formal acceptance and recognition of the fact. This is likely to strengthen the commitment of the post-doctoral fellow and define the role and responsibilities that the co-supervisor, supervisor, and PhD student have towards each other. The anticipated large increase in numbers of post-graduate students in the unit may increase the burden of supervisory responsibilities and lower the overall quality of the PhD students. It would therefore be prudent to develop a strategy for dealing with these issues. There were 67 PhD and 27 MSc graduations in the period 2003-2008

Research Related Activities

Most of the activities of the Department and BIOMERIT, such as membership of state agencies, invited lectures, editorial positions, etc., are also measures of peer esteem and these were evaluated collectively. Overall the performance in peer esteem and research-related activities was excellent.

Funding

The level of external income to the Department and BIOMERIT is excellent but this is mostly from national

sources probably reflecting the Government's large investment in national research over the previous decade. In view of the growing integration of European research and the current economic climate it may be wise to encourage staff to participate more in European research programmes including the Marie Curie Schemes (People). Some members of staff would also be good candidates for the prestigious ERC grants and applications should be encouraged as this would reflect well on the University and the Department at an international level. The score given is based on combined national and international funding.

Peer Esteem

The measures of peer esteem indicate that most members of the Department, including the BIOMERIT Research Centre, have impact and recognition at both the national and international level.

Research Environment

The quality of the research environment is high and this was reflected by the general enthusiasm of staff for continuing their careers in University College Cork. It is not clear how the virology area will develop into a substantial activity and there are concerns that a critical mass will not develop sufficiently to gain international recognition and a high level of quality. Given the rapidly growing dependency of many areas of biological research on bioinformatics research and computing expertise this resource should be strengthened, even in the light of recent appointments of staff with bioinformatics expertise. The new developments and interest in the expansion of systems (micro)biology by BSI, ERI and national/international funding bodies makes this all the more important for the future of the Department and the BIOMERIT Research Centre. The teaching responsibilities of the Department were substantial but not exceptional compared to many other universities and were shared fairly evenly among the staff.

Overall Research Activity and Performance

The overall research performance is very good at all career development stages with some very promising staff members at the at the early career stage. This

bodes well for the future of the Department and the BIOMERIT Research Centre providing the positions resulting from retirement or promotion to higher grades can be replaced by new appointments. There are an impressive number of post-doctoral fellows making significant contributions to the academic outputs of the Department and the BIOMERIT Research Centre. The Department as a whole, including the BIOMERIT Research Centre, is internationally competitive and is performing excellently.

Issues and Recommendations

The area of virology is not of sufficient critical mass or as prominent as other areas in terms of research quality and a decision should be made about its future development. The necessary facilities for bioinformatics and computing were considered insufficient given current trends and strategies. The Panel recognizes that the Department has initiated investment into this area but anticipates that more investment is needed to maintain current research standing and capabilities. Specifically, the Panel recommends continued investment in personnel with expertise in bioinformatics research and the physical location of these staff at the interface between biology and mathematics/computing to promote integration and multidisciplinary.

Overall Conclusion

The Department and the BIOMERIT Research Centre have built up an excellent research portfolio based mainly on national funding but in the current political and economic environment it will be essential to focus attention on international sources of funding and a strategy to acquire and maintain key expertises in the rapidly developing areas of biological sciences.

DEPARTMENT OF MICROBIOLOGY incorporating the BIOMERIT RESEARCH CENTRE

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		45%	80%
2.	Research Related Activities	4	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		50%	90%

Overall Assessment: Level 4

Panel D Members

- Professor Rod Dimaline
- Dr. Clare Stanford
- Dr. Susan Wray

Introduction: Scope and context of this review

General comments:

1. The reviewers felt that the assessment form itself was limiting, with not enough scientific detail provided. In addition:
 - a. Conference/proceeding reference section produced too many listed items to reasonably look through. We recommend a maximum of 2-3/review year.
 - b. Although research output was being reviewed, departments should have had the opportunity to provide teaching hours on the assessment form.
2. The review panel felt that the time allotted to tour each Department was inadequate. This was extremely frustrating for the reviewers and was exacerbated by the departmental presentations that repeated, almost verbatim, information in the document. The reviewers found this an enormous waste of limited time.
3. Highlighting papers published by postgraduate students in published paper listing would have been helpful and an important criterion for analyzing published output as well as postgraduate training.
4. The exit presentation with the departments seemed inappropriate and placed an undue burden on the panel as well as the departments and risks premature finalization of the panel's overall conclusions

Specific points for Pharmacology & Therapeutics:

The Panel thanks the Department for their submission and supplementary information. Their compliance with the guidelines provided by the QPU greatly facilitated the review process.

The Panel notes that the Department teaches five different cohorts of undergraduate students (clinical as well as scientific) and has been engaged in substantial curriculum development and restructuring during the review period. The Panel's visit to the Department in the UCC Clinical Sciences Building helped to clarify details of these and other points in the submission document. Nevertheless, the Panel is concerned that this essential aspect of the review process was constrained by insufficient time being allocated for their visit to this site. It would also have been helpful to have met a larger sample of staff.

Quality Profile

Published Output

The Panel noted that an appreciable proportion of published output was 'excellent', as defined in the guidelines and that the majority of staff has contributed to the Department's publication record. The recent recruitment of junior scientific staff with a consistent record of publication should enable the Department to sustain this output and, as their research develops, to increase the proportion of research excellence.

Postgraduate Training

The postgraduate students appeared to be distributed across two UCC locations, at least. As a consequence of the physical separation of different elements of the Department, there were only occasional, *ad hoc* interactions between the students. Nevertheless, the students indicated that, in their view, their research experience and training were good, as were systems to monitor their progress. They confirmed that they have adequate representation of their views at faculty level and that they were given adequate funding to travel to scientific meetings.

Research Related Activities

The majority of staff is engaged in activities related to their research. However, the assessment reflects the imbalance in these activities across research-active staff. For staff with dual appointments, it was difficult to ascertain the commitment of staff to different research centres (Pharmacology, APC, Pharmacy,

TNI) and the proportion of their research-related activities that could be assigned to this department. The arrangements for postdoctoral staff were similarly unclear as these were not specified in the submission, although the Panel acknowledges that these are all comparatively recent appointments. Together with the recently recruited research-active academic staff, the postdoctoral fellows are likely to make substantial contributions to the Department's research portfolio in the future.

Funding

The research funding of this department is competitive at the national and international level. However, there was a lack of transparency as regards the funding allocation of staff with dual appointments. New recruits would benefit from a start-up funding package that would enable them to get their experiments underway, as well as to purchase essential equipment. The support of established staff, which enables new recruits to remain research active while applying for independent funding, is commended.

Peer Esteem

The international profile of the Department has been enhanced by the appointment of several staff with a strong research record, within the review period. The professional profile of this Department will be further enhanced as new appointees establish and expand their own research teams.

Research Environment

The research and teaching activities of many of the staff are scattered across many sites at UCC. The time invested in commuting from one site to another impedes research output and undermines the focus of this department. Research output and spirit of teamwork would benefit from concentration of departmental space on a single site. Such a remedy could emerge from the proposed restructuring and establishment of a School of Life Sciences. The Panel notes that there has been no appointment to a key (senior) staff post, which fell vacant recently. This has left the Department with no senior spokesman for strategic reorganisation. Also, the increased administrative burden on staff will have affected their research output.

Overall Research Activity and Performance

The research output of some individuals within the Department is excellent. The overall score is skewed by the dependence on satellite research facilities and lack of senior academic leadership. Collaborations within this Department and beyond could be facilitated by the formation of a School of Life Sciences.

Issues

The Department is fragmented, physically and intellectually, by its infrastructure. This is exacerbated by dual appointments and the failure to fill a vacant post, which would enable the appointment of a full-time Head of Department with professorial status.

Recommendations

It is recommended that consideration be given to:

1. Physical unification of different elements of the Department's activities and its relocation to main campus.
2. Extension of the BSU to establish animal facilities on the main campus.
3. Consolidation and expansion of collaborative research projects.
4. Filling of vacant academic positions, notably at professorial level.

Overall Conclusion

Individual members of staff are performing ably in the context of a disparate research environment. However, they have suffered from understaffing and a lack of senior academic leadership. A deficit in senior appointments (following professorial staff departures or secondment) should be resolved as soon as possible in order to re-establish the coherence of the Department.

The reviewers noted that several academic members of staff were not able to attend the meeting with the Panel. This made full review difficult and possibly impaired the development of a balanced overview of the Departments' achievements.

DEPARTMENT OF PHARMACOLOGY & THERAPEUTICS

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		25%	40%
2.	Research Related Activities	2	
3.	Funding	3	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		15%	55%

Overall Assessment: Level 2

Panel D Members

- Professor Rod Dimaline
- Dr. Clare Stanford
- Dr. Susan Wray

Introduction: Scope and context of this review

General comments:

1. The reviewers felt that the assessment form itself was limiting, with not enough scientific detail provided. In addition:
 - a Conference/proceeding reference section produced too many listed items to reasonably look through. We recommend a maximum of 2-3/review year.
 - b Although research output was being reviewed, departments should have had the opportunity to provide teaching hours on the assessment form.
2. The review panel felt that the time allotted to tour each department was inadequate. This was extremely frustrating for the reviewers and was exacerbated by the departmental presentations that repeated, almost verbatim, information in the document. The reviewers found this an enormous waste of limited time.
3. Highlighting papers published by postgraduate students in published paper listing would have been helpful and an important criterion for analyzing published output as well as postgraduate training.
4. The exit presentation with the departments seemed inappropriate and placed an undue burden on the panel as well as the departments and risks premature finalization of the panel's overall conclusions.

Specific comments for Physiology:

The Panel thanks the Department for the provision of submitted documentation, which adhered to the guidelines provided by the institution and greatly facilitated the review process. The reviewers were impressed by the extensive and enthusiastic involvement of physiology staff during the visit of the panel to the Depart-

ment. The visit provided additional valuable information and the panel regretted that more time was not allocated to this aspect of the review process.

Quality Profile

Published Output

The Panel noted examples of output that fell within the category of excellent in terms of originality, significance and rigour, and a reasonable proportion of output that demonstrated significance to the discipline and rigour to a very good standard. The numbers of original research articles published in peer-reviewed journals was modest but showed signs of increasing. The future growth in the quality and quantity of published outputs, which can be anticipated as recently appointed staff develop their research portfolios, depends critically upon the provision of adequate and appropriate research space in a timely manner. In addition, it will be essential to ensure replacement of retiring staff in order to maintain a manageable teaching and administrative load.

Postgraduate Training

The Department presented a well-organized training programme that includes a Thesis Review Committee, a journal club and seminar series. The students to whom the Panel spoke appreciated these structures and also felt that they enjoyed appropriate representation at departmental meetings. They were generally well-motivated and enthusiastic. However, the lack of quality research space already has an impact on the ability of students to perform individual experiments: unless rectified, this will certainly prevent the Department from increasing postgraduate student enrolment.

Research Related Activities

The extent of research-related activities varies considerably across the Department. A substantial proportion of the staff is at an early career stage and consideration should be given as to how their research-related activities can be increased. The Panel would anticipate increases in research-related activities from this relatively "young" department, but this is contingent on provision of support, in terms of staffing levels and

research space, as indicated elsewhere in this report. If no new research space is given, loss of the newly hired 'research productive' people is inevitable.

Funding

As recognized by the Department, a major effort should be made to increase research funding, particularly to support additional postdoctoral positions. If successful, this is likely to have a major positive impact on the research environment, particularly for postgraduate students. However, funding must be accompanied by additional space allocation, appropriate for the research areas in which the staff are engaged.

Peer Esteem

The overall international profile of the Department was increased with the arrival of the current Head of Department. The Panel anticipates the quality level of peer esteem to increase further as recently appointed members of staff expand the professional context of their research activities.

Research Environment

The low assessment reflects an infrastructure that falls short of acceptable standards. In spite of this impediment, the Panel recognized the dedication, commitment and loyalty of the staff.

Overall Research Activity and Performance

Historically, the department suffered from the concentration of research activity almost entirely in one major grouping, with teaching covered predominantly by a small cadre of other staff at the expense of their own research activities. The effects of the precipitate departure of this large research group were predictable and highlight the dangers inherent in the separation of research and teaching activities. The current Head of Department has been able to improve the situation over the review period by attracting additional research active staff, including a recent and potentially very strong professorial appointment in the area of metabolic disease. The situation has also been improved by a policy to distribute more evenly

the teaching activities across the department. The Department is now well placed to move forward. The overall assessment reflects this potential. However, the ability of this Department to realize its full potential will depend on (i) the timely replacement of staff who are destined to retire in the near future (and who still carry a significant teaching burden) in order to maintain a manageable teaching load; and (ii) a more equitable allocation of university resources and space. Integrative physiology and translational research, which are important components of future plans, would be facilitated by development of a BSU on the main campus.

Issues

One issue that has impinged on many categories of assessment is that of research space. The research space currently occupied by this Department is unacceptable.

The staff also voiced concern regarding:

1. Timely replacement of future retiring staff to ensure that teaching loads on present staff do not increase at the expense of research.
2. Potential loss of departmental identity and resource allocation with creation of a School of Life Sciences.
3. A perceived lack of transparency in the process by which research overheads are competitively allocated.

Recommendations

1. Immediate allocation of additional, appropriate research space.
2. Timely replacement of all retiring staff.
3. Allocation of resources during establishment of a School of Life Sciences must allow for future growth and development of this department.
4. Continuation of efforts to raise funds to enable expansion of the BSU to include a facility on the main campus

Overall Conclusion

The reviewers acknowledge the strong, concise and realistic written submission by the Head of Department, indicating the strengths of this relatively 'young' departmental group and acknowledging areas that require improvement. Three working clusters were identified: molecular physiology and cell signalling; cardiovascular physiology and neurophysiology. Clear collaborations are possible within the Department, and collaboration elsewhere within UCC may be facilitated by the proposed creation of a School of Life Sciences. The reviewers were struck by the commitment and support of all members of the Department to the growth and establishment of a strong physiology group dedicated to both teaching and research of high quality.

Although the Department had previously suffered from the loss of a large research group, the reviewers noted a lack of intervention on the part of the University to aid rapid restoration of research-active staff. In fact, although the Head of Department sought to rebuild the research base, the difficulties were prolonged by the absence of sufficient appropriate laboratory space. The future success of this Department depends on its sympathetic integration into the proposed new School of Life Sciences. The infrastructural arrangements for this new grouping are not yet clear, but it is essential that the Department of Physiology is afforded sufficient institutional support to enable it to develop its own programmes and to benefit from the opportunities for collaboration.

DEPARTMENT OF PHYSIOLOGY

Quality Profile

	METRICS	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		5%	30%
2.	Research Related Activities	2	
3.	Funding	3	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		10%	35%

Overall Assessment: Level 3

Panel E

Department of Chemistry

Department of Geology

Department of Physics

Department of Zoology, Ecology & Plant Science (ZEPS)

Environmental Research Institute

Tyndall National Institute



Panel Members

- Professor George Attard, School of Chemistry, University of Southampton, UK
- Professor Daniel Blumenthal, Department of Electrical and Computer Engineering, University of California, USA
- Professor Brian Bluck, Professor Emeritus, Department of Geographical and Earth Sciences, University of Glasgow, Scotland
- Professor Gary R. Carvalho, Professor of Molecular Ecology and Deputy Head of School, University of Bangor, Wales
- Professor Stephen Clark, WestCHEM Professor of Organic Chemistry University of Glasgow, Scotland
- Professor William Graham, Centre for Plasma Physics, Queen's University Belfast, NI
- Dr. Jeff Graves, Senior Lecturer, Biology, University of St Andrews, Scotland
- Professor Peter Kokelaar, George Herdman Professor of Geology, Department of Earth & Ocean Sciences, University of Liverpool, UK
- Professor Stephen Phillips (Chair), Chair of Board of Directors, Division of Infection and Immunity, University of Glasgow, Scotland
- Professor Dieter Schinzer, Chemisches Institut, Otto-von-Guericke-Universität, Germany

Site visit

The site visit was conducted over 3.5 days from 12 – 15 January 2009 and included visits to departmental, institute and library facilities in UCC and meetings with:

- Dr. Michael Murphy, President
- Professor Paul Giller, Registrar & Senior Vice-President Academic
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Michael Berndt, Head, College of Medicine & Health

- Mr. Brendan Cremen, Office of Technology Transfer
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian
- Professor Patrick Fitzpatrick, Head, College of Science, Engineering & Food Science
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Professor Tom Cross, Head of Department, and staff of Department of Zoology, Ecology and Plant Science
- Professor Alan Dobson, Director of Institute, and staff of Environmental Research Institute
- Professor John Gamble, Head of Department, and staff of Department of Geology
- Professor John McNerney, Head of Department, and staff of Department of Physics
- Professor Eoin O'Reilly, on behalf of Head of Institute, and staff of Tyndall National Institute
- Professor John Sodeau, Head of Department, and staff of Department of Chemistry

An exit presentation of the principal findings of the Panel was made to heads of institutes/departments in the afternoon of the fourth day.

Introduction: Scope and context of this review

Panel E was tasked with covering a diversity of subject disciplines. Each area/discipline was assessed in depth by a minimum of two experts on the Panel and for each of Chemistry, ZEPS, and the ERI there were three experts. Most of the written submissions from the departments and institutes were available on-line for the Panel a month or more ahead of the visit to UCC. In some cases members of staff had not followed the instructions for their submissions completely and this was largely rectified by the omitted material being made available for the Panel members on their arrival at UCC. The volume of material to be read on-line was

formidable, either to read on a computer screen or to print off. The Chair asked for the Research Quality Review submission from each department/institute to be sent to him as a hard copy which allowed him to ensure he had read all the submissions across the subject areas ahead of arrival in Cork. For future reviews the committee should be provided with hard copies of the essential material for reading at their home institution, well ahead of the visit to UCC. Most of the Committee have had extensive experience in research quality reviews, are internationally known in their fields and were well familiar with the criteria to be used for deeming research to be international or national standard. Although at least three members had visited UCC on one or more occasion previously and were known to some members of the UCC staff who were to be evaluated the Panel was totally confident that this did not prevent an entirely objective assessment of the research. The Panel spent three full days working at UCC during which the group was able to visit the departments/institutes it was specifically tasked to review, and to meet with academic

and research staff, and graduate students. For some subjects the Panel was able to meet with the graduate students privately. The Panel made strenuous efforts to ensure that the same standards and criteria were being applied across the subject areas, and believes it achieved this. Nonetheless the Panel recognise that if more time had been available other more objective assessment criteria could have been brought into play, such as more use of citation indices.

The Panel expects some departments/institutes may be disappointed in the overall assessments, particularly at the highest levels but hopes that any criticisms are constructive. Due note has been given to the difficulty of reaching international levels in research while carrying a teaching burden which their counterparts in some other national and international institutions would find crushing.

Quality Profile

Published Output

The submission contains a number of outputs of the highest quality. The majority of outputs within the review period are not of strong international standing. A small proportion of the papers has been published in journals having the highest impact and relatively few of the papers are highly cited. It is noted that the average rate of publication is low, at approximately two papers per year per FTE (full-time equivalent staff).

Postgraduate Training

The Department clearly values its postgraduates and it appears from talking to a small group of students that postgraduates work in a relaxed and supportive environment. The Department has a reasonable progress monitoring and pastoral care infrastructure in place. During the assessment period, there was only a patchy infrastructure for professional development (in terms of postgraduate courses, transferable skills courses, etc.), although this is now changing. One of the most striking aspects of the postgraduate experience is the gap between the nominal length of a PhD (3 years) and its actual duration (4.2 - 4.8 years). There appears to be no formal arrangement for covering student income over this period, with students generally taking on part-time jobs to fund the period up to submission of the thesis or being paid by their supervisor on an ad hoc basis. Students would welcome greater clarity on realistic submission timescales at the outset of their Ph.D. A further aspect of the postgraduate experience is the highly variable quality of postgraduate office accommodation, with some occupying offices that are outside laboratory areas (as is modern practice) with others occupying desks in laboratories, sometimes with relatively ineffective air extraction systems.

Research Related Activities

The Department is commended for playing a full part in supporting industry in the region, particularly in the area of pharmaceuticals. Members of staff have taken leadership roles in the development of industry/university collaboration policy. Several members of staff have patent applications, and some of these have led to

a spin-out company. The Panel notes from the submission that in some cases engagement with business has come at a price, namely a decrease in the published output of staff involved.

Funding

The Department has been very successful in achieving high levels of research income, though it is noted that this income generation has been driven by a relatively small number of staff. Funding is primarily from national sources; EU income decreased significantly over the assessment period. It is also noted that there appears to be a significant mismatch between the amount of funding secured and the overall quantity and quality of research outputs.

Peer Esteem

Overall the evidence of esteem for the Department is weaker than its research output. There is little international recognition, at the highest levels, of the quality of the research output. The highest level of esteem is associated with small proportion of the staff. During the assessment period, there have been few awards/medals and invitations to staff to present plenary lectures at prestigious international conferences.

Research Environment

The research environment over the assessment period has generally been poor – with the Department being housed in old and poorly maintained buildings. However, investment has led to the refurbishment of a number of areas – relating to research that is part of the research institutes – to very high standards. The ABCRF and National Tyndall Institute provide world-class facilities for research. It is noteworthy that in spite of a challenging research environment during much of the assessment period, some members of the Department managed to produce research outputs of the highest quality. Ongoing refurbishment for the Kane building and other plans in hand should lead to a research environment that is internationally competitive.

Overall Research Activity and Performance

The review period has been one of considerable change for the Department. It has begun to focus its activities into three thematic areas and has clear aspirations to build a strong presence through the appointment of new staff and a substantial increase in postgraduate numbers. The Department is to be commended for its engagement with the research institutes (ERI and ABCRF) and the National Tyndall Institute. Overall, the research activity and performance of the Department demonstrates significance to the discipline and rigour to a very good standard. It is clear that the research work has had a significant impact on research and/or policy agendas. However, it is noted that a small number of researchers (less than 15%) have outputs that are of world-leading standard, with outstanding research, displaying a very high level of originality and significance to the discipline, and are agenda-setting in both research and policy fields. As part of its aspirations, the Department has been improving its research environment, but is still housed in poor accommodation.

Issues

- Seven members of staff were appointed during the assessment period – there is little evidence that these new staff are making an impact (few publications, mainly with former PhD/postdoctoral supervisors). This issue will need to be addressed if the overall research quality of the Department is to improve significantly, as these staff are the future of the Department.
- The Panel notes its concern about some staff (2 people) who have been active members of the Department for more than a decade but seem to be effectively research inactive. Clarity about their roles within the Department will be important in moving forward with its expansion strategy.
- The Department's aspiration to increase postgraduate student numbers is driven by a national push. It is not clear that even with the hoped-for increase in staff numbers that the Department will have the resources to provide the students with the highest quality training experience and environment. There is a risk of compromising current activities during the expansion phase unless

appropriate institutional/national funding is made available.

Recommendations

- The Department should strive to increase its presence at an international level in order for the undoubted quality of its research output to be more widely appreciated than is currently the case. All staff should be encouraged to publish in high impact journals. Staff will need to win more awards/medals and secure more invitations to speak (plenary/invited) at higher profile international meetings. Key members of staff should be encouraged to play leading roles in national and international research strategy forums.
- A more robust system of self-evaluation and performance management should be implemented. The Department will need to ensure that this is managed proactively such that the research of those involved is visible to the outside world. It is noted that there does not have to be a conflict between commercialisation and publication of excellent research – the infrastructure can be used to enable additional research that is not covered by commercial agreements. The rate/volume of published work should be increased substantially. An attempt should be made to use the research funding coming into ABCRF as a springboard for new initiatives/directions that will lead to high quality publications in the primary literature and invitations to speak at international meetings.
- The postgraduate experience should be improved and consideration should be given to adopting some of the best practice that is, for example, identified in the UK's QAA code of practice for postgraduate supervision.

Overall Conclusion

Although overall the performance of the Department during the assessment period has not been of the highest international quality, the trajectory is very clearly an upward one. The more focussed aspirations of the Department, supported by key agenda-setting staff, an improved infrastructure and a more robust management approach should lead to the Department achieving the highest levels of research quality in an international context across all its activities

DEPARTMENT OF CHEMISTRY

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		23%	43%
2.	Research Related Activities	4	
3.	Funding	5	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		24%	48%

Overall Assessment: Level 3

*(7 full-time academic staff, 2 part-time academic staff,
1 post-doctoral researcher)*

Quality Profile

Published Output

Staff recognize the importance of publishing in high-quality journals; significant improvement on this score profile could be achieved via a very substantial improvement of the Research Environment (see below).

Postgraduate Training

Pastoral care and dedicated training are excellent; interviewed students were very supportive of the staff and appreciated their efforts to gain access to facilities elsewhere to process and analyse research materials. The Department should be supported in its efforts to access pan-Irish and other European research facilities in support of post-graduate research and training.

Research Related Activities

This score does not clearly express the fact of some excellent/outstanding, a fair proportion of good, and a tail of marginal to inadequate. Certain staff are involved in international research steering panels, are editorial board members of international journals, organize international workshops and advise on World Heritage sites; some staff have significant involvement in local environmental issues, especially regarding groundwater and energy supply.

Funding

This result masks some bimodality; 30% good to excellent (International, EU and National), remainder adequate or inadequate. There is a direct positive correlation between the quality of published output at levels 4 and 3 and the amount of funding earned by those staff.

Peer Esteem

One member of the Department has exceptional international esteem that should be a matter of pride for UCC.

Research Environment

The accommodation and equipping of staff in Geology is very unsatisfactory and very seriously impairs the research performance. Staff, post-graduates and teaching are widely dispersed over six sites. Thus the potential for lively and frequent research exchanges among staff and post-graduate students is severely limited. The potential move to join ZEPS (Zoology, Ecology and Plant Sciences Department) at the Distillery site affords a great opportunity to join a vigorous research unit and to escape these fundamental problems of infrastructure. Planning for this move is apparently proceeding very slowly. Identification of suitable space at the Distillery has to be completed; it should be expedited.

The teaching load appears to be particularly high. The Panel asked for a statement about the funding of FTES (full-time equivalent student) and the support for the Department, but received no reply. To optimize research there should be consideration of teaching redistribution and/or rationalization, or employment of new staff, if the University wishes to maintain the current teaching commitment. As in the other academic units of assessment, a Workload Model/Staff Activity Profile should be developed to guide allocation of teaching duties.

Support staff provision is particularly poor comprising just one technician and one administrator/secretary. This may improve on physically combining with ZEPS; sustaining the technical support for Geology within the new unit will be important. A technician competent in thin-section and basic rock preparation is essential in the Earth Sciences.

The provision of Geology equipment is extremely poor. As a result research data collection by staff and postgraduates is mainly done out of the University and often out of Ireland, frequently involving a considerable delay. Postgraduate students are over-running their completion dates because of this. There is a desperate need to re-equip the Geology Department. To that end an X-Ray Fluorescence Spectrometer should be purchased and there should be access to a Scanning Electron Microscope. There seems

scope for a successful joint bid (ZEPS / Geology) for an advanced SEM facility.

The Panel members were very impressed with the positive attitude towards research of the majority of staff and their considerable commitment to post-graduate and undergraduate students, despite the shortcomings listed above. The Departmental research seminar series is a strength. The Panel believes that with the move to ZEPS and with sufficient funding for equipment and for staff, a revitalised and research-productive Geology ‘department’ would emerge.

Overall Research Activity and Performance

Geology suffers by carrying a legacy from former years of relative research inactivity. The Department now includes some very capable, active, hard-working researchers who are a credit to UCC. These are either clearly on upwards research trajectories or have clear potential for research-level improvement if properly equipped. Other staff, less active in research, are nevertheless hard-working and committed Departmental players with vital roles in teaching undergraduates and training postgraduates. The Geology cohort should be facilitated to develop full potential to be a strong part of UCC.

DEPARTMENT OF GEOLOGY

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		20%	60%
2.	Research Related Activities	3	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		20%	40%

Overall Assessment: Level

A single numerical assessment that would be taken to mean one condition, for example as specified for Category 3, paraphrased ‘majority good ... other fair’, would be misleading. The overall assessment is that the Department comprises some accurately described as Category 4 and a tail at Category 1.

Issues

There is a pressing need for Geology to be reinforced, particularly to enhance the quality of laboratory facilities and to enhance the research environment (see above).

Recommendations

It is recommended that the merger with ZEPS is expedited and that this is accompanied by provision of basic research preparation and analytical facilities.

Overall Conclusion

This is potentially a very sound Department with researchers reaching out to the international community. It is severely constrained by lack of resources: no thin sections (essential for preliminary investigations in the Earth Sciences), no fundamental equipment to analyse rocks (XRF), high teaching loads and lack of space. For a small investment of capital the University would reap a substantial gain in quantity and quality of research. Geology needs funding to release its true and full potential.

Physics at UUC is a small department with, at the census time, 8 permanent full-time and 2.5 FTE part-time academics, with a number of senior researchers at the Tyndall Institute affiliated with the Department. In addition there are nine postdoctoral staff and in 2007/2008 there were 50 registered doctoral students. The research facilities are divided between the Department Building on the main campus and the Tyndall Institute. The Department has developed a new research strategy focusing in three primary areas (1) optics (quantum, photonics, nanoscience, spectroscopy), (2) relativistic astrophysics and (3) biological and medical physics.

Quality Profile

Published Output

The assessment of published output is based on an evaluation of the three published papers provided by the 22 researchers associated with the Physics Department. It is based on

- how the authors themselves describe in their paper the relationship of the new work to existing work in the field and their predicted impact of the work.
- the immediacy of the impact of the work, assessed by the number of citations the paper has received, as recorded in the Web of Science and in the context of the time since publication.

The work was graded using the definitions set out in the UCC Review guidelines. Upon detailed review of the submitted publications the Panel concluded that some of the work is excellent, even world-leading, with the majority of the outputs deemed to be significant to the discipline with either a very good standard or an adequate standard of rigour. The Panel did find that a small percentage of the submitted work was low impact. A similar distribution of research quality was found in all the main research areas.

Given the quality and potential of the staff and what seems to be a good level of external funding the research impact should be skewed much more to the higher end. The Panel concludes that, once new departmental staff become fully established and the full impact of the relatively new experimental facili-

ties and refurbishment are realised, the quality of the outputs will improve.

Our recommendations in this area include the following:

- Increased mentoring of younger staff, particularly in the context of this style of research quality assessment (for example, aspiring to publish in the highest quality, most cited journals).
- The Department, with the University, should increase the time available for research, including the associated grant submission and paper publication success rate, by rationalising teaching and administrative work loads of research active staff.

Postgraduate Training

Unfortunately the Panel did not have an opportunity to meet with any of the postgraduate students. The staff, however, demonstrated a clear commitment to provide their PG students with a top quality post graduate education. In future reviews, the Panel believes it is important to have time dedicated to meeting the students in all the departments being assessed.

The Panel shares the general concern across Panel E about the length of time it was taking in the students to complete their PhDs, against the studentship duration of 3 years.

Recommendations

The Panel recommends the following:

- That there is a move to provide a common experience for PhD students, particularly in the provision of taught courses, both general and subject specific.
- This provision should be carefully managed and integrated with the taught Masters courses.
- All postgraduate course development and rationalisation should be in the context of increasing research time for research active staff, so the Panel applauds their enthusiasm for all-Ireland graduate courses.

Research Related Activities

There was evidence of individuals having quite strong external research-related activities associated with funding bodies, consultancy, conference organisation, journal editing, refereeing etc. but this was patchy and it is felt that this is an area that needs to see more activity if the Department is to improve its national and international profile.

There was also evidence of patent-generating activity and industrial involvement with industry in the areas associated with Tyndall which will be discussed in the Tyndall Institute section of the Panel E.

Recommendations

The Panel's recommendation is that there should be:

- increased mentoring and encouragement of all staff to increase their involvement with the external research communities in their research areas.

Funding

The Panel found that, across the Department, there is a very good level of funding, particularly in the photonics and nano-science areas, which are SFI priorities. However, even researchers who do not work in these high priority areas have demonstrated that they can successfully compete for funding and gain access to international facilities to maintain their research activity.

Recommendations

The Panel recommendations in this area are:

- To increase the push to secure EU funding through rebalancing of teaching commitments, increase in available staff resources for grant submission and administration, and incentives to faculty and researchers to bring in external research funding.

Peer Esteem

The profile of measures of esteem presented in the documentation was generally disappointing. Some staff had been invited to present at international meetings. However, overall that number and all other indicators

of esteem should be higher in order to place in a top tier research department.

Recommendations

The Panel recommends that

- In the context of this style of research quality assessment, a proactive approach to improving the overall international profile of the Physics Department members should be implemented through mentoring and external promotion of younger staff by the senior staff.
- There should be increased mentoring and push for all to be involved with international, peer reviewed journals and conferences and the conference organisation and professional bodies.

Research Environment

Physics research is carried out in two locations (i) the Physics Building on the main campus and (ii) in the Tyndall Institute located off campus. At present the research environment across Physics is highly variable. The facilities in the Tyndall Institute, discussed in more detail in the separate Panel E report on the Tyndall Institute, are of a very high quality and the environment there will be further enhanced with the completion of the new building. The facilities seen in the Physics Building were found to be not conducive to world-class science. In most cases there was substantial overcrowding in laboratories and postgraduate student offices. However the Panel understands that at least some of this was due to refurbishment and the Panel would hope the situation is substantially improved when that work is completed.

Overall Research Activity and Performance

The majority of staff of the Physics Department are active in research and the Department is making a significant contribution to the subject, with some excellent and even world leading work. The percentage of staff with clear evidence of connectivity with the international community, as seen in various esteem indicators, could be stronger, given the quality of the staff and research. The overall quality of outputs and esteem should be expected to improve when the potential of

the new staff, the impact of the relatively new experimental facilities and refurbishment are fully realised and the Staff adapt to this style of review. Physics has a good appreciation of its strengths and has a well thought out strategy for future research activities.

Issues

At the meeting with the Physics staff the major issue discussed was their concern about the lack of overhead distribution to Physics from funding won by those with joint appointments in Physics and Tyn-dall. They believed this was hindering their ability to implement a research strategy for the Department by preventing them accessing the funding to develop their new strategy. This was brought to the attention of the University management, who offered an alternative perspective. It is recommended that the Department and University resolve this issue to the satisfaction of both parties.

Recommendations

A summary of the Panel's recommendations are:

- the Staff recognise the need to evaluate and improve the quality of their outputs and esteem, particularly in the context enhancing their performance in this style of research quality assessment

- that younger staff are mentored and helped in enhancing their esteem indicators as defined in this evaluation process
- increase the time available for research by rationalising teaching and administrative work loads of research active staff
- a move to provide a common high quality experience for all PhD students, particularly the provision of general skills and subject-related courses and management of completion times
- enhancement of resources for the faculty and researchers to enable them to extend the range of funding sources
- implementation of the new research strategy with concrete processes in place to support this strategy and a unified departmental approach with clear timelines and intermediate goals, milestones and associated metrics.

Overall Conclusion

The Physics Department has overall a good quality of research, with the potential and motivation for the needed improvements to attain the level of excellence to which they aspire.

DEPARTMENT OF PHYSICS

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		20%	60%
2.	Research Related Activities	2	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		25%	50%

Overall Assessment: Level 3

The Department of Zoology, Ecology and Plant Sciences (ZEPS), housed on the Distillery Fields site, hosts a diverse research community, encompassing molecular and organismal aspects of animal and plant sciences, and with a strong, though not exclusively, aquatic focus. Although the primary facilities are housed within the Distillery Fields complex, ZEPS has access to several field sites, and has especially strong research collaborations with the Environmental Research Institute (ERI), where some ZEPS staff and postgraduate students have research facilities.

Sub-group B of the Panel visited the Distillery Fields site (Butler and Cooperage Buildings), including the greenhouse facility, and associated aquaculture resources. Sub-group B had the opportunity to address all Departmental members on arrival and receive their questions and comments, as well as a postgraduate-only briefing. Members of the Panel were then shown research facilities, and had the opportunity to meet some of the staff and students across the ZEPS complex.

Quality Profile

Published Output

- Profile and comments include assessment of appropriate postdoctoral contributions as well as academic staff and is restricted to the assessment period.
- High quality output (> 64% outputs that are very good and excellent) across academic staff and postdoctoral community - and also notable is the volume of output.
- Pleasing to see a spectrum of output types have been targeted, including international high quality journals, conceptual contributions, reviews, chapters, books and edited proceedings.
- The quality and volume of output is impressive in its own right – but it is noteworthy that such output is sustained in the face of very high teaching loads (average 80 lectures per member of staff) - See Recommendations below.
- Evidence of excellent interdisciplinary work, exploiting diversity of expertise and facilities within ZEPS and with other centres, esp. ERI. The appointed

new Professor in Molecular Marine Biodiversity is well placed to enhance such interactions and profiling of distinctive areas

- There is a breadth of strength in quality and impact of outputs. Nonetheless several areas stand out as being especially distinctive and of high quality, and includes (though not exclusively), ecology and reproductive biology of marine animals, population genetics and molecular ecology, conceptual aspects of theoretical ecology in freshwater and marine systems, applied and molecular plant science, linkages between biodiversity and ecosystem function, and physiological ecology
- Although a significant proportion of output was either very good or excellent, none was outstanding, and 36% was assessed as falling within levels 2 and 1. Despite the overall excellence of output there is capacity to enhance the quality profile of outputs by more strategic targeting of articles in international journals of broader generic status rather than national Irish journals, as well as exploiting opportunities to engage more fully with novel aspects or emergent research topics/areas. The quality of expertise, associated facilities and ZEPS research themes, certainly provide scope for successful targeting of outputs in the highest impact journals. Such strategy is relevant to the organisation and management of research at the Departmental level in relation to mentoring, publications targets, etc - see Recommendations below
- There was evidence of highly distinctive outputs in relation to outreach and commercial development of science, for example with the “UrchinPlatter” system and fish-colouring from Adonis system

Postgraduate Training

- Highly impressive, dynamic and thriving postgraduate community, both at Masters and Doctoral levels - obvious enthusiasm, commitment and collegiate spirit
- A meeting with the postgraduates alone allowed the Panel members to assess their own view of the training environment provided. There was strong and unanimous satisfaction with supervision and support by staff

- All postgraduates are provided with excellent office and laboratory facilities - in high quality and well equipped space
 - The postgraduates did note that limited access to ZEPS buildings provided a significant constraint to their research activity. The Panel feels that it is the responsibility of the Institution to promote and support commitment and motivation of all researchers, especially in the early stages of career development. The designation of appropriate guidelines for safe regulated access out of hours is eminently achievable and is something that characterises the most productive and high profile research-led Institutions.
 - It would be beneficial to incorporate a more regulated framework for certain aspects of the postgraduate training environment, such as the instigation of a journal club and postgraduate discussion forum (encompassing all students and areas). The Panel noted that recent PhD students have an advisor as well most having two supervisors. Such a structure should be immediately extended to all current PhD students
 - Some serious disquiet among postgraduates about the perceived inequality among departmentally-funded PhD students (maximum of 130 hours per annum for demonstrating) and others in relation to required contribution to demonstrating and lack of any financial reward for this work. There is a danger of compromising the quality of research undertaken by students through too large a teaching burden.
 - Postgraduates asked for formal training in first aid and safety for all postgraduates. The Panel concurs that safety training and awareness should be mandatory. Advice should be given in the postgraduate handbook as well as by practical instruction.
- Regional and national contributions to environmental management and policy development, including extensive representation on State Agency Boards.
 - Very good profiling of ZEPS and the University internationally, through participation in conferences, editorial work and consortia.
 - Very commendable level of promotion of Public Understanding of Science and relevance to local community.

Funding

- Overall volume and diversity of income is noted, with engagement in major recent schemes for capacity building extending up to 7 years, such as the Beaufort Scheme and PLANFORBIO. Such long-term support allows strengthening of core areas, as well as enhanced opportunities for early career development.
- The breadth of expertise and activity affords a corresponding plethora of opportunities with funding schemes and sources, and inherent resilience and responsiveness to changing trends and funding priorities.
- Despite the overall volume and nature of funding in ZEPS, the Panel identified some vulnerability to downturns in national funding. It is advisable to increase the targeting of European and other international sources, which appear to have declined relative to previous years.

Peer Esteem

Interactions with professional colleagues in all aspects of promotion of research areas are significant. The range of activities demonstrates a willingness to show leadership at national and international levels.

Research Environment

- Strong evidence of collegiality and effective interactions/collaborations among staff, creating an environment that motivates staff and students.

Research Related Activities

- Evidence of commercialisation of science outputs and activity, especially within the aquaculture and plant sciences areas.
- Extensive expert consultancy work.

- Good range of facilities evident, some shared with ERI, and impressive opportunities for experimental manipulation of aquatic systems and field work.
- Obvious advantage gained from relocating main facilities to the Distillery Fields complex and general updating of research infrastructure.
- Although there are distinctive areas (some of which were mentioned above in Published Outputs), these are not readily identifiable externally – 22 themes/topics within a Unit of this size is not sustainable. The PI-led approach for organisation of research is over-fragmented and specific to specialities. Research organisation would be enhanced by reduction and integration into far fewer broader themes (5-6) that can enhance synergies and critical mass- each with a theme leader.
- The submission did not make clear whether there was strategic overview of research organisation at the Departmental level to ensure the most effective utilisation of limited resources and exploitation of opportunities. The Panel would encourage instigating a research committee and/or Research Director that would overview research activities and output, including the coordinating of mentoring of new members of staff, and internal reviews of grant applications.
- The perceived constraints to interactions with ERI and financial consequences need to be addressed at the College level.
- There is a need for readily available dedicated IT support.

Overall Research Activity and Performance

The ZEPS is a highly research-active grouping, with an overall excellent level of outputs, training and infrastructure. The benefit of centralising the facilities and community of ZEPS is well borne out by research performance. The research framework in place is perhaps most threatened by the heavy teaching load. With appropriate re-organisation, and based on existent expertise, track record and potential of staff and students, ZEPS has the potential to attain some level 5 output. The dedication and motivation of staff and

their responsive support of postgraduates and early stage postdoctoral staff is especially noteworthy.

Issues

- Heavy overall teaching load, and the need to ring-fence greater research opportunity for new/young members of staff.
- The need for reorganisation of research into identifiable and timely themes (5-6), that nevertheless illustrate the strength and distinctive nature of ZEPS key areas.
- The sustainability of Plant Sciences is threatened by the delay in appointing a Professor within the area.

Recommendations

It is recommended that consideration be given to:

- Increased targeting of high profile international journals and to publishing more in international than national journals.
- Rationalisation and reduction of teaching loads, and the use of staff activity profiles/work load model to advise Head of Department in allocation of teaching and administrative duties.
- Identification of 5-6 identifiable research themes that will allow responsive changes to staff profile and emerging research priorities.
- Consideration, with Departmental approval, of appointment of a Chair of Botany.
- Establishment of a clearer framework for research management, including a Research Committee/ Research Director.
- Mentoring of new members of academic staff and a mechanism to secure opportunity for establishment of research group and activity in new members of staff. Protect new appointments from a crippling teaching load and allow time to establish research.
- The development of a more formalised structured training for postgraduate students, including a Departmental discussion forum and journal club, and the inclusion of an advisory member on the Supervisory Committee of all current PhD students.

- Increased access to research facilities within ZEPS buildings through regulated out-of-hours access incorporating recognised health and safety guidelines.

Overall Conclusion

ZEPS is well positioned to continue and enhance its already significant and high quality contribution to

the Institutional research profile, though there is a need to review certain practices of research organisation, publication practices, teaching loads and recruitment. Key to its continued success will be the ability to attract outstanding research leaders and staff and students in an early stage of career. Such can be achieved by underpinning the existent research environment with a more strategically-led and targeted research ethos.

DEPARTMENT OF ZOOLOGY, ECOLOGY & PLANT SCIENCE

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		23%	64 %
2.	Research Related Activities	3	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 4 and above
		35%	60%

Overall Assessment: Level 4

The ERI was established in 2000 with the mission of supporting and promoting environmental based research, training and education in UCC. The Institute currently houses 5 research groups in a new, purpose built building with excellent facilities, which was completed and occupation started in 2005. The 5 thematic areas encompass environmental chemistry, sustainable energy and environmental engineering, environmental microbial genomics, biodiversity and ecotoxicology, and marine and freshwater. In addition there are 3 centres of 'excellence' within the ERI although these are not all physically located in the ERI building. The Coastal and Marine Resources Centre is located near the Haulbowline Naval Base and the Aquaculture and Fisheries Development Centre has its research facilities in ZEPS. The members of the ERI are associated with cognate departments in UCC. The Panel found that a significant number of the research students at ZEPS did their research in the ERI, as well as students from the Departments of Chemistry, Civil & Environmental Engineering and Microbiology.

Sub-group B of the Panel visited the ERI and were given an introductory overview of the research at the ERI and the aims. The sub-group had a rapid visit to all the groups and had the opportunity to address the Heads of the units as well as some of the postdoctoral fellows and research students. The Panel did not visit the Coast and Marine Resources Centre (CMRC).

Note: The CMRC at present has most of its output as commissioned reports rather than publishing their work in peer reviewed papers. For this reason the sub-panel thought it inappropriate to include this unit in the quality profile which concentrates on published peer reviewed scientific articles. A key objective for the future will be, where possible, to publish material from reports from this unit in quality international journals. There is clear evidence of a potential for international calibre outputs and the Panel endorses this approach. This would be facilitated by close interaction between other groups in the ERI and with ZEPS.

Quality Profile

Published Output

- The profile and comments include assessment of appropriate postdoctoral contributions as well as

those of permanent staff. Assessment was restricted to the assessment period.

- Overall excellent performance with evidence of world-class contributions from within the ERI community. In addition to the quality, there was a good volume of output in the assessment period.
- Particularly distinctive and outstanding outputs from within Environmental Microbial Genomics and Biodiversity and Ecotoxicology groups.
- Pleasing to see a spectrum of output types have been targeted, including international high quality journals, conceptual contributions, reviews, chapters, books and edited proceedings.
- High level of interdisciplinarity within and across the groups was particularly impressive, exploiting diversity of expertise and facilities within ERI and with other centres, esp. ZEPS. The new Professor in Molecular Marine Biodiversity to be located in the ERI, but with a desk in ZEPS, will enhance collaboration.
- The benefit of the investment in establishing the ERI is already paying substantial dividends.
- Notwithstanding that across the University there can be some tension, especially in relation to funding models between the Research Institutes and cognate departments over the allocation of resources, in the instance of ZEPS and the ERI the relationship between them is generally positive.
- Although almost half the output was either excellent or very good, one quarter was assessed in levels 2 and 1. The overall research environment at the ERI is obviously very conducive to high level research.

Postgraduate Training

- Impressive collegiate and dynamic postgraduate community in spite of wide diversity of research areas.
- Access to diverse and state of the art facilities to explore a breadth of environmental issues.
- While the distance between ERI and other facilities, for example the Distillery Fields, is not desirable, in the view of the Panel this should not be a significant impediment to interactions of the ERI with other Groups across the University.

- Open-plan style of office accommodation for post-graduates works well in facilitating and enhancing interactions. The Panel was impressed with the high level of interaction between the different users of the facilities and the level of multidisciplinary in the Institute.
- In common with ZEPS, it would be beneficial to incorporate a more regulated framework for certain aspects of the postgraduate training environment, such as the instigation of a journal club and postgraduate discussion forums (encompassing all students and areas),
- The Panel noted that recent PhD students have an advisor as well as two supervisors. Such a structure should be immediately extended to all current PhD students.
- As with the other facilities that were viewed, access is limited to certain hours and some post-graduates asked if this could be reviewed since it was, at least occasionally, an impediment. The Panel feels that it is important to promote commitment to research. The designation of appropriate guidelines for safe regulated access out of hours is eminently achievable and is something that characterises the most productive and high profile research-led Institutions.

Research Related Activities

- The Panel was given a quick overview of the research related work in the extensive expert consultancy work in several of the units. This ranged from CMRC work on monitoring marine mammal and seabird populations and stock assessments of prey species to Environmental Chemistry work with environmental adsorbents, Biodiversity and Ecotoxicology research on the effects of agriculture policy on landscape changes and biodiversity, Sustainable Energy's evaluation of optimal biofuels to the work of Environmental Microbial Genetics on the use of recombinant DNA for the degradation of toxic pollutants and the genome sequencing of typhoid to improve epidemiology.
- Regional and national contributions to environmental management and policy development, including representation in State Agency Boards.

- Engagement in extensive international collaborations.
- Excellent editorial involvement.

Funding

- Excellent overall performance with some individuals and groups having outstanding success in gaining funding and over a wide range of environmental areas.
- Much of the facilities are now excellent and some world class, albeit there are areas in the building yet to be fitted out.
- The scope of the environmental issues and the approaches utilized in environmental sciences ensure that collaboration with industry will be ongoing and the focus on fundamental environmental issues will be at the forefront.
- Future funding in the current economic climate is obviously difficult, but the panel felt that the Institute is very well placed to increase the level of funding from industry and from international sources, both on its own and in collaboration with similar institutes both nationally and internationally.

Peer Esteem

- Excellent to outstanding. Many staff are leaders in their field and this bodes well for the future development of the ERI.
- The range of environmental issues and the quality of the science in the ERI indicates an ability to continue to operate at the highest levels.

Research Environment

- Large numbers of postdoctoral researchers and postgraduate students.
- High levels of interdisciplinarity and interactions between staff and researchers promote a very good working environment.
- The research environment is outstanding and incorporates state of the art equipment and is well placed to exploit novel and emerging themes.

- The research shared with ZEPS is an important component of the research environment for both the ERI and ZEPS.
- The new chair in Molecular Marine Biodiversity with laboratory facilities in the ERI will further enhance collaboration between the ERI and ZEPS.
- The provision of a general common room would enhance the opportunity and quality of research and collegiate interactions, which are even more crucial in an Institute that exploits commonalities and contrasts in approaches and topics tackled.

Overall Research Activity and Performance

The ERI contains a wide variety of groups focusing on a range of environmental issues and brings together a diverse set of expertise. The high level of funding, the large number of postdoctoral researchers working there and the increasing numbers of PhD students doing most or all of their research in the ERI are indicators of the success of the recently established ERI. The high degree of contact between the different groupings in the ERI resulting from grouping the different thematic areas and centres in the ERI was evident during the visit and was highly commendable. The level of published output is excellent and increasing.

Issues

- Evident that the concept of the 'virtual ERI' and the physical ERI building is causing some anxiety in the Departments, although it was not possible to pin down the cause. It may be allocation of funds, i.e. that the research centres are better funded, which may become a more serious issue with the economic downturn. It may relate as well to the quality of facilities in the ERI compared with cognate departments.
- The Panel noted that there is a plan to involve members of the ERI not physically based in the ERI, providing them with an opportunity to play a greater role in the decision making and planning of the work of the ERI which can only help resolve any issues.
- The Panel noted that the CMRC suffered a major set back through fire destroying their buildings but were working on a plan for new facilities. The Panel noted that the CMRC was entirely self-funded on

soft-money and this dictated the nature of their work and their constrained their opportunities to publish work in front line journals. The Panel read that the 5 year plan 2008-13 focuses the group on quality research outputs including peer reviewed published work. It will become part of the Maritime and Energy Research Cluster.

Recommendations

- It is important to address the relationship between the ERI and its affiliated schools/ departments. The ERI should not only operate as a research institute in its own right, but should also contribute to the development of these schools/departments.
- To enhance and exploit opportunities at the interface of fundamental and applied outputs with cognate Centres, such as CMRC.
- Ensure that the management of research within the ERI incorporates fully the targets and strategies of cognate Centres, thereby ensuring a more corporate framework for establishing performance measures in line with the diversity of research outputs.
- Although there is excellent evidence of interdisciplinary interactions across the various groups and approaches to tackling environmental issues, resources should be made available to promote interaction through common informal meeting facilities and ERI-level seminar or discussion forums.

Overall Conclusion

The ERI has successfully established itself and notwithstanding much of the outputs for this review from its human resources were completed before the ERI was occupied and became research operational, there is strong evidence that the ERI is working well as a centre of excellence. The test now is to move forward from the good start by further development of the infrastructure of the ERI itself and to ensure that it facilitates excellence in Environmental sciences elsewhere in UCC. The tension the review group detected regarding the ERI's interaction with its collaborators outwith the ERI needs to be resolved. The current economic downturn will be a test of the sustainability of the funding streams, but the Panel believes that the ERI has the strong base to win through.

ENVIRONMENTAL RESEARCH INSTITUTE

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		44%	75%
2.	Research Related Activities	4	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		53%	73%

Overall Assessment: Level 5

Introduction: Scope and context of this review

The Tyndall National Institute (TNI) was established in 2004 by combining resources from the previous National Microelectronics Research Centre (NMRC), University College Cork (UCC) and the Cork Institute of Technology (CIT). The review period therefore covers only work from 2004-2008. The Panel believes that the TNI is poised to become a premier world-class research institute. The TNI was a wise and forward-looking investment. TNI has created a clear distinguishing message – “atoms to systems”. This message has put the Institute in a prime position for international recognition and distinction. This distinction will help raise the research profile of the associated departments within UCC. It was clear that the sum of the whole is bigger than the sum of the individual parts of the institute. The bridge that the Institute forms between the academic mission of UCC, the basic sciences and corporate research and development, is critical for UCC and Ireland to establish and maintain world leadership in strategic areas.

The Panel wishes to emphasise that it has undertaken its evaluation and interpreted the guidelines that were given in the context of the Institute’s aspiration to compete with the world’s best research laboratories. All comments are intended to try to assist its progress towards this goal.

The TNI houses about 350 people including engineers, scientists, students, interns and research and administrative support staff. Many of the scientists and students working in Tyndall are jointly appointed with the Departments of Physics, Chemistry and Microelectronic Engineering, as well as with the Department of Applied Physics and Instrumentation at CIT. There are a total of 106 students registered in Physics (40), Chemistry (20), Microelectronic Engineering (28) and Life Sciences (9) and CIT (9). Faculty from all of these departments, in addition to their teaching and departmental responsibilities, conduct research under the TNI umbrella. The faculty have the freedom to route research grants and awards either through their home department or the TNI. It was the understanding of the Panel members that there is a formula for overhead recovery associated with this process so that the

relevant Department does receive some overhead from TNI-based funds secured by the faculty. Scientists within the Institute also can have ad hoc arrangements with university academic departments, and are allowed and encouraged to teach classes. This level of exposure of the students to full time TNI researchers in the classroom is a key benefit of the interaction between TNI and academic departments. The breakdown of Tyndall full-time staff teaching in UCC Departments is as follows: of 353 hours taught, 136 is in Physics (65 of these in a new MSc Course in Photonics), 79 in Chemistry, 93 in Microelectronic & Electrical Engineering, 36 in Mathematics and the balance in the Life Sciences.

Quality Profile

Published Output

The quality of the published output was graded using the definitions set out in the UCC Review guidelines e.g. for a rating of 5 the Panel expected a paper to be of a “quality that is world-leading; the particular research work or activity will be internationally outstanding, displaying a very high level of originality, significance and rigour; it will be innovative, potentially agenda-setting in research and/or policy fields”.

Since the Panel did not have the time to scrutinise in detail all the submitted papers the members felt it necessary to select a subset consisting mainly of senior researchers in the Institute. This assessment of TNI published output is therefore based on an evaluation of the three published papers provided by 23 researchers consisting of the CEO, the heads of centres, heads of groups, 4 academic members and 4 Senior Staff Researchers. This subset consisted of 7 scientists, 10 engineer/scientists and 6 engineers in the Staff Classification scheme and contains representatives from all the TNI disciplines. In the few cases where papers had not been suggested the 3 top cited papers over the past four years for that individual were used.

For each submitted paper the journal citation ranking was considered, along with the impact of the paper within the relevant field, and the timeliness of the work being published. The Panel then established a cumu-

lative paper impact for the three papers for these researchers.

The evaluation of impact and timeliness were based on review of:

- How the authors themselves describe in their paper the relationship of the new work to existing work in the field and their predicted impact of the work.

The immediacy of the impact of the work, assessed by the number of citations the paper has received, as recorded in *The Web of Science*¹, and in the context of the time since publication.

The Panel recognises that absolute measurements using only the citation index ranking of a Journal is not a fair indication of impact in a particular field. Therefore the Panel also took into consideration the impact of the subfield.

For the period Jan 2005 to Sept 2008 the Panel was informed that TNI researchers published a total of 593 research papers. So over the 3.75 years this gives an average of 1.5 publications per named researcher per annum. The Panel would consider that for a world-class institute, with the size of the funding received by the TNI, one would expect an average of two publications per researcher per year. So from this perspective there is evidence that TNI is on a trajectory to achieve true international status.

In summary, upon review of the submitted publications it is concluded that the quality is recognised internationally in terms of its originality, significance and rigour, advancing its field and some is clearly world-leading. There is evidence of excellence across the full range of disciplines in TNI.

However, the quality and quantity of published output still needs to improve for an Institute of the size and scope of the TNI to meet fully its aspirations. For example analysis by the Panel would indicate that they should be seeking to publish in higher impact journals. In addition for a world-leading research institute, it is the Panel's view that they should expect

in the order of 10 publications per researcher as well as a 5-year citation number in the order of 100.

Postgraduate Training

The Institute forms a critical bridge for UCC to satisfy the requirements for conducting industrial oriented research and meeting the needs of graduate research students publishing and meeting PhD and Master criteria. The implicit inclusion of the academics from UCC Departments in the Institute is essential to maintain the balance between industrial and graduate needs. The Institute also forms a critical bridge in providing visibility for students to the outside world to enhance their job opportunities in Ireland and internationally.

During the evaluation period the TNI graduated 60 PhD and 21 Masters students. This is a respectable number, given the size and resources of the Centre. Again, for this number of students, one would expect to see a somewhat higher rate of publication.

Strengths of postgraduate training at the TNI include exposure to industry related research, cross-disciplinary research, work with both full time faculty and full time scientists at the Institute, infrastructure facilities that are world class and only possible with full time staff support and participation in international research programmes like EU projects. Exposure of graduate students to the intellectual property side of research through patents is also good preparation for their entering into industrial positions after graduation.

Monitoring of progress of post-graduate students is essential and the Panel was pleased to learn of the TNI Academic Committee which has responsibility for ensuring the highest quality of PhD supervision and research. It also commends the Academic Committee membership structure, consisting of the CEO, head of graduate studies, a committee of graduate students and academic committees from UCC and CIT.

In summary the panel found evidence of a good performance in postgraduate training.

¹ <http://scientific.thomsonreuters.com/training/wos/>

Research Related Activities

The TNI is composed of four centres: Photonics, MicroNano Electronics, Microsystems and Theory Modelling and Design. These centres cover vertically integrated research areas of materials, devices and sub-systems. Underlying all Centres are a comprehensive theory, modelling and design environment and a central device fabrication facility. The fabrication facilities at the institute are world class, and the investment in staff to maintain and oversee these facilities has been a clear priority that has been well served. The centres are well staffed, with 12 research staff associated with the Photonics Centre, 12 with the Microsystems Centre, 7 with the MicroNano Electronics Centre and 7 with the Theory Modelling and Design Centre with an encouraging overlap of staff across areas.

There is a cohesive overall structure to TNI in terms of centre topics, organization and collaboration areas within a centre. For future reviews it would be useful if outputs from joint centre activities were identified. There is both breadth and focus in the research staff interests and the overlap with each Centre's objectives.

The MicroNano Electronics Centre covers a broad area of research including thin-film and surface structures (photonic bandgap materials), dimensional solids (mesoporous, oxides, nanowires and nanoparticles), nanotechnology (nanowires, nanocrystals, nanostructures and nanodevices), supercritical fluids (nanowires, nanotubes and nanoparticles) and silicon based devices (nanowires, oxides and silicon devices). There is also incorporated within the MicroNano Centre a Design and Technology Evaluation Group that includes electrical characterization.

- The Microsystems Centre covers the areas of bio-systems (bio structure, sensors and actuators and bio-interfaces), electronic hardware and software (instrumentation, wireless sensors and micropower devices), and heterogeneous systems integration (3D silicon, chip on flex and MEMs).
- The Photonics Centre covers a broad range of activities including systems, integration, detectors, III-V compound semiconductor materials and devices,

device physics and dynamics, quantum dots, theory and simulation and quantum optics.

- The Theory and Modelling and Design Centre covers the areas of basic phenomena, materials, devices, integration and systems.

The TNI research projects and directions are driven by both industry goals and basic knowledge driven research. The mixture of full time research staff, UCC Faculty and postgraduate students provides an environment that maintains a balance required in this type of environment.

Another key aspect of TNI is its research outreach programme, the National Access Programme (NAP). This critical programme allows researchers from around Ireland to submit project proposals and utilize the TNI facilities. As of November 2008, there have been 159 approved proposals with 100 projects completed resulting in 240 publications and 33 post-graduate theses. This is an important aspect of the measurable research output and impact of the TNI.

Funding

The research level of funding is of excellent quality with one or two cases of outstanding quality. Tyndall has also opened up the opportunity to secure longer grants (4 years) that are better matched to the graduate studies mission of UCC.

Funding for the TNI comes from three key areas (i) industrial sponsorship and funding, (ii) Ireland government research grants and (iii) International, particularly EU, funding opportunities. Below the Panel briefly comments on the success and impact of each during the assessment period:

- Industry Funding – The TNI has established a close relationship with National and Multi-National companies including Intel, HP, Analog, Seagate and Smiths. These relationships are important in bringing industrial facilities to Ireland, creating a stronger coupling between industrial R&D efforts and the projects in TNI, diversifying funding income from only government funding and exposure of students to industry.

- Ireland Government Funding – SFI, UCC, Enterprise Ireland, HEA/PRTLTI.
- International Funding – Mainly from EU projects.

Since the Panel was not totally familiar with the Irish funding system it was difficult to determine the income generated by individuals. However it appears that the overall average funding per year from the 105 research staff was €190,000 per head. The total national funding for these researchers was €25 Million and international funding was €9.5 Million. Income was also reported by the TNI itself consisting of normal operating income, DETE supplementary capital, infrastructure development and the National Access Programme. Total income reported, including the core grant and UCC contributions during the evaluation period was (rounded off) 2004 – €16 million, 2005 – €25M, 2006 – €27M and 2007 – €31M. The top three research funding components in order of decreasing amount over the evaluation period were (1) SFI, (2) EU Projects and (3) DETE Grant. This represents a good mix of national, international and industrial funding for the first four years of the Institute.

Peer Esteem

The assessment of peer esteem was made based on the UCC Review guidelines. For example for a five rating the Panel was looking for evidence of prizes or medals, plenaries at major conferences, editorship of journals, very highly cited papers, fellowship of professional societies, membership of international conference committees and funding review panels. The Panel analyzed in detail the inputs from the same senior cohort of researchers as for the publications barring one who had not submitted a CV.

We found that half of this cohort were making an excellent impact within the international research community and as a result gaining significant international recognition. A significant fraction of those researchers could be considered to be making an outstanding impact.

The TNI has also been successful in establishing Peer Esteem via Patents and Technology Transfer. These

mechanisms represent an important value that industry gives to the Institute, UCC, the researchers and the students trained at TNI. There were 3 spinout companies, patent licensing to two companies and utilization of RADFET and the OneDose Surface Densitometer System.

Most of the research staff the Panel looked at in detail in TNI have a good presence in international peer reviewed conferences and workshops. This presence ranges from organization, to chairing, technical program committees to tutorials and short courses. Branding of the Tyndall name during this period is a strong component that helped establish a positive reputation during the evaluation period.

These research staff on the whole have good international visibility through publications in peer reviewed journals and international conferences. However there are a number of staff both in this cohort and particularly amongst others not included in the detailed analysis who have yet to deliver strong international links and activities. They should be actively encouraged to do so.

Research Environment

During the review period, a sizable investment in a new facility was secured that will make the TNI a major research facility in Ireland and the EU. The total size of the facility including the new building will offer 4 floors of clean room fabrication and laboratory space and allow for future expansion. The building offered an open collaborative environment, plenty of research laboratory space and high quality clean room environment.

Cleanroom – The cleanroom at the TNI represents a major investment, with a staff of 32 and a budget of the order of €3.0 million in a facility that will give the researchers and affiliated industrial partners an advantage in pursuing advanced materials and device research, producing leading edge publications and PhD theses and increase chances of securing funding from competitive sources. The current facilities support silicon and compound semiconductor growth and processing. All required fabrication components

are in place, including mask alignment and Ebeam, multiple types of etching and deposition systems, nanofabrication processes and metalization. Materials characterization is essential to developing and understanding device processes and the facility supports the wide array of advance techniques including FTIR and STM. SIMS is not part of the facility and would be a very important improvement but could be done out of house. Ebeam, SEM and FIB characterization and rework tools are available. During the visit the Panel saw that the groundwork had been laid during the review period for important cleanroom expansion for materials growth and device processing. A stable clean room staffing and funding environment is critical to supporting a mission like that of the TNI and it is clearly well supported by the Institute.

Laboratories – The laboratories were designed and outfitted as well as any state of the art industrial laboratory. The rooms were spacious with ample table and equipment space to support growth in research projects and students. The researchers had clearly taken advantage of the ability to purchase high quality state of the art equipment during the recent industrial economic downturn.

Offices and Student Resources - The Institute environment appeared highly supportive of graduate students and encourage cross-disciplinary and cross group interaction by minimizing boundaries between groups and creating a culture of open shared infrastructure. The offices housed multiple senior researchers and the open glass environment made the distinction between senior researcher and students in the open space less so. The open space cubicle environment for the students appeared to support an open collaborative environment.

Overall Research Activity and Performance

The TNI is a very large institution with a wide range of research type and infrastructure as well as a broad spectrum of research areas ranging from atoms to systems and from simulation to experiment to development. In many ways the performance of the individual researchers varies widely for a variety of reasons. The percentage of staff who can maintain high research activity require large amounts of diverse funding, large number of stu-

dents and staff researchers and access to state-of-the-art facilities in their areas. From this perspective the Institute is doing extremely well for a 4-year old institution and the staff is to be congratulated for their achievements and performance. However, given the large scale of the TNI, the number of researchers attracting larger amounts of funding and generating more high quality publications and a larger number of PhD and Masters students, should be higher than achieved during the review period. That said, it is clear that the organization, drive and motivation of the TNI administration and staff is such that the Institute is on a growth curve in overall research activity and performance. Continuation along this curve will depend on the current economic conditions and if the TNI can build a robust funding and research model it can weather difficult times.

Overall there appeared to be a small number of staff who bring in a large amount of funding and produce high quality publications consistently. The visibility of the research staff in the international research community is high, for example participation on technical program committees for OFC, ECOC and CLEO, invited talks and invited tutorials and they should be commended for these achievements and success in getting out the name of the TNI, but as mentioned above more should be encouraged.

Looking Forward

Looking forward, the Institute should continue to set higher goals to move more of the researchers to the outstanding category and increase the publication output in outstanding peer review journals so as to secure the TNI as a world leader in targeted research areas.

It is perhaps stating the obvious to observe that increasing the mean funding to an outstanding level and decreasing sensitivity to economic fluctuations by having a broad portfolio of industrial, government and academic funders should also be seen as an important target for the TNI over the long term. Opportunities to continue to establish distinction of the Institute should continue to be on the front burner. Examples include expansion of international collaboration with centres of excellence around the world, identifying benchmark

institutes with which to compare, and closely, track performance and new opportunities by bringing in more researchers from a broader set of fields in the University with sensitivity to not diluting resources or stretching too thin the Institute’s mission.

The trade-offs of increased distinction via new alliances against the spreading thin of resources needs to be carefully weighed. Care should be taken to keep close tabs on the administrative burden of research individuals in order to accommodate continued increase in research output.

Recommendations

A summary of recommendations are listed below:

- Panel E found undertaking a detailed analysis of the information provided by of the 105 researchers to be an impossible task within the time available.

The Panel therefore based its numerical scores on publication quality and esteem on the inputs from a cohort of more senior researchers. However the commentary reflects a more general impression of the TNI gleaned from the documentation provided by TNI, the site visit and a general perusal of all the researcher inputs.

- The number of high impact publications is overall good, but the lower end of the quality scale needs to be moved up to the 3-4 quality scale.
- The peer esteem is high for some in the Institute. Attention should be given to help move the mean of the peer esteem for the remainder of the TNI staff up to a higher mean value.
- The TNI should continue to nurture current, successful funding routes but diversify to be more resilient to industry downturns and national economic conditions.

TYNDALL NATIONAL INSTITUTE

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		18%	60%
2.	Research Related Activities	4	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		50%	80%

Overall Assessment: Level 4

Panel F

Boole Centre for Research in Informatics

Department of Computer Science

School of Mathematical Sciences

(incorporating *Mathematics, Applied Mathematics and Statistics*)



Panel Members

- Professor Raymond Carroll, Department of Statistics, Texas A & M University, USA
- Professor Ian Gent, School of Computer Science, University of St. Andrews, Scotland
- Professor Nigel Hitchin (CHAIR), Department of Mathematics, University of Oxford, UK
- Professor Dana Petcu, Professor and Director of Computer Science Department, Western University of Timisoara, Romania
- Professor Francesca Rossi, Department of Pure and Applied Mathematics, University of Padova, Italy
- Professor Jurgen Sprekels, Director, Weierstrasse Institute for Applied Analysis & Stochastics, Germany

Site visit

The site visit was conducted over 3.5 days from 23 – 26 March 2009 and included visits to departmental and library facilities in UCC and meetings with:

- Dr. Michael Murphy, President
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Mr. Brendan Cremen, Office of Technology Transfer
- Mr. John Fitzgerald, Librarian
- Professor Patrick Fitzpatrick, Head, College of Science, Engineering & Food Science
- Ms. Michelle Nelson, Head, Graduate Studies Office
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Professor John O'Halloran, Member, Research Review Implementation Group
- Dr. Norma Ryan, Director, Quality Promotion Unit

- Professor Eugene Freuder, Nominee of Head, and staff of Department of Computer Science
- Professor John Morrison, Director, and staff of Boole Centre for Research in Informatics
- Dr. Kieran Mulchrone, Head, and staff of School of Mathematical Sciences

An exit presentation of the principal findings of the Panel was made to Heads of institutes/departments in the afternoon of the fourth day.

Introduction: Scope and context of this review

The review panel studied the documentation and outputs, and had interviews with the President, VP for Research, Academic Council Graduate Studies Committee representatives, Head of the College of Science, Engineering & Food Science, Bursar, Librarian, Director of Building & Estates, representative of the Office of Technology Transfer and informal discussions with graduate students. The Panel heard presentations from the Chair of the School of Mathematical Sciences, the Director of the Boole Research Centre and a nominee of the Head of the Department of Computer Science. The Panel found every person involved in carrying out the assessment very helpful and on hand at all times, both in the Quality Promotion Unit and within each of the Units we reviewed.

As a general comment, we feel that in any future review, the University should make it clearer to panels the balance to strike between evaluation of quantity and quality. The Panel suggests that in the future the outputs should be either selected (as for example the three best papers of each member of a unit) or the panel should be given statistical data about the whole submission (perhaps after preliminary discussion with the panel as to what bibliographical data is most helpful to each discipline).

Concerning the process of evaluation, the Panel felt that it was overwhelmed by the amount of information contained in the documents and the difficulties of navigating through them. The materials supplied to us were not always well presented. There was a lack of consistency in the presentation of material and a lack of care in cross-checking the entries of each

member. For example, many staff gave three research areas instead of three publications in Computer Science and some members listed three outputs in their CV which were different from the three hard copies we were provided with. Also, even such basic features such as consistent page numbering and links within the pdf files were missing, e.g., a navigable detailed table of contents. Alphabetical order was inconsistently applied.

The review took place in the context of an impending move of all three units to a new building which offers a chance to locate them in a physical environment more

conducive to interaction and more attractive for staff and postgraduate students. Account was taken of the physical constraints each unit had operated on during the period under review.

Current numbers of PhD students graduating per member of staff are somewhat low in comparison with UK or US institutions, and not evenly distributed, partially because of research-grant based funding. There is the capacity in terms of potential supervisors to double this number.

Quality Profile

Published Output

The published output the Panel was asked to review (in most cases) contained all the publications of all the members of the BCRI, irrespective of whether or not the Centre was instrumental in producing such publications. This makes it difficult to properly assess the quality of research generated by the Centre itself. The assessment by the Panel must be viewed in this context.

The Panel assessed 60% of published research outputs as excellent or outstanding, and more than a quarter as outstanding. One member of the Centre is research inactive.

The Panel was impressed by the amount of multidisciplinary research activities engaged by Centre members. However, a lack of overall research strategy for the Centre, beyond its role as providing services and enabling computational research, was noticed.

Postgraduate Training

Over the period of review, 27 Ph.D.s were completed with Centre support. Currently there are 12 registered who have Centre support. The postgraduate students are distributed over a variety of supervisors and not concentrated in merely a few.

Research Related Activities

The Centre is one of the focal points for the university in multidisciplinary computational research. The standard of ITC advice given to researchers around the university is high, including enabling the use of computational clusters. The Panel heard from a number of researchers from outside the Centre and how the Centre impacted their research directly.

The Centre is providing outstanding services to the UCC community and to other research groups nationally and internationally.

Funding

The level of funding is outstanding, although care should be taken to diversify funding sources to include increased international and commercial support. The initiatives taken into the direction of EU support is encouraging and it is expected that in the future more funding will come from this source.

Peer Esteem

As expected by the nature of the Centre, the peer esteem is high, although it was noted that a significant proportion of Centre members have low peer esteem.

Research Environment

The physical environment has been substandard but will obviously improve very soon. The Centre provides a healthy environment for multidisciplinary computational research and a forum for exchange of ideas among different disciplines.

Overall Research Activity and Performance

The Panel was impressed with the range and quality of the applied multidisciplinary research activities of the Centre. It is hoped that this can also enable innovative research within Mathematics and Computer Science in the future.

Issues

The Centre needs a continuing flow of research funding from more diverse sources.

The Centre seems to focus on its role as a consultancy and enabling research of others, and shows a lack of overall research strategy for itself.

Recommendations

It is recommended that consideration be given to:

- Obtain funding from more diverse sources, especially international ones.
- Develop a research identity and agenda for the Centre.

- For future research reviews, include for BCRI only that activity that can be related directly to the Centre.

Overall Conclusion

The Centre demonstrates an excellent level of research.

BOOLE CENTRE FOR RESEARCH IN INFORMATICS

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		60%	84%
2.	Research Related Activities	5	
3.	Funding	5	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		50%	62%

Overall Assessment: Level 4

Quality Profile

Published Output

The Panel considered 60% of the published outputs to be at an excellent or outstanding level. However there are three members of staff who are research inactive (and who therefore are not counted in this assessment).

The Panel was pleased to see a large number of very high quality research outputs from the postdoctoral research staff.

A large amount of the excellent quality research outputs depends on a relatively small number of key staff and their postdoctoral researchers. This represents a risk if any of these key staff were to leave the Department.

As mentioned in the introduction, this assessment was, in practice, not easy due to the sheer volume of material in Computer Science and various problems with its presentation. It is hoped that these issues could be amended in future research reviews.

Postgraduate Training

The number of students per FTE staff seems reasonable. However, there is the capacity both in staff and facilities to expand. In general students have good computer facilities and access to library facilities. It is important to ensure that software and hardware facilities are maintained in the future for each student in the new location.

In a department currently located over so many sites, the Panel was pleased to hear of informal activities such as a weekly reading group across the whole Department. The Panel was also pleased to hear of good informal interactions between research students and postdoctoral workers. It is important to maintain such good interactions in the physical environment of the new building.

The Panel feels that the Department is in a good position to improve the training of PhD students by giving some courses for new students to cover basic

concepts in key departmental areas of research. In certain areas there is already a critical mass of people who could easily deliver such courses. This would benefit new students in a given research area as well as giving all students a broader research training.

Research Related Activities

Collaborations with industry and technology transfer activities are at an excellent level. Members of staff work closely with the technology transfer office of UCC. Additionally, many members of the Department are members of the Boole Centre, thereby engaging in multidisciplinary research activities.

Members of the School also take part in research related activities such as chairing international conferences, serving on journal editorial boards, etc. However, these activities are not currently uniformly distributed and are concentrated in a small number of staff. The Department should encourage all members of staff to take part in research related activities appropriate to their research area and career stage.

Funding

The overall funding obtained by the Department is outstanding. The funding environment in Ireland has been generally friendly towards ICT, and members of the Department have fully exploited all the opportunities available to the great benefit of the research in the Department. The Department is aware of the risk of a less good national funding environment in the current economy, and realizes that it is important to diversify funding sources, especially internationally.

Peer Esteem

The Panel was presented with a list of staff containing many relatively junior postdoctoral researchers, who often had (as is natural) no indicators of peer esteem. Such members were excluded from the statistics used by the Panel, to be as fair as possible to a department that contains many high quality junior staff. In general, esteem was assessed relative to career stage.

Even discounting some staff as just mentioned, the resulting profile of esteem across the staff of the

Department shows just under a third of staff with excellent or outstanding esteem level, but more than a third with no evidence of esteem. This is a surprising for a department that does contain staff with the highest possible esteem. It is also dangerous since if a few people are responsible for so much of the esteem of the Department, it could change radically if one or two leave.

Research Environment

The large number of postdoctoral researchers is of great benefit to the research environment of the Department. There is excellent collaboration with the Boole Research Centre.

The physical environment over the period under review has been a major problem due to the numerous different locations. The Panel does not focus on this in this report since it is known that the whole Department will move to a new building soon. It is hoped that the new physical environment will continue the excellent interactions already existing and create new interfaces. Also the Department needs to be aware of possible dangers of the move. For example, it is understood that PhD students will work in a large open-space arrangement: in this new environment they must still be able to interact with researchers at all levels and find quiet space when appropriate.

Overall Research Activity and Performance

The Department is publishing at an excellent level, and is impacting the research activity in other units within the University in a very positive way. The esteem is very high for a small percentage of staff, but it is low for many others. Funding is outstanding. Overall, the Panel thinks the research activity and performance of

the Department is at an excellent level, but concentrated in a few key people. The University should take appropriate measures to retain the key staff and also broaden the pool of excellence.

Issues

The Department is over-dependent on funding from SFI, which is a risk in the current economic environment.

Research quality is concentrated in a few key people and their dependent postdoctoral workers. This is dangerous as these are highly attractive staff who might be enticed to go to the best universities worldwide.

Recommendations

It is recommended that consideration be given to:

- Encourage all members to be research active and engage in the international research community.
- Obtain funding from more diverse sources, especially international ones.
- Take measures to retain key staff.
- Improve basic training for new PhD students.

Overall Conclusion

The Department demonstrates an excellent level of research.

DEPARTMENT OF COMPUTER SCIENCE

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		60%	78%
2.	Research Related Activities	4	
3.	Funding	5	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		32%	47%

Overall Assessment: Level 4

Quality Profile

The review was carried out at a time of uncertain funding conditions and pressure to reorganize the School, removing the internal division into the three branches of Mathematics, Applied Mathematics and Statistics.

Published Output

More than half of the outputs were judged to be of excellent quality in terms of originality, significance and rigour, and a substantial proportion of that was of world-leading standard. There were particular strengths in areas of applied mathematics and statistics, and some pure mathematical papers had reached the most competitive journals.

It was noticeable, however, that some of the outputs ranked highest were associated with members of staff who had now left Cork, or were intending to do so, or who would retire in the next few years. To maintain, and hopefully increase this performance, it is important for the School to attract the highest quality applicants. In addition, the School should attend to retention issues by appropriate promotion processes. Losing a high-performing researcher is even more damaging when so much of the provision of facilities to foster a good research environment (such as computers and travel for graduate students) depends on individual grant income.

While the Panel understands the financial concerns of UCC, these are important risk factors that must be taken account of in continuing high quality research in this Unit. In addition, the quality of the research has a major impact on the quality of teaching at the undergraduate level and training of post-graduate students.

Postgraduate Training

The Panel had a very useful meeting with approximately 15 postgraduate students, who seem very enthusiastic about their research work and about their relationships with their advisors and the other members of the teaching staff. However, some complained of inadequate computer provision, and in some cases a lack of availability of books in their area. We did check that the library had good electronic and physical access to major journals. We were impressed that

the students have organized their own informal seminar series where they present their own research to one another and also understand new material in different areas. This contributes to a corporate graduate student identity. The students also expressed a desire to meet with the staff of the School more often, e.g., through a School team where research topics are discussed in an informal environment.

The number of postgraduate students per FTE staff seems to the Panel somewhat low and there is the capacity both in staff and facilities to expand, if the supply of students and supporting funds becomes available. An expansion would go some way towards achieving a critical mass that would justify advanced courses or classes and create a more vibrant atmosphere for the students.

Since the expansion of graduate student numbers appears to be a national goal, efforts should be made with the appropriate funding bodies (such as the Higher Education Authority or IRCSET) to persuade them to adopt a national or regional system, for example using video technology, to disseminate specialist courses designed to give doctoral students a broader training and set their PhD research in a wider context across a number of departments. The current system of optionally taking some MSc courses and having courses in generic research issues falls short of a proper training, which would make the graduates more competitive in the outside world.

The current average of 4.5 years for the completion (including corrections) of a thesis is not significantly out of line with the experience of countries with similar systems.

Research Related Activities

Members of staff belong to Editorial Boards of 14 journals, and take part in a number of activities related to outreach and communication of mathematics to a wider audience. There is a significant presence in national committees, but less engagement in international arenas.

Members of the School have strong links with the Boole Centre, which is one demonstration of their ability to work on multidisciplinary projects. There are

also strong multidisciplinary links with the School of Medicine, including research on medical imaging, cardiovascular risk assessment and dental health, among others.

A special role is played by the Statistical Laboratory Consultancy Unit, which engages with multidisciplinary research work and consultancy with many departments at UCC, as well as companies and the broader community, including many hospitals in the Cork area. This valuable unit has a broad impact on the research enterprise at UCC, as well as in the training of postgraduate students, and complements the applied and methodological focus of the Department of Statistics.

Funding

While there is almost no funding from Science Foundation Ireland for pure mathematics, this group has attracted two large grants. Overall the School shows a significant increase over time in the funding, and with more faculty members being successful in attracting funding. The Panel is fully satisfied with this aspect of the School. To maintain this level of funding, it is essential that strong faculty be retained and promoted, and replacements of retirements be done at a high quality standard.

Peer Esteem

The peer esteem attained a very good standard, with close to half being excellent. It is important to notice that the output scores were highly influenced by excellent work done by young researchers, who have not yet attained the level of esteem of some of their more senior colleagues. This is evidence that the School has been able to attract excellent young researchers.

Research Environment

A variety of research seminars and colloquia are held on a regular basis, with these being appropriately advertised on the web. The School has been in a less than ideal physical environment in the period under review. Nevertheless, there has been strong interaction with faculty in other schools in UCC such as medicine. The physical environment will soon improve significantly, enhancing the possibility for

interaction among the faculty and students, and with staff in related disciplines such as computer science, the life sciences, medicine, physics and geology.

Current numbers of postdoctoral researchers vary amongst the three Departments (between zero and six). A body of postdoctoral researchers is an essential ingredient for a healthy research environment with regard to interaction with both graduate students and senior researchers.

Overall Research Activity and Performance

The School is publishing at an excellent level, and is impacting the research activity in other units within the University in a very positive way. The esteem of members of the School is also at a very good level for the size of the unit and the age profile of the staff. Funding is outstanding for a School of Mathematical Sciences operating in this funding regime. Overall, the Panel considers that the research activity and performance of the School is at an excellent level, and the University should take appropriate measures to maintain this level.

Issues

There are already a number of vacancies for academic staff in the School, and some key members of staff will retire soon. It is important that these vacancies are filled and retirees replaced, otherwise the current high quality of research will not be maintained.

While individual PhD students are receiving excellent training, consideration should be given to measures to help the student body as a whole. Some suggestions are outlined above.

The Panel is aware that the University is considering restructuring the School of Mathematical Sciences. Great care must be taken in this process to maintain the health of the three excellent disciplines within the School (Mathematics, Applied Mathematics and Statistics) without disadvantaging any one of them.

Recommendations

It is recommended that consideration be given to:

- Staff replacement of existing and upcoming vacancies.
- Retention of key staff through promotions.
- Improvements of PhD training.
- Maintaining the health of the three disciplines through any possible future restructuring.

Overall Conclusion

The School demonstrates an excellent standard of research.

SCHOOL OF MATHEMATICAL SCIENCES

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		52%	79%
2.	Research Related Activities	4	
3.	Funding	5	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		44%	80%

Overall Assessment: Level 4

Panel G

Department of Chemical & Process Engineering

Tyndall National Institute

Department of Microelectronic Engineering

Department of Electrical & Electronic Engineering

Department of Civil & Environmental Engineering



Panel Members

- Professor Dara Entekhabi, Laboratory for Environment Science and Engineering, Massachusetts Institute of Technology, USA
- Professor Julian W. Gardner, Electronics, Power and Microsystems Group, School of Engineering, University of Warwick, UK
- Professor James Garrett, Department of Civil & Environmental Engineering, Carnegie Mellon University, USA
- Professor Ronnie Magee, Food Processing Department, Queen's University Belfast, Northern Ireland
- Professor Wolfgang Mehr, Innovations for High Performance Microelectronics IHP GmbH, Frankfurt-am-Oder, Germany
- Professor Joos Vandewalle (Chair), Department of Electrical Engineering (ESAT-SCD), Katholieke Universiteit Leuven, Belgium
- Professor Richard Wakeman, Department of Chemical Engineering, Loughborough University, UK

Site visit

The site visit was conducted over 3.5 days from 12 – 15 October 2008 and included visits to departmental and library facilities in UCC and meetings with:

- Professor Grace Neville, Deputy President
- Mr. Diarmuid Collins, Bursar
- Dr. David Corkery, Research Office
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Michael Berndt, Head, College of Medicine & Health
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian
- Professor Patrick Fitzpatrick, Head, College of Science, Engineering & Food Science

- Professor John O'Halloran, Member, Research Review Implementation Group
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Dr. Sverre Lidholm, Head, and staff of Department of Microelectronic Engineering
- Professor Karsten Menzel, Head, and staff of Department of Civil & Environmental Engineering
- Professor Patrick Murphy, Head, and staff of Department of Electrical & Electronic Engineering
- Professor Jorge Oliveira, Head, and staff of Department of Process & Chemical Engineering
- Professor Eoin O'Reilly, nominee of Head, and staff of Tyndall National Institute

An exit presentation of the principal findings of the Panel was made to Heads of institutes/departments in the afternoon of the fourth day.

Introduction : Scope and context of this review

The report reflects the various findings, observations and recommendations made by the Panel G Engineering review committee after reading the reports of the engineering departments, followed by a site visit of these departments from 12 - 15 October 2008. These findings are based on the international peer review research experiences of the members of the panel. Since this is the first research review conducted by UCC, it is not based on a reference of previous research reviews or recommendations made previously. Hence it starts from a blank sheet and it considers its role primarily from the point of view of providing independent peer review opinions and recommendations, meant to improve the research. It is generally observed that during the review period of 2003-2008 the landscape for PhD research in Ireland has drastically changed and in fact has improved considerably with the advent of SFI and Enterprise Ireland and research centres like Tyndall National Institute and Boole Research Centre for Informatics.

The report is written according to the Guidelines of Pilot Review, Research Quality Review, version 7, July 2008, that the committee received well in advance of the site visit. There is substantial overlap between the 6 items to be evaluated. Hence the overall score should not be seen as a mathematical average of the 6 scores, but rather an overall assessment. The Panel feels that the review standards as set up in the Appendix B are rather high primarily referring to international level and with little room for national levels or national excellence. Moreover these scores need to be positioned against a positive evolution of the research in the various engineering departments over the 5 year review period. Most of the teams have made substantial progress in the period and are still

in the growth phase. Therefore, many of the produced figures are considered to be representative for the current state of affairs, while others refer to the average over the review period.

Moreover, it is hard to make an assessment of the individual research lines, since only some samples could be judged. In line with the views expressed by the university authorities, the Panel would like to caution the reader that the evaluation should not be used for the evaluation of individual researchers and staff. The Panel hopes that this assessment of the research quality is perceived by the departments as a stimulus for further reflection and planning within the departments.

Quality Profile

Published output

The above profile is based on refereed journal publications, which is in line with the way that chemical engineering outputs are assessed in the UK RAE. The publication rate (in 2007, 17 refereed journal papers were published by 6 staff) is good and comparable to publication rates from chemical engineering departments in the UK. The majority of papers are published in food journals which reflects the type of research carried out in the Department. Some of the papers are published in top flight chemical engineering journals, such as Chemical Engineering Science and Chemical Engineering Research and Design. There is evidence that the publications are high quality. Some of the co-authored papers are with international authors and there is underlying evidence of internationalism in the research. Additionally, all staff presented papers at “good quality” international conferences.

Peer esteem

Although staff publications show quality and internationalism, for most staff these aspects have not yet developed such that they are reflected by esteem factors. It is anticipated that esteem factors will follow.

Research related activities

One staff member has a high profile, and two others have developing profiles. The Panel suspects that other staff do undertake research related activities but information was not provided in the submission.

Postgraduate training

Evidence shows that all staff supervise postgraduate (PG) students. One recent appointee is supervising PG students but none has yet reached the stage where they are due to submit their theses. There is little evidence of PG student training, which may contribute to a fairly large proportion of students who fail to submit their thesis within 3 years.

Research income

All staff have been awarded some level of research income. In coming to this decision the Panel has drawn a broad comparison with what is believed to be the income into UK chemical engineering departments.

Research environment

Staff do an excellent job within the resources that are allocated to the Department. There is a distinct lack of investment in laboratory infrastructure and office accommodation for PG students. A similar position, that is a lack of accommodation, prevents the Department from attracting post-doctoral researchers. The Department is obliged to make use of facilities in other Schools on a “goodwill” basis, but the demand for these facilities is often great which limits their availability to the Department. For the size of the Department, the number of technical staff is adequate.

Overall Research activity and performance

Through the UK and Europe, the numbers of students (both UG and PG) have been growing in recent years, and are expected to continue to do so for several years due to the publicity and marketing from the Institution of Chemical Engineers (see for example www.whynotchemeng.com). The job market and salaries for chemical engineering graduates remains strong. The UCC department is one of only two university departments in Ireland with a focus on process and chemical engineering, and has been put into the position where its UG student intake is quota limited by UCC.

The Panel thought that the development of the MEngSc in Pharmaceutical Engineering was forward looking and one upon which to build future research activities.

In addition to the above comments on the research environment in which the Department operates, the Panel has noted the following specific points.

Staffing Issues

The Department of Process and Chemical Engineering has 6 academic staff (1 senior lecturer, 5 lecturers),

with 1 vacant post, supported by 4 technical staff and 2 administrative. All academic staff are research active.

It is important that all staff have the time available to develop research portfolios and attract funding; the staff should be commended on what they have achieved in this respect, but their potential is limited by having so few staff to teach a chemical engineering programme. In smaller Departments, which frequently is the case in chemical engineering, academic staff find they have a disproportionately high teaching load in comparison with staff in larger Departments. This can disadvantage staff when matters related to promotion and career progression are considered. To alleviate these pressures and bring the Department's complement more in line with departments elsewhere, a total of nine academic staff is recommended. To meet this, two lecturers would need to be appointed as well as the existing professorial vacancy being filled.

The vacant post is a professorial position, and the post-holder would likely become the Head of Department. To fill this post must be treated as a priority to give leadership to the Department and develop a strategic direction.

Although the Department currently has no post-doctoral researchers, it appears that there is no available space to accommodate any if they were recruited. For a research active department, a number of post-docs of 0.5 to 1 per academic staff is reasonable in chemical engineering.

Space

In several laboratories the equipment is modern and impressive, but let down by poor laboratory structures. For a Department researching in the food and pharmaceutical areas it is important for laboratory facilities to be up-to-date and presentable to industrialists if it is intended to attract research contracts from industry. The laboratory space has clearly not been rejuvenated for many years. Laboratories dedicated to research would be highly desirable. The spe-

cialist nature of pharmaceutical engineering research may require Class 1 or Class 2 facilities.

Space to accommodate post-graduate students is severely limited (to 16 currently) as is space for post-doctoral researchers. More space is needed for the PG numbers to be allowed to grow in line with UCC's strategic policy for growth to 2013 and to allow recruitment of post-docs.

Recommendations

It is recommended that consideration be given to:

1. **Increasing the number of academic staff in the Department.** In addition to treating the professorial appointment as a matter of urgency, serious consideration should be given to the creation of two additional lectureship appointments to be on a par with other smaller chemical engineering departments in the UK.
2. **Reviewing staff CVs** with a view to advice being given to some so that their career develops in the right direction for them to be considered for promotion to senior lecturer.
3. **Specific marketing of the Department** and what it can offer – this may be applicable to undergraduate and postgraduate programmes as well as to its research activities.
4. **The establishment of an Industrial Advisory Committee.** The aim of this would be to raise the awareness of research in the Department in industry, and to involve appropriate industrialists more closely in the development of the research. Other benefits may follow, such as some companies recognising the staff in the Department as people who are keen to collaborate and with whom research contracts could be placed.
5. **Increasing the number of post-doctoral researchers in the Department.** This is achievable through research grant applications.
6. **Drawing up a list of “preferred” journals for publication of research output.** This is desirable since the number of staff is small and to focus the output will help to raise visibility of the Department.

7. **Discussing with other Departments/Units in UCC where more extensive sharing of facilities might be possible.** This is particularly relevant to laboratory space and equipment, and it is recognised that this does already seem to happen on a fairly ad hoc basis.

8. **Focusing research work into dedicated laboratories** to enable more effective working by researchers, to show them that their work is an important part of the Department's activities, and to separate their work from undergraduate students when they are working in laboratories. Safety is fundamental and underpins the thinking of chemical engineers, and is paramount when a chemical engineer undertakes his/her work. Large numbers of students, some of whom may come from a background where safety is not so high on the agenda, working in constrained areas like small laboratories can compromise safety in the working environment.

9. **Refurbishment of laboratories** to ensure that they are up-to-date and fit for purpose. The non-pay allocation to the Department is insufficient for the Department to finance refurbishment without assistance.

10. **Progressing the current Departmental plans of formalising the work of its Postgraduate Committee.** Within those plans it is recommended that mechanisms for monitoring postgraduate student development and formal reviewing of their progress be developed. The recent introduction of a Postgraduate Student Handbook is seen as a positive step.

11. **Developing more formal supervisory practices for PG students.** This is a matter that should be within the remit of the Postgraduate Committee. The students would benefit from:

- (i) an early review of what courses it would be beneficial for them to attend to reinforce their early PhD studies
- (ii) a structured mandatory programme of generic courses, to include, for example, safety and risk assessment, research methodologies and experimental techniques and instrumentation, writing reports and papers,

laboratory supervision and small group teaching

- (iii) planning their research programme (using Gantt charts, Microsoft Project, or other similar techniques), updating and use of the plans
- (iv) formal reporting requirements structured so that an outline thesis starts to develop during the first year of study
- (v) more regular meetings with supervisors, with the students involved in setting the agenda for the meeting and writing notes on the discussion afterwards (a copy of which should be given to the supervisor).

Some of the above is also relevant for post-doctoral researchers.

12. **Developing a postgraduate research seminar series.** This is to assist the development of a research culture and facilitate synergies between the researchers, allow the students to develop their presentational skills, and can be organised by the students themselves (perhaps overseen by the Chair of the PG Committee), with a seminar given by students in the Department fortnightly and with compulsory attendance by all researchers.

13. **Accommodating all PG students within the main building.** Some are currently accommodated in unsecure portacabins, which is completely unsatisfactory and can give the impression that the students are undervalued citizens.

DEPARTMENT OF PROCESS AND CHEMICAL ENGINEERING

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		33%	83%
2.	Research Related Activities	2	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		17%	17%

Overall Assessment: Level 3

It should be noted that this report covers only the part relevant to the cooperation with engineering.

Quality Profile

Published output

Since the evaluation pertains only on the engineering part of the Tyndall research, the assessments only pertain to three best publications for the 29 research staff members and 19 researchers with an engineering profile and 17 staff and researchers with a dominant engineering profile and lesser profile in science. The quality profile is however in the average very strong (30% world leading, 50% internationally high level, 15% internationally recognized, 5% nationally recognized).

Peer esteem

Most staff members have an established publications record and activity and show quality and internationalism. This is also reflected by high esteem factors.

Research related activities

Tyndall has an active participation in organizing conferences and scientific meetings at an international level in all areas where it is active. Also it is active in editorial work for journals.

Postgraduate training

Since most of the PhD students at Tyndall performing a PhD in engineering perform this work at Tyndall while registered in the Department of Microelectronic Engineering, the evaluation and score for this item for Tyndall and the Department of Microelectronic Engineering is the same. It is considered to be very professional and well worked out and has been successful in attracting international students. The committee was impressed by the motivation, research capacity and coaching of the PhD students.

Research income

Tyndall provided information collectively for the whole institute, and hence the engineering part in it cannot be singled out and hence not scored.

Research environment

Staff do an excellent job within the resources that are allocated to the Institute. There is collective plan of investment in internationally recognized laboratory infrastructure and related office accommodation. There is a plan for further infrastructure expansion.

Overall assessment

The committee feels that Tyndall is dealing with many research topics and is world leading in several fields like photonics. However it is undergoing a period of change, which may evolve into a better focus. The committee would welcome that.

Also it is felt that the core funding part (10%) of Tyndall is rather low. It should be about 30% for a healthy situation.

Also an improved cooperation with the other departments outside microelectronics and physics in the engineering school at UCC is desirable.

Recommendations

The relation between Tyndall and the engineering departments such as Microelectronics and Electrical Engineering and the new initiative of the Engineering School can benefit greatly from a fresh reflection (meetings of minds) of the relevant staff members. Such a brainstorming can lead to role models of the departments that mimic the role models that the Physics Department and other have developed with Tyndall, with joint appointments, joint projects and mutual agreements on roadmaps for the future on research activities and mutual strengths. Typically the engineering departments should be involved in more basic topics like cryptography, signal processing, electrical power generation, alternative energy generation and power electronics, while Tyndall is more involved with topics related to Moore and more than Moore and photonics.

It is recommended to give some credit for the skills related courses like academic writing, in the PhD process.

Caveat

The Tyndall Institute is recognized to have a vital role in UCC as well as in Ireland and in the world. As such it should be respected that it has an agenda which is related to the electronic and ICT industry in Ireland and outside. This implies that it has its road-map that cannot be dictated by the different other departments of electrical engineering and that it has a mission which is different from the mission of the regular departments which are primarily driven or have been driven by the undergraduate education. But a smooth communication and respect between the different partners is advocated, which can be mutually beneficial.

TYNDALL NATIONAL INSTITUTE

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		80%	95%
2.	Research Related Activities	5	
3.	Funding	Not scored	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		100%	100%

Overall Assessment: Level 5

DEPARTMENT OF MICROELECTRONIC ENGINEERING

Quality Profile

Published output

Only for 3 staff members the three best publications of the last 5 years were provided. The average publication rate of 1.6 journal publications per year is considered to be excellent. The quality is however varying (10% world leading, 50% internationally high level, 30% internationally recognized, 10% nationally recognized).

Peer esteem

Staff publications show high quality and internationalism. This is reflected by esteem factors like IEEE Fellow. The quality is varying (30% world leading, 40% internationally high level, 30% internationally recognized).

Research related activities

One staff member has an outstanding profile.

Postgraduate training

Since most of the PhD students at Tyndall engaged in the PhD in engineering program, perform this work in the Microelectronics department, the evaluation and score for this item for Tyndall and the Microelectronics department is the same. It is considered to be very professional and well worked out and has a recognized international level. The committee was convinced

about the motivation, research capacity and coaching of the PhD students.

Research income

As a whole the staff have obtained an excellent level of research income in particular for research training.

Research environment

The office infrastructure is good, but more measurement facilities may be desirable. The growth is limited by space limitations. A better location closer to the Department of Electrical and Electronic Engineering is desirable, in particular for student experience.

OVERALL ASSESSMENT

Organizational Issues

The department has 3 staff members of which one has general university research management responsibilities. It is recognized that this department was set up initially in order to organize separate undergraduate education. This reason no longer exists, so the department can smoothly merge with the larger EE department and be brought under in the Engineering school that has been recently set up.

Recommendations

It is recommended to appoint a new professor in microelectronics, possibly in a joint position with Tyndall.

DEPARTMENT OF MICROELECTRONIC ENGINEERING

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		60%	90%
2.	Research Related Activities	4	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		70%	100%

Overall Assessment: Level 4

Quality Profile

Published output

The department produced for 11 staff members their three best publications over the last 5 year. The quality is however varying (5% world leading, 50% internationally high level, 25% internationally recognized, 20% nationally recognized). The review committee would have liked to see more internationally reviewed journal publications, since these exist in the various topics of the research in the department.

Peer esteem

Staff publications show high quality and internationalism. This is reflected by some esteem factors. The quality is varying (20% world leading, 50% internationally high level, 30% internationally recognized).

Research related activities

One staff member has a high profile, and two others have developing profiles.

Postgraduate training

Some evidence of internationally recognized research training is provided.

Research income

The research income is predominantly Irish and the EU and non-EU income is limited. Moreover the income is often more related to the research training than to the real research. Also it is recognized that the research some 10 years ago was primarily oriented to specific problems brought up by industry. This research had often a strong hardware component. This often had little cohesion and did not allow the building up of a systematic knowledge base. The hardware components are still well represented and very valuable. More recently the advent of SFI brought interesting opportunities, which allowed the EE department to finance more PhD students. It was expected that this would encourage the Department to engage more strategically into more basic topics which are complementary to the activities in Tyndall.

Research environment

The office infrastructure and equipment infrastructure is fairly good. It is however felt that the lack of an EE professorship is not beneficial for the long term plans of the research. Within a school of engineering such a professorship can focus on the content of the activities and on establishing a good working relationship with Tyndall.

Overall assessment

Overall the Department has a strong national and good international presence in research, in view of the heavy teaching load for the undergraduate program.

Organizational Issues

The Department can smoothly merge with the smaller Department of Microelectronic Engineering or be brought in under the School of Engineering that has been recently set up. In this way a more comprehensive discussion and brainstorming with Tyndall can be set up.

Recommendations

It is generally felt that the Department is dealing with too many diverse research topics in order to excel internationally in research. In fact quite a few individually operating researchers or permanent staff members are doing research on topics without much mutually reinforcing effect. Moreover at other departments (Microelectronics or Tyndall) closely related topics are researched. Synergy, efficiency and critical mass can be obtained by stronger cooperation and reorganization of the topics. It should be acknowledged that in internationally relevant research for typical sub-domains of Electrical Engineering like analogue design, cryptography, low power design, image processing, biomedical signal processing, power electronics, alternative energy production one needs a critical mass of a group of the order of 10 PhD students and research staff (perhaps composed of 4-5 PhD students per group and 2-4 research staff per group) in order to achieve an international high status.

Additionally the committee feels that the work on plasma is relevant and valuable, but has little to do with the Electrical Engineering Department and has more affinity to physics, and hence can be smoothly transferred there.

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		55%	80%
2.	Research Related Activities	4	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		70%	100%

Overall Assessment: Level 4

Quality Profile

Published Output

Currently, there appears to be a significant amount of research funding and a growing number of post-graduate students in the program, but this is a more recent situation since 2007. Overall the academic staff members appear to reach out to international publication venues and play an active role in EU and international conferences. Prior to 2007, there appears to have been a much smaller number of doctoral students in the program and this has had a pronounced effect on the publications produced by the department staff. In the next few years, with the influx of research funding and students, the academic staff must ensure that their publication activity is commensurate with funding and student volumes. There appears to be a significant activity in renewable energy by five faculty that have produced a significant number of high quality publications to date. This activity is viewed a strength of the Department and one of the more recognized international groups in the Department. There are several members of the academic staff who have not published on a regular basis, and these faculty should be encouraged to more actively publish their research findings in order to bring a more international awareness to their activities. The activity related to Information and Computing Technology for Optimized Building Operation (ITOBO) represents a new, highly funded research initiative and in the near future should start to generate a significant number of highly visible publications. However, to date this research has produced only a few journal articles/conference publications describing the proposed research activity.

Peer Esteem

A number of the academic staff are active in national and international science policy-setting committees, especially in the renewable energy area. Such activity brings recognition to the work of the department in these areas. Several staff members have chaired international conferences, have edited special issues of international journals, and have written widely used and referenced texts. However, there was a

large percentage of the academic staff that provided little or no evidence of any peer recognition in their résumés provided in the departmental submission. A large number of academic staff were unknown to the assessment team prior to this visit and thus the department submission was important to the assessment. It may be that the academic staff is held in higher peer esteem, but the evidence was not presented. Clearly, the work in HMRC, Renewable Energy and Hydromet appear to be widely recognized, and the work in IRUSE is well funded by large international funding sources. The challenge for the IRUSE group, which is relatively new compared to the others, is to translate this large amount of funding and supported graduate students into a significant number of high-quality research publications presenting significant and validated insights from the funded research. This will cause a significant increase in the peer esteem for the Department.

Research-Related Activity

One research-related strength of this Department, already having national and international impact, is in the combined activities of the Department in renewable energy area (e.g., wave, wind, biofuels), especially their efforts to scale generators to larger scales, grid-integration and energy storage. A second notable and emerging research activity is in building informatics and environmental control. In both of these research areas, the key to success has been links with real cases and validated prototypes (e.g. Environmental Research Institute, work with Irish energy policy interest groups, and generator technology industries). Where research has thrived is usually at the interface with other departments and interdisciplinary issues, such as the joint work with electrical engineering related to energy issues, new sensors and wireless technologies, etc. Other research activities of the Department seem to be less strategic and more opportunistic, which may lead to interesting research, but may not allow the department to reach a level of recognized quality and activity in a few areas.

Thus, the current strategic research plan does appear to be a large step in the right direction, but needs to be further refined to focus only on a few areas where

there is existing, or developing, strength and reputation. Having an area of strength built upon the activity of one person is probably unadvisable. There needs to be critical mass (e.g., three or more people) built up around at most three areas of focus. To focus on any more areas will cause a thinning of the effort and will not lead to world-class research reputation for the department. The assessment committee views the efforts in renewable energy, environmental engineering, and IT as good areas of focus. The re-tooling of faculty in what were traditional areas (e.g., Building and HVAC, experimental fluid mechanics, etc.) to engage in emerging topics such as renewable energy is laudable.

Postgraduate Training

The Science Foundation Ireland funding coming online during the last few years has resulted in sharp rise in number of doctoral students (e.g. 31 doctoral students in 2007/2008 compared to between 6 to 9 per year during the 2002 to 2007 period). As it stands, until 2007 the Department had only a good performance in terms of postgraduate training in terms of numbers of doctoral students. But with the sudden increase to 31 doctoral students in 2008, the Department has the potential to improve to an excellent rating for its postgraduate training.

Although there has been an increase in the number of doctoral students, this influx has been born unevenly by the academic staff leading to an uneven distribution of the responsibility for academic training. Some active and productive academic staff members have large numbers of doctoral students while others still have only 1 or no doctoral students. One concern is that the postgraduate theses for MS and PhD students do not appear to result consistently in publications.

The number of post-doctoral students has increased to 10 in 2007/2008 from an average of about 3 to 4 per year in the preceding five years. Given the number of professors and lecturers in the Department (10 ½) the number of doctoral students and post-doctoral research associates indicates a thriving research program. But the load is not evenly distributed nor is there any evidence that the growth can be sustained.

The department has a very large number of undergraduates who do take faculty time resources. Compared to peer UCC engineering departments, CEE engages a great deal more (a factor of at least 2) in undergraduate and graduate teaching.

Research Income

The CEE Department research staff count now stands at 10.5. The funding level stood at about Euros 1.8 million per year in the period 2002 to 2007. This is a modest level of funding when compared to peer departments world-wide.

The funding rose to more than five times the prior-years level during 2007 to Euros 11 million. This is principally due to the introduction of Science Foundation Ireland funds and several large EU projects. The Department needs to strike a balance between what funding level they can sustain and how many students and post-docs they can train effectively.

The distribution of funds among groups is uneven. Most of the funding is in the area of renewable energy and building sensing and information technology. The CPPU receives a modest amount of commissioned work and funding. The Department needs to find stable and sustainable funding sources and levels in order to build and maintain its research standing.

Research Environment

The Department is distributed over at least four locations (central near Headquarters, Environment Research Institute [ERI], Hydraulics and Maritime Research Center [HMRC] and the Geotechnical Lab). The central location space is inadequate to support the very large number of undergraduates and a now very expanded doctoral and post-doctoral population.

The ERI is an excellent facility and the HMRC will soon move to a Marine Campus that should be an improvement albeit farther from UCC. A concern is that the distance to both ERI and new home for HMRC will make them inaccessible to undergraduates and make it difficult for faculty to teach courses.

The Panel supports that the CEE Department be given an allocation in the newly made available space in the Kane building. The CEE Department has the funds to share costs for the renovation.

Library and information technology equipment seem to be sufficient. The Department has an adequate number of qualified technical staff to maintain its equipment and facilities.

Overall Assessment

The research staff members have done very well in re-tooling themselves and positioning themselves to move into growth research areas. The focus on renewable energy production (wind energy, wave energy, geothermal, biogas, etc.) is an excellent strategic move and especially the linking to government and industry in this area is the key to success. Also the focus on building informatics and sensing – especially with the ERI as case study – is laudable. Clearly the research staff have been successful in securing significant funding for the projects. This has also resulted in a sudden increase in postgraduate and post-doctoral staff on top of the already large undergraduate population in 2007. This has resulted in CEE being a pathfinder for UCC in these new science and technology areas. A critical question is how the Department plans to maintain the increase in research activity, maintain standards and translate the new resources (human and capital) into research outcome (publications and international peer standing).

Overall Comments

The CEE Department has transformed itself in remarkable ways within the last five years. This transformation is largely due to the vision and agility of the research staff and its leadership. In the 2002 to 2008 period the Department has been able to embrace and make notable achievements in emerging grand challenge areas for the built and natural environment domains. The Department has reorganized itself into a number of initiatives within three theme areas of civil and environmental engineering.

The research groups¹ have secured significant funding that increases the Department budget and number of postgraduate students and post-docs by factors of several. The CEE professors and lecturers have achieved this remarkable turnaround while maintaining a large undergraduate program that is known for its excellence. A key challenge for the CEE Department is to absorb the new resources and produce research outcomes that increase the national and international standing of the Department.

The CEE research staff has defined a unique niche and a unique approach to problems of renewable energy and power production as well as informatics and sensing. By embedding the research in local and regional structures the CEE has positioned itself in a competitive position at an international scale. For example by focusing on the Irish market penetration and grid integration of wind power production, by scale-testing of wave power generators in both laboratory environments and in coastal waters, and by prototyping building sensors and informatics in the Environment Research Institute building in Cork, the CEE strategic research programs are unique among their peers. In this sense they relate to regional and national needs as well as achieving international peer esteem. As evidence these programs are policy-setting and visible within some national and international policy bodies.

The CEE Department needs to define ways to absorb and sustain the research growth it has gained in the last few years. Additional space and research personnel renewal are key requirements.

The Department is now dispersed at several different locations and the central building is severely space-limited. Some of the research groups are composed of a few (one in some cases) principal research staff (faculty, senior lecturer or lecturer). Retirement or attrition can severely impact these initiatives.

The Centre for Hydrology, Micrometeorology and Climate Change is among the active research centres at UCC in the environmental

¹ Acronyms:

CPPU: Cleaner Production Promotion Unit

HMRC: Hydraulics and Maritime Research Center

Hydromet: Hydrometeorology

IRUSE: Informatics Research Unit for Sustainable Engineering

RUSO: Research Unit for Structural Optimization

SERG: Sustainable Energy Research Group

area. Faculty and students from this centre have strong international collaborations. The Centre under the directorship of Professor Gerard Kiely has active field sites where the flux of major greenhouse gases (CO₂, CH₄ & N₂O) is measured. The roles of peat and grasslands management on the fluxes are studied. Furthermore the Centre students and research staff monitor phosphorus and nitrates flux from land runoff into inland water bodies and the coastal waters. These effluents originate from fertilizer applications over agricultural lands and contribute to the harmful algal blooms and water quality degradation. The UCC Centre for Hydrology, Micrometeorology and Climate Change is an example of active faculty and students engaged in original research with important national policy implications. In this case, environmental quality and climate change are the focus application areas.

The CEE research staff has defined the following diagram to capture their new strategic research areas:

The Panel recommends that the Department consider collapsing the IT and Infrastructure areas into one area to allow for a critical mass of researchers in this area. Based on this diagram the CEE research staff and leadership have identified priority areas for new research hires. These include: 1) ocean energy, 2) modelling and visualization, and 3) engineering responses to climate change. The Panel fully endorses these definitions and believes that they will result in international-class academic and research program in sustainable infrastructure, energy systems and environment.

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		22%	55%
2.	Research Related Activities	3	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		33%	44%

Overall Assessment: Level 3

Panel H

Department of Archaeology

Department of Geography

Cork Centre for Architectural Education



Panel Members

- Professor Martin Carver, Department of Archaeology, University of York, UK
- Professor Robert Dodgshon, Institute of Geography and Earth Sciences, University of Wales, UK
- Professor Kristian Kristiansen, Department of Archaeology & Ancient History, University of Gothenburg, Sweden
- Professor Mike McEvoy, Faculty of Arts & Architecture, Brighton University, UK
- Professor Richard Munton, (Chair), Department of Geography, University College London, UK
- Professor Johan Verbeke, School of Architecture, Sint Lucas Institute, Belgium
- Professor Kevin McCartney, Head, and staff of Centre for Architectural Education
- Professor William O'Brien, Head, and staff of Department of Archaeology
- Professor Patrick O'Flanagan, Head, and staff of Department of Geography

An exit presentation of the principal findings of the Panel was made to Heads of departments in the afternoon of the fourth day.

Site visit

The site visit was conducted over 3.5 days from 5 – 8 October 2008 and included visits to departmental and library facilities in UCC and meetings with:

- Dr. Michael Murphy, President
- Professor Paul Giller, Registrar & Senior Vice-President Academic
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor David Cox, Head, College of Arts, Celtic Studies & Social Sciences
- Mr. Brendan Cremen, Office of Technology Transfer
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian
- Professor Patrick Fitzpatrick, Head, College of Science, Engineering & Food Science
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit

Introduction

The Archaeology Department has had the advantage of a departmental quality review in 2005. Among matters noted were the following, related to research:

- the deplorable state of its premises (the Connolly Building);
- the anomalous position of the Archaeological Services Unit;
- the University's perceived lack of support for archaeological science;
- the heavy teaching load;
- the very considerable contribution it made to the management of research resources (i.e. archaeological sites and monuments) in the region and the country;
- the inadequate holding of research journals.

In 2006 a new professorial appointment was made and the Department embarked on a programme of modernisation. Within eighteen months two additional international researchers were recruited, the building housing the Department was smartened up and made serviceable and the Archaeological Services Unit was closed down, as it was judged not to be contributing to mainstream research. The departmental submission to the Panel, the new five-year plan (which was attached to it as Appendix B) and the visit to the Department left the Panel in no doubt that this was an exciting, well-led team determined to become players on the world stage.

It was noted, however, that although the first two points listed from the 2005 review had been addressed, the other four were much the same. There is an outstanding opportunity for University College Cork to create, in this department, one of the world class groups that it was the Panel's task to identify. However, in spite of the new energy and talent of the staff, this status is probably unachievable without increased resources for:

- the development of a well-equipped osteology laboratory;

- more grants to enable staff to attend conferences and dedicate intensive terms to research;
- priming funds to develop applications for large scale external funding.

These relatively small sums are necessary to oil the wheels of an outward-looking research-intensive team, and would be the norm in the universities that UCC wishes to rival. The matter of library provision is probably less urgent, since the key international journals are rapidly becoming digitised, allowing access to their whole run at little extra cost.

Quality Profile

Number of research outputs: 167.

Number of research outputs considered eligible: 117 (70%).

Judging from the publications listed, all staff are research active, so the publication score represents the achievement of the whole of the Department.

The Panel does not think it fair to include outputs that were intended for a purpose other than research, namely book reviews, client reports, journal editing and informal research publications. Only the first four categories of output, plus articles in conference proceedings, are considered to meet the criteria intended by the assessment – that is output dedicated to research – and the grading is based upon these. The Panel also decided to make a distinction between material of international merit and material that has achieved or is in a position to achieve international recognition. It does not seem valid to give an international grading to publications which, while they may be of outstanding merit, are not accessible internationally. This decision is thought to conform to the spirit of the Quality Review.

The Department publishes papers and books of undoubted international excellence with 44% of its output classed at international level. It can claim some world leadership in Bronze Age studies, the archaeology of Christianisation and the archaeology of transitions, and international excellence in osteol-

ogy and the Industrial Archaeology of Ireland. There is international potential in the development of Viking archaeology and the revival of paleobotany.

Peer Esteem

Taking into account prizes, appointments and invitations to speak, the way individuals are seen in and outside Ireland is assessed as having 71% of staff as having a good to excellent impact and recognition nationally and internationally.

Research Related Activities

This area is interpreted as referring to activity related to research but not actually producing a research output. As already noted, 30% of the department's published output could be placed in this category. Most members are very active in local societies and sit on committees and produce reports for the City of Cork, the County and for central government. There is a clear interest and involvement in the wider archaeology profession, currently very large, and the destination of many university students from UCC, UCD and NUI. This grade could be raised still higher, but it might not be desirable. There is a conflict between the research-related activity in the public and professional sector and the need to increase the international profile as determined by the University.

Post-Graduate Training

The assessment recognises that from a modest base, the post-graduate school has expanded enormously in the last 18 months. The new culture of research includes a positive approach to research training: "We are committed to the training of archaeologists for academic and professional employment, which is best achieved in an environment where students are exposed to research in different ways". This training is to be included in the MA syllabus. However the Panel would have been glad to see the actual training programme and its elements in more detail.

Research Income

The Department has traditionally maintained a very high level of income, mainly from the CRM sector. Since 2006, it has augmented its sources of funding to

reflect its research focus, starting with grants from Royal Irish Academy, IRCHSS and INSTAR. This is a very successful start. The next step would be to attract funding from overseas, in particular from the European Commission.

Research Environment

The grade reflects the recent remarkable restructuring of the research environment, including the organisation of the staff into groups, enlargement of the PhD community and the encouragement of staff to participate in international events. Each research group has its own dedicated room, promoting continuous interaction and team-building, and there is a full calendar of weekly research seminars. There is still room for improvement. Departmental members are in evidence, but not prominent, at conferences and being invited to give lectures overseas as well as in Ireland. There are relatively few visiting lecturers to the department. The presence of the European Union as participants in research projects or as visiting lecturers remains relatively modest.

Overall Assessment

This Department ought to be assessed as some of the research being recognised at a high international level and much of the rest at a good international level but the Panel felt that its merits are not sufficiently recognised internationally as yet, and further investment is required, particularly in the science areas. The strategies introduced by the Department have set the Department on course to international recognition at the highest level.

Overall Research Activity and Performance

The role of research in the Departmental Mission

The Archaeology Department is actively and successfully involved in research, teaching and making contributions to the community. The latter activity comprises the management and dissemination of archaeological resources for the public benefit, in the form of publications such as the Inventory Surveys, excavations in the city of Cork, and services to the public as represented by support for archaeology societies and initiatives of central and local government. This activity

accounted for some 30% of the output presented for assessment. However it is less clearly identifiable as research as understood by other disciplines and for the purposes of the present exercise, and in agreement with the Panel as a whole, it is omitted from the grading of publications and included in the grading of research-related activities. Archaeology is not alone in dedicating itself to this community activity, which is beneficial to the discipline and to the university as a whole. It does however consume time. Similarly, teaching makes considerable demands on time. The Department made it clear that it puts equal value on all these activities. Achieving the goal of world class research will need tough choices, by the Department and by the University, in the expenditure of time and money and the appointment of staff. That said, if these choices are made, the goal of creating a visible world class research group is readily achievable by this Department.

The potential for a world class research group

Out of seven staff, there are four stars who would be snapped up by any university in the UK or USA given the chance to do so. The Department would benefit from two more staff, at least one of whom should be in science. This would bring the total to the minimum critical mass of nine, of which three were science-based. The University should expect the result of this policy to be the subsequent expansion of the Department, without a consequent increase in students, mainly in the form of post-docs supported by increased research funding.

Strategy to achieve world class status

Intellectual measures

The Department accepts that it will need to attract more attention to their activities within the international research community. This will require a change in policy:

- the inclusion of theorised conclusions in its outputs, and the clear identification of their significance;
- putting the significance of published work more clearly in a European or Atlantic context;

- increased participation in European projects.

Publication strategy

The Department was invited to consider the benefits of placing more of its work in international journals or with book publishers who have an international distribution. The Department had older loyalties to consider, such as those to the Journal of the Royal Irish Academy, the Journal of the Cork Archaeological and Historical Society and the Cork publisher Collins which currently carry much of its work. There is no criticism of the standard of these productions, only of their reach. They are in general not often found in the libraries even of the nearest neighbour (Britain). The current policy also means that the department is all but invisible to Google Scholar, the main search facility for academic research. Appreciating that publication in Irish national and regional journals is likely to remain an obligation at some level, its utility in giving exposure to the Irish research community would be enormously increased if the journals concerned were digitised. Provided these outlets are peer-reviewed the department will then start clocking up the kind of metrics that university governance hopes for.

Investment strategy

The Department has been successful in winning research grants and is invited to consider winning more from European sources. The most urgent requirement would seem to be investment in laboratory facilities to support modern analytical methods of artefacts and animal and plant remains. The activity would quickly become self-funding through grants, but a priming grant would be important to kick-start the process.

Management Strategy

The Department is currently very well led and managed. The combining of Archaeology and Geography in a School of the Human Environment has clear benefits for shared research resources such as pollen analysis. If the combination is to have an impact on the international research community it may require a large well-funded project in which new knowledge is the clear target. Local projects such as the City of

Cork Atlas, while of undoubted merit, are unlikely to make an impression on the broader global agenda.

Recommendations

The Panel wishes to make the following recommendations:

1. That the Department of Archaeology at Cork be selected for development as a world class group, for which it has already demonstrated clear potential; and that discussions on investment priorities be initiated with the Head of Department as soon as possible.
2. That Departmental staff be encouraged to define the originality and significance of their research-based investigations and identify these clearly in their publications
3. That consideration could be given to strengthening existing research areas by broadening their area

of study: in particular research in the Viking and Bronze Age periods.

4. That the Department should be encouraged to place their articles with journals, and their monographs with publishers, which have international distributions.
5. That the Department gives consideration to developing well-founded internationally targeted projects with the Department of Geography, in the context of the School of Human Environment
6. That the Department should explore research links and projects with European partners
7. That the University should assist the Department to expand its research base by identifying external funds to equip its laboratories and appoint post-doctoral researchers. This could be kick-started through internal priming grants.

DEPARTMENT OF ARCHAEOLOGY

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		9%	44%
2.	Research Related Activities	4	
3.	Funding	3	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		43%	72%

Overall Assessment: Level 3

Quality Profile

Published Output

Number of research outputs considered: 125

- The published research output of the Geography Department includes papers and books of undoubted international excellence, with 47.2% of its published output being classed as of some international significance or higher.
- These levels of international output have been achieved by all the Department's research clusters. Indeed, the Panel is impressed by the extent to which the Department has a core nucleus of staff in all its research clusters capable of sustaining the international debate in their respective fields, a nucleus that includes young staff as well as established staff.
- Whilst recognising the significant level of international output achieved by the Department, a marginally greater percentage (52.8%) of the department's output during the five years of the review is at a lower level. Amongst the published material that is rated as falling into this level is some that makes significant contributions to national debates in Ireland but which, because of its particular approach or framing, cannot be seen as having an international impact or significance. However, these outputs greatly help the University's claims to be servicing the needs of the national or regional community. If the criteria the Panel were given are relaxed even slightly so as to include some of the best work 'carried out to international standards', the proportion of the Department's work that would have been rated as of international level quality or better would be over 50%.
- As regards those publications that are rated as at the lowest level, only a few could be described as representing poor research. Most are teaching materials or texts that should not have been submitted as research output.
- Another feature of the outputs profile that deserves to be noted is the extent to which some staff, based upon their complete CVs, can boast a

track record of good quality journal output over the medium to long term, but who have not maintained such output during the five year period of the sample window.

Peer Esteem

- The Department has a significant number of staff whose peer esteem clearly provides them with an international profile, with ample signs of their involvement in the key international debates within their particular specialist fields.
- However, comparison of the career-long achievement of a few staff with their record over the past five years suggests that the latter period has not been the best sample period within which to judge the quality of their research esteem. For some, the problem has been one of reduced output. The Panel is mindful that the increase in student numbers may have had an impact (see conclusion).
- However, for other staff, the problem is one of balance. They have maintained a flow of published output, but they have not maintained output in the form of peer-reviewed journal papers, or in other forms of substantive research output, such as monographs, chapters in research-based monographs and books. The Panel would particularly encourage staff to distinguish the difference in value or worth between a highly summarised conference paper published only in synopsis form and those papers that have been published in full in conference proceedings using a peer review process.

Research Related Activities

- Significant numbers of staff are active in journal editing, committee work and conference organisation, including journals and conferences that are patently of international significance.
- There is also a strong and broadly based engagement in advisory and consultancy roles, both with government and independent agencies.
- The Department has a particularly strong outreach impact in terms of what they have done for the regional or Irish community, a contribution

captured most notably by their central role in the production of the Atlas of Cork City.

- The staff can boast an impressive degree of involvement with international conferences, and not just with those in the UK or North America. However, they need to ensure that outputs from conferences always serve their needs. More of their presentations at international conferences should provide the basis of submissions to international journals or other peer reviewed forms of output.

Postgraduate Training

- Much is being done in the Department to develop postgraduate activity with real signs of a marked recent increase in research masters and doctoral students, though it remains to be seen whether the surge is a one-off increase in numbers or whether the number of new registrations each year remains high.
- The Department has in place a clear and well-organised supervision programme, postgraduate training workshops and a research seminar programme, whilst the postgraduates themselves have long been instrumental in producing the Department's geographical journal *Chimera*. This represents a first opportunity to write research papers to a refereed standard as well as providing a sense of the Department working together as a research community.
- From the data tabled, it is clear that the Department is attracting able students into research and is capable of producing doctoral students who are able to compete at the highest level. Completion rates need to be kept under careful review.

Research Income

- For its size (in terms of full-time staff), the Department has a good record of attracting research funding, including a recent up-turn in grant income.
- Some areas, such as the Changing Coasts, Climates and Societies and the Migration and Integration research clusters, have attracted very large amounts of funding. However, it is important to note that all five research clusters have demonstrated a capacity to attract some funding. Many of the expected

outputs from the most recent grants are still to be realised so the Department is well set up for producing a strong portfolio of publications for any subsequent Research Quality Review.

Research Environment

- Though the Department has reasonably equipped physical geography and computing laboratories, the latter funded through the Department's own initiative, their use is shared with undergraduate teaching. The Department does not appear to have specifically dedicated postgraduate facilities or bench space, a factor that will be significant as it grows its postgraduate numbers.
- The split nature of the Department between sites, and the physical nature of some of its room space, does not serve its research agenda well. Greater consolidation of facilities, and the provision of more work space, specifically for postgraduate use, would greatly help its research programme. Arguably, departmental investment needs to be supplemented by investment from central funding if the Department is to provide a strong research environment for staff and students.
- Despite these infrastructure difficulties, the growing size of the research community within the Department provides a good supportive environment for postgraduates.

Overall Research Activity and Performance

The Panel rates the research achievements of the Department as good and worthy of an international level rating. Overall its research profile suggests that it has a broad and secure base of achievement at national level alongside several areas of high international impact across a number of research clusters. The Panel is of the view that the Changing Coastal, Climate and Societies and Migration and Integration research clusters offer the greatest potential although they will need future investment in secure staffing positions if their undoubted potential is to be achieved. These comments should be seen against a background in which the Geography Department at UCC is probably the strongest in research terms in Ireland.

However, there are challenges to taking these areas of international achievement forward. The Migration and Integration research cluster for instance, is based on temporary but substantial EU funding and the Department must work to ensure the cluster's permanence. Likewise, key staff members in the clusters on Identities and Place and Environment, Society and Governance are due for retirement in the near future. Replacing these staff will be crucial and the Department should plan with the University to ensure that the new appointments maximise the Department's research potential, not least in the context of the new School with the Department of Archaeology.

An observation that is particularly important here concerns the department's staff student ratio. The departmental review of 2000/2001 identified its then high staff student ratio (1:21) as key and concluded that if the Department's research performance is to be raised, it was important to lower that ratio. However, since then, this ratio has worsened to between 1:23 – 1:26. Given the expected retirement of up to five key staff over the next three or four years, it

is vital for the University to appreciate that at least maintaining current staffing levels is essential if the department's research potential is to be fully realised.

In terms of what it can do itself, the Department needs to reflect on the balance between what it produces in terms of serving the needs of the community and what it produces in terms of peer-reviewed research publications. Put simply, more of its energies need to be directed at producing peer-reviewed output, particularly in international journals. This approach also applies to its participation in international conferences. The Department has a good record of involvement in such conferences, but it should take care to ensure that participation contributes fully to its overall research impact.

The Panel also feels that the Department can make some progress by regularly reviewing staff outputs, including those of younger post-doctoral staff, so as to ensure that all staff contribute to maximum effect to its ongoing research objectives.

DEPARTMENT OF GEOGRAPHY

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		22%	47%
2.	Research Related Activities	3	
3.	Funding	3	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		27%	58%

Overall Assessment: Level 3

Introduction

The Centre for Architectural Education at UCC was established two years ago in collaboration with CIT (Cork Institute of Technology). To date two academic appointments have been made in UCC and four in CIT. The Panel was impressed and encouraged by ongoing developments at the Centre and the number and quality of research outputs that have been produced by the (as yet) small number of UCC staff.

The Panel valued the multi-disciplinary nature of the research being conducted in terms of its potential and current output, a favourable indicator for the future trajectory of the Centre. Both of the current staff are engaged with important sub-areas within the discipline of Architecture.

The projected growth of the Centre is based on a feasible strategic plan that satisfactorily addresses questions concerning the relationship and balance between those sub-domains within the field that will be required as the Centre grows. This pattern of balanced development will be further aided by the introduction of a business plan within the University that will allow for step-by-step increases in staff numbers through carefully targeted appointments.

The Centre intends to develop research within Innovative Architectural Design. The Panel is highly supportive of this choice. The Panel suggests investigating strategic international collaborations in this field.

At its visit to the Department of Geography the Panel noted enthusiasm over the possibility of future collaborations with the Centre; similar links with the Departments of Planning, Art, Design and Music within CIT offer the prospect of fruitful, future interdisciplinary work.

Quality Profile

Judging from the publications listed, both staff are research active, so the assessment represents the achievement of the whole of the Department.

Number of research outputs considered: 17.

Although quantity of output does not form part of the overall quality profile, a large number of outputs has been produced despite the administrative and teaching loads borne by the Centre's small number of staff. An average of more than two externally reviewed publications per person per year, complemented by informal publications, has established a prolific rate of publication.

The published research output includes papers and books of undoubted international excellence, with 70% of published output being classed as of international standing.

Peer Esteem

In view of the short period of time the Centre has been in existence it is difficult to assess Peer Esteem but this will become more feasible in future with the appointment of additional staff. Members of the current staff have been invited regularly to international meetings and one is acting as editor of a notable Irish architectural journal. Both are clear indicators of international peer esteem.

Research Related Activities

This area is interpreted as referring to activity related to research but not producing a research output.

The Centre has been pro-active in developing international contacts which are in the process of being turned into a strategic international network. Moreover, efforts are being made to establish strong contacts with local and regional architects in professional practice. There is considerable further potential for strengthening the external profile of the Centre.

Postgraduate Training

The Centre plans a Masters by Research in the near future, which is very much in line with University policy and with recent international developments. Although this is not yet running and there is currently only one PhD student, the Panel appreciates the Centre's plans and its potential. A structural connection can be made with other PhD programmes under development in Europe. In particular, experience from the

Nordic Academy can be transferred into the UCC programme.

Research Income

The amount of research income acquired is creditable given the length of time that the Centre has been in operation, its high level of teaching commitments and its current stage of development.

Research Environment

The Quality Level of the Centre to date is rated as good but there is clear potential for further improvement if more MArch and PhD students enrol in the near future, and if investment is made in improved library provision.

The University has located the Centre in a new building that includes space for future expansion whilst the Centre's plan clearly envisages interaction and mutual benefit to be derived from research and teaching sharing a complementary agenda.

The balance between numbers of staff employed by UCC and CIT needs to be carefully managed as does the Centre's on-going organizational structure and decision lines given its position between the two institutions.

Conclusion

This Department ought to be assessed as having some of the research activity, as assessed under the various criteria, being of an excellent standard of scholarship and virtually all other research of a good standard of scholarship, but the Panel felt that it first needs to grow by further development and investment in order to merit a higher rating. The activities and strategies introduced by the present staff have set the Department on course to international recognition at the highest level.

The Panel wishes to emphasise that this is a preliminary assessment given that the Centre for Architectural Education has been in existence for such a short period of time.

Based on the above remarks, and in view of the evidence received, the Panel believes that the Centre has the potential to become world-leading. The Panel was impressed by the level of thought and research planning that has guided the Centre's progress to date. This aspect is very promising for the development of an excellent PhD programme, and growth of a research culture which emphasises both originality and the future needs of the architectural profession.

The Panel understands that besides the staff involved in the research quality review, a large group (more than 30) of part-time staff is involved mainly in teaching. These staff ensure a high link with professional design practice. The Panel recommends that the balance between part-time and full-time staff appointments be carefully considered in order to create a strong core of (research) staff within the Centre.

In view of the expected growth and research development within the Centre, and the current financial allocation model between schools and departments, the Panel believes that additional University investments will be needed in the near future to enable the Centre to attract appropriate researchers and PhD students.

Apart from the Centre's enormous potential, the overall assessment as an aggregated score is currently rated as 3 but if investment is continued the Centre's trajectory could lead it to achieve international world-class excellence.

Finally the Panel wishes to recommend that the Centre for Architectural Education at UCC be selected for continued investment as a world class group, for which it has already demonstrated clear potential, and that the Centre should explore research links and projects with European partners.

CORK CENTRE FOR ARCHITECTURAL EDUCATION

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		15%	70%
2.	Research Related Activities	Level between 2 and 3	
3.	Funding	Level between 3 and 4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		35%	75%

Overall Assessment: Level 3

Panel I

Centre for Policy Studies

Department of Accounting, Finance & Information Systems

Department of Economics

Department of Food Business & Development

Department of Management & Marketing



Panel Members

- Professor Wendy Currie, Business Information Systems, University of Warwick, UK
- Professor Andrew Fearne (CHAIR), Professor of Food Marketing & Supply Chain Management, University of Kent, UK
- Professor Raymond Hackney, Professor of Business Systems and Director of Doctoral Programme, Brunel University, West London, UK
- Professor Jill Hobbs, Department of Bioresource Policy, Business & Economics, University of Saskatchewan, Canada
- Professor John Holland, Department of Accounting, University of Glasgow, Scotland
- Professor Blandine Laperche, Director of Research, Université du Littoral, France
- Dr. Svetla Marinova, Birmingham Business School, University of Birmingham, UK
- Professor Donal McKillop, Queen's School of Management, Queen's University Belfast, Northern Ireland
- Professor Christopher Ritson, Centre for Rural Economy, Newcastle University, UK
- Dr. Peter Stokes, Lancashire Business School, University of Central Lancashire, UK

Site visit

The site visit was conducted over 3.5 days from 20 – 23 April 2009 and included visits to departmental and library facilities in UCC and meetings with:

- Dr. Michael Murphy, President
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian
- Professor Irene Lynch-Fannon, Head, College of Business & Law

- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Dr. Niall O'Sullivan, nominee of Head, and staff of Department of Economics
- Professor Sebastian Green, Head, and staff of Department of Management & Marketing
- Professor Ciaran Murphy, Head, and staff of Department of Accounting, Finance & Information Systems
- Dr. William Sjostrom, Head, and staff of Centre for Policy Studies
- Professor Michael Ward, Head, and staff of Department of Food Business & Development

An exit presentation of the principal findings of the Panel was made to Heads of departments in the afternoon of the fourth day.

Introduction: Scope and context of this review

This review takes place in an environment of unprecedented uncertainty. The global financial crisis has resulted in significant reductions in state funding for higher education in Ireland. This reduction in funding coincides with a period of structural change within UCC, which is far from complete and in the case of the Faculty of Commerce is fraught with problems, many of which have had (and will continue to have) serious implications for research. Unless the University tackles these problems forcefully and with a degree of urgency, the Panel is unanimous in the view that the research potential of the departments reviewed is likely to remain unfulfilled and, in some cases, the quality of research is likely to recede.

Thus, in setting the context behind the detailed observations and recommendations for each of the departments, the Panel wishes to make the following observations which are generic in nature and have impacted all units reviewed, albeit to varying degrees.

The Faculty of Commerce comprises a number of departments ranging in size from large to small depart-

ments operating largely in isolation with no common purpose beyond their disciplinary boundaries, drawn largely around teaching programmes. These programmes and the FTEs they generate have been the focus of attention and resource allocation for the last decade, during which the Faculty has experienced significant growth, in student numbers, teaching revenue and staffing. However, the bulk of this staffing has been at a junior level, with many lecturers joining the Faculty without PhDs and with very little interest in or experience of research. There is now a serious and unsustainable imbalance in the number of senior and junior members of staff, with no professorial leadership in three core disciplines: marketing, accounting and finance. This needs to be addressed as a matter of urgency and appointments should be made with an unequivocal focus on the provision of research leadership.

It became evident from discussions with staff that there is a fundamental lack of communication between departments within the faculty and a lack of trust in the university's approach to supporting research activities therein, such is the imbalance in resource allocation towards the natural sciences.

The Panel attempted to clarify the situation with respect to discretionary control over revenue flows from revenue-generating teaching programmes but was provided with conflicting information. The lack of transparency over this issue creates conflicting signals with respect to innovation in teaching programs and increasing research intensiveness.

The proactive decision by UCC to place greater emphasis on research as a mechanism for resource allocation leaves the Faculty of Commerce and the departments therein vulnerable, lacking as they do a coherent research strategy, visionary research leadership and formal structures to support research activity amongst a predominantly inexperienced and junior staff. Many of these staff expressed exasperation with the effort required to make time for research, the lack of support or encouragement from senior academics within the Faculty to undertake research and the lack of recognition for the considerable achievements some have made in spite of the gener-

ally unsupportive research environment. The Panel is firmly of the opinion that this untenable state constitutes a major impediment to the development of a coherent research strategy, a vibrant and collaborative research culture and a robust framework of support to enable individuals within the Faculty of Commerce to reach their full potential as researchers.

The resolution of this problem will not be easy and will not happen overnight. Thus, the Panel urges the University and the senior academics within the Faculty of Commerce to give urgent and serious consideration to the re-structuring of the Faculty into an organisational structure resembling that of a conventional Business School, the Dean of which would have executive power to direct resources in line with an over-arching strategy under which the departments could unite, to build an identifiable brand with research excellence considered on a par with teaching excellence. Such a structure would not only facilitate the development of inter-disciplinary research groupings, Centres and Institutes with devolved responsibilities and a degree of budgetary control, it would also facilitate future applications for international accreditations, such as EQUIS and AACSB, which would enhance the international reputation of the School. Such a re-structuring would also benefit from the creation of an Advisory Board with representatives from industry and government.

Quality Profile

Published Output

In assessing the quality of published output the panel decided to focus exclusively on the published outputs nominated by individual members of staff. The submission lists 15 refereed journal articles. However, of these, 6 are short abstracts and 2 are in the Faculty of Commerce in-house journal. The most significant research output consists of a number of substantial commissioned research reports. These are economic impact assessments for public bodies, mainly relating to the regional economy. This is clearly a valuable contribution to policy development in Ireland. It is noted that this research has not generated many journal articles and the Panel recommends that the Centre should take steps to ensure that its research for public bodies is reflected in more publications in refereed journals.

Postgraduate Training

Staff in this unit do not contribute much to masters programmes. One member of staff has been co-supervisor for two PhD students registered elsewhere. The Panel understands that the Centre has only recently obtained permission to register doctoral students and Centre staff are currently involved in supervising five students. The Panel takes the view that this Unit is too small to be expected to develop independently a credible programme of postgraduate training and currently does not have the facilities to accommodate research students.

Research Related Activities

The Panel noted that the group was active in contributing to research conferences in Ireland and elsewhere in the European Union. It is difficult to see how such a small research group can build or sustain any substantive research activity for as long as they are working in isolation, without the support and infrastructure of a department.

Funding

The series of commissioned studies has generated €167,000 during the assessment period which on per

capita basis is well above average for the Faculty. In addition, one member of staff is directing substantially funded research credited to a medical department. The Panel recommends that the College should facilitate a process which enables the Centre to be recognised as very successful in obtaining external research funding.

Peer Esteem

The main evidence of esteem is the reputation which leads public bodies to commission Impact Studies from the Centre. In order for the group to increase its recognition amongst academic peers it needs to publish more widely in reputable peer reviewed journals, contribute to national and international conferences and establish themselves on policy advisory boards.

Research Environment

The Centre has clearly created an environment which enables a small group of academics to work well together on commissioned research. The group is also involved in collaboration outside the Faculty. However, the environment is seriously impaired by lack of space which prevents research staff or students being accommodated at the existing location of the Centre. If this group is to have any prospect of fulfilling its research potential this situation, which the Panel believes is untenable, must be rectified.

Overall Assessment

The circumstances in which this group was originally formed are regrettable. Despite being effectively isolated within UCC, members of this group have worked diligently to demonstrate their worth. If a suitable departmental home can be found then there is every prospect of this group improving the quality of its research in the future.

Overall Research Activity and Performance

Despite operating under extraordinarily difficult circumstances – no Departmental home, inadequate space allocation and no formal recognition of the substantial research income generated - the Centre has performed well in one aspect of research, contributing commissioned research reports which inform public

policy in Ireland, and has a creditable record in securing external research funding.

Issues

The fundamental issue which confronts the University with respect to the Centre for Policy Studies is whether it makes sense to maintain a small, independent, research centre created, not because of a research need, or to facilitate research synergy, but purely for managerial reasons. If UCC does wish to sustain the Centre in its present form, then to facilitate research development, it is essential that a location and organisational structure is found which can accommodate additional research staff and students and allow staff to be recognised for and benefit from the significant research income generated.

Recommendations

The University should consider whether there is an opportunity to re-designate the Centre as a centre

within a larger Department. The Panel understand that some consideration has been given to a link with a social science department; and the Panel would like to draw attention to the fact some of the Centre's research is consistent with the rural development work of the Food Business Department

Overall Conclusion

Given its unfortunate origins and extremely difficult circumstance this small Centre has demonstrated an ability to contribute to the local and national policy environment and generate external funds to support its work. If it is to flourish, it needs to leverage the commissioned work more effectively, to publish more widely in reputable peer reviewed journals and find a departmental home.

CENTRE FOR POLICY STUDIES

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		0%	40%
2.	Research Related Activities	2	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		0%	80%

Overall Assessment: Level 2

Quality Profile

Published Output

In assessing the quality of published output the Panel decided to focus exclusively on the published outputs nominated by individual members of staff. In the case of Accounting and Finance (AF), 30 publications from 15 members of staff were considered. In the case of Information Systems (IS), 43 publications were considered from 19 members of staff.

Overall, Accounting, Finance and Information Systems (AFIS) staff have produced a good number of research publications over the five year period, with some papers in top rated peer reviewed journals. The IS academics have successfully published in leading journals and senior academics encourage their junior colleagues to submit their work to these outlets. The AF academics have also produced some high quality journal research publications in top rated journals despite the absence of senior staff at professorial and associate professor level. With the high number of junior academic staff in the Department, it is clear that additional support and guidance is needed to develop research skills, particularly those relating to developing a successful publication strategy for leading journals.

Recommendations:

- Develop clearer guidelines about the ranking of refereed journals in the disciplinary areas to enable junior staff to target higher quality outlets
- Encourage team-working among senior and junior academic staff to increase the number of submissions to refereed journals
- Develop research centres within each discipline (e.g. new centres in AF such as 'Corporate Governance', 'Accounting Education'), which will help to generate research funds and enhance research output.
- IS needs to further consolidate its development and impact of research centres and new initiatives, such as the services innovation unit.

Postgraduate Training

Postgraduate training provided by AFIS includes nine Masters programmes, each of which is a 90 credit course. The courses are divided between the two disciplinary areas within the Department. The Department also offers a doctoral programme. The Panel interviewed around twenty doctoral students across the Faculty of Commerce, including those from AFIS. The students were very satisfied with the level and scope of supervision, mainly seeing their supervisor about once every two weeks on average. The resources are very good in general with access to office space and a laptop computer. Some concern was raised about possible cuts in library resources, i.e. online access to journals and other relevant material. The relationship with the supervisor was close and informal rather than detached and formal. There were many advantages to this model of supervision, although some doctoral students said they did not have a second supervisor. There was some confusion about the annual progress review formalities. Students were very content with the provision to attend conferences to present their doctoral work. They were encouraged to prepare at least one academic paper per year over the three year period under the direction of their supervisor. They saw this as a positive way to develop their research career. Although interaction with the supervisor was good, students said that interaction with other members of the faculty (staff and doctoral students) was poor. They saw this as a limitation to participating in wider dialogue and debate about research issues.

Doctoral students funded by UCC said they were expected to do around 150 hours per annum as part of their bursary (although it was noted that in AFIS fewer hours may be required). This was made up mostly of tutorials and averaged around 5-7 hours per week. The Panel has some concerns about the relatively high teaching loads for doctoral students, even though students may teach the same content each year.

The research methods training provided was largely on a voluntary attendance basis. Doctoral students said that some of this training was useful but some sessions were very basic. Learning new software packages on research methods were the responsibility of doctoral

students, some of whom expressed a desire to see more formalised training offered.

The Panel was impressed by the energy and enthusiasm of the doctoral students, who were generally very satisfied with the learning experience from UCC.

Recommendations:

- The Department should consider consolidating its masters courses to enhance economies of scale
- Retain full access to library online e-resources
- All doctoral students should have a second supervisor
- More clarification given to doctoral students about the annual review procedure
- More structured activities involving faculty (staff and doctoral students)
- Wider provision of specific software packages for research methods training

Research Related Activities

AFIS currently has a wide portfolio of research activities which are organised around the research centres. Academic staff are encouraged to engage in research related activities in line with other mainstream research active universities, although much of the high level publishing in leading academic journals is by established senior scholars only. With a distinct lack of academic leadership due to lack of adequate professorial positions in the AFIS department (the Department currently has 1 full professor and 2 associate professors), it is unlikely that significant research skills will be developed by junior staff, since they will need direction and engagement from experienced academics in their specific discipline.

Participation at conferences among all academic staff is good and it is important that this material is translated into refereed journal papers at a later stage. Academic staff were very enthusiastic about their research work, but expressed some concerns about the lack of time to carry out research in relation to other activities, i.e. teaching and administration. The balance of activities between research, teaching and administra-

tion needs to be carefully coordinated by recruiting additional academic leaders.

Recommendations:

- Better coordination of activities in research, teaching and administration to build in time to prepare research outputs
- Reduced teaching and administrative loads for junior academic staff

Funding

AFIS has generated €2,081,389 (IS) and €276,350 (AF) in the period 2003-8. Further funding proposals are currently being considered with the potential to attract an additional €2 million. The research is organised around two disciplinary centres, and there are plans to develop a new research initiative in service innovation. The department currently has 37 academic staff and generates 8.5% of the FTE's for the entire university. With 3100 students, the Department has a significantly higher staff/student ratio of 1:27 compared with the university average of 1:17.

AFIS expressed concern that it was heavily taxed by UCC and felt that some of this revenue could be re-directed back to the Department to provide an incentive to generate further external research funding.

Recommendations:

- AFIS should pursue external funding opportunities in line with their core disciplines, starting with smaller funding opportunities and building up the larger grant applications.
- From the €2.7 million in potential research funding (input) the Department needs to focus on generating refereed journal papers (output) as this will help to build reputation to support further funding proposals. The Panel notes there is evidence that this is already happening in the Centre for Investment Research.

Peer Esteem

The Panel considered the research activities of the AFIS Department in terms of serving the communi-

ties of practice and academia. A small number of senior academic staff are internationally known in their core disciplines. The Department has built up a considerable portfolio of industry/commercial contacts with leading financial services firms, and is actively working to translate academic research into practical solutions.

Senior staff in accounting and finance are currently publishing in leading academic, peer reviewed journals and are held in high esteem by the academic community. Some of the professional output from this area is held in high regard in the practitioner community and it is therefore appropriate to recognise this under the esteem metric. In the IS area, academic staff are publishing in leading IS journals and also in emerging journals. While the high quality outputs are heavily weighted towards senior IS staff, junior staff would benefit from more guidance and advice to target their work towards higher ranked journals, particularly since a significant number of outputs were in lower rating categories. The Panel recognises the significant contribution of the IS staff in working with industry and commerce and this enhances the esteem and reputation of the IS group.

The new research initiative in AFIS on services innovation is progressing well and will further contribute to building the profile of the Department within the IS field. However, the Department needs to build its academic reputation within the core disciplines and in particular, encourage all staff to submit research output to leading international and national conferences and journals.

Recommendations:

- To encourage junior academic staff to serve as track chairs at conferences as this helps to build profile and reputation of the Department. Serving as guest editors and offering to review academic journal manuscripts is also beneficial in building relationships in the academic community.
- Academic staff need to be encouraged to participate in international and national research activities to increase esteem and reputation (i.e. journal editorships and reviewing, track chairs, developing special interest groups SIGs)

Research Environment

The AFIS Department has recruited 60% of academic staff only in the past six years and this contributes to the dynamic and vibrant atmosphere. However, the heavy teaching focus of the Department detracts from allowing academic staff to focus on research activities such as, working on research papers, reviewing the manuscripts of colleagues, setting up an external seminar programme, etc. Some academic staff said they only worked on preparing academic papers and doctoral work in their spare time, so it would seem that some attention needs to be given to developing the research environment within the Department during the working day. The profile of senior and junior academic staff adversely affects the research environment as the two unfilled chairs in accounting and finance, and only one professor of IS restricts the potential to develop research activities for nurturing junior staff. The Panel notes that there was concern about the completion rate of PhDs in the Department. It would seem that time needs to be made available to enable academic staff doing part time PhDs to improve completion rates and generate publications from their research.

Recommendations:

- This Department urgently needs to recruit 4 professors, two in IS and two in AF, to provide research leadership to the high number of junior academic staff and to facilitate the generation of high quality research output.
- Promotion to professorial level posts should be actively pursued through internal mechanisms as a reward to highly productive academic staff in both groups.
- Develop and promote an external speaker programme to build networks for potential collaboration among academic staff.
- Build in research time to the academic working day to include workshops on academic writing and journal submission.
- Create visiting academic positions where leading scholars can visit UCC to share best practice on

developing a vibrant research environment for academic staff and students.

Overall Research Activity and Performance

Despite considerable teaching loads and the lack of professorial positions AFIS has achieved an impressive level of research activity, reflected in a good number of quality publications and a significant amount of external research funding.

Issues

Panel members were impressed by the enthusiasm and energy of the academic staff in AFIS. With 37 academic staff, it was evident that only one chair and head of department was insufficient to provide adequate leadership and guidance to junior academic colleagues, particularly as 60% of staff have only joined the Department in the last six years. The lack of professorial positions was particularly detrimental for the accounting and finance staff, and of less concern to the IS staff. However, despite the shortage of senior academic staff, the Panel felt that the research areas pursued by the Department were very relevant and mainstream within the international academic community and were likely to attract research funding.

Recommendations

It is recommended that consideration be given to:

1. The ratio between senior and junior academic staff needs to be urgently addressed and professorial appointments are needed in accounting and finance and information systems.

2. Despite only one professor and two associate professors in AFIS, the Department has generated good research output and continues to strengthen its links with industry and commerce. The Panel recommends growing and nurturing the research centres and new areas for research, such as services innovation to create critical mass and reputation in these areas.
3. Develop the procedures for postgraduate training, including a more structured approach to research methodology training, retain and build existing resources, i.e. access to e-journals, allocate second supervisors to doctoral students and provide opportunities for research students to engage with other academic staff and students.
4. Carry out regular evaluation of the profile of taught masters courses in the Department to potentially streamline existing programmes. This may help to consolidate teaching activities across the Department and provide more time for academic staff to engage in research activity.

Overall Conclusion

Accounting, finance and information systems are mainstream disciplines within the business and management academic communities and the AFIS Department has very good potential to develop an international profile in each area. UCC needs to attract and retain strong academic leaders to assist the current senior academics in building these fields.

DEPARTMENT OF ACCOUNTING AND FINANCE AND INFORMATION SYSTEMS

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
	<i>Accounting and Finance</i>	20%	45%
	<i>Information Systems</i>	20%	45%
2.	Research Related Activities	4	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
	<i>Accounting and Finance</i>	20%	60%
	<i>Information Systems</i>	30%	70%

Overall Assessment: Level 4

Quality Profile

Published Output

In assessing the quality of published output the Panel decided to focus exclusively on the published outputs nominated by individual members of staff. In the case of Economics, 10 members of staff submitted no publications and 8 members of staff with publications listed failed to provide physical copies. Thus, this evaluation is based on 30 publications from 12 members of staff. Thus, the Panel recognises that the evaluation of published output is based on a sample and does not include detailed consideration of all the outputs listed. However, the Panel believes it is unlikely that the inclusion of missing publications would significantly affect the overall rating of published output.

The Panel would make two substantive comments regarding the published output evaluated. First, the mixture of journals is extremely diverse, reflecting the heterogeneity of research interests within the department. This may be regarded as a strength, reflecting the scope for developing specific areas of research in the future. It may also be regarded as a weakness as it reflects a lack of research focus and publication strategy. Second, the contextual focus of the majority of the published outputs is Ireland, which, in the absence of any distinct conceptual or methodological approaches, renders much of the published output primarily of national interest.

Recommendations:

- Appoint leaders for the three research groups (finance, business and health), to provide leadership and guidance with respect to research strategy, research focus, publications in targeted journals and participation in high profile conferences.
- Develop a more formal approach to research mentoring and support for staff who have recently completed their PhDs, in order to maintain momentum with regards to publications, both quantity (important for junior academics and outreach beyond academia) and quality (essential for peer recognition and building capacity to bid for

external research funding, an important metric for promotions).

Postgraduate Training

The evaluation of postgraduate training was based on the evidence provided in the submission, discussions with staff and a meeting with twenty doctoral students from across the Faculty of Commerce.

The students were very satisfied with the level and scope of supervision, mainly seeing their supervisor about once every two weeks on average. The resources are very good in general with access to office space and a laptop computer. Some concern was raised about possible cuts in library resources, i.e. online access to journals and other relevant material. The relationship with the supervisor was close and informal rather than detached and formal. There were many advantages to this model of supervision, although some doctoral students said they did not have a second supervisor. In Economics the lack of supervisory support is the result of a limited number of senior academic staff.

There was some confusion about the annual progress review formalities. Students were very content with the provision to attend conferences to present their doctoral work. They were encouraged to prepare at least one academic paper per year over the three year period under the direction of their supervisor. They saw this as a positive way to develop their research career. Although interaction with the supervisor was good, students said that interaction with other members of the faculty (staff and doctoral students) was poor. They saw this as a limitation to participating in wider dialogue and debate about research issues.

Doctoral students funded by UCC said they were expected to do around 150 hours of teaching per annum as part of their bursary. This was made up mostly of tutorials and averaged around 5-7 hours per week. The Panel has some concerns about the relatively high teaching loads for doctoral students, even though students may teach the same content each year.

The research methods training provided was largely on a voluntary attendance basis. Doctoral students said that some of this training was useful but some sessions were very basic. Learning new software packages on research methods were the responsibility of doctoral students, some of whom expressed a desire to see more formalised training offered.

Recommendations:

- Retain full access to library online e-resources.
- Make provision for all doctoral students to have a second supervisor.
- Provide clear guidelines to doctoral students about the annual review procedure.
- Develop more structured activities involving faculty (staff and doctoral students).
- Make wider provision of specific software packages for research methods training.

Research Related Activities

The submission document does not explain clearly the research activities of the Department as a whole. These are related to the research (which is wide ranging), are diverse in nature and appear to lack internal co-ordination. Discussions with staff revealed a considerable degree of freedom given to individual members of staff with regard to their research focus, publications and involvement in conferences. Staff welcome this and feel able to share their ideas freely with colleagues – doors are always open. Informal lunchtime seminars are organised, but only on demand and rarely involving staff or students from other departments. A working paper series has been implemented, which has resulted in a substantial number of papers being published, notably by junior staff. Participation in conferences has, to date, been mainly in regional and national events. There is some evidence of outreach to the wider community through the publication of research results in non-academic outlets. Conference organisation appears to be the result of individual initiative rather than a co-ordinated research policy.

Recommendations:

- Exploit, to a much greater extent, the synergies that exist with other departments in the Faculty, particularly Food Business and Development, Marketing & Management, and Finance, in which staff are working on similar areas (e.g. consumer behaviour, innovation, entrepreneurship and investment). This could be achieved through the explicit co-ordination of inter-departmental research seminars, appropriately themed to attract researchers with common areas of interest

Funding

A total of €289,380 has been generated over the six year period, of which 95% is external but 69% is associated with the creation of the Centre for Investment Research. This research funding is attributable to 7 members of staff.

The historical funding model, focussed very heavily on teaching income and FTEs, has not encouraged staff to seek external research funds. Moreover, given the fact that economic research is not heavily dependent on research funding and the Department has a high proportion of junior staff, the relatively low level of research funding attracted over the reference period is not surprising. Staff will continue to find it difficult to allocate time to writing research proposals unless there is a) a fundamental shift in emphasis away from the generation and maintenance of income from teaching towards a greater contribution from research; and b) greater provision of mentoring, from senior academics within the Department and the UCC research support services, in the preparation of research proposals.

Recommendations:

- Senior members of staff should lead by example and support junior lecturers in the preparation of research proposals. This may be for modest amounts in the first instance, to provide confidence and change the culture and mindset within the Department, which is currently largely oblivious to the importance of external research funding, which represents an important measure of peer esteem, an important factor in the promotions review and

a source of funding upon which the University and individual departments are likely to become increasingly dependent in the future.

Peer Esteem

There are notable examples of significant external recognition, where a few individuals have developed strong academic links at the national and international levels, through journal editorships, conference organisation and participation in journal refereeing. However, the low overall assessment of peer esteem reflects a general lack of publications, particularly in international peer reviewed journals and low levels of participation in conferences, professional organisations and advisory boards. This is not surprising given the dominant focus on teaching provision and the high proportion of junior staff.

Recommendations:

- Senior staff should be encouraged to organise conferences and track sessions at high profile conferences as part of an overall research strategy to raise the profile of the department within the academic community
- A more concerted effort should be made to convert working papers, of which there are a considerable number, into refereed journal articles, with greater consideration given to the targeting of specific journals more widely recognised amongst academic peers at an international level

Research Environment

Staff expressed their anxiety towards a) the apparent freezing of funds for conference attendance and sabbaticals, despite the generation of surpluses from teaching, b) the high proportion of part-time staff, who are not research active and c) the difficulties experienced with internal promotion due to an inordinate teaching burden which prevents them from developing their research, and d) the physical location in three separate sites, which was identified as a barrier to collaborative research.

On the positive side, many staff demonstrated a degree of collegiality and were particularly proactive

in encouraging staff and students to make use of the excellent library facilities. The Panel also understands that the University has plans to improve the accommodation for this unit. However, it was emphasised during discussions with staff that 'history matters' and the development of a research policy, strategy and related activities is an evolutionary process. The question remains whether the current environment is supportive of this.

Recommendations:

- In order for the research environment to improve there needs to be a substantive increase in the importance attached to research by all of the senior academics in the Department, without which junior staff will be inadequately incentivised to direct a greater proportion of their time and intellectual capacity to research activity.
- The need for greater co-ordination of research activity and more collaborative research across the unit is greatly hampered by their physical location on three different sites. Thus, it is important that this impediment is removed at the earliest opportunity

Overall Research Activity and Performance

The Department of Economics is one of the largest in the Faculty with significant input across a wide range of teaching programmes, delivered by a group of predominantly junior lecturers. Research has clearly been given a low priority and there is a distinct lack of formal support for junior staff, many of whom are currently undertaking their PhDs. The development of the New Staff Development Programme is an excellent initiative, providing junior staff members with supervision from and exposure to academics from other institutions, many of which are overseas. However, there is inadequate co-ordination of research activity beyond the (external) support for PhD research. The Department is clearly in the early stages of development with regards to its research activity and this is reflected in the current level of performance. However, there is no reason why the Department should not continue its evolution, with appropriate research leadership and the introduction

of more formal support for research training, publications and applications for research funding.

Issues

The key issue facing this department, with respect to the quality of research, is the lack of focus and leadership with respect to research activity, the research environment and research outputs. The adoption of a *laissez faire* approach is not consistent with a department so heavily populated with junior staff. Moreover, the continued pursuit of income generation through teaching related activities will make it difficult for junior staff to find or make time to improve their research skills and extend their research horizons beyond the consideration of regional and national issues and publication in low ranking peer reviewed journals.

Recommendations

Specific recommendations have been made above, with respect to the six elements covered in the review.

- Overall, the most important recommendation to emerge from the evaluation of research activities, processes and outputs in the Department of Eco-

nomics is that greater leadership and more formal structures are required to support the large number of junior staff who are clearly willing and able to undertake research but whose potential is constrained by a *laissez faire* approach to research activity and the publication thereof.

Overall Conclusion

This unit shows considerable promise but is currently under-performing with respect to research, in terms of quantity, quality, relevance and impact. This is largely the result of an excessive focus on teaching, which has undoubtedly been perpetuated by an internal (UCC) funding mechanism driven by FTEs and the generation of revenue from a raft of teaching programs across the Faculty of Commerce. A significant and sustained improvement in the quality of research activity will only be possible if there is a concerted effort amongst senior academics within the unit to recognize the importance of research, communicate this effectively amongst junior colleagues and put in place more formal processes to support a more strategic and co-ordinated approach.

DEPARTMENT OF ECONOMICS

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		6%	23%
2.	Research Related Activities	2	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		12%	24%

Overall Assessment: Level 2

With 17 staff members (5 on temporary lecturer contracts), the Department consists of three theme areas: food business and the food consumer, co-operative business, and rural and international development, linked through a teaching and research interest in food systems.

Quality Profile

Published Output

In assessing the quality of published output the panel decided to focus exclusively on the published outputs nominated by individual members of staff. The Department's submission listed 56 peer-reviewed journal articles for the review period, of which just over two-thirds are in food business/consumer analysis. Other publication outputs include 2 edited books, 23 book chapters and 44 published conference papers. A number of staff also produced commissioned research reports for various stakeholder groups. Opportunities to leverage these latter research outputs into peer-reviewed outlets could be explored. Peer-reviewed publications from Ph.D. and research Masters level research is an under-explored opportunity.

The Department has some very good peer-reviewed publications in international journals in the food business/consumer area. The published output reflects successful collaborations with researchers in other countries. The group recognises opportunities for greater internal research synergies and collaborations among staff members which could leverage different expertise. The co-operative research group appear to work well together, as evidenced by the degree of jointly authored publications. This reflects the organisational strength of the Centre for Co-operative Studies, housed within the Department. Publications in this area tend to target key stakeholder groups in the co-operative sector. The development group has a relatively diverse set of research interests spanning rural and international development. Publications tend to be targeted at key policy stakeholder groups rather than academic audiences, reflecting the applied nature of this work. Looking to the future these types of research outputs could be leveraged into peer reviewed publication to raise the

research profile of the rural and international development area.

Postgraduate Training

Postgraduate training provided by the Department of Food Business and Development includes seven masters programmes of which three are research masters. The Department also has 12 currently registered research masters students and offers a doctoral programme which graduated 40% of the PhDs in Business and Law over the 2003-7 period. In addition, the Department is involved in the delivery of eight diploma/executive development programmes aimed at specific practitioner groups in the food business and co-operative communities. This is a significant contribution to postgraduate training within the College of Business and Law. It may be necessary to consider rationalizing teaching programmes and/or modules to reduce the programme management and teaching workloads. PhD supervision is not evenly distributed across the Department and there is potential for more of the senior staff to participate in supervising PhD students.

Assisting PhD students to publish the results of their research through jointly authoring peer-reviewed publications based on this work would serve the dual purpose of mentoring the student and further demonstrating research output from the Department. The Department could consider implementing a research seminar series to facilitate inter-group research collaborations and to expose postgraduate students to a broader array of research ongoing in the department and elsewhere.

Research Related Activities

The Department is an enthusiastic unit with motivated researchers. They actively engage with various stakeholder groups relevant to their research areas and disciplines, including the food business community, co-operative community, and policy makers at the national and EU levels. This reflects the applied nature of the research ongoing in the Department. Participation in research conferences, both as speakers and organisers is strong. Staff in the food business

and food consumer theme area are frequently invited to perform peer review activities for international journals.

Funding

The Department of Food Business and Development generated €2,735,856 in research funding over the review period. This is an excellent level of research funding for these discipline areas and reflects the applied nature of research undertaken in the Department. In particular, success in receiving EU funding is highly commendable. The Department also has significant involvement in revenue-generating programming at the Masters level and in Executive Development training programmes which contribute to relatively high teaching and program administration workloads for staff. Concerns were expressed that the returns from these activities are used in part to cross-subsidize other activities within the university.

Peer Esteem

A number of staff have served as external examiners at UK and other Irish institutions for undergraduate and post-graduate programmes. They serve academic, policymaker and community stakeholder groups through invited presentations and invitations to participate in policy review processes at the national and European levels. Targeting more research output into European and international journals would help raise the profile of individual researchers within the research community. A small number of senior staff, primarily in the food business/food consumer area, are becoming known within the broader international academic community and are establishing a strong profile within the European research community. Linkages with research centres or networks in other countries, and stronger participation in key European and international conferences would serve to further strengthen reputations. The Centre for Co-operatives has a strong reputation within Ireland and has productive relationships with similar research centres internationally.

The proportion of staff rated as having currently low levels of peer esteem in many cases reflects those staff at an early stage of career.

Research Environment

The Department appears to have large number of teaching programmes (M.Sc. programmes, executive development/diploma training) across the three theme areas and consequently relatively high teaching loads and significant programme management responsibilities. While important revenue-generating activities, these create workload issues that need to be managed carefully to facilitate greater research intensiveness.

The Department of Food Business and Development has a long-standing and significant partnership with the department of Food Science at UCC which is important for cross-disciplinary research collaboration in the food area. In light of restructuring within the College of Science, Engineering and Food Science and the anticipated heightened competition in food research from UCD it will be critical to clarify the nature of this partnership under the new college system so that future collaborations are facilitated rather than impeded. There is scope for an inter-college institute focused on food to facilitate greater research collaboration and provide a focal point for generating research funding given the significant potential in this area.

Members of staff expressed some frustration with increased bureaucracy around complying with internal processes. This detracts from the time and energy available to devote to research and to applying for new research funding. The increasing complexity of major grant applications at the EU and National levels creates a further challenge. Increased administrative support in the form of a knowledgeable research facilitator to assist with grant applications to EU and major national bodies could reduce this administrative burden on academic staff and position them more competitively in the international arena.

Opportunities likely exist for greater inter-departmental co-operation on research, particularly with the Department of Management and Marketing.

Staff should be encouraged to take advantage of sabbatical opportunities to increase research intensiveness and build international research collaborations. Where possible, management of teaching workloads at

a departmental level should be done to facilitate targeted sabbatical leaves on a rotational basis.

Overall Research Activity and Performance

While composed of three distinct areas of focus, the Department appears to function very well as a unit and recognises the potential for greater inter-group research collaboration. Relative research strength lies in the food business and food consumer area. The Department has been very successful at attracting significant external research funding over the review period. Furthermore, it has a very good record with respect to completion of PhDs and large numbers of masters students.

Issues

Members of staff in the three theme areas are at different stages of career maturity, resulting in different relative strengths of research output across the theme areas. Four members of staff (3 in development, 1 in co-operatives) began undertaking PhD studies in the last two years. Of the seven senior staff members in the department (1 professor and 6 senior lecturers), five have a primary focus in food business/consumers, one in development and one in co-operatives. Recent structural changes have created uncertainty with respect to the department's long-standing partnership with food science. These uncertainties need to be resolved in a timely fashion. The Department makes a significant contribution to postgraduate education in revenue-generating programmes and greater discretionary control over these revenue streams would enable investment in research deepening activities or individuals.

Recommendations

It is recommended that consideration be given to:

- Increasing the profile and impact of research in food business/consumers through a formalised research structure such as a centre or institute in collaboration with Food Science.
- Continued active participation in European and international level research conferences and networks. Recent cuts to university-level travel

funding, while understandable in the current financial climate, are unfortunate and will particularly hamper junior level staff in participating in national and international conferences. Targeted conference travel funding specifically for professional development of junior staff would be helpful.

- Leveraging commissioned reports, book chapters and other community stakeholder oriented publications into additional peer-reviewed publications in international journals.
- Co-publishing the results of PhD and research Masters theses research.
- Management of teaching workloads to provide junior staff the opportunity to build a programme of research. This may require rationalisation of current teaching programmes or efforts to seek synergy across programmes through shared modules.
- Provision of central research support from the university through streamlined internal processes and administrative support to facilitate participation in EU and major national grant competitions.
- Stronger communication by the Department of its identity across the three core areas: the central underpinning of food and resources that ties these three areas together.
- Greater involvement by all senior staff members in PhD supervision.

Overall Conclusion

Key opportunities for intensifying research output and recognition lie in the food business and co-operative areas. These are focus areas in which UCC can be a recognized leader within Ireland and indeed within a broader European context. Research strategy should aim to facilitate deepening of research intensiveness and strengthening international profile and collaborations in these areas. In closing, it should be noted that the Department of Food Business and Development is a relatively strong and successful unit. Any future structural changes within the university/college should seek to build upon and not detract from this success.

DEPARTMENT OF FOOD BUSINESS AND DEVELOPMENT

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		29%	61%
2.	Research Related Activities	3	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		35%	53%

Overall Assessment: Level 4

Quality Profile

Published Output

In assessing the quality of published output the Panel decided to focus exclusively on the three published outputs nominated by individual members of staff. Approximately three quarters of the output considered was published in reputable journals. Outputs also included conference papers, book chapters, working papers, and a commissioned report. The majority of outputs were rated at “very good” and “adequate” standard. Several outputs were of excellent international standard in terms of originality, significance and rigour. Two members of staff, namely one junior and one senior lecturer, have outputs of outstanding standard, peer reviewed and published in world leading journals in their respective disciplines. There are, however, some outputs that fall below the adequate standard of recognised work within the discipline.

Postgraduate Training

The Panel noted that postgraduate training was organised and conducted on an informal basis in the Department. It was highly driven by individual initiative, collegiate generosity and goodwill, as well as external networks and linkages. The Department has made use of the training offered by the Library information access training initiatives. The fortnightly research seminars have played a role in enhancing the research training of PG students and served as a forum for exchange and exploration of research ideas. The Doctoral Colloquia, organised by the Department, are specifically commended. It is important to note that the limited number of senior research staff has been a constraint to the development of a coherent and reliable departmental post-graduate training programme.

Research Related Activities

The Panel considered these as of a very good standard, commending in particular the working paper series, papers presented at conferences, research-related links with organisations, conference organisation, the research seminars, and publications in conference

proceedings. Activities in this area are extensive and demonstrate the creativity, initiative and innovation of staff. Through these activities the national standing of the Department has been greatly enhanced. Some international awareness has also been established. There is clear evidence of growing confidence and achievement in this area. The Panel noted that there has been no formal upgrading of the research skills of staff.

Funding

The Panel noted that external fund raising for research has been somewhat limited. Staff in this Department have made a conscientious decision to limit their applications for external research funding, which they do not deem specifically important for their research area.

Notwithstanding the aforesaid, the Department has successfully accessed some national funding streams (€61,538). €10,090 has been used from UCC sources (Department and University funds) for supporting research.

Peer Esteem

This part of the assessment should be interpreted with consideration given to the ratio between junior and senior staff within the Department. The Panel noted that even new junior staff have striven to achieve greater visibility nationally and internationally that could enhance the departmental esteem indicators. Staff demonstrated commitment and enthusiasm to do so on a continuous basis.

Research Environment

The departmental research environment is excellent in view of fostering academic reflection, enquiry, creative approaches to and cross-fertilisation of research. There is, however, a need for strategic self-reflection within the Department that can enable staff to better utilise and unleash their research potential. Considering the broader research environment, the Panel noted the insecurity, anxiety and concerns of staff in terms of career progression within UCC, research

skills support and enhancement, administrative overloading and current resource constraints. Certainly, the need for more senior staff, especially in terms of strengthening research leadership and enhancing the research positioning strategy has been acknowledged by the Panel.

Overall Research Activity and Performance

There is a culture of creativity, reflection, intellectual debate and self-help in the Department, which should be used as a sound foundation to build upon with regard to research development. The Panel has identified strong lead research themes, capabilities and synergies that should be exploited nationally and internationally in a much more focused and consistent manner. There is some effort in the Department of getting research output in top-rated international journals that should be developed further. Interaction with the business community should be developed more extensively in terms of research access and input.

Issues

The Panel is concerned with the highly skewed ratio between senior and junior staff. More specifically, this has been seen in a) the consistent failure to recruit senior research staff and the expressed ambiguity about the reasons for this; and b) the opportunities for continuous motivation, retention and promotion of junior staff.

The institutional ambiguity and communication deficiencies concerning the availability, distribution and control of resources for enhancing the research performance of the Department needs to be addressed. The Panel noted with concern reports of difficulties in taking up sabbaticals.

The proliferation of low cost teaching programmes and new programme development could undermine the efforts to build sustainable research capacity in future and should be avoided.

Recommendations

- The Department has internally developed research skills and capabilities but might consider a more tar-

geted disciplinary approach to publications in view of achieving higher research output in top international journal outlets. Such an approach could be supported with a collaborative effort that over time would enable the transfer and leveraging of research expertise within the Department. The opportunities for collaborative initiatives within UCC beyond the departmental boundaries could also be explored.

- The Department should pro-actively seek the support of the College and University's Research Office for initiatives on research skills upgrading making better use of skills existing in other university departments and colleges.
- Research building capacity should be enhanced via external recruitment and/or internal promotion of staff.
- The Department should increase the number of doctoral students and improve the monitoring and assessment of their annual progression towards completion.

Conclusions

The Panel was impressed by the conceptual and methodological rigour embedded within the research undertaken in a Department which is small by any standards but particularly in the context of marketing and management provision within a business faculty. A professorial appointment in the area of marketing is urgently needed and provided the appointment is made with a clear research focus and one that is aligned with the creative focus of this dynamic group, there is every prospect of the management and marketing building on the solid foundation already created.

DEPARTMENT OF MANAGEMENT AND MARKETING

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		18%	72%
2.	Research Related Activities	3	
3.	Funding	1	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		28%	58%

Overall Assessment: Level 3

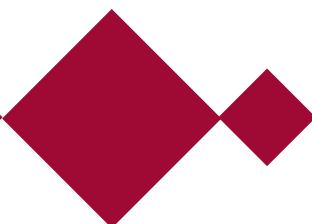
Panel J

Department of Applied Social Studies

Department of Government

Department of Law

Department of Sociology



Panel J Members

- Dr. Isobel Anderson, Department of Applied Social Science, University of Stirling, Scotland
- Ms Sonia Harris-Short, Birmingham Law School, University of Birmingham, UK
- Professor Richard Jenkins, Department of Sociological Studies, University of Sheffield, UK
- Professor Dominic McGoldrick (CHAIR), The Liverpool Law School, University of Liverpool, UK
- Professor Mairtin Mac an Ghaill, Department of Sociology, University of Birmingham, UK
- Professor Rosemary O’Kane, Department of Government, Keele University, UK
- Professor Imogen Taylor, School of Social Work and Social Care, University of Sussex, UK
- Professor Cirila Toplak, Faculty of Social Science, University of Ljubljana, Slovenia

Site visit

The site visit was conducted over 3.5 days from 30 March – 2 April 2009 and included visits to departmental and library facilities in UCC and meetings with:

- Dr. Michael Murphy, President
- Professor Paul Giller, Registrar & Senior Vice-President Academic
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Michael Berndt, Head, College of Medicine & Health
- Professor David Cox, Head, College of Arts, Celtic Studies & Social Sciences
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian
- Professor Irene Lynch-Fannon, Head, College of Business & Law

- Ms. Michelle Nelson, Head, Graduate Studies Office
- Professor John O’Halloran, Member, Research Review Implementation Group
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Professor Alastair Christie, nominee of Head, and staff of Department of Applied Social Studies
- Professor Neil Collins, Head, and staff of Department of Government
- Professor Caroline Fennell, Head, and staff of Department of Law
- Professor Arpad Szakolczai, Head, and staff of Department of Sociology

An exit presentation of the principal findings of the Panel was made to Heads of departments in the afternoon of the fourth day.

Introduction: Scope and context of this review

1. The Panel was asked to provide a quality assessment profile covering six assessment criteria. The following weightings were applied:
 - i: Published output: 75%
 - ii, iii, iv and vi: Postgraduate training, research related activities, funding and research environment: 20%
 - vi: Peer esteem: 5%
2. The Panel applied these weightings on the basis of experience of the RAE in the United Kingdom and because they are broadly consistent with what the respective disciplines would regard as sensible and defensible.
3. The Panel took account of the fact that researchers had not necessarily been targeting these specific criteria.
4. There was a degree of uncertainty in some of the departments as to the precise criteria for selec-

tion of the three outputs and how they would be weighted.

5. The inclusion of all members of research staff was the basis of the exercise and The Panel worked on that basis. In a small number of cases the Panel discounted particular individuals if it clearly seemed appropriate to do so. These are indicated in the respective departmental submissions.
6. The Panel assessed the particular circumstances of early career researchers on a case by case basis. Thus the Panel took into account the date of their appointment and their background.
7. The Panel identified a number of general recommendations directed to the UCC as a whole.

General Recommendations to UCC

1) General shift to a research driven environment

In the context of an institutional cultural shift to a research driven environment, the situations the Panel encountered were as often as not in a state of flux. This should be taken into account in interpreting all comments (academic policies, administrative arrangements, resources). Furthermore the fact that the site visit has taken place at a time of sudden economic hardship should also be taken into account. Academic staff are clearly very concerned about the future.

2) Administrative support

The Panel was informed by the University that there had been an increase in funding. Departments reviewed felt that there was a lack of support and resources, for example, for applications for funding, holding conferences.

3) Space

There has been historical under-funding of the infrastructure of these disciplines. This needs to be addressed. A designated space is required to support the postgraduate research community and culture.

4) Funding

Funding for university travel grants, conferences etc. needs to be restored. The Panel would also recommend

a start up fund for new academics. It is crucial that library funding is retained in a research-led institution.

5) Mentoring

There needs to be a University mentoring system for all academic staff but particularly early career academics to assist and encourage funding proposals, high-impact publishing and academic writing. The mentoring system is currently feeble. Who has the responsibility to mentor early career people and ensuring continuing staff development support throughout their careers?

6) Sabbaticals

It is vital to maintain in a research-led University the availability of sabbaticals and that it is administered in a fair and transparent way. Sabbatical leave is not a perk but a core component of a research-led institution. There needs to be a cultural change in thinking about sabbatical leave with greater flexibility in its implementation (i.e. teaching responsibilities and change to research leave on a semester-based system).

7) Postgraduate training

The Panel was advised that policies were gradually being put in place on a number of issues.

8) Lack of a managed research environment

A clear research strategy is required from University management linked to a clear budgetary model. The University management needs to take ownership of the current research agenda and support it with necessary resources. Greater transparency and rigour is required to support academic staff in achieving the University's objectives.

9) Valuing the Social Sciences

At several times during the site visit the social sciences seemed to vanish into something called Arts. The Panel would regard this as unhelpful and perhaps thought could be given to establishing a College of Social Science. In a modern research driven university this would be a normal expectation.

Quality Profile

The review of research in Applied Social Studies (ASS) is based on documentation provided in advance of and during the site visit, close reading of the top three outputs selected by the staff, a meeting with ASS staff, a separate meeting with ASS postgraduates and meetings with other key UCC staff.

This is a large staff group and account was taken of the fact that seven staff were identified as early career researchers and two staff did not make submissions due to personal circumstances. The reviewers noted that seven staff did not submit the expected three outputs and in addition two early career staff did not submit outputs. The reviewers also noted that ASS provides intensive teaching, particularly on the professional programmes, and that a minority of staff might be engaged in activities such as locating practice placements and providing practitioner inputs and would in most groups not normally be expected to be research active.

Published Output

The ASS staff group is undertaking a diverse range of research activity across social work, social policy, youth and community work and housing. There is a good volume of activity and much provides evidence of valuable links to policy, practice and teaching. There is substantial engagement with Irish issues and also a strong range of work which is outward looking and internationally oriented. The staff group includes some internationally known researchers and a promising pool of emerging scholars.

Among the most significant outputs were articles in leading international peer reviewed journals, as well as scholarly books from mainstream publishers. The earlier quality review highlighted the need to increase the proportion of published outputs in peer reviewed journals relative to those in edited books, but this has not yet been fully achieved. A high proportion of total outputs were chapters in edited books (including from one publishing house largely edited by one member of staff). While the originality and rigour of many of these chapters is acknowledged, the reviewers

would suggest that their significance could have been enhanced by publication through either mainstream book publishers with recognised peer review procedures, or in peer reviewed journals. The reviewers do, however, commend the development of creative, accessible outputs designed for end users of research.

Postgraduate Training

The reviewers were impressed by the high proportion of staff with higher degrees and note that nine staff have completed a Doctoral thesis during the assessment period, with others currently working towards doing so. Some staff expressed concern that payment of doctoral fees by the department might not continue to be available and this would present a barrier to completion.

The reviewers commend the recent introduction of two taught doctoral programmes which have recruited well. The interdisciplinary aspects of these programmes are to be welcomed and the students were very positive about programme quality. For the traditional PhD route, there is no similar pattern of increasing numbers, completion rates are low and a few students reported experiencing a degree of isolation. While there are positively experienced postgraduate library facilities, it was noted that ASS is not able to provide any dedicated workspaces or pc's for postgraduate students and there is no shared space to facilitate group interaction and development of a research student culture. While opportunities to present their material to each other in seminars was seen to build confidence, it was thought that there could be more effective sharing of experiences and learning across the department and communication between ASS and the student body could be improved. Notwithstanding these issues, students were very positive about supervisory support.

While successful initiatives such as ISS21 provide studentships, most students commented on pressures of self-funding. In the postgraduate student group who met with the review team, not one student was financially supported by an employer. Students also expressed concern about the prospect of losing financial support to attend conferences.

The introduction of research methods training is a very welcome development. It was noted this is currently available on a voluntary basis for traditional PhD routes.

The only criticism that emerged of the University library, was from a part-time student who felt more could be done to assist with extended loans or other support for those who were only occasionally on the campus.

Research Related Activities

- The involvement of ASS in ISS21 and the Irish Social Science Platform is important to its growth.
- ASS is significantly engaged in the organisation of national and international conferences at UCC.
- A high proportion of staff have presented papers at national conferences, and a substantial number at international conferences.
- There is clear and active engagement with Irish agencies to pursue a shared research agenda.
- There is evidence of developing participation by service users in research projects
- There is no clear profile of a research seminar programme for UCC staff and agency partners; or of other forms of staff development

Funding

Effective use has been made of internal University funding sources, e.g. CACSSS. There have been some notable successes in attracting substantial external research grants (e.g. PRTL11; Atlantic philanthropies; the Harvard Foundation; the EU; and County and City Councils) and a much larger number of relatively small grants. There was a large increase in exchequer and non-exchequer funding in 2007/8. However, until this year, amounts were small, with no clear overall trend in growth. The reviewers noted that one of the members of the Department of Applied Social Studies is leading the national ISSP PRTL15 bid for €13 million of which €4.25 million will be allocated to UCC.

Peer Esteem

There are a few staff members who evidence strong international esteem, including membership of interna-

tional associations, keynote conference presentations, and provision of international conference workshops. For the majority of staff, there is evidence of local and national level recognition. Esteem indicators broadly reflect the patterns of research activity and output, and career trajectories across the staff group.

There are a number of staff who contribute to editorial boards. There is also a good range of contributions to boards of local agencies.

Research Environment

ISS21 and ISSP appear to provide an impetus for developing research. However, within ASS, and not evidently related to the ISS21 or ISSP initiatives there are a large number of small Research Clusters relative to the size of the staff group. While these may function well as 'bottom up' mechanisms to support research activity, it is not clear how effectively they link to the broader strategy and to meeting research objectives. Interdisciplinary collaboration is developing within UCC social sciences and could profitably be extended further within social sciences and extended to other disciplines.

ASS staff manages to produce research which has influenced policy, practice and pedagogy, notwithstanding a research environment which is in some respects poor. In particular,

- Buildings and infrastructure are substantially below those required of a modern international- standard academic department;
- The department's research strategy requires further development, particularly with regard to mechanisms for implementation of identified objectives;
- Mentoring of staff appears to remain voluntary/informal;
- There is a lack of clarity about sabbatical entitlement and anxiety about the implications for research activity and completion of doctoral work of cutting back on sabbaticals.
- The research agenda of the department would benefit from UCC's formal recognition and incorporation of ISS21.

Overall the impression is not one of a strongly lead or managed research environment.

Overall Assessment

The Department of Applied Social Studies has a very creditable research profile with pockets of excellence. It is on an upward trajectory and has the capacity to develop further if adequately supported by the University. Many outputs compare well with similar applied departments in the UK, particularly those which are teaching intensive where all staff are expected to be research active.

Overall Research Activity and Performance

The role of ASS in ISS21 and the ISSP is particularly noteworthy. Within the staff group there are highly active researchers producing high quality outputs; a good spread of researchers with solid, well focused and developing profiles; and some early career researchers with considerable potential for future research and publication. A small number of staff appointed both before and after 2003 have profiles which could be better focused and perhaps better supported if the aim is to have a strong, inclusive research culture across the entire staff team.

Issues

- The accommodation and infrastructure are inadequate;
- The primary task of all staff is teaching, with inevitable implications for research activity;
- The research environment does not present as strategically managed;
- Research clusters are small and not clearly linked to broader research developments;
- Activities such as mentoring and appraisals conducive to a managed research environment appear to be informal and voluntary;
- Research seminars and other forms of staff development are not clearly in evidence. The panel did note that the department has organised the William Thompson Lecture series for a number of

years and the advertisement of the lecture series on the departmental web site;

- A few staff are generating large bids but overall externally funded projects are low and funded international collaborations include a minority of staff;
- The current financial position of the university with expected cuts in sabbatical leave and support for conference attendance will have negative implications for research activity.
- Staff publications continue to depend on edited books, particularly from non-mainstream publishers.
- Postgraduate students do not have adequate accommodation or infrastructure support; outside ISS21 there is little financial support available;
- Research methods training is voluntary for PhD students.

Recommendations

The overall recommendation is to develop a research environment and culture which will support staff to achieve their full research potential in line with Departmental, College and University goals.

It is recommended that consideration be given to:

- Improving accommodation for staff, including addressing issues of accessibility.
- Reviewing the research clusters, with a view to rationalisation and to creating cluster leadership roles for some of the more experienced researchers.
- Clarifying expectations for research activity for staff at all career stages, taking account of teaching workloads and administration.
- Implementing strategies to support all staff to meet research expectations, through:
 - A staff development programme which fully incorporates research activities
 - Systematic mentoring and appraisal
 - Maintaining a sabbatical system explicitly linked to agreed individual goals

- Maintaining financial support to attend conferences
- Instituting research seminar programmes to develop skills in disseminating research findings.
- Developing clear strategies to ensure staff achieve a higher proportion of publications in peer reviewed journals and books.
- Supporting staff to increase activity in applying for external research funding.
- Supporting staff to develop international research collaborations;
- Developing training for PhD supervisors, including allocating second supervisors as a mechanism to develop supervision skills and experience.
- Designating accommodation (with pc access) for postgraduate students.
- Requiring research methods training for all PhD students, including those on the traditional route, unless they provide evidence of already meeting requirements.
- Examining library lending arrangements for part-time students.

Overall Conclusion

There is clear evidence of a very positive research trajectory building on excellent links with the professions, policy, practice and the community. There is evidence of staff commitment and capacity which if properly supported and managed could increase national and international research activity and develop much needed applied research on social issues, leading to excellent research outputs and knowledge transfer to the policy and practice community.

DEPARTMENT OF APPLIED SOCIAL STUDIES

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		45%	80%
2.	Research Related Activities	3	
3.	Funding	3	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		40%	80%

Overall Assessment: Level 3

Quality Profile

Published Output

Department of Government demonstrates impressive output including in European journals with clear networking within Europe. Actual work also shows tremendous potential. For a small department, topics are extremely diverse. The Panel has discounted the temporary lecturer appointed only in September 2008, but noted his publishing potential in the future.

Recommendations:

Staff should further exploit electronic publishing and use international connections for joint publications.

Postgraduate Training

The Panel is impressed that the Department appointed a research director and a research committee. They have regular seminars and an article club for postgraduates. There is a very supportive climate for postgraduate students in spite of space and equipment shortages. This climate includes open door mentoring policy. The Department provides generic courses for university postgraduate students.

Research Related Activities

The Department demonstrates an impressive rate of attendance of conferences, including international scientific conferences. It has a record of organising conferences at UCC. A new electronic peer reviewed journal has been established within the department. Department staff are active within national and international professional associations.

Funding

There is a strong ethos of grant applications with some notable successes, including obtaining funds to attend conferences. Funding for conferences is very important.

Recommendation:

Considering the size of the department, it is recommended that the Department should focus on smaller

national and EU grants, and to attempt membership in partner consortia of larger projects rather than large project coordination.

Peer Esteem

The Department includes the first academic from the Republic of Ireland elected to the Academy of Social Sciences - that is evidence of very high peer esteem. There has been some joint authorship with highly esteemed international figures. Department staff are members in governing bodies of professional associations.

Research Environment

Clear research leadership is evidenced in joint publications. Department funding is available for attending conferences, regular seminars are organised, and sabbaticals are directed toward early career members. Support of diversified and individual research interests (research clusters) is evident. Students are included in research activities. Staff are encouraged to teach to their research interests. Interdisciplinary research is carried out in collaboration with the Institute of Chinese Studies and the Department of Management.

Recommendation:

It is advisable to combine publishing and sabbaticals for strongly targeted research output.

Overall Research Activity and Performance

This is a vibrant, young department, the earliest appointment having been in 1998, and the most recent appointment in September 2008, with five of the total eleven department members appointed since August 2003. In this light the research output is remarkable. With the exception of the most recent appointment, everyone is publishing and in there is clear evidence of quality.

As such the department demonstrates both actual quality and the potential to continue with quality research output.

Importantly, the research is largely directed to a European audience. Publications include those in

European journals and books published with European publishing houses. Some publications are jointly authored with top European academics. The Department is also very well networked with, for example, conference papers, presented in America as well as Europe. Importantly, too, the local community – Ireland – is also far from neglected. There is evidence of deep engagement with Irish politics as well as researching, for example: local government, analysis of Irish elections, contributing to a democratic audit of Ireland, producing works on citizenship and education. Furthermore, at all times, these works have been placed within the wider context of European politics but have also engaged with political science or political and sociological theories, as appropriate.

Crucially, the research is analytical, relating to models and theories. Furthermore, the department has over the years always looked to the future; opening and developing new research topics combined in clusters, in reflection of the department's size. The latest cluster expands the political economy/marketing and relates to global political and economic development (Africa and China). This ensures that research led teaching contributes to a fully grounded degree programme.

In sum, this is a department that demonstrates not only research ability but also energy and ambition. Though young, the department has enormous potential and deserves UCC's strong support in its ambition to become a research led university.

Issues

Fear to lose postgraduates because of lack of space.

There is evident:

- lack of space, in particular for postgraduate students;
- insufficient conference funding organisational assistance,
- inadequate computer equipment, and in particular,
- uncertainties regarding temporary lecturers (three out of eleven),
- the future position of the department within the overall organisation of UCC.

Recommendations

It is recommended that consideration be given to:

- E-journals are to remain fully accessible.
- Library budget should be sustained (library itself very impressed – flagship of a research led university).
- Central depository for equipment such as camcorders and projectors etc. would assist Department with organisation of seminars and conferences.
- Space is tight, especially for a department that should expand and attract as many as possible postgraduate and overseas students. The Panel knows that the department has the FTEs to justify this expansion as well as their current research profile.
- All three of staff on temporary contracts must be retained.
- Department needs practical support in organising conferences and summer schools (centralised conference facility).
- University should not cut travel grants and sabbaticals.

Overall Conclusion

Politics is nowadays present in all areas of human activity. In current global political and economic situation, a department of government covering topics on local, national and international politics represents a crucial asset to every university and to wider community ensuring quality analysis of pertinent political issues and thus enabling the search for answers to crucial questions on current dynamics and future trends in societies locally, nationally and worldwide that natural sciences alone are unable to provide.

Political science is an established and esteemed independent discipline within social sciences that contributes to the disciplinary scope of every excellent research led university. Considering the omnipresence of politics in our societies, political science has a great potential for interdisciplinary and international research networking and attracting postgraduate students from all over the world, in particular in an English speaking country.

In that respect, if supported by proper infrastructure and funding justified by the existing research record, Department of Government can importantly contribute to UCC's European and international affiliation, as well as help promote Irish political science in the EU context.

DEPARTMENT OF GOVERNMENT

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		51%	75%
2.	Research Related Activities	5	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		40%	90%

Overall Assessment: Level 4

Quality Profile

Published Output

Some items in the original submission were not includable under the Research Quality Review guidelines. Where time permitted the Panel consulted with the department and some items were replaced by other outputs. Some items had changed on arrival. Research staff need to have clear guidance on what should be submitted. It should not be a decision for the individual alone. Rather it needs to be a departmentally managed and decided process. Given the importance attached to the three outputs, the proposed submissions of individual researchers should be read by other colleagues before being submitted.

The Panel did not consider outputs that did not fall within the review date.

The approach of the Panel to consideration of the six early career researchers was to make an assessment of them in terms of what was realistic to expect from them given their individual context and circumstances.

The Panel accepted that the 'Irish context' was a relevant factor to bear in mind and recognise the very significant contribution which some members of staff have made to the development of legal policy in Ireland. It specifically influenced our assessment of some of the outputs. However, it was considered that the issue can be overplayed. There were outputs which the Panel considered could have been published outside the narrow Irish publishing context because they contained material of broader comparative, European or international interest. There needs to be clearer guidance on a publishing strategy for members of staff, particularly early career researchers. Many of the individual submissions indicated that for the future there was an intent to be published in internationally recognised peer reviewed journals that would have a more demonstrable European/ international impact. The Panel would endorse this strategy in helping to strengthen the department's reputation on the international stage. With respect to some outputs publication in two different forums might be appropriate.

The Panel based our assessment on 71 units of output.

The attached metric on published output evidences that a significant amount of excellent work continues to be produced from across the department. Given the different criteria applied, direct benchmarking against the UK RAE exercise is not possible. However, in terms of determining the quality and international standing of the department's research output, the RAE provides a useful point of reference. In terms of the 2001 methodology the Panel is confident that the department would have been scored at a 5 on the basis that at least 15% was at level 5 and no less than 50% of staff at national level (if one broadly takes level 3 on Cork's quality criteria as representing that level). This is consistent with the Wheeler Research Review Assessment of 2005 which was consulted by the Panel.

In terms of equivalence with the 2008 RAE the evidence also seems to be consistent with placing Cork alongside the leading UK law schools. Taking the categorisations as broadly similar, the Law Department has 48% of published output in the top two categories. This would place it approximately 30th in a UK league table between the Universities of Liverpool and Warwick. The Panel considered that this was an accurate reflection of the broad quality of its research output, giving some measure of reflection for the 'Irish context'.

Postgraduate Training

The Panel would have welcomed the opportunity to meet with representatives of the postgraduate students to explore issues surrounding PhD training, supervision and support more thoroughly. The Panel would recommend this is specifically included in any future research review exercise.

The Law department has taken a leading role in embedding postgraduate student training within the PhD programme. All law PhD students are required to complete a research methodologies module delivered by the law department's academic staff. The Panel would also commend their use of a bi-weekly postgraduate forum to support the research agendas of the postgraduate student community. This is a model of good practice which is reflected in the Law Department's tremendous success in obtaining national funding for their PhD students. Training modules are also provided by the University but remain voluntary.

The Panel had some concerns about the training and support provided to postgraduate student supervisors. There was no evidence of supervisor training. That will inevitably lead to inconsistencies that will only be revealed when problems arise down the line. The Panel is particularly concerned that early career staff may be permitted to take on sole supervision of postgraduate research students.

It is now the norm/good practice for there to be two supervisors for a PhD student. It is a good way to broaden the base of research supervisors and spread experience of research supervision. The Panel noted and commended the fact that UCC has a policy that temporary members of staff and staff who have not yet completed their probation period (3 years) cannot take on sole supervision of research students. The Panel also noted that it is the practice of the Law Department to assign a joint supervisor, where a less experienced member of staff is assigned as a PhD supervisor.

Research Related Activities

Members of the academic staff are extremely active in the local, national and international legal communities. Particularly notable is their significant contribution to the process of law reform and legal policy development in Ireland. Their participation in international activities ranging from academic exchanges, participation in and hosting of international conferences, membership of research networks and collaboration on international research programmes is also extremely impressive.

The Panel would commend the Law Department for its determined efforts to provide financial support for these extensive activities through the provision of departmental travel grants and conference funds. The Panel share the Department's strong concerns regarding the impact of the process of moderation and the freezing of current reserves on these important research activities.

Funding

There is extensive evidence of success in obtaining research funding. This compares very favourably

with the UK's leading Law Schools where, as a discipline, there is little tradition of seeking and obtaining external funding to support research. The funding has risen consistently and has been achieved by a considerable number of members of staff. In 2007/08 the sum achieved from external funding bodies was 776,760.58 euro.

Peer Esteem

On any measure of esteem there is extensive evidence of peer esteem. Esteem has been achieved by a considerable number of members of staff. There is evidence of esteem both from within the academic community but also from within the professional and governmental agencies community. Individuals have received a variety of academic awards and honours, are regularly invited to participate as experts/consultants in the activities of governmental and non-governmental agencies, have chaired and been appointed to inquiries and law reform and policy-making bodies and have undertaken leadership roles in the academic community through the editorship of journals, external examining and journal refereeing.

Research Environment

In the Wheeler review of 2005 the infrastructure for research in law provided by UCC was described as 'very poor'. There has been some improvement, for example, the new library wing, and in the provision of dedicated space for postgraduates in law.

There remain concerns about potential cuts in library provision, e.g. electronic journal access. Such a cut would not be credible for a research-led law department. The Panel was not shown departmental office accommodation but understand it is very poor.

The increase in the PhD population is remarkable and should be applauded. It creates a significant research community on which to build. However, it necessarily carries its own demands. The process of taking them through to completion has begun but will take considerable effort over the next few years. Maintaining the sustainability of such high levels will present a considerable challenge and poses some risks to the ability to carry out the wider research agenda of the department.

There is no reduction in teaching allocation for newly appointed, early career staff (e.g. down to say 100-120 hours). This is standard practice in other leading research-led law schools and plays an important role in safeguarding the time needed by early career researchers to establish their research agendas. Such a reduction could be achieved by a marginal increase in the average hours of more experienced staff (e.g. 5-10 hours). To do so would demonstrate a supportive culture to early career staff. In a sense everyone would share the burden and the new staff would do the same down the line.

There is resistance to having a formal mentoring scheme for all staff. The Panel would recommend that this should be overcome. The benefits of effective mentoring extend beyond the probation period. The perception of it should be a normal element of a helpful, supportive research environment in which senior colleagues provide advice and support to less experienced colleagues on crucial issues such as research and publication strategy for career advancement.

Travel grant – see comments in the general part.

Sabbatical - see comments in the general part.

A student:staff ratio of approximately 33 is very high. However, to be realistic, comparable UK law schools operate with not dissimilar ratios.

Overall Research Activity and Performance

Issues

The Panel would commend the Law Department for its commitment to academic freedom and the importance of supporting the individual research agendas of academic staff. This is a particularly important value in small/medium sized law schools where a range of legal disciplines must be represented. However, the Panel would suggest further consideration is given to developing clusters or centres of excellence where there exists a critical mass of staff researching in related fields. This is not about directing the research agendas of individual staff but providing a supportive mechanism for the existing activities of those staff, as well as providing opportunities for new collaborations in international activities such as hosting conferences, attracting visit-

ing scholars, networking and obtaining funding from international bodies. Development of such centres can help carve out a distinctive identity for the law department on the international stage.

The Law Department has a very clear strategy for the development of its research over the next five years. There would, however, appear to be a degree of 'mixed-messages' being sent to academic staff on the ground about the research priorities of the University. Communication between the various levels of University management on issues such as research strategy, academic policy and PGR support need to be improved.

One particular example of this confusion regarding University strategy relates to the current disjuncture between the internationalisation agenda and existing promotion criteria. Whilst the Law Department is committed to developing its international standing through the publication of substantive, quality pieces in leading international peer-reviewed journals, this does not appear to be entirely consistent with existing promotion criteria to senior lecturer. In order to develop their research agendas effectively members of the academic staff need to know what is expected of them both by the department and the University and be provided with the support and resources to realise those objectives.

Recommendations

It is recommended that consideration be given to:

1. In future research review exercises the selection of outputs for review should be departmentally managed. The Panel would also recommend that a meeting with postgraduate research students is specifically included in any future research review exercise.
2. Clearer guidance is provided on a publishing strategy for members of staff, particularly early career researchers.
3. Consideration is given to the provision of training for all supervisors.

4. Supervision for postgraduates is provided by two members of academic staff, particularly where one member of staff is an early career researcher.
5. Funding for research activities such as conference participation, academic exchanges and research visits is restored and secured in the budgetary model for the future.
6. Teaching loads for early career researchers are reduced.
7. A formal mentoring scheme is introduced for all members of staff.
8. Further consideration is given to the development of clusters or centres of excellence.
9. Lines of communication between the various levels of management over research strategy and priorities are improved.
10. Promotion criteria are brought into line with the University's current research priorities.

Overall Conclusion

The Law Department is doing excellent work according to most of the criteria we assessed. It clearly constitutes a discipline in which there is a very strong case for continued and increased investment.

DEPARTMENT OF LAW

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		48%	79%
2.	Research Related Activities	4	
3.	Funding	5	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		54%	81%

Overall Assessment: Level 4

Introduction: Scope and context of this review

The review of research in the Department of Sociology is based on the documentation provided in advance of the site visit, close reading of the sample publications provided by the Department, meetings with Department staff, a separate meeting with postgraduate students, and meetings with other UCC staff.

Some of the publications provided were disregarded because of their publication dates, hence the base for the publications profile is 35 rather than 39; following UK RAE conventions, this is offset to some degree by the fact that two staff members are part-time.

The publications profile has been compiled by judging the individual publications submitted rather than staff members' profiles in the round; this is done in order to produce comparable, balanced judgements. The criteria for evaluation as a 5 were defined in a restrictive fashion: if there was any doubt, a grade of 4 was given.

Quality Profile

Published Output

There is considerable evidence of genuine internationally-reputable excellence, both with respect to social theory and empirical research. The publications profile is one that any US or UK department would be justly proud of. There is much work that is suggestive of a distinctive Cork intellectual tradition that is outward looking and international in its orientation. There is also substantial engagement with Irish issues, set in an international and global context, that is completely appropriate. This is a very impressive submission indeed.

Postgraduate Training

The quality of individual supervision appears to be very high and students value the Department's rich intellectual milieu. The Department's record in producing people who have gone on to careers in academia is enviable. However, this excellence is achieved despite the fact that the accommodation and infrastructural resources (IT etc) that are available to PhD students fall well below the standards that one should expect

of a Department competing at an international level. Structured communication between the Department and the PhD students as a body could perhaps be improved. Finally - and this is a University issue - there appears to be a great diversity of educational and financial resources available to PhD students through various different schemes, which leads to invidious disparities and inequalities that do not enhance the overall student experience.

Research Related Activities

The Department's involvement and leadership, with other units at Cork, in the Institute for the Social Sciences in the 21st Century (ISS21) and the Irish Social Science Platform is worthy of particular mention and deserves the University's strongest possible continuing support. This includes the Graduate Research Education Programme. There are possibilities for further developments in interdisciplinary research in environmental sociology and the study of sustainable development which should be a matter of priority, for the Department and the University.

Funding

The Department's track record of grant capture is excellent. ISS21 with its research manager, should improve further on this.

Peer Esteem

The Department's peer esteem profile speaks for itself. This is a very well-regarded unit, nationally and internationally. The University's current restrictions on resources such as conference funding are, however, unlikely to enable the current profile to be improved. It is difficult to see how the University's research ambitions can be advanced in this straitened context.

Research Environment

In some respects the research environment is poor: buildings and infrastructure, in particular, are substantially below the requirements of a modern, international-standard academic department. Library resources are inadequate with respect to books. It is vital that current e-journal access be maintained.

Staff manage to rise above these limitations, however. Whether they can continue to do so, in the absence of any improvements in these respects, is unknowable; the University should take this problem seriously and seek to improve the situation. The staff are to be commended in the highest possible terms, for maintaining a productive research environment given the problems above: morale and good will should not, however, be taken for granted as infinitely elastic resources.

Overall Assessment

This is an internationally reputable department, with real strengths in social theory and empirical social research. UCC should be proud to have it. Although it is not easy to make such comparisons, this department, were it in the UK, with a profile like this, could expect to be in the higher echelons of the last UK RAE, at least in the top 15. However, were it in the UK, it would count as a teaching-intensive department with a very high staff-student ratio, so this achievement would be all the more noteworthy. For a small department, with inadequate resources at its disposal and a demanding undergraduate teaching mission, it punches well above its weight in the international arena.

Overall Research Activity and Performance

The Department's role in ISS21 and the Irish Social Science Platform is noteworthy and worthy of particular praise. Its research performance is, on balance, outstanding.

Issues

- The general level of core resource is poor, viewed in an international perspective.
- The accommodation and infrastructure are embarrassingly inadequate.
- The staff-student ratio is indicative of a teaching-intensive, rather than a research-led, department.
- The current squeeze on sabbatical availability is likely to be detrimental to the Department's research work. Much of the work on which the Department's reputation rests has been made pos-

sible by sabbaticals, particularly, but not only, the highly-regarded theoretical work. This will be threatened if sabbatical leave becomes more difficult to access.

- Three members of the Department will be retiring in the relatively near future. If these posts are not replaced, even at junior level, the future success of the Department is in grave jeopardy. This has particular relevance for research because student numbers are not likely to decline; with fewer staff, research will be squeezed. This requires University attention and planning well in advance of these retirements.

Recommendations

It is recommended that consideration be given to:

- improving the Department's funding;
- making sabbaticals available as widely as possible, within the framework of the Department's own priorities and internal arrangements;
- securing the future filling of vacant posts; and
- improving the Departmental accommodation and infrastructure.

Overall Conclusion

This is a really excellent department, which is performing at a very high international standard despite, not because of, its level of resource.

DEPARTMENT OF SOCIOLOGY

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		72%	92%
2.	Research Related Activities	5	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		54%	85%

Overall Assessment: Level 4.5

Panel K

Department of Applied Psychology
Department of Education (Including Sports Studies)
Early Childhood Studies



Panel Members

- Professor Richard Bailey, Professor of Sport and Education, University of Birmingham, UK
- Professor Susan Florio-Ruane (CHAIR), Professor of Teacher Education, Michigan State University, USA
- Professor Paula Hixenbaugh, Psychology Department, University of Westminster, UK
- Professor Mary Kellett, Centre for Childhood Development and Learning, The Open University, UK
- Professor Trisha Maynard, Centre for Child Research, Swansea University, UK
- Professor Andrew Monk, Department of Psychology, University of York, UK

Site visit

The site visit was conducted over 3.5 days from 27 – 30 April 2009 and included visits to departmental and library facilities in UCC and meetings with:

- Dr. Michael Murphy, President
- Professor Paul Giller, Registrar & Senior Vice-President Academic
- Professor David Cox, Head, College of Arts, Celtic Studies & Social Sciences
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Professor Alan Kelly, Dean, Graduate Studies
- Ms. Michelle Nelson, Head, Graduate Studies Office
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Professor Francis Douglas, Head, and staff of Early Childhood Studies
- Professor John Groeger, Head, and staff of Department of Applied Psychology
- Professor Kathy Hall, Head, and staff of Department of Education

An exit presentation of the principal findings of the Panel was made to Heads of institutes/departments in the afternoon of the fourth day.

Introduction: Scope and Context of the Review

The three units whose research was reviewed by Panel K include two departments (Education and Applied Psychology) and one programme (Early Childhood Studies). The Departments are two among several offering collaboration with the programme in Early Childhood Studies (ECS). Please note that not all of the collaborating departments were included in the group the Panel was assigned to review (e.g. Applied Social Studies; Paediatrics). The Panel was, however, assigned to review the research of one of the participating units - the Department of Applied Psychology. That Department declined to integrate relevant aspects of their research activity and outputs into the ECS submission. In addition, the research output of Early Childhood Studies was determined by the personnel selected by each contributing department to teach on the programme. For that reason, in addition to making independent reviews of Applied Psychology, Education, and ECS, the committee report comments that inclusion of ECS-relevant staff and research productivity from the Department of Applied Psychology might have changed the research profile of Early Childhood Studies. Included below are the reports of the three units reviewed, followed by general concluding comments and suggestions.

Quality Profile

Published Output

The Panel was impressed with the profile of published output. It is clear that Applied Psychology UCC has a significant international presence. The Panel was also impressed with the range of external collaborations evidenced here. The Panel is confident that the Department's plans to recruit PhD students closer to the core research areas of members of staff (see below) and to rationalise the way that teaching is organised (see below) will result in more high impact staff publications.

Recommendations:

1. To establish an informal or formal publications strategy for staff.
2. As per the departmental Five Year Strategic Plan (p.15 of the main submission), to establish mentoring schemes within each research group to enable less research productive staff to develop the necessary skills to conduct research which leads to publication.

Percentages were computed by rating all the peer reviewed journals and conferences papers listed in the main submission (91 items).

Postgraduate Training

There are currently 16 students registered for PhDs and the number of PhDs conferred during the review period is satisfactory. One weakness mentioned in the submission (p.16) is that staff members often supervise PhD students in areas that are only peripheral to the staff member's area of research. It was explained to the Panel at the meeting with staff that this was to some extent inevitable with a staff approximating 12 FTEs in a regional university. However, the Department is addressing this problem by identifying more clearly the research groups where they have strength in order to recruit more suitable applications. If they were able to improve the match of student and staff research interest the Panel is confident this would significantly improve research output. The Panel is also

confident that the new Research Methods in Psychology Master course will be a rich source of good and well matched applicants.

Recommendations:

1. The departmental website should be developed to encourage PhD applications and illustrate current research projects in the three research areas identified in the review.
2. The Department should review selection criteria and policies for allocating PhD students to supervisors in order to obtain closer matches between the research interests of students and supervisors.
3. The Department should consider developing supervision teams to enable less experienced staff to develop skills in the supervision of PhD research.
4. The Department should pursue all possible sources of funding in order to maintain or increase the number of PhD students in an economically difficult environment (as stated in the Department's five year plan).

Research Related Activities

The Department demonstrated a good range of research related activity at the national and international level. One member of staff serves as an editor of an international journal and another member has had two guest editorships. During the review period, staff members have refereed for 53 different journals.

Staff have organised 7 conferences during the review period and have attended a number of national and international conferences. A small number of staff members have had a considerable number of consultancy appointments which have had international influence.

Recommendations:

1. All staff should be encouraged to present at high quality international conferences when funding allows. This is an important step in the development of a research profile and publications.

2. To continue the development of strong departmental research groupings to facilitate and coordinate research related activity in the key areas of departmental strength.

Funding

The Department has competitively won external research funding to the tune of 2.9 million euro in the review period. This excludes recent grants of 14.1 million euro and 400,000 euro to two individual staff members. This is an extremely impressive achievement for such a small psychology department.

Recommendations:

In meetings with staff, a number of interdepartmental collaborations were discussed; these included computer science, epidemiology, geography and the medical school. These should be further developed and new collaborations should also be sought.

Peer Esteem

A wide range of peer esteem indicators are evidenced in the submission. As might be expected in any department, these are unevenly distributed within the staff group. A few members of staff play very major international roles in their fields, and a number of others have some international standing. For example, staff have held five international visiting professorships and competitively won Research Fellowships in the UK and USA. One member of staff serves as the Research Director of the RAMAS foundation whose risk assessment protocols are internationally respected. Another member of staff has had a major impact on rail signal siting standards in the UK through his expert witness contributions. He is also internationally known for his work on driver behaviour. One member of staff is internationally recognised for his research in human-computer interaction. He was involved in drafting the influential ISO9241 standard and is well respected for his development and research with the SUMI and WAMMI, questionnaires which were developed through EU funded projects and industry collaborations.

The review group is confident that measures suggested elsewhere in this report will increase peer esteem of additional members of the department.

Percentages were computed by rating 19 of the 20 submissions provided in Appendix A of the submission. One member of temporary staff, who first registered for a PhD in 2007, was omitted.

Research Environment

The departmental research environment has recently been the focus of a substantial departmental review. This was partly as a response to the 2005 Quality Review recommendation to “focus on a small number of core research priorities”. There are now three research groups in the Department which provide a focus for research activity. However, the staff numbers within each group are distributed very unevenly with two groups of three members each and one group of fourteen members. As the research culture develops in the Department it may be possible to differentiate this large research group into clusters with more closely aligned research interests. It is evident that there has been recent investment in research laboratory facilities. The review team was particularly impressed by the driving lab. There is scope for additional investment in research facilities which will also benefit teaching and will continue to develop the research culture of the Department. There is some evidence of the integration of research and teaching and this is to be encouraged.

In meetings with staff, it became clear that teaching and administration were previously seen to be a barrier to effective research activity. This was not a matter of teaching loads which are generally seen to be reasonable and equitable. Rather, it is to do with how teaching was timetabled and organised. For example, there was no common time when staff could get together for research meetings during term time. They are addressing these problems.

Recommendations

1. The Department should consider dividing the Well-being and Social Engagement Research group into smaller groups of similar interests.

-
2. Continue to develop the integration of teaching and research.

Overall Research Activity and Performance

There are a small number of extremely active and internationally recognised researchers in the department. The achievement of these individuals is truly impressive. The publications, research grant profile and esteem indicators of this group are all at an outstanding international level. However, these individuals have largely been working alone or with international collaborators rather than with other members of the Department. This has led to an excellent research culture in small pockets of the Department. However, there are a number of members of staff who by traditional standards would not currently be judged to be research active. The reasons for this are varied but appear to be historical in terms of hiring practices and large, diverse teaching loads. It was the clear impression of the Panel that this group of relatively inactive staff welcomes the opportunity to become more active and that there has only very recently been the support and encouragement for activity. In particular, the planned mentoring of less research active staff should enable a more productive and supportive culture to develop. This will enable staff whose priorities have necessarily been directed elsewhere to develop their research interests and to collaborate with more experienced staff.

The Department has produced an impressive Five Year Strategic Plan for Research with the main aim to “establish and maintain an international reputation for research excellence...” With continued investment in terms of staffing (there are currently three full time posts unfilled) and research facilities, the Department is well positioned to achieve this aim.

Issues

It is clear that the Department of Applied Psychology has undergone considerable change following an extended period without a permanent head of department, at a critical time in the review period. The review panel was impressed that under these circumstances the research profile of the Department for the

review period was so strong. Since the recent appointment of a new professor as Head of Department, just over six months ago, there has been impressive progress in the development of a research culture. Strong research groups have been formed and this is forming the focus for interdepartmental cooperation.

However, to enable the Department to continue to develop and to fulfil its five year research development plan, continued investment is needed in terms of staffing and development of research facilities. There are a number of unfilled staff posts, and a number of staff who will retire over the next few years. Staff members with strong research records need to be appointed to fill these posts.

Recommendations

It is recommended that consideration be given to:

1. Redesigning the University website to make it easier for departments to add exciting content and to make it easier for potential students to find out about the research strengths of individual departments and hence suitable topics for PhD work.
2. Providing more support (financially and in terms of time) for University staff to study for PhDs.
3. Developing a strong central research support office with officers dedicated to each of the colleges. The office should provide support for PI's in writing proposals and in administering research grants.

Overall Conclusion

The University is to be congratulated in initiating this review process. In the opinion of the panel, this demonstrates the University's commitment to developing its research profile.

DEPARTMENT OF APPLIED PSYCHOLOGY

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		72%	98%
2.	Research Related Activities	4	
3.	Funding	5	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		42%	84%

Overall Assessment: Level 4

Quality Profile

Published Output

The Panel was impressed by the large number and wide variety of written products submitted by the staff of the Department of Education. These included reports of research and also texts intended for practitioners and policymakers. Staff members also wrote papers presented at professional meetings, some of which were refereed and some invited. However, if the Panel views the entire body of written work, it is found that relatively little of it appears in high impact, peer-reviewed research journals. The Panel would hope to find more articles published in leading journals and also more sole or first-authored research-based books. The sense of the Panel is that the work of a number of excellent academics in the Department is not adequately represented by their published research output.

This review is designed to assess the quality of research for university-based audiences. However, it is also of appropriate value to the Department to write and publish for practitioner audiences and also to encourage practitioners to conduct their own research and publish their findings. Therefore, the Department's published output is wider than its academic research and should be viewed as incorporating multiple audiences and genres commensurate with its mission and goals. It remains essential, however, for a Department granting the research degree of PhD to maintain high visibility as a centre of academic research, and to do this, doctoral students as well as staff should make publication of their academic research a high priority.

Recommendations:

1. To articulate a publication strategy based in internationally recognized standards of excellence, such as journals in citation indices, author research-based books.
2. To capitalize on research grants, collaboration with colleagues, editorial opportunities, networking with national and international colleagues, and with PhD students to enhance a climate of scholarly writing and support staff to routinely

disseminate their research as a central professional activity.

3. Each member of the academic staff might develop a publication schedule and strategy annually and review it with the Chair or a senior member of the faculty.

Postgraduate Training

The Panel recognizes and applauds the innovation of the new Cohort PhD route, as well as the College-wide innovations in requiring more structured research skills training (including the modules in research ethics and the Library's module in reference and research). However, there seems to be a tension between the national drive for increased numbers of PhDs and the institution's capacity to deliver these at high levels of quality and under financial constraints. This tension can be heightened in a department with a high proportion of part-time students who are also full-time staff. Another tension which can affect productivity on the part of both faculty and PhD is that there are currently some cases of wide difference in the interests and expertises of doctoral students and their dissertation supervisors. Additionally, when the Panel spoke to doctoral students, it was surprised to learn that members of the staff who are studying for the PhD pay a registration fee for a degree that would seem to be a requirement of their appointment.

Recommendations:

1. To reconsider and/or clarify the policy of charging academic staff for registration for a research degree.
2. To redesign web pages in order to make it easier for students to ascertain the interests and strengths of the staff and to endeavour to recruit a doctoral cohort whose interests articulate with the strengths, focus, and mission of the Department.

Research Related Activities

Academic staff and graduate students engaged in a wide range of research-related activities. In many areas, UCC education staff members have national projects, disseminating scholarship and research

to their professional communities. A number of staff members in Education maintain strong regional, national and international profiles through their engagement with research associations, societies, and scholarly writing. Impressively staff of the department serve as main or sole editors of three international journals: Literacy, Irish Education Studies, and the OMEP Journal. Staff are also involved in editorial work in other journals and publications, serving as reviewers or members of editorial boards.

Recommendations:

1. To recognize the important contribution that research-related activities make to institutional and individual prestige and research profile, and to continue to support those individuals working in areas of priority to make their work public even in times of limited resources for such things as professional travel.
2. To help staff to identify and access funds that can be utilised in support of research-related activities such as explicit funding for travel, dissemination and networking with research development grants from diverse sources.

Funding

The unit has generated a large amount of research income during the period assessed. This income includes grants for some prestigious externally funded projects. The Panel was surprised that there were not more European-funded projects, in light of Ireland's advantageous position as a popular site of collaboration. The Panel applauds the introduction of an undergraduate programme in Sport Studies, an area of considerable international growth in research and funding.

Recommendations:

1. To explore collaborative bidding with cognate areas within the university including medicine and applied psychology;
2. To develop research capacity in sport studies, especially focusing on sports coaching and health and exercise sciences, finding rich themes for curricular integration and scholarly inquiry;

3. To explore collaborative projects with other universities in applying for EU funds in areas of common interest (e.g. studies of teacher identity; sociocognitive studies of institutions; studies of multiple literacies; immigration research, etc.);
4. To consult with the Department (or College) level staff who are responsible to help identify funding sources and prepare proposal paperwork.

Peer Esteem

The Department of Education is held in high esteem on campus and in the nation. Evidence of this is its large, enthusiastic student population at all levels, its multiple networks involving policy, professional development, and practitioner inquiry locally and around the country. The major limiting factor in peer esteem, in the assessment of the Panel, is the Department's relative isolation from established international organizations and publications. A small relatively number of staff members maintains the international research visibility of the Department by means of consulting, publishing in internationally read journals and books, and attending international conferences. That number might be grown by mentoring and networking. Shrinking resources will force the Department to be creative in using new technologies and other strategies to grow its visibility and esteem. This can be done by networking electronically with peer professionals. Another medium the Department has begun to exploit is that of hosting Visiting Scholars from around the world or accepting invitations to represent the research of the unit in such roles in other countries.

Peer esteem is related to activities that the Department currently undertakes such as journal publication, journal review, collaborative grant-making, and having high visibility projects, publications, and staff members. These activities might be intensified. The Panel is extremely optimistic that such innovations as the new cohort programme and the Department's theoretical and thematic foci will increase its ability to network with colleagues and will enhance the focus of the department.

Recommendations:

1. Staff members' energies will need to become more focused and targeted if wider visibility, increased funding, and peer esteem is to increase. This is particularly the case in times of diminished resources. A department cannot and should not try to do all things and serve every constituency. It needs to find and communicate an identity.
2. An annual staff retreat (e.g. to re-check the unit's frame and focus and assess progress toward staff research goals) might be held to monitor and support the Department's collective identity work and coordinate and prioritize its efforts in Teaching, Service, and Research.

Research Environment

The Panel believes that the Education unit benefits from a very positive climate in which research can grow. It is characterized by a supportive administrator who both motivates staff and holds them to high standards. The environment is characterized by a sense of collegiality and shared mission. Special interest groups (SIGS) are examples of meaningful working teams. The leadership of the unit is congratulated for developing and working to sustain a positive, ambitious research environment that has put it on the path to greater visibility, quality, and impact in the academic research undertaken by the staff.

Recommendations:

1. Consider crystallizing some of the special interest groups into more formalized "ready" research groups surveying the horizon for sources of funding for research projects, ready to prepare proposals in a timely fashion and well aware of the resources available in the College to provide assistance.
2. Extend research on real-world activities of the unit (teacher learning, reflective practice, supervision of students, etc.) into "strategic sites for research" and collaborate with community and institutional partners to prepare the ground for such a shift from exclusive focus on local practice qua practice to work in local sites of practice as participant

observation (or other forms of inquiry) so that the multiple missions of the department are more integrated and research-supportive. To move from the studies of those local sites of practice to theorizing by means of comparative, contrastive, and synthetic work across cases.

Overall Assessment

The Department of Education is large, powerful, and heterogeneous. Its oral and written texts production is varied and serves multiple audiences and purposes. The Department is responsible for the teaching and learning of educators from novice to expert. It both grants certification to teach and awards credentials at the post-graduate level to produce knowledge in the field of education. The Panel finds that the Department of Education is on a path toward excellence in Research Productivity/Published Output, Post Graduate Training, Research-related Activities, Obtaining External Funds for Research, Peer Esteem (nationally and abroad), and Sustaining a Supportive Research Environment.

Overall Research Activity and Performance

While the Education Department is hard at work on a number of important activities, the Panel finds that there is a nucleus of very active, ambitious, and internationally recognized educational researchers publishing, presenting, applying for research grants, and networking with other researchers. There is a much larger group of able and committed researchers in the Department whose work is either more local, less well-known, or directed primarily to and/or conducted collaboratively with practitioners.

One area of particular strength is practitioner oriented research and dissemination. Another is research on behalf of the country which has implications for educational policy and practice. The Panel feels that the current research review does not allow for full recognition of these important contributions, nor does it reflect the funds this type of work generates. The Panel calls attention to the importance of this work to the mission of the Department and to the work of a professional school which is interdisciplinary and

applied and in which the preparation of new teachers as well as the continuing education teachers and the conferring of advanced degrees in research are all essential activities. Having said that, the Panel encourages the Department to grow its research capacity.

The Panel makes the following suggestions to the Department:

1. Continue to enhance a culture of inquiry in which staff and students study research in a variety of configurations.
2. Deliberate in systematic ways (e.g. SIG's, courses, working papers) on the prevailing theories and key questions in educational policy and practice.
3. Explore for purposes of conducting and publishing high quality research of impact (both national and international) a range of research genres, designs, and methodologies.
4. Consider bi-weekly or monthly staff "research-in-progress" seminars which might take the form of informal, brown bag lunches but which are prepared in advance, widely advertised in the department, and take place at times when it is possible for staff to participate on a regular basis.
5. Expand on your ideas of reading and writing groups, especially groups that read selected research articles from important international journals and writing groups in which staff can give and gain helpful feedback on their own research drafts.
6. Mirror some of these activities for those at the dissertation stage, but do not hold such activities for one group (e.g. students) at the expense of others (e.g. lecturers, professors).
7. Take advantage of the service of the education reference librarian and the new instructional modules the library has developed for searching the literature, developing focused literature reviews, and writing for journal publication.
8. Outline a set of relatively cost-efficient strategies which could help the high quality, highly visible researchers to extend their own international reputations and, thereby, the reputation of the Department

and College. They could also offer leadership to their colleagues to build confidence in their work sufficient for submitting it to peer review journals in country and abroad and also to build their esteem in the field (e.g. by joining international societies, volunteering to review proposals for annual meetings of those societies, volunteering to serve as reviewers for highly respected international journals).

Achieving greater research productivity and enhancing esteem are not the results of individual, entrepreneurial activity. They are part of a process of teaching and learning, developing networks, mentoring, and participating in a supportive culture. Limited economic resources should not be viewed as preventing or obstructing this work. Extramural networking is quite possible in time of high frequency, rapid connectivity via the internet; intramural connectivity occurs in local communities of practice, within face-to-face activities such as SIGS, internal professional development, work-in-progress reports, etc.

Issues

The Panel wishes to reprise several themes that it has found in Panel K's reviews of the three units. These apply to some but not aspects of a unit and also to some but not all units. They combine to give a sense of some issues on which the College and University might work to make a growing and, in some cases already very strong, climate for research productivity and to sustain it in challenging economic times.

The Panel has observed the following challenges and innovations:

- a tendency toward individual achievements at high levels among a few department members in the area of research;
- high productivity of multiple genres of reporting of research and other kinds of information, but absence of a collective focus on peer-reviewed, high impact research and its reporting;
- an energetic but overburdened post-doctoral student body, but an innovative and potentially transformative new cohort model;

- the beginning of activities within the department for staff to support and encourage one another in the area of research;
- a need for increased confidence and effort to reach out to the international community of scholarship in publishing, grant applications, participation in high impact journals as reviewers and ultimately authors;
- utilization of available sites for research in a more focused way;
- Increased staff involvement in reviewing for peer reviewed conferences and presenting papers at conferences of the leading learned societies in the field.

Recommendations

The Panel notes that to make progress along the path, it is necessary on one hand to proceed step by step and to share the responsibility for helping students and colleagues make the journey. But the Panel also acknowledges that it is important to remain focused. The tendency to dissipate faculty energy in activities that have little impact or visibility or that distract from one's intended path is evidenced in the documentation produced. The formulating, however, of departmental theoretical and thematic foci, also in evidence in some of the documentation reviewed, should help both staff and doctoral students stay on the path so that dissertations are completed in a timely way and their results are published; staff are able to find time to produce grants for external funding and do the networking needed to obtain funds from a widening circle of sources, and researchers are able to mount and complete excellent research and report it high impact journals and at selective high visibility conferences.

The Panel, therefore, recommends the following:

1. Continued collaboration where appropriate to strengthen the doing and teaching of research.
2. Use of university resources in areas such as general research training, modules in research ethics, the library's research training, and the forthcoming offices of research assistance to search and prepare for grants applications.
3. Maintenance of both the diversity needed for growth in a field of inquiry and also a clear focus on shared goals.
4. Creating and/or sustaining a climate supportive of and conducive to high quality research making an authentic contribution to knowledge in Ireland and internationally.
5. More (and more creative) uses of internet and other technologies to communicate and network without needing to travel; but also to take a strong position on the need for faculty members to travel to professional meetings not only to present their peer-reviewed work, but to build crucial research networks that will ultimately make returns on this investment in the form of collaborative grants and enhanced visibility and esteem.
6. Close attention to the atmosphere and opportunity for focused research learning among the doctoral students, many of whom are attempting to balance multiple responsibilities and roles in a profession growing ever-more competitive in terms of research productivity.
7. Centering research ethics and internal quality review as important activities in every unit conducting research as a central part of its mission.

DEPARTMENT OF EDUCATION

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		9%	22%
2.	Research Related Activities	3	
3.	Funding	3	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		14%	33%

Overall Assessment: Level 3

Quality Profile

Published Output

It has been difficult for the panel to evaluate the published output as an Early Childhood Studies (ECS) unit submission because one partner (Applied Psychology) did not include details of their publications. The unit submission was further weakened by publications being included that either pre-dated the census period or were not directly relevant to ECS.

The Panel appreciates that most ECS staff are at a relatively early stage in their research careers and while published output is understandably modest, there is evidence of good potential provided their research activity can be strategically directed. At present, however, published output is not comparable to other high status institutions and would not have met the standards of for, example, the recent UK Research Assessment Exercise.

Metrics comparable to the UK Research Assessment Exercise have been used by the Panel. When evaluating the outputs provided it became apparent that there were two different types of publication. The first was orientated around regional policy and practice and targeted at practitioners. While there is clear value in the dissemination to practitioners, overall publication output would be strengthened by a more diverse approach and specific targeting of high impact international journals. This kind of strategy was more evident in the second type of publications submitted but they were not located in the early childhood age range. This raises issues about the coherence of the unit submission and points to a stronger research presence if the age range were widened e.g. to childhood and youth studies. This shift has already been made in other major international institutions. It would enable UCC to be more competitive, provide more opportunities for collaboration and increased access to funding streams. Such a broadening would in no way detract from the important work being done in the Early Years, indeed Early Childhood Studies would continue to provide the central core around which more inclusive child and youth research could grow.

Recommendations:

- Foster higher aspirations in relation to publication outputs.
- Adopt a more strategic approach to research publication, extending the dissemination at regional practitioner level (which is recognised is important) to high impact international journals.
- Aim to present research at more international conferences.

Postgraduate Training

This was a strength of the submission. The ECS postgraduate training programme is thriving with high numbers of students compared to available supervisory staff. There is evidence of a real commitment to nurturing new/early career academics into the field of ECS through active postgraduate recruitment. Completion rates are encouragingly high and some funded studentships have been competitively won. The quality of candidates is evidenced in the number of students who go on to attain lecturing posts in HEIs.

Recommendations:

- Continue the good work in attracting and supporting high calibre students to this postgraduate training programme.
- Encourage co-supervision teams where less experienced supervisors can be mentored by more experienced colleagues.
- Foster greater diversity and more inter-disciplinary collaboration at postgraduate level.

Research Related Activities

While the Panel acknowledges the excellent teaching within ECS, it can only report on research related activity and the following comments have to be understood within that defined context.

Research activity is currently focused on practice in the Irish context with some esteem factors emanating from involvement at national policy level. However the international research dimension is still embryonic. The current emphasis is on multidisciplinary

rather than interdisciplinary research. The result is an ad hoc collection of research related activities from each of the four discrete curricula areas that make up ECS rather than a single coherent ECS compilation. The Panel was concerned that there is no clear research strategy. There is an absence of a theoretical framework and interdisciplinary philosophy connecting the ECS partners around which collaborative research activity could be built. The research activities of staff teaching on the ECS programme are diverse and the majority appear to be outside the early childhood age range. This suggests that, as already alluded to earlier, a broadening of ECS to include childhood and youth can only strengthen the research profile of the unit.

Recommendations:

- The Panel *strongly* recommends that all ECS partners adopt a more collaborative approach and explore the vast potential for interdisciplinary research activity that is more in keeping with current definitions of (Early) Childhood Studies.
- Given the international shift that has broadened Early Childhood Studies into the wider field of Childhood and Youth, the Panel would strongly recommend UCC to consider this in order to remain competitive, maximise collaborative endeavour and increase funding opportunities. This would not detract from the importance of focusing on the early years but would make the current/proposed ECS partnership more inclusive of all those researching children's issues.
- While research activity focused on regional/national policy and practice is very important, to become research competitive this needs to be contextualised within an international framework.
- To increase research efficacy, ECS needs to develop a collaborative and interdisciplinary research strategy involving all staff. Constructing a coherent five year research plan would be an important first step.
- Develop a series of collaborative research activities aimed at developing the international dimension of ECS e.g. seminars with invited external speakers, research workshops, and encourage staff to attend international conferences. Although the travel award has been temporarily suspended, there

are other conference funding grants that staff can apply for.

Funding

The panel wishes to emphasize that only funding during the 2003-08 census period can be evaluated and funding that pre-dated this had to be disregarded. Compared to similar-sized programmes, the ECS research funding within the defined census period was extremely small. While the Panel appreciates that many staff are research young, recent RAE (UK) statistics suggest the UCC ECS funding income is well below what is expected. This is an area that needs urgent attention, especially as the trajectory appears to be a downward one (compared to funding in the pre-census period). Current funding is mostly limited to local, small-scale studies and to individual disciplines. More interdisciplinary projects would attract larger-scale funding from diverse sources and ECS is well placed to win EU grants if it develops some international collaborations with other HEIs.

Recommendations:

- Urgently address the small amount of research income currently being generated and reverse the downward trajectory (income appears to have peaked in the late 90s).
- Develop a strategy for targeting diverse funding streams to optimise external grant income. This could usefully include a mentoring programme.
- UCC to provide some training and support for staff in relation to external funding applications.
- Raise expectations in relation to funding sources and partners and develop international collaborations with other HEIs.
- Increase the number of ECS staff applying for external funding.

Peer Esteem

The Panel recognises that a small number of senior staff members have made significant contributions to national policy and brought esteem factors to UCC. However ECS needs to position themselves within

an international research community if overall peer esteem is to be raised.

Recommendation:

If recommendations from the previous sections are implemented this will have positive benefits for peer esteem across the whole unit.

Research Environment

The Panel was impressed by the new research facilities at St Vincent’s primary school and are confident this will be a great asset in the furtherance of research activity. A quality research environment is more than the physical space it occupies. The fostering of a coherent research identity is equally important. Currently this is scattered among the different multi disciplines of ECS without a cohesive and mutually stimulating environment. The Panel agreed that an interdisciplinary approach to research that draws together inclusive issues related to childhood would be a more productive research environment.

Recommendation:

Work towards establishing a coherent research identity that is inclusive, collaborative and interdisciplinary.

Overall Research Activity and Performance

The review of research in this area has been challenging as it is clear that the situation is constantly shifting and that there are a number of perceived sensitivities. From the data provided, it is apparent that the submission for this unit represents a compilation of research outputs and activities from staff teaching on the ECS programme without a coherent strategy binding these together. While there is a collaborative approach to the teaching of the ECS programme this does not appear to be happening with research.

Although this assessment has been focussed on research, the panel strongly recommends that the chair in Early Childhood Studies, which is about to fall vacant, is filled at the earliest opportunity. The Panel further recommends that UCC build on the strong teaching platform in ECS to establish an equally strong research unit. This requires high calibre leadership, ideally from someone with the international research profile to make the most of the growth potential in the broader field of childhood and youth studies.

EARLY CHILDHOOD STUDIES

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		0%	36%
2.	Research Related Activities	2	
3.	Funding	1	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		5%	21%

Overall Assessment: Level 2.5

Overall Conclusion of the Review of the Three Units

The cluster of departments (and programme) is strong in local, state, and/or national visibility and esteem and very attractive to students at all levels. It is also a site of diversity — of mission, constituency, topic, and the forms and functions that its scholarship takes. The amount and visibility of published research varies with the units. Taken as a whole, however, the three units are making important contributions in to theory-building, research, and research-into-practice. While international visibility and other indicators of research quality are unevenly spread at the moment due to historical, social, disciplinary, and topical factors, all three groups of staff and their students are about the work of producing knowledge. The PhD is taken very seriously as the research degree, and efforts are continuous to improve the climate for research among students, staff, and the faculty leaders. All of this is happening in complex times from the perspective of forms of communication, economic resources, and international shifts in academic policy that bring change to some of the norms and values of traditional institutions such as schools and universities. The Panel have found the Departments well-positioned and already along the way to excellence in research as defined by the criteria used in this review. Each group faces different challenges and opportunities, they all start in different places, and their missions vary greatly. But each can and must be full participants in the production of knowledge for education.

Panel L

Department of Early & Medieval Irish

Department of English

Department of Modern Irish



Panel Members

- Dr. Meg Bateman, Department of Modern Irish, Sabhal Mòr Ostaig, UHI Millenium Institute, Scotland
- Professor John Bowen, Department of English and Related Literature, University of York, UK
- Professor Edward Larrissy, School of English, Queen's University Belfast, Northern Ireland
- Professor Séamus Mac Mathúna, Director, Research Institute for Irish and Celtic Studies, University of Ulster, Coleraine, Northern Ireland
- Professor Roibeard Ó Maolalaigh, Department of Celtic, University of Glasgow, Scotland
- Professor Julie Sanders (CHAIR), School of English Studies, University of Nottingham, UK

Site visit

The site visit was conducted over 3.5 days from 30 March – 2 April 2009 and included visits to departmental and library facilities in UCC and meetings with:

- Dr. Michael Murphy, President
- Professor Paul Giller, Registrar & Senior Vice-President Academic
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Michael Berndt, Head, College of Medicine & Health
- Professor David Cox, Head, College of Arts, Celtic Studies & Social Sciences
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian
- Ms. Michelle Nelson, Head, Graduate Studies Office
- Mr. Mark Poland, Director, Office of Buildings and Estates

- Dr. Norma Ryan, Director, Quality Promotion Unit
- Professor Alan Titley, Head, and staff of Department of Modern Irish
- Professor Maire Herbert, Head, and staff of Department of Early & Medieval Irish
- Professor James Knowles, Head, and staff of Department of English

An exit presentation of the principal findings of the Panel was made to Heads of departments in the afternoon of the fourth day.

Introduction: Scope and context of this review

The Panel understands that this is the first time a research quality review exercise of this nature has been carried out either in University College Cork or in the third level sector in general in the Republic of Ireland and congratulates the University in taking such an important initiative.

The Panel has included more detailed reflections on the process in general and recommendations to the University in Appendix A (attached separately to the unit specific reports).

NB: Some of the material presented in this section is repeated at relevant points in the main documents but is included here for broad contextual purposes.

During a three day site visit to the University, the Panel heard presentations from all three units being considered by this panel. In addition to meetings with departmental heads and staff members (and, in some instances, students from the relevant unit), the Panel was able to look at the context in which staff and students worked. The Panel met staff from the Library and Special Collections and were given a detailed tour of holdings as well as being able to look at infrastructure. The Panel also met with the Head of College of Arts, Celtic Studies and Social Sciences and with a representative of the Graduate Studies Office, and through these meetings, was able to contextualize its understanding of areas such as Research Environment and Postgraduate Training. In addition, during the period of the site

visit the Panel had meetings with various members of the University Management Team where it was able to ask questions arising from its deliberations.

Published outputs submitted by the individual units were considered by the Panel before, during, and following the site visit. All the submitted research outputs for the departments were assessed in detail by at least two members of the panel and were collectively considered by the Panel as a whole. No single panel member was responsible for examining the entire outputs of a single researcher. The Panel also undertook a calibration exercise to ensure parity of approach both within and across the unit submissions. It should be emphasized that the Panel was at all times assessing outputs and not individual researchers.

The Panel summarised its initial findings for the unit representatives on the final day of the site visit, but its overall assessments produced here have been reached through detailed reference to the unit submission documents (which were made available to it on the web prior to its arrival in UCC), through reading, deliberation, and discussion that took place during the site visit, and following a process of ongoing discussions and reflection in the weeks subsequent to the visit.

The Panel wishes to thank everyone involved at UCC for their contribution to this Research Review exercise.

Quality Profile

Context

The Panel understands that this is the first time a research quality review exercise of this nature has been carried out either in University College, Cork or in the third level sector in general in the Republic of Ireland and congratulates the University in taking such an important initiative.

The Panel also congratulates the Department of Early and Medieval Irish on the very positive manner in which it embraced the review. The evidential basis of the exercise consisted of both a written submission and an oral presentation which was given when the Panel had the opportunity of meeting the staff of the subject area. The written submission was an impressive document of high quality: clearly written and coherent, it provided sufficiently detailed and necessary information on nearly all the important matters under examination. It identified accurately the main strengths of the Department, noted certain institutional systemic weaknesses, and highlighted both the opportunities and threats for the future. The oral submission by the Head of Department, which included a most helpful Power-Point presentation, was also very impressive. Both the written and oral submissions proved to be of great assistance to the Panel in its assessment work and in formulating its recommendations.

Members of the Panel considered all evidence submitted to it, operated as far as possible according to the guidelines for the review, and applied the assessment criteria fairly, taking into consideration the distinctive and diverse aspects of the field of study. Factors affecting environment and postgraduate training and monitoring which are not entirely within the control of the Department, such as College and wider University infrastructure and support mechanisms, also constituted part of the assessment. A number of recommendations for the institution are made in Appendix A. The Panel is also conscious that staff were not fully aware of the criteria for this quality review and it has taken this into account where possible when assessing the various research activities of the unit.

Published Output

All the submitted research outputs for the Department were assessed in detail by at least two members of the panel and were collectively considered by the panel as a whole. No single panel member was responsible for examining the entire outputs of an individual researcher. The Panel also undertook a calibration exercise to ensure parity of approach both within and across the unit submissions. The Panel would like to stress that it assessed outputs and not individuals in this exercise.

The Panel found the overall quality, quantity, and range of the Department's research publications during the census period to be very impressive. There was significant evidence of world-leading work displaying a very high level of originality, significance, and rigour, work which has the potential to be agenda-setting. There was also substantial evidence of internationally excellent work likely to have a very strong impact on research in the subject area.

The Panel reiterates here the view expressed by the 2003/4 Peer Review Group: "Taking account of the stage they have reached in their academic development, all members of the Department, both junior and senior, have excellent research records. The senior members of the Department have an enviable record in major research and have published innovative works of the highest scholarly standard." Junior and Early Career Researchers have also performed exceptionally well.

There was evidence of substantial publications by staff in their capacity as editors of important conference proceedings, seminar series, and outputs associated with research projects, such as the Eleventh International Congress of Celtic Studies, organized by the combined Departments of Early and Modern Irish. In most instances the editor(s) had also made individual scholarly contributions to these publications. While the published work of postgraduate students did not fall under the remit of the exercise, the Panel was also highly impressed by the evidence presented in regard to the publication of postgraduate theses: two theses, for example, have been recently accepted for publication, one of which was awarded the Edwin Mellon Prize.

In general, published work of a very high order of scholarship ranged over a wide area –cosmology, legendary history, early Irish saints’ Lives, the Ulster cycle, the Irish ‘Otherworld’, textual editions and studies, Fíanaigeacht, devotional and apocryphal literature, contacts between Ireland and Scotland and Ireland and Wales, Irish and literary cultural history of the eleventh and twelfth centuries, the study of classical literature in medieval Ireland, place names - and was published in the major Celtic journals and other prestigious outlets.

The breadth, depth, and interdisciplinary nature of much of this work marks the Department out as being at the cutting edge of scholarship, engaged both in fundamental research, innovation, and Knowledge Transfer.

Postgraduate Training

Under this heading the Panel has made a distinction between the supervision of MPhil and PhD students – which has figured in its overall assessment of Research Environment for all three units – and postgraduate training and monitoring (encompassing both generic and discipline-specific skills training, annual review processes, upgrade or confirmation procedures, and conflict resolution structures). In all instances the recommendations made to departments should be implemented alongside College and University standardization and formalization of best practice, the recommendations for which are included in Appendix A. While the guidelines for the review explicitly invites the Panel to assess the individual unit performance under this heading, the Panel would like to make it clear that policy at this level must be coherent and holistic, and therefore its recommendations are necessarily multi-facing, addressing the Department, the relevant College, and the University in general.

The submission document provides statistics on MPhil and PhD students and conferred degrees rather than a description of postgraduate training. However, the visit to the Department enabled the panel to gain a good impression of practice in relation to this aspect of the review. Although the timetable unfortunately did not allow for an opportunity to interview post-

graduate research students in depth, it appeared that they were well-integrated into the Department.

The Panel found convincing evidence that the training of postgraduate students forms a central part of the Department’s strategy and that this aspect of the work has been carried out successfully and effectively within the subject area; this view was supported by the completion rates of Postgraduate research students (see Research Environment below for more information on this). Research students meet regularly with their supervisors with whom they appear to have a very good rapport and are required to attend research modules appropriate to the nature and level of their studies. They are also required to attend departmental research seminars, and are encouraged to gain teaching experience and are supported in so doing. In this context, the Panel noted with dismay the temporary freeze on funding for part-time teaching which could impact on future postgraduate recruitment and retention.

The weekly departmental research seminar, at which students can present their work and share best practice, has been a critically important mechanism for the development of postgraduates and early career researchers and for the acquisition and transmission of professional skills, such as the editing of texts. Similarly, the Panel commends the Department on the successful palaeographic workshop which was introduced in 2005. This two-day annual workshop has the advantage of functioning as a ten-point credit postgraduate module: it attracts students and scholars from other institutions and countries and imparts important subject-specific and interdisciplinary skills to postgraduates in the fields of Early and Medieval Irish, Modern Irish, Classics, History and English. The Department is also aware of the importance of generic postgraduate training modules which may be offered across the University, and to students of other universities, and are in the process of responding positively by designing a ten-point module focused on textual editing.

Given the small number of staff, it is noteworthy that, in addition to the Ph.D. programme, the Department offers four Masters programmes - two Taught

Masters: MA in Celtic Civilisation and MA in Early and Medieval Irish, with thirty credits awarded for the research component; and two Research Masters: MPhil in Celtic Civilisation and MPhil in Early and Medieval Irish.

The Panel had the opportunity to visit the postgraduate accommodation for students of Early and Medieval Irish which is shared with Modern Irish. The accommodation was unsatisfactory in that it could cater for only six students at a time; yet thirty students had a call on the space.

In general, the Panel believes that the University should formalize monitoring practices across the system and provide more support from the centre. While the Department has developed subject-specific skills training and also become involved in some generic training, the Panel would encourage the University to provide increased support in the form of generic research methods and skills training as well as career development seminars. The Graduate Studies Office appears to be an excellent initiative and would be the obvious means for the kind of provision outlined here. It is important that this provision does not rely wholly or substantially on volunteer academic input but is formalized within the university process for both staff and students alike. To that end it is also important that the skills training credits earned by students not only have a specific bearing on their degree progression but also appear on a final transcript.

The Panel would also strongly encourage the University to provide increased support in the form of additional postgraduate workspace for Medieval (and Modern) Irish postgraduates.

The Panel suggest that the guidelines for codes of practice for PhD students and supervision be made compulsory across the University, thereby enabling departmental practice to happen within a defined structure and with the necessary administrative support [see recommendations to the University included in Appendix A.] These guidelines could be strengthened in line with best practice in other institutions, through the provision of adjunct or joint supervision for all MPhil and PhD students, documented and archived supervision

reports, and obligatory bi-annual thesis advisory meetings with written reports [these suggested timelines are of course for full-time research students and should be adjusted accordingly for part-time students]. The system of co-supervision has the additional benefit of providing mentoring to early career staff in best practice with regard to postgraduate supervision.

The Panel would stress the great importance of teaching opportunities for postgraduate students. Funding should be provided to support postgraduate conferences, as this is a vital form of professional development.

Research Related Activities

The Department of Early and Medieval Irish has a powerful research culture which is associated with a wide range of excellent research activities. In addition to the important weekly research seminar, there is also a visiting lecture series which has attracted a number of academics of international standing from different countries. A number of conferences have also been organized by the group during the census period. These conferences include the organisation, in conjunction with the Department of Modern Irish, of the annual Irish Texts Society research seminar which has provided an important forum for new research on Irish texts and authors; and the annual postgraduate research skills workshop in palaeography and manuscript-based research. The publication during the census period of the proceedings of the Eleventh International Congress of Celtic Studies also deserves to be mentioned here.

Collaboration with the Department of Modern Irish on various research activities, and interdisciplinary links with other subject areas, such as Classics, History and English, on Insular Studies are commendable and should be continued and developed.

Staff deliver keynote addresses and give papers at major conferences and colloquia in Ireland and overseas on a regular basis and contribute to the discipline of Celtic Studies through serving on editorial boards, the boards of professional organisations, and carrying out other duties such as external examining of postgraduate theses (for more detail, please see section on Peer Esteem). Moreover, current arrangements under the Socra-

tes framework with the universities of Helsinki and Vilnius, and contacts with Nordic and Slavic Celtic organisations, have led to the development of wider research links and exchanges.

The Panel commends as outstanding the work being carried out and/or led by staff on significant international collaborative research projects. The projects include (a) The Locus Project, a new historical dictionary of Irish place names and tribal names: three fasciculi of the dictionary have already been published by the Irish Texts Society, others are in progress and due to be published in the near future; (b) *De Finibus: Christian Representations of the Afterlife in Medieval Ireland*: the aim of this project is to prepare editions and translations of key texts in the area under research, together with supporting articles, sourcebook, and workshop; (c) Celtic Digital Initiative: this project has an accompanying website which provides free access to scarce resource materials in a large text archive; (d) Irish Biblical Apocrypha Project: this project prepares for publication Irish versions of Biblical apocrypha in the leading international series *Corpus Christianorum*; two volumes have already appeared, others are in press or in preparation.

The commitment of the Department to the maintenance the highest scholarly standards and a powerfully robust research culture is reflected admirably in a well-designed and very impressive five-year strategic plan for research.

Funding

The Panel was greatly impressed by the success of the Department in attracting both internal and external research funding, the amount of external funding gained being particularly noteworthy. Overall, the Department appears to have attracted approximately €700,000. This is an excellent performance and is above the median in this subject area in the recent UK Research Assessment Exercise. The Locus project, originally funded through PRTL, has been successful in acquiring a major grant of €159,000 in order to continue its work and the *De Finibus* project has recently received funding of €217,091, both grants from the IRCHSS (Irish Research Council for the

Humanities and Social Sciences). The Department has also successfully attracted some €142,000 in doctoral and post-doctoral scholarships and fellowships from the IRCHSS and other sources. The Panel commends also the success of the Department in attracting funding through its involvement in the Early Start programme and through JYA students: some €172,572 in JYA earnings which has been partly used to relieve staff to carry out research and to fund post-doctoral fellowships. The Panel considers it to be of critical importance that JYA funds continue to flow to the Department: the ability to continue to generate income through initiatives of this kind will become increasingly important in the context of the present economic climate.

Smaller sums of both internal and external funding have also been received for the Celtic Digital Archive. The Panel believes that the latter will attract more external funding in the future and commends the Department in embracing the new digital technologies.

Peer Esteem

Staff are frequently invited to deliver keynote addresses and give papers at major conferences and colloquia in Ireland and overseas, such as the International Congress of Celtic Studies, *Societas Celtologica Nordica*, *Societas Celto-Slavica*, Harvard Celtic Colloquium, the Conference of Irish Medievalists, the Symposium of *Deutschsprachiger Keltologinnen und Keltologen*, *Tionól Scoil an Léinn Cheiltigh*, *Institiúid Ard-Léinn Bhaile Átha Cliath* etc. They also contribute to the discipline of Celtic Studies generally through serving on editorial boards and the boards of professional organizations. One senior member of staff, for example, is Honorary Editor of the Irish Texts Society, chair of the Irish Editorial Board of the *Apocrypha Hiberniae* project, chair of the Conference of Irish Medievalists, and member of the Royal Irish Academy. Another senior member is general editor of the *Temenos Academy Review*. Senior staff have also acted as external examiners for PhD theses and provided research evaluations at various institutions in Ireland, Britain, continental Europe, USA, and Australia.

Awards also testify to the high esteem in which individual staff are held. Prizes awarded include the Legonna Prize for Celtic Research, an IRCHSS research fellowship, and the Faculty of Arts Research Achievement Award.

Research Environment

Many of the elements the Panel took into consideration under this heading overlap with other sections of this report, but the Panel took particular cognisance in this instance of the College and University-wide physical and general support infrastructure, and the postgraduate research community in general, including the securing of external scholarships.

As the Panel has noted, the research activities of the Department of Early and Medieval Irish at University College Cork are of a very high quality. Mention has already been made of the weekly research seminar and the palaeographic and manuscript-based workshop in respect of the skills acquired by postgraduate students. The research seminar also provides a forum for staff to exchange ideas, work closely together, and develop both individual and collective research projects. For example, the Panel noted that a number of important texts have been edited by tenured staff, or by postdoctoral fellows and postgraduates, which were originally read at this seminar and subsequently published in the prestigious series of the Irish Texts Society. Various other activities, referred to above in the section on research related activities, also contribute to the environmental success of the unit. The Panel would single out here for special mention the major international research projects.

Regarding research students, a number of these come from highly prestigious universities in the USA, Europe and Great Britain, with some of which the Department has exchange agreements. These students and exchanges bring an added dimension to the work and ethos of the Department, permitting the possibility of developing new lines of investigation, including exciting innovative interdisciplinary work.

The overall number of students registered for research degrees relative to the size of the full-time perma-

nent teaching staff is very good - six Doctoral and two Research Masters students (plus three registered postgraduate Taught Masters students). Four research degrees were awarded during the census period - two doctorates (the status of the doctoral thesis due for completion at the end of 2008 was unclear), and two MPhils. In all, the broad range of programmes on offer reflect the strong research ethos and thriving research culture in the subject area, as do the range of postgraduate modules offered by departmental staff.

The library provision for Early and Medieval Irish and cognate subjects is good, and the Panel commends the custom of working with other departments to acquire works which are particularly valuable and costly. Special Collections, which houses, inter alia, important manuscript collections, catalogues, periodicals, and monographs, is a highly-prized resource and the Department has welcomed the fact that the opening hours to the Collections have been extended. However, communication between users and library staff could be made more effective and a satisfactory and secure space should be made available to enable users to take the material from the shelves and read it in suitable surroundings.

Despite the fact that the Department enjoys a strong international reputation as an outstanding centre for research and scholarship, the Panel found that the institutional structures and support mechanisms did not match the level of excellence achieved by the subject. It has therefore made a number of recommendations to ensure that Early and Medieval Irish is properly sustained and supported in the future.

Since the Department has been very successful in operating as a distinct unit, with close ties and collaborative links with Modern Irish and other subject areas, the reasons for the decision to reconfigure subjects into a new School is unclear to both the Panel and, more importantly, to departmental staff. If this new dispensation does not lead to a major upgrading of resource and support for Early and Medieval Irish, and if it dilutes in any major way the autonomy, control, and ownership exercised by staff over the subject area, it will have done a disservice to a robust and highly successful research unit.

Overall Research Activity and Performance

The Panel considered the quality of research and scholarship in virtually all aspects of the work of the Department of Early and Medieval Irish at University College Cork to be of world-leading and internationally excellent quality. It is a dynamic and innovative department with numerous and wide-ranging research activities and successes.

The close-knit, non-hierarchical, and mutually supportive environment, in which research papers and ideas are exchanged on a regular basis between staff and in which postgraduates and postdoctoral fellows are closely integrated into the work of the subject area, is particularly impressive and reflects a clear sense of purpose and direction.

The Panel found significant evidence of published research work of world-leading and international standard with a very high level of originality, significance, and rigour, and considers a significant body of this work to be potentially agenda-setting. Indeed some of it has already made a great impact on the discipline. The Panel was also hugely impressed by the sheer volume of quality research work published by individual members of staff in major publishing outlets during the census period.

The Panel congratulates the Department on the externally-funded and excellent collaborative research projects being carried out by members of staff for which they are primary investigators or joint primary investigators and by the other projects to which they are making a central contribution. In this regard, the Panel commends the Department on its excellent performance in attracting large external grants from prestigious funding bodies such as IRCHSS and PRTL.

The international conferences and seminars organized by the Department on various aspects of early and medieval research and scholarship, especially the annual Irish Texts Society seminar, also deserve special mention, as does the range and depth of research relationships and postgraduate exchanges with other prestigious third level institutions.

The Panel notes with approbation both the continuing close research links of the distinguished emeritus Professor of Early and Medieval Irish with the Department and the role of former postgraduates in the fostering of the research environment and culture.

Issues

The space available to the Department is inadequate (only 24% of the entitlement according to the Departmental Submission). Despite the clear recommendations of the Peer Review Group Report of 2003/04 to substantially increase the allocation of space for staff, postdoctoral fellows and doctoral students, this has not occurred. Indeed matters appear to have deteriorated since that time as the Department, despite these drawbacks, continues to flourish and attract new project staff with external funding. At present, for example, neither the Teaching Fellow nor the Research Assistant have office space; the Locus Project room is cramped and over-crowded; and there is no space for new researchers. The Panel therefore reiterates strongly the 2003/04 recommendation of the Peer Review Group.

The funding of the second year of a two-year teaching fellowship has not been forthcoming as was agreed, a matter which needs to be addressed with alacrity as it affects both the individual concerned, who is also an excellent researcher, and the ability of the Department to meet its research objectives. Members of staff have quite heavy teaching and administrative loads and it is essential that some teaching relief is made available to them on a regular basis to permit them to carry out their research plans. In this regard, consideration should be given to the provision of funds for the appointment of another Teaching Fellow at the end of the two-year period.

JYA monies secured by the Department, and the part-time hours College budget, have been frozen. There is no proper study leave scheme (one staff member, for example, has had only two sabbaticals in thirty years). All of these inadequacies appear to undermine the remarkable achievements of this exceptional unit and need to be remedied as quickly as possible.

Recommendations

It is recommended that consideration be given to:

- provision of adequate space and rooms for the Department to carry out its duties and activities with greatest effect;
- continued provision of funds for Year Two of the present post-doctoral Teaching Fellowship to release members of staff for study leave (as originally agreed, the Department having carefully husbanded JYA monies to cover this appointment);
- provision of funds for the further appointment of another Teaching Fellow at the end of the two-year period;
- release of revenue to Department of JYA funds and part-time hours;
- introduction of a clear and regular sabbatical leave scheme for staff;
- promotion of staff with outstanding research and teaching records;
- provision of more support for postgraduate students, as funds only allow for minimal grants to them at present;
- improvement of reading facilities in the surroundings of the Special Collections section of the Library;
- continuation of Insular Studies Seminar;
- reintroduction of Research Achievement Awards.

Please also see Appendix A which reflects on the review process and makes a series of wider recommendations to the University.

DEPARTMENT OF EARLY AND MEDIEVAL IRISH

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		88%	100%
2.	Research Related Activities	5	
3.	Funding	5	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		65%	100%

Overall Assessment: Level 5

Quality Profile

Context

The Panel appreciates that this report considers the Department in a time of major transition. As well as a recently appointed Headship, the Department has suffered the loss of an established chair who was a major research figure, and in the current financial situation there remains some doubt over the timescale for the replacement of this position. The Panel are also conscious that department members were not fully aware of the criteria for this process throughout the census period under consideration and the Panel has taken this into account where possible when assessing individual outputs and the activities and research culture of the unit.

There are several strengths the Panel would like to acknowledge that became clear to it during the course of the site visit. There is strong leadership in English and a clear focus on research development as well as ongoing improvements to the nature of the postgraduate experience in the unit. Liaison with the Library and in particular Special Collections is impressive and offers rich potential for future work, in both individual and collaborative research, public outreach and dissemination of that research, and the acquisition and exploitation of major archival holdings. The Panel would also note the recent but important creation of the Graduate Studies Office and the promising and beneficial work being done in that area in liaison with individual schools and departments. The presentation on this was helpful and has assisted greatly in formulating some of the recommendations for the formalization of existing practices contained in Appendix A.

The Panel would like to thank English for its input into this process, including a very helpful presentation and discussion session, which included postgraduate students and postdoctoral research fellows, as well as its full and frank responses to questions throughout the week.

Published Output

The Panel read all the submitted research outputs for the Department in detail, where necessary reading in tandem. The Panel also undertook a calibrating exercise to ensure parity of approach both within and across the unit submissions for this panel. The Panel would like to note that it saw some excellent outputs and also that it was struck by the strong performance of several early career researchers in the Department. The Panel would like to stress that it assessed outputs and not individuals in this exercise.

There was an interesting and wide range of areas and specialisms represented in the outputs, ranging from medieval to the contemporary. All genres, including film and performance, were solidly represented. There is also a notable critical mass working in fields such as women's writing and textual and book history and these would all be obvious candidates for focus in terms of research strengths in the future. There were monographs and edited collections with prestigious academic presses as well as journal articles in a wide range of peer-reviewed locations. There was also a large number of chapters contributed to essay collections with an international readership. There was also documentary evidence of performance and practice-based research. In addition to these items considered under the Published Outputs criteria, it should also be noted that the Department has been very active in other areas of publishing activity that help to maintain the profile of the unit, including literary encyclopaedia, dictionary databases, student guides, and review essays and articles. While the Panel recognizes the importance of this work for the reasons already given, it would counsel the Department to maintain and develop its commitment to original research of the highest calibre, and to aspire to placing the outputs of research in prestigious international journals and with leading international publishers. The Panel would also counsel the University to recognize the dedicated research time and infrastructural support necessary to produce work of this calibre and to ensure that staff are supported in their ambitions to produce work at the highest level of achievement.

The Panel were mindful that the Department had not entered the census period aware that this Research Review would take place or of its specific parameters. The Panel also noted that the pressures of undergraduate teaching requirements often made it difficult for good researchers to produce a large number of excellent outputs during the time period identified by the Review process.

Postgraduate Training

Under this heading the Panel has made a clear distinction between the supervision of research Masters and PhD students - which has figured in its overall assessment of Research Environment for all three units - and postgraduate training and monitoring (encompassing both generic and discipline-specific skills training, annual review processes, upgrade or confirmation procedures, and conflict resolution structures). In all instances the recommendations it is making to departments must be implemented alongside College and University standardization and formalization of best practice, the recommendations for which are included in Appendix A. While the report explicitly invites the Panel to assess the individual unit performance under this heading, the Panel would like to make clear that policy at this level must be coherent and holistic, and therefore its recommendations are necessarily multi-faceted, addressing the Department, the relevant College, and the University in general.

The Panel judges that the postgraduate training in English is very good, although there is still substantial room for improvement in the support given at university and departmental level. There is a regular roundtable, in which students can present their work and share best practice; there are regular departmental research seminars; there is annual review of progress, and mentoring of grant applications. The research students it met seemed well-integrated into the Department and spoke warmly of the support they received. The Panel would encourage the university to provide increased support in the form of additional postgraduate workspace and generic as well as subject-specific research methods and skills training as well as career development seminars. The Graduate Studies Office appears to be an excellent initiative and would be the

obvious means for the kind of provision outlined here. It is important that this provision does not rely wholly or substantially on volunteer academic input but is formalized within the university process for both staff and students alike. To that end it is also important that the skills training credits earned by students have a specific bearing on their degree progression as well as appearing on a final transcript. The Panel does suggest that the guidelines for codes of practice for PhD students and supervision be made compulsory across the university, thereby enabling departmental practice to happen within a defined structure and with the necessary administrative support [see recommendations to the University included in Appendix A]. These guidelines could be strengthened in line with best practice in other institutions, through the provision of adjunct or joint supervision for all research Masters and PhD students, documented and archived supervision reports, and obligatory bi-annual thesis advisory meetings with written reports [these suggested timelines are of course for full-time research students and should be adjusted accordingly for part-time students]. The Panel would stress the vital importance of teaching opportunities for postgraduate students. Funding should be provided to support postgraduate conferences, as this is a vital form of professional development.

Research Related Activities

There is an impressive range and number of research-related activities. The Department has organized 15 conferences, and staff have given many research and conference presentations, as well as public lectures, within Ireland and internationally. There are strong links with national and international media, and excellent ones with local arts and cultural organizations. The Department is successful and vigorous in this area and the Panel would encourage its members to develop this work in the form of further Knowledge Transfer activity and extend the current fostering of outreach. Collaboration in the creative and cultural industries, not least locally, is a potentially rich growth area for the Department which will make a vital contribution to the local economy and culture. The Panel suggests that the Department continue to explore possibilities for increased collaboration with other departments within UCC as well as with international partners.

Funding

In this period the Department has acquired €1,719,041 of research funding, from all sources, including Internal Research Funding, for a range of purposes, including postgraduate scholarships. While it is laudable that the University provides funding to support research, external funding constitutes a more objective indicator of the value of projects. (Note, by the way, that the figure of €115, 697 for internal funding includes two awards for excellence in teaching at undergraduate level. This should not be counted as research funding.) If one considers only external funding, the achievement is still impressive. It is instructive, for instance, to discount postgraduate research scholarships for the purposes of comparison with the UK RAE. This gives a figure of €1.4 million or £1.3 million. This sum might seem small compared with that to which a Science Department would aspire, but for English it is sizeable. In terms of external funding, it would put the Department in the top 10 English departments in the UK if entered into the RAE, especially allowing for the fact that the latter covered a longer period. It is true, of course, that hitherto the UK RAE has had difficulty in recognizing Arts-Council type grants in the part of the form dedicated to funding. However, these can be entered and considered elsewhere in RAE submissions; and furthermore, the impetus is towards recognizing such sources in a context where practice-led or creative Arts and Humanities research is increasingly salient, and where outreach and Knowledge Transfer will be encouraged. The Department is to be congratulated on successfully seeking funding sources, including for a variety of major collaborative projects.

Peer Esteem

The Panel has decided, under this heading, not to provide percentage figures for staff output in this unit since it would require a different evidence base, including provision of basic facts in template form. It should also be acknowledged that the activities counted here in the assessment of peer esteem have been factored into the discussion and assessment of Research Related Activities, to which the Panel has

given greater emphasis in its overall deliberations and assessment of English as a unit.

Staff have been successful in winning both IRCHSS and CACSSS awards and there is solid evidence of national and international peer esteem, as shown by the substantial number of invitations to examine PhDs both in Ireland and internationally (South Africa, Spain, UK, Singapore); to referee for a good range of journals and publishers; and in fellowships and invitations to lecture overseas (USA, UK, Canada, Russia, Argentina). There is a good deal of potential here to develop the already-existing international connections.

Research Environment

Many of the elements the Panel considered under this heading overlap with other sections of this report, but it took particular cognisance here of the postgraduate research community in general (including the securing of internal and external scholarships and structures of mentoring and support, as well as the intellectual facilitation of that community's work and career prospects). There is a strong group identity among the doctoral and post-doctoral students attached to the Department and this is bolstered by provision of seminars, skills training, teaching and career advancement opportunities, and the mentoring of applications. There was a good record of recruitment during the census period. Assessment of completion rates would be aided by more detailed provision of statistics from the centre.

One of the great strengths of the Department is its staff and their rich and varied research interests. The Panel saw examples of excellent work, much of it collaborative with other schools and departments, in the domain of local and regional literatures and cultural production. There seems scope to enhance and expand these interests in the future and there are clearly mechanisms in place already, including application for external funding support, to enable this. There is also impressive evidence of work that has an impact in the realms of Knowledge Transfer and cultural outreach. The role of the Research Officer in the Department is clearly key to all these aims and activi-

ties and it is a role whose work and objectives should be bolstered and supported in the future at university level.

Research is supported and considerably enhanced by the provision in the main library, including considerable resources held in Special Collections. Special Collections houses, *inter alia*, important manuscript collections, catalogues, periodicals and monographs. Clearly, collaboration between the Department and Special Collections has been a focus of recent energies and attention on the part of staff and this is to be applauded. This could be further enhanced by better provision of working space for users, not least postgraduate students, but also for delivery and dissemination of research on manuscripts and book history in a pedagogic context. Accommodation of research-related staff was a key pressure in all the units considered by the panel and there is considerable room for improvement in this area.

Overall Assessment

Based on the evidence provided, some of the research activity as assessed under the various criteria is of an excellent standard of scholarship and virtually all other research related activity is of a good standard of scholarship.

The Department of English is a highly productive research unit with 16 monographs, 15 edited books, 92 journal articles, and 142 chapters or articles in books produced during the census period. This work covers an impressive range of areas and subject fields, from Anglo-Saxon literatures and culture through to contemporary drama and performance. The Department has specialists in book history, textual editing, theory, and women's writing, as well as expertise in key periods and movements. It has growing recognition in terms of editorial board appointments and external roles on advisory boards and within a media context. The recent freeze on replacements has affected the staffing profile in that the Department is currently without a Chair of Modern Literature and it would obviously be advantageous to redress this situation as soon as possible.

This high quality research output is achieved in the context of heavy teaching requirements at the undergraduate level and the Staff:Student ratios that were provided during its visit were testimony to the pressures and demands on staff time that may delimit or constrain research opportunities in the future. An adequate and continuing programme of study leave remains a key instrument for success in arts and humanities research; continuing to improve its provision is crucial to the Department's ability to maintain and develop its research activity.

Overall Research Activity and Performance

The Department has enjoyed considerable success in obtaining IRCHSS funding where available (and the context of limited national funding for the Arts and Humanities needs to be recognized in this assessment) and this looks set to increase as proper structures of mentoring and support have been put in place to help applicants through the process. A similar structure of post-award support would also be beneficial to the Department's work in future years.

There is already considerable evidence of collaborative work with other departments (in particular Early and Medieval Irish and Special Collections) but as the Knowledge Transfer aspect of the Department was stressed in the written submission there seems scope for this to be increased. The opportunities for collaborative grants in relation to the literature and culture of the Munster region have already been identified and this offers space for collaboration with areas such as Modern Irish to enable UCC to play to its particular strengths in a regional and national, and indeed international, context.

Issues

As detailed above, the main issues facing the Department of English relate to staffing, space, and study leave. Provision of space for postgraduates, at both doctoral and post-doctoral level, is very limited and may impact in future upon recruitment and retention, especially from the international market which UCC must see as a prime target population in its aim to rapidly expand postgraduate research numbers in coming

years. The staff-student ratios during the census years were high in comparison with equivalent institutions in the UK and as noted above the current freeze on staffing replacements has left the Department with only one statutory Chair whose time is necessarily taken up as Head of Department at a time when leadership in research is also crucial.

Recommendations

It is recommended that consideration be given to:

- the replacement of the Chair of Modern Literature
- clear structures of support for early career researchers

- promotion of staff with outstanding research and teaching records
- a clear and supportive programme of sabbatical leave for staff
- the development of further collaborative research projects within UCC
- increased provision of support for postgraduate researchers

Please also see Appendix A which reflects on the review process and makes a series of wider recommendations to the University.

DEPARTMENT OF ENGLISH

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		40%	82%
3.	Research Related Activities	4	
4.	Funding	5	
5.	Peer Esteem	3	
		[Panel decided not to provide percentage breakdowns for this unit]	

Overall Assessment: Level 4

Quality Profile

Context

The Panel understands that this is the first time a research quality review exercise of this nature had been carried out either in University College Cork or in the third level sector in general in the Republic of Ireland and congratulates the University in taking the lead in such an important initiative.

The Panel appreciates that this report considers the Department in a time of transition with the recent arrival of a new chair of Modern Irish and loss of two long-serving professorial members of staff during the census period. The Panel is also conscious that staff were not always fully aware of the criteria for this research assessment exercise and the Panel has taken this into account where possible when assessing the various research activities of the unit.

Members of the Panel considered all evidence submitted to it, operated as far as possible according to the guidelines for the review, and applied the assessment criteria fairly, taking into consideration the distinctive and diverse aspects of the field of study. Factors affecting environment and post-graduate training and monitoring, which are not entirely within the control of the Department, such as College and wider University infrastructure and support mechanisms, also constituted part of the assessment. A number of recommendations for the institution are made in Appendix A.

The following assessment is based both on the written submission provided by the Department of Modern Irish and on evidence received at the meeting with staff members on Tuesday 31 March. The Panel noted that the discursive text in certain parts of the written submission was shorter than the suggested limits.

The Panel would like to thank the staff for their contribution to the discussion during the site visit and for their warm welcome.

Published Output

All the submitted research outputs for the Department were assessed in detail by at least two members

of the Panel and were collectively considered by the Panel as a whole. No single panel member was responsible for examining the entire outputs of an individual researcher. The Panel also undertook a calibrating exercise to ensure parity of approach both within and across the panel submissions. The Panel would like to emphasize that it assessed outputs and not individuals in this exercise.

The Panel noted a substantial number of excellent outputs and evidence of world-leading research which serves to highlight the central role which the Department of Modern Irish at UCC has played and continues to play in Irish scholarship. Such work is likely to have a very significant impact on research in the subject area. The Panel was particularly impressed by the scholarly contribution made through the medium of Irish to a very high standard in the development and maintenance of academic discourse through the Irish language. It also noted the very fine range of scholarship in various areas of specialism ranging from the bardic period to the present day, and covering areas of language and literature, and the contextual history and background of both. Of particular note are the high standards of textual scholarship, especially in relation to Munster literature, by members of the Department. The linguistic study of the Irish language, as well as improving its understanding of the structure of the language, also makes important contributions to the testing and modification of current international linguistic theory. The Department, in its research outputs, continues to contribute significantly to the local regional cultural economy by providing scholarly editions of regional literature and folklore, and by organising and contributing to local and national cultural events as well as national media productions; this Knowledge Transfer capability is an undeniable strength of the Department. Contributions to contemporary Modern Irish literature and writing, and to literary criticism, continue to be a major strength of the Department's research activity. There was evidence of editorial roles, which is important for the maintenance of the infrastructure of the subject area. In most instances, the editors had also made individual scholarly contributions to these publications.

While the published work of postgraduate students did not fall within the remit of this particular exercise, the Panel noted with approbation the published output of postgraduate students arising from postgraduate theses completed within the Department. Special mention should be made of the monumental volume of eighteenth and nineteenth-century West Cork poetry.

The Panel noted the pressure of undergraduate and postgraduate teaching, and the potential effects that heavy workloads can have on research productivity. The Panel would like to stress to the University the importance of recognising and safeguarding the dedicated research time and infrastructural support necessary to produce research of the highest calibre, and to ensure that staff are supported in their ambitions to produce work at the highest level of achievement.

Postgraduate Training

Under this heading the Panel has made a clear distinction between the supervision of MPhil and PhD students - which has figured in its overall assessment of Research Environment for all three units - and postgraduate training and monitoring (encompassing both generic and discipline-specific skills training, annual review processes, upgrade or confirmation procedures, and conflict resolution structures). In all instances the recommendations that are made to Departments must be implemented alongside College and University standardization and formalization of best practice, the recommendations for which are included in Appendix A. While the report explicitly invites the Panel to assess the individual unit performance under this heading, the Panel would like to make clear that policy at this level must be coherent and holistic, and therefore its recommendations are necessarily multi-facing, addressing the Department, the relevant College, and the University in general.

The submission document provides statistics on MPhil and PhD students and conferred degrees rather than a description of the postgraduate training in place. However, the visit to the Department enabled the Panel to gain an impression of practice in relation to postgraduate training. Based on the evi-

dence available, the Panel judges that the postgraduate training in Modern Irish is good to very good, although there is still substantial room for improvement both in terms of the formalization of monitoring practices and especially in the support given at University level. The Panel found evidence that the training of postgraduate students forms a central part of the Department's strategy and that this aspect of the work has been carried out successfully and effectively within the subject area; this view was supported by the completion rates of postgraduate research students (see Research Environment below for more information on this). Collaboration with Early and Medieval Irish on training in palaeographical skills is to be applauded. It was clear that postgraduate research students met regularly with their supervisors; received bespoke instruction to suit their professional development requirements; had one main supervisor; were required to attend regular departmental research seminars; and were encouraged to gain teaching experience and were supported in so doing. In this context, the Panel noted with dismay the temporary freeze on funding for part-time teaching which could impact on future postgraduate recruitment and retention. Although the timetable unfortunately did not allow for an opportunity to interview postgraduate research students in depth, those students the Panel did meet appeared to be well-integrated into the research culture of the Department.

In terms of improvements, the Panel suggests the implementation across the University of bi-annual progress review meetings and the formalization of monitoring procedures. At present formal monitoring reports are completed only for those students in receipt of IRCHSS funding. The Panel suggest that the guidelines for codes of practice for PhD students and supervision be made compulsory across the University, thereby enabling departmental practice to happen within a defined structure and with the necessary administrative support (see recommendations to the University included in Appendix A). These guidelines could be strengthened in line with best practice in other institutions, through the provision of adjunct or joint supervision for all MPhil and PhD students, documented and archived supervision reports, and obligatory bi-annual thesis advisory

meetings with written reports (these suggested timelines are of course for full-time research students and should be adjusted accordingly for part-time students). The system of co-supervision has the additional benefit of providing mentoring to early career staff in best practice with regard to postgraduate supervision.

The Panel recommends that the Department consider developing, with the support of the University, a subject-specific research methods and skills training course for postgraduates building on the existing informal ad hominem training which supervisors provide for their postgraduate students. The Panel would also encourage the University to provide increased support in the form of generic research methods and skills training as well as career development seminars. The Graduate Studies Office appears to be an excellent initiative and would be the obvious means for the kind of provision outlined here. It is important that this provision does not rely wholly or substantially on volunteer academic input but is formalized within the University process for both staff and students alike. To that end it is also important that the skills training credits earned by students have a specific bearing on their degree progression as well as appearing on a final transcript.

The Panel had the opportunity to visit the office accommodation for postgraduate students of Modern Irish which is shared with Early and Medieval Irish. The accommodation was unsatisfactory in that it could cater for only 6 students at a time, yet 30 students had a call on the space. The Panel would strongly encourage the University to provide increased support in the form of additional postgraduate workspace and IT facilities for Modern (and Early and Medieval) Irish postgraduates.

The Panel also recommends that funding should be provided in order to support both postgraduate attendance at conferences and the organisation of conferences by postgraduates, as these are vital for their professional development.

While recognizing the challenges and difficulties facing a Department of Modern Irish, whose teaching and supervision is carried out through the medium of Irish, the Panel would encourage the Department to seek

ways of attracting international students via Erasmus / Socrates or other means, building on the international teaching links recently or currently being established.

Research Related Activities

There is evidence of an excellent range of research-related activities. The internationally renowned annual Irish Texts Society Seminar, organized in collaboration with the Department of Early and Medieval Irish, has been particularly successful, the proceedings of which have made a very significant impact on Irish studies scholarship both nationally and internationally. The Department is ideally placed for taking the lead in the organisation of other conferences and symposia (e.g. on contemporary literature, linguistics, folklore, manuscript studies, and so on).

Staff deliver keynote addresses and give papers at major conferences and colloquia in Ireland and overseas on a regular basis. They contribute to the discipline of Celtic and Irish Studies through serving on editorial boards, the boards of professional organisations, and carrying out other duties such as acting as external readers for prominent publishers and external examining of postgraduate theses (cf. section on Peer Esteem). The editorship of journals is evidenced, such as the *Journal of the Cork Historical and Archaeological Society*, and *Béascna*, and staff also serve on the Cork University Press board. Service on national committees of relevance to Modern Irish includes Coiste Léann na Gaeilge (currently convened by the Department), An Coiste Téarmaíochta and the Appeals Committee of IRCHSS.

Collaborations exist between the Departments of Early and Medieval Irish, and also Folklore and Ethnology. There is evidence in some publications of wider collaborations, for example with English (Literature), and there is much scope and potential for further development in this regard at both national and international levels.

Funding

The external income from IRCHSS for the funding of postgraduate research is impressive by any stand-

ards and is to be highly commended. Approximately €300,000 has been awarded during the review period.

Externally generated income for staff research activities during the census period has been relatively low, however, in comparison to previous periods and cognate areas. There is therefore considerable room for improvement in the attraction of external funding. It is clear to the Panel, based on the research expertise and track record of the Department, that there is great potential for staff to make successful applications to IRCHSS and other funding bodies both for individual and collaborative team projects. The Panel would strongly recommend that the Department develop within its research strategy a number of individual and collaborative research projects (building on ongoing research) capable of attracting research funding, and that a timetable be prepared for the submission of funding applications to external agencies.

Peer Esteem

There is evidence of national and international peer esteem as illustrated by: the substantial number of invitations to deliver lectures and talks at conferences and symposia (in England, Wales, Scotland; Rennes, Bulgaria, Berlin, Notre Dame, Japan, Poland, Russia, etc.); membership of national committees (IRCHSS, Coiste Léann na Gaeilge, An Coiste Téarmaíochta); invitations to examine higher degrees at home and abroad; refereeing for journals and publishers; creative work translated into languages other than English. Awards also testify to the high esteem in which individual staff are held. There is a good deal of potential to develop existing international connections, which could be particularly beneficial for early career researchers.

Research Environment

Many of the elements the Panel took into consideration under this heading overlap with other sections of this report, but it took particular cognisance in this instance of the postgraduate research community in general, including the securing of external scholarships. There is a strong group identity among the postgraduate students attached to the Department,

and this is bolstered by provision of seminars, skills training, and bespoke instruction. There was a very good record of recruitment during the census period. During the census period there were 15 postgraduate registered research students, 8 Masters and 7 PhD students. During this period there were 13 successful completions / graduations of research students, 7 at Masters level and 6 at PhD level. Although the Panel did not have access to 3 / 4-year PhD completion rates, these statistics suggest a significant postgraduate community, which is well serviced and supported by the Department.

One of the greatest assets of the Department in terms of research environment is its staff and their rich and varied research interests and expertise in Modern Irish scholarship. The Irish-medium context for research is a particularly strong hallmark of the Department's research environment. The environment is considerably enhanced by collaboration with the Department of Early and Medieval Irish, most notably, in the organisation of the Irish Text Society Seminars and the editing of the resultant proceedings. The strong links which the Department has with the Munster Gaeltacht plays an important role in the research environment, and this is reflected in a significant number of the research outputs of the Department.

Research is supported and enhanced by the provision in the main library, including resources held in Special Collections. The library provision for Modern Irish in terms of funding and stock is good. The Special Collections, which houses, inter alia, important manuscript collections, catalogues, periodicals, and monographs, is a highly-prized resource. However, communication between users and library staff could be made more effective and a satisfactory and secure space should be made available to enable users to take the material from the shelves and read it in suitable surroundings.

While there is evidence in some research outputs of informal collaborations within the Department, there is room for a more collaborative approach to research as is acknowledged in the Modern Irish submission itself. While the external funding for postgraduate research is excellent, there is great poten-

tial to increase the staff-related research income of the Department.

There is considerable room for improvement in the current accommodation of staff and postgraduates which is cramped and inadequate.

With University support, as outlined elsewhere in this report, the research training and monitoring of postgraduate research should be more formalized. The majority of postgraduates in the Department are UCC graduates. The Department should consider ways of attracting postgraduates from other universities, both national and international, by developing a marketing strategy for enhanced postgraduate recruitment.

Given the high staff-student ratios, there is a real danger that research productivity could be potentially hampered by the lack of a departmental and college sabbatical research leave strategy.

Overall Assessment

Based on the evidence provided, a good deal of the research activity as assessed under the various criteria is of an excellent standard of scholarship and virtually all other research-related activity is of a good standard of scholarship.

The Department of Modern Irish is a highly productive research unit with over 50 publications within the review period (not counting reviews, plays or poems, which number almost 30); this includes 10 books or monographs, 9 journal issues and 1 conference proceedings. This work encompasses an impressive range of areas and subject fields. Despite losing two leading professorial members of staff in 2004 and 2006, whose work was not included in the submission and which inevitably has impacted on the submission, the Department continues to maintain the central and important role that it has traditionally played in Irish scholarship. This is reflected in the fine range of scholarship with which the Department is engaged, covering all major aspects, including language (linguistics, dialectology, historical lexicography), literature (textual editing, textual criticism, creative writing, folklore) and history - contextualising literary texts and the language itself. The scholarly contribution made through the medium

of Irish to a very high standard in the development and maintenance of academic discourse in that medium is to be highly commended. Contributions to contemporary Modern Irish literature and writing, and to literary criticism represent a major strength of the Department's research activity. The Department contributes significantly to the local regional cultural economy by its involvement in outreach activities at local and national level. The high levels of external funding for postgraduate research is excellent and to be highly commended.

The vast majority of research outputs have been judged to be excellent or very good, and there is evidence of world-leading research which is potentially agenda-setting. Indeed, some of it has already made an impact on the discipline. The research outputs represent the strongest aspect of the submission. There is also evidence of very good practice in the areas of research-related activities, research environment, peer esteem and postgraduate training (although there is room for improvement in some of these areas). However, improvement in most cases will depend very much on enhanced University structures and investment (see recommendations and Appendix A below).

The high quality research output of the Department is achieved in the context of heavy teaching requirements at the undergraduate level, and the staff-student ratios that were provided during its visit were testimony to the pressures and demands on staff time that may delimit or constrain research opportunities in the future. As stated elsewhere in this document, study leave remains a key instrument for success in Arts and Humanities research and for the Department to maintain its research activity, and to continue to improve, provision of adequate and ongoing study leave for staff will be a crucial factor.

Overall Research Activity and Performance

The overall research activity and performance has been judged to be very good and of a high standard as outlined in the preceding section. Areas for improvement include wider collaboration and the attraction of increased external funding for research, which the panel believes the Department is particularly well

placed to access; the high levels of postgraduate funding received provides indirect testimony to this.

The Department's postgraduates have enjoyed considerable success in obtaining IRCHSS funding. External research grants for staff during the census period are relatively low; however, the context of limited national funding for the Arts and Humanities needs to be recognized but this looks set to increase as proper structures of mentoring and support have been put in place to help applicants through the process. A similar structure of post-award support would also be beneficial to the Department's work in future years.

Issues

The main issues facing the Department of Modern Irish relate to space, study leave and staffing. The space which is available to departmental staff and postgraduates is cramped and inadequate. A clear strategy on, and support for, staff research leave is a desideratum. The average staff-student ratio during the period 2004-9 was 1 : 26, and the ratio has steadily risen each year, with the current ratio being 1 : 32. The staff level has fallen from 9.27 in 2005-6 to 7. Given the extra workloads involved in teaching and assessing language skills, such high staff-student ratios inevitably impact on research time and research productivity. Similarly, such ratios present challenges for internally covered sabbatical leave. Further staff investment to replace retired staff is an urgent necessity if such pressures are to be alleviated. The appointment of one extra member of staff would result in a staff-student ratio of 1: 28, which is still relatively high.

Recommendations

It is recommended that consideration be given to:

- the appointment of at least one extra member of staff
- the promotion of staff with outstanding research and teaching records
- the introduction of a clear and regular programme of sabbatical leave for staff (which did not involve

staff necessarily having to surrender their office space)

- the development of collaborative research projects
- peer review and / or mentoring of grant applications
- the development of an enhanced track record of competitive external research funding
- the provision of adequate space for departmental staff and postgraduates
- the provision of more infrastructural support for postgraduate students
- the release of funds to support part-time postgraduate teaching in good time which will allow forward planning of teaching and which will enhance postgraduate recruitment and retention
- the development of a marketing strategy for enhanced postgraduate recruitment from other universities, both national and international thus enhancing the internationalisation of the research environment
- the development of a visiting programme of lectures and seminars at UCC involving staff, post docs and postgraduates from elsewhere
- taking the lead in the organisation of more conferences and symposia (e.g. on contemporary literature, linguistics, folklore, manuscript studies, and so on)
- the improvement of reading facilities within the Special Collections section of the Library.

Please also see Appendix A which reflects on the review process and makes a series of wider recommendations to the University.

DEPARTMENT OF MODERN IRISH

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		61%	94%
2.	Research Related Activities	4	
3.	Funding	3	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		65%	100%

Overall Assessment: Level 4

Comments by Panel on Procedure

The Panel, as a panel, would like to begin by making the point that it has been extremely impressed, not only by UCC's decision to undertake this exercise, but also the manner and spirit in which it has been conducted. In particular, the Panel would applaud the decision to include site visits by the review panels, which both amplified and complemented the written submission, as well as the open and supportive framework in which these visits have taken place.

The Panel have been mindful throughout this process that this is the first time that any such review has been undertaken within the Irish Higher Education system and that, necessarily, this has been a learning curve for all involved. In making a series of recommendations arising out of the process to the University (included with this report as Appendix A), the Panel would also recommend refinement of the process were a similar procedure to be carried out in the future. In particular:

- i. The Panel found considerable discrepancy in the relationship between the descriptors used for individual areas of assessment and those for the overall assessment of a unit. In addition there is some confusion between descriptors for 4 and 3 in the published outputs category, particularly in the second sentence, and for that reason the Panel placed its emphasis on the first sentence when reaching its final decisions as a panel.
- i. A more organized system of pre-visit panel discussion of the criteria to be used and the parameters for the exercise would be beneficial. Virtual communication would be acceptable in this instance but the time and commitment involved would need to be recognized and accounted for in the initial invitations to panel members and chairs.
- i. The Panel had some opportunity to meet postgraduate students and to discuss their experiences in one of the units and this proved extremely helpful in determining the question both of research environment and postgraduate training for that unit. In a future version of this process, the Panel would recommend such meetings be formalized as part of the process and also that they be made

confidential meetings between reviewers and students. The opportunity for parallel confidential meetings with early career researchers might also be beneficial to the process.

- i. The process could be strengthened by clearer requests to units about the provision of an evidence base for several of the categories, and in many instances the provision of a clear template for the submission would be helpful. The Panel would also suggest that an internal screening process be carried out, perhaps at College level, to ensure that panels do not spend valuable time identifying and substituting publications which, for example, were outside the census period or ineligible for other reasons. The initial submission was unnecessarily long and difficult to navigate and the Panel would encourage any future exercise to be based around a more succinct and clearly focused initial document.
- i. It would have been helpful to the panel to have a clearer outline from the start for the way in which departments were asked to participate in the process and the criteria and timeframe they were given in order to do so. In the event of a similar process would recommend a series of roll-out workshops to explain and contextualize the process and clear advice to heads of units to assist them in the selection of material and outputs for inclusion as well as a screening facility at College level as described in item iv).
- i. A clearer sense of the future of the panel report and documentation from the outset and certainly by the time of submission of the report would be advisable.
- i. There is also a broader question relating to consistency across panels. Future exercises should include some articulation or communication between panels. In this particular review UCC managers and staff will inevitably make comparisons across panels, but the Panel would have strong reservations about the meaningfulness of such cross-comparisons in the current context.

Account of the practice and procedure of Panel L

At the beginning of the site visit Professor Roibeard Ó Maolalaigh was appointed as deputy chair at the recommendation of the entire panel. The Chair of Panel L, Professor Julie Sanders, attended presentations from all 3 units as well as all additional site visits and question & answer sessions. The whole panel was involved in the discussion of the quality profiling of each department. All the submitted outputs were assessed in detail by at least two members of the panel with the relevant expertise and were collectively considered by the panel as a whole. No single panel member was responsible for examining the entire outputs of a researcher and the Panel would wish to emphasize that it assessed outputs and not individuals. The wider published research output during the census period was considered as part of the 'Research Related Activities' and 'Research Environment' categories. A calibration exercise was undertaken to ensure parity of approach across the panel when assessing published outputs.

This report has been drawn up with the input and approval of all the panel members. In the case of Dr Bateman, who was unable to attend the site visit, she has participated in the published outputs category in which her expertise rests (i.e. in Early Modern and Modern Irish). She has also been part of the report writing exercise in a virtual capacity. In the case of Professor Séamus Mac Mathúna, who was only able to attend some of the site visit due to a late invitation to join the panel and conflicting commitments, the Panel would like to make clear that all decisions and outcomes made during and following the site visit (including the content of the presentations to the departments on the final afternoon) were agreed with him and contributed to by him via telephone and email conversations.

It is salient to note that while in some instances (which the Panel has made clear in the report) UK comparators have been instructive, the Panel has never assumed that this exercise is simply a version of the UK Research Assessment Exercise. Both in the specific context of UCC and Ireland, but also in the blended nature of this exercise, involving both paper documentation and personal meetings, the Panel has been mindful that


this was a separate exercise with its own parameters and different, though broadly similar, criteria.

The Panel would like to thank all staff and students of UCC for their help, input, and engagement with this process.

Recommendations to the University and Quality Promotion Unit

1. The Panel would ask that the University recognize in any future planning exercises the distinctiveness of Arts and Humanities research and the centrality of regular research leave to it, as well as the need for the control and proper management of undergraduate teaching numbers. In that context the Panel would also recommend that the University take cognizance of the increasing need for IT support in the context of the digital humanities and that discipline-appropriate support from the University management be securely put in place for the long-term to enable adequate planning on the part of department leaders.
2. The Panel recommends provision of clearer statistics as a required part of the process to enable full contextualization of narratives and discussions. In particular the Panel would ask for the provision from the outset of
 - i. Staff-Student Ratios for the census period
 - ii. PhD 4-year completion rates for the census period
 - iii. A clear separation of internal and external grant funding in figures provided.
 - iv. A clear separation of postgraduate studentships and external research funding in figures provided. The University might also consider breaking these figures down into incurred external income and awarded external income.
 - v. Units should also be encouraged to provide discursive content on postgraduate training which was lacking in the submissions.

[NB: the provision of templates to units would simplify and clarify the process for all concerned]

-
- 
3. The Panel would advise a strengthened role for the College in terms of research support, graduate skills training provision and delivery, and the articulation of relations between researchers in cognate areas in different departments and disciplines.
 4. The Panel would recommend enhanced provision of postgraduate work-space, especially in view of the projected growth of postgraduate numbers reflected in both departmental and university strategies. While the space limitations within UCC are recognised, provision of staff space is also a matter of concern.
 5. The Panel would strongly recommend that, for academic staff, there be a clear, regular expectation of sabbatical leave without cost to the individual concerned and that the requirement on staff to vacate office space during periods of leave be revisited.
 6. The Panel would recommend more structured support for early career researchers, including mentoring, opportunities for early sabbatical leave, reduced teaching loads, and clear career development guidance.
 7. The Panel recommend the incentivisation of all staff in terms of support for external research applications, and the protection of sabbatical entitlement especially for (but not limited to) staff who are successful in acquiring external funding for particular projects, both individual and collaborative. The Panel would also recommend the implementation of formal college structures to support and incentivize major collaborative grant application and to support PIs and teams who are successful in achieving these grants.

Panel M

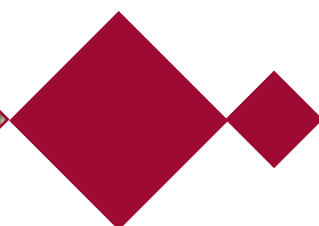
Department of French

Department of German

Department of Hispanic Studies

Department of Italian

Irish Institute of Chinese Studies



Panel M Members

- Professor Jean Duffy, School of Literatures, Languages and Culture, University of Edinburgh, Scotland
- Professor Diana Knight (CHAIR), Department of French, University of Nottingham, UK
- Professor José Montero Reguera, Department of Hispanic Studies, Universidade de Vigo, Spain
- Professor Brian Richardson, Department of Italian, School of Modern Languages and Cultures, University of Leeds, UK
- Professor Lesley Sharpe, Department of Modern Languages, University of Exeter, UK
- Professor Philip Swanson, Department of Hispanic Studies, University of Sheffield, UK
- Professor Verner Worm, Copenhagen Business Confucius Institute, Copenhagen Business School, Denmark
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Dr. Mark Chu, Head, and staff of Department of Italian
- Professor Fan Hong, Head, and staff of Institute of Chinese Studies
- Professor Nuala Finnegan, Head, and staff of Department of Hispanic Studies
- Dr. Paul Hegarty, Head, and staff of Department of French
- Dr. Manfred Schewe, Head, and staff of Department of German

Site visit

The site visit was conducted over 3.5 days from 9 – 12 March 2009 and included visits to departmental and library facilities in UCC and meetings with:

- Professor Paul Giller, Deputy President, Registrar & Senior Vice-President Academic
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Michael Berndt, Head, College of Medicine & Health
- Professor David Cox, Head, College of Arts, Celtic Studies & Social Sciences
- Professor Alan Kelly, Dean, Graduate Studies
- Professor Irene Lynch-Fannon, Head, College of Business & Law
- Ms. Michelle Nelson, Head, Graduate Studies Office
- Mr. Michael O'Halloran, Computer Centre

An exit presentation of the principal findings of the Panel was made to Heads of institutes/departments in the afternoon of the fourth day.

Introduction: Scope and context of this review

The Panel would like to record its thanks to the following

- Dr Ryan and her colleagues in the Quality Promotion Unit for their quite exceptional helpfulness throughout the three days of the on-site visit.
- Professors Giller and Kennedy for their initial briefing and the various officers of the University for their courteous and frank responses to the Panel's questions.
- The relevant staff of the Boole Library for their very usefully conceived tour.
- The Heads of all five departments for their presentations and their colleagues for their helpful and articulate contributions to the open discussions.

Procedures

Rather than splitting into two teams for the Departmental visits, the Chair and Deputy Chair participated in all visits along with the relevant subject specialists and one other panellist. Each subject specialist therefore participated in two departmental visits in

all. To maximise parity of approach, each open discussion was broadly structured around a set of pre-agreed questions.

Detailed consideration of outputs focused on the three items chosen by individuals as their most significant. A selection of other publications from the period under review was also consulted and longer-term publication profiles were noted.

All panel members read all departmental submissions. Quality levels were collectively discussed and agreed, as were the generic and unit-specific contents of the exit presentations.

General comments and generic recommendations to UCC

- The Panel felt that brief CVs (two sides maximum) for individual staff members would have been adequate, with relevant information on publications and esteem indicators extracted and restricted to the period of the review. In the case of the three most significant outputs selected by individuals, the percentage contribution should have been specified for jointly authored publications, and a brief explanation should have been included explaining how edited volumes, creative writing and pedagogical material met the definition of research as set out in the guidelines. In some cases the Panel felt that individuals had not in fact selected their strongest publications for this exercise, and would have benefited from more advice. Indeed, it appeared that Heads of Department and their colleagues had been left to their own devices to negotiate the review guidelines and produce their submissions, and that the submissions could have been made more professional by some mentoring or targeted guidance at a higher institutional level such as the College.
- The Panel firmly believes that a major external research review requires a much longer run-in than seems to have been built in for this exercise. This is not so much because the preparation of submissions was clearly very time-consuming for over-stretched units, but mainly because it is crucial that the timing, framework and assessment criteria of such a review be communicated several years in advance.

For evaluation to be meaningful, both units and individuals need to be able to plan strategically against known targets.

- For this reason, the Panel hopes that this review has a developmental rather than judgemental status. It recommends that the review be followed up with clear opportunities for improvement within a pre-determined timescale, rather than a premature reallocation of resources based on the quality profiles. The Panel was alarmed to learn that an earlier internal collection of individual profiles and research plans right across UCC had apparently led to no feedback whatsoever.
- The Panel's most general impression was that a number of problems derived from weak institutional structures for the strategic management of research at the relevant local levels. For all the enthusiasm, hard work and energetic commitment of individuals to their own research, and for all the impressively high volume of various forms of research activity across all five units assessed, the Panel was struck by the lack of formal structures at Departmental level, and the lack of structures to integrate the departmental parts into the institutional whole so that strategic planning might be a genuinely two-way process. Where Departmental Research Committees were mentioned, they appeared to act as a focus for conference planning and visiting speaker programmes rather than for strategic formulation and monitoring of short, medium and longer term overall research objectives for the unit. The Panel believes it is the institution's responsibility to ensure that such structures are in place, whereas at present things seem to be left to the Head of Department to do or not do according to their workload and experience and the priorities of the department. The Panel certainly recommends the introduction of more formal mechanisms for staff development and research mentoring of individuals, perhaps through the appointment of a senior experienced colleague to the role of Director of Research. The balance between teaching and research should not be left to individuals to decide. Research time should be protected, especially for early career researchers, and plans and targets should be negotiated in the interests of the research profile of the unit as a whole.

- It may well be that the imminent creation of a School of Languages will provide an enabling structure in this respect, and will prove the appropriate level for more strategic management of the research of the constituent Departments. The Panel believes an external appointment with a brief to provide strong research leadership across the School as a whole would be an excellent investment. When resources next permit an appointment at professorial level, the Panel recommends this be given serious consideration as an obvious way of maximising the research potential of the five language units. It further believes that the appointment of a dedicated Humanities Project Officer to provide specific encouragement and support for grant-capture activities should be urgently considered.
- All Departments spoke positively about the College of Arts, Celtic Studies & Social Sciences and the Panel found its meeting with Professor Cox particularly informative. However, from its discussions with senior officers of the University, the Panel shared the perception of several Departments that the nature and importance of the research carried out in Language Departments was not well understood beyond College level. The apparent institutional inability to appreciate the need for regular study leave was indicative of this. It appeared to the Panel that institutional unease with a policy of entitlement to apply for study leave, as much as the current financial crisis, was driving the current moratorium. All Departments appeared to have found strategies for doubling up their essential teaching so that periods of study leave could be cost neutral. Moreover, it is easy to set in place procedures to monitor their appropriate and productive use. The five Departments reviewed carry out primary research on the languages, literatures, cultures and societies of China, Canada and Mexico, as well as France, Germany, Italy and Spain, and all research-active staff need periodically to make extensive visits to libraries and other archives in these countries. Moreover, longish periods of concentrated and uninterrupted writing time are essential to the completion of the monographs that remain the gold standard in arts and humanities research. The Panel cannot over-stress that time is one of the crucial resources for research in non-laboratory disciplines like Modern Languages. This argument has been accepted and understood in the UK, where a basic entitlement to apply for study leave on a regular and predictable basis (at most one in seven semesters, and often one in five or six) was crucial to a reasonable score for Research Environment in the 2008 RAE. In the Panel's experience, colleagues may well over-estimate what they can achieve in terms of outputs in a single period of leave, but this does not mean that they have not worked very intensively and made important progress on their projects. The Panel therefore urges UCC to reinstate a study leave scheme as soon as feasible (preferably managed closer to Departmental level), in the interests of an increase in the quality and volume of outputs.
- The Panel understands of course the severe difficulties UCC faces in the current financial crisis. It wishes to put on record, however, its extreme concern about the inevitable impact on individual and collective research performance of the withdrawal of financial support for such basic research needs as foreign travel to archives and international conference attendance. This will need to be remembered in any future reviews of individuals or units. The panel is alarmed, too, by the suspension of the promotions exercise which, if it continues, is bound to disincentivise staff and lead to the loss of strong researchers to other institutions. Most of all, however, the Panel is concerned that non-replacement of staff due to short-term financial considerations may cause already small units to shrink beyond the level of research viability. The potentially irrevocable damage to an exceptionally strong research unit like Hispanic Studies is the most obvious and urgent example, but other units of considerable potential could easily find themselves in the same position. The panel therefore urges UCC to protect a minimum level of research-active staff across all five units reviewed. As indicated above, a School of Languages could be managerially beneficial, but it will only thrive if the research base of each constituent unit is protected and adequately resourced.

Quality Profile

Published Output

The Panel noted that over the review period the Department of French published a substantial body of diverse outputs in a wide range of sub-fields within and beyond French studies. Outputs included monographs, edited volumes, articles, essays, conference papers, reviews, electronic and other media production. The review focused on the three items chosen by individual staff members, though also consulted a selection of other publications and took into account the profiles provided in the appendices and the volume of work published in the review period.

The Panel judged the outputs to range in quality from level 1 to level 4, and some unevenness in productivity was noted.

The range of outputs is unusually broad. Although the Department identified a number of research strands within its research activities, the Panel concluded that it should consider ways in which its very diverse interests might be more tightly integrated into a fully developed departmental research strategy.

The Panel recommends that the Department focus its research efforts on increasing its publications in high-impact, international peer-reviewed journals and on the production of high-quality monographs which would enhance its international profile and its impact on research and debate in the discipline.

The statements regarding personal research plans varied considerably in the amount of detail provided. While some offered strong evidence of clearly focused plans and realistic and well-defined objectives, in other cases statements regarding future projects were vague or absent.

The Panel recommends that the issues of unevenness of quality and productivity be addressed by the Department through the development of more formal research mentoring and the negotiation of realistic medium and long-term research publication targets with all research-active staff.

Postgraduate Training

French is to be commended for its expansion of postgraduate activities and the significant increase, within the review period, of the number of postgraduate students at both Master's and doctoral levels. The Department acknowledged past problems relating to PhD completion rates and outlined the mechanisms which it has devised in order to address this issue. French is currently involved in five taught M.A. programmes some of which have recruited well in a difficult economic climate. To date, the cross-listing of courses across programmes and the participation of Erasmus students would seem to have ensured the viability of these courses. It is clear that the Department considers that the benefits, in terms of student retention and preparation for doctoral study, justify the investment of staff time and effort. Additionally, the Panel recommends that French revisit its policy with regard to the research M.A. which might provide other opportunities and a flexible framework for future development.

Provision at College level and within the Library for research training and the development of generic transferable skills appears to be wide-ranging and robust. The Department has a postgraduate study committee and sound procedures for the monitoring of student progression. The introduction by the Department of an annual Study Day for postgraduate students is to be commended as an example of good practice. The Panel commends the strong encouragement given to postgraduates to disseminate their research results through publication and conference presentations and noted the high volume of outputs and activity at this level.

Research Related Activities

Staff in French engage in a very wide range of research-related activities, some of which carry significant responsibilities and have brought prestige to the Department. These include journal editorship, conference organisation, invitations to speak at international conferences, external departmental reviews and membership of external policy-making committees. These activities have facilitated the development of the research networks of individual scholars, have promoted a strong awareness of research developments and

changes in the research environment outside Ireland and have allowed staff at UCC to participate in the broader debates taking place within the discipline.

The Panel noted a high volume of knowledge transfer activity and engagement with non-specialist users of research. The Department appears to be thinking constructively about ways in which this type of activity might be developed to attract external funding. However, the Panel was concerned about a potential tension between such endeavours and the production of high-quality research outputs and recommends that the relationship between these competing demands be kept under review.

Funding

French is to be commended for its success in obtaining competitive University funding (notably, the President's Fund postgraduate awards) and, in particular, IRCHSS Fellowships (2 Research Fellowships, 1 Senior Research Fellowship, 1 Postdoctoral Fellowship during the period). The Department has also attracted a number of externally funded students. The panel commends French's continuing and sustained efforts in this respect: at the time of the review 9 applications for postgraduate/ postdoctoral studentships (7 studentships and 2 postdoctoral fellowships) are under consideration. Overall the Department seems to be very well-informed about external funding opportunities and to be constructive and forward-looking in its approach. It has responded well to local College and University funding opportunities in order to finance essential research visits to overseas libraries, conference attendance and organisation.

While the Department expressed its appreciation for the financial support offered by College and for the practical support provided by Research Office in the preparation of bids for smaller research grants, it would appear that opportunities to secure larger awards have been lost in part because of the low priority given to the Arts and Humanities in the allocation of support resources (e.g. the absence of a designated Arts and Humanities Research Officer).

Peer Esteem

Although the distribution of peer esteem indicators across the Department is uneven, a wide range of evidence was provided including the following: highly competitive funding awards (notably research fellowships) and studentships, appointments to the Executive Committees of subject associations, journal editorship, editorial and advisory board membership, special issue editorships, invitations to contribute to scholarly editions, edited volumes and conferences, invitations to review for international peer-reviewed journals, peer-reviewing for journals and publishers, postgraduate examinerships and service as external advisors to promotion and appointment committees. The contribution of UCC staff to the discipline has been recognised by French government honours: for example, several members of staff are Chevaliers dans l'Ordre des Palmes Académiques.

In its assessment the Panel took into account the 'career age' of staff and any personal circumstances that had been brought to its attention.

Research Environment

The internal research environment of the French Department appears to be generally good. Although no new permanent appointments have been made within the review period, recent past practice seems to have ensured that early career researchers have been protected from heavy administrative and teaching duties during the early years of their appointment.

Positive indicators include: a regular Departmental Research Seminar attracting prestigious external speakers; evidence of research collaboration within and beyond the department; the development of several research strands and related Master's programmes; a strong commitment to regular conference organisation.

The Department has a research committee with responsibility for the organisation of the Research Seminar series, the facilitation of conference organisation and the preparation of major funding bids. The Panel recommends that this committee take a more pro-active role in the development of a collec-

tive long-term research strategy. The Panel also recommends that the Department appoint a designated research advisor with a brief to provide research mentoring for staff at all levels, to conduct personal developmental meetings with all staff, to provide regular updates on funding opportunities and deadlines and to liaise with the relevant College and University officers on matters relating to research.

At present, the policy on the ratio between teaching and research appears to be very flexible, with decisions about the number of specialist option courses offered by staff left in part to the discretion of the individual. The Panel recommends that the Department review its policy in this respect with a view to establishing greater standardisation of practice and to giving due weight to the protection of research time in the interests of its overall research profile.

The Panel noted a decline over the period in the number of research-active staff in French. While the Panel recognises the restrictions imposed by the current financial crisis, it draws the University's attention to the importance of investment in the French Department, of the maintenance of a balanced age profile and of long-term planning that will ensure that the University plays an active and positive role in sustaining and renewing the discipline.

DEPARTMENT OF FRENCH

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		26%	52%
2.	Research Related Activities	4	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		56%	100%

Overall Assessment: Level 4

Overall Research Activity and Performance

The French Department is an energetic unit which has maintained a high volume of research activities within a broader University environment that appears to have attached low priority to research support in the Arts and Humanities. Despite the current freeze on support mechanisms – e.g. internal research funding, the research leave scheme – which are essential to the production of high quality research and which are the norm in UK institutions, staff in French remain constructive in outlook and committed to research.

Issues

The key issues have been raised in the foregoing commentary.

Recommendations

In addition to the specific recommendations made in the body of this report, the Panel draws attention to the generic recommendations made in the Panel's Introduction (in particular, regarding the immediate reinstatement of sabbatical leave, the review of institutional research management, policies and procedures, the reinstatement as a matter of urgency of internal research funding provision, the maintenance of research-active staffing levels).

Quality Profile

Published Output

The outputs submitted included single-author monographs, journal articles, edited volumes, translations, critical editions and essays in contributed volumes. The range of subjects was wide and included aesthetic theory, literary criticism, the pedagogy of second-language learning and intercultural training. Some items fell into the category of English Literature and in a UK RAE would have been cross-referred to another panel, but this was not feasible in the present exercise. Assessment of the outputs was based on detailed examination of all the items named by researchers as their three best pieces of published work. The Panel also took into account the volume of published work in reaching a view of the overall research activity and performance.

Although outputs were submitted by seven members of staff, the Panel decided to focus on the work of the five colleagues listed as 'academic and research staff' on page 4 of the submission and discount College Language Teachers because their research is not part of their contract with UCC. The contribution of these members of staff to environment and research-related activities was, however, taken into account.

The Panel judged the outputs to range in quality from level 5 to level 2. A small proportion of the work was identified as world-leading. Although the total number of publications produced during the assessment period indicated sustained effort, the Panel noted few journal articles published in the leading international journals in the subject area and suggests the Department consider directing more of its work to such journals in order to gain feedback from the wider research community and raise its international profile.

Postgraduate Training

The Panel recognised the difficulty (also evident in the UK) of recruiting PhD students in German; the availability of scholarships and bursaries, which are also an effective means of attracting able research students from Germany, are crucial to success in

this area. Although postgraduate research students have been relatively few in the assessment period (3 research master's degrees and one PhD awarded) the Panel noted the successful introduction of an MA in German Studies with potential to lead on to PhD study. It noted also the collegial and supportive atmosphere of the Department, where postgraduates were integrated into departmental activities such as the research seminar. The development of a College Graduate School offers well-designed modules to support the individual departments in postgraduate training in generic skills and helps form a postgraduate community. The Panel was concerned to hear of the pressure on postgraduate study space in the building housing Modern Languages.

Research Related Activities

The Panel noted the Department's extensive links with European and overseas institutes and its contributions on a national and international level to cross-disciplinary activities, among them theatre studies, women's studies, second-language acquisition and intercultural competence. The Department is home to an innovative web-based, peer-reviewed journal and colleagues are active as members of editorial boards of journals and yearbooks. A substantial number of guest lectures and international conference papers were given.

Funding

The Department has successfully sought internal funding for research and publication projects and one member of staff's research was recognised by a College Research Achievement Award. National research council, EU and other external funds have also been obtained but recent applications are sparser. The Panel noted the Department's recognition of a changing funding environment and efforts to identify common research areas on which to base external grant applications, for example its identification of 'Transfer and Mobility of Culture' as a collective project on which to base large-scale grant applications and to explore potential external partnerships. External grant income (also from the DAAD and the Alexander von Humboldt-Stiftung) might be increased

if members of the Department planned a series of smaller individual and collaborative grant applications to an agreed timetable, perhaps drawing on the advice and experience of other colleagues in the College. The availability of dedicated research support staff, perhaps at College level, would greatly help in this process, as would more active management and planning of research and mentoring arrangements for all staff.

Peer Esteem

The Panel noted a range of esteem indicators, relating mainly to international invitations, prestigious awards, editorship of journals and membership of editorial boards. It took into account the age and stage of each member of the Department in developing a profile.

Research Environment

The Panel was concerned by the absence or withdrawal of a number of elements vital to the support of humanities research, which the institution should be urged to reinstate as soon as possible. These are mentioned in the general Panel M introduction and include matters such as study leave and travel allowances.

The Panel recognised that the Department was working under great pressure to maintain its student FTEs and that this pressure forced it to engage in a wide range of teaching activities in relation to its staffing, including contributions to cross-disciplinary modules outside the Department and evening classes to generate income. While recognizing that this degree of institutional pressure over FTEs conflicts with the pursuit of research, the Panel suggests that the Department might review its teaching commitments to see if economies of effort can be achieved that would yield more research time for all staff and help support the younger members of staff as they develop their research. Every effort should be made to safeguard one day in the teaching week as a research day for each member of staff. The administration of the university at all levels should review whether its demands on academic staff are best timed to guarantee maximum research time in the vacations.

At departmental level, the Panel noted a collegial spirit conducive to the exchange of ideas, a research seminar

and a lively programme of visiting speakers. It considered that career development of individuals and the formulation of research goals would benefit from more active management. The creation of a School of Languages and Literature could be very effective in enhancing the sharing of ideas and expertise in developing research plans and in peer-reviewing applications. Individual research development might be supported by periodic research dialogues, which could be conducted across the School.

Overall Research Activity and Performance

The Department of German has produced some impressive publications over the assessment period and sustained a good range of research-related activities, particularly journal editing and guest lectures and conference papers. It should make a priority of increasing the number of publications appearing in the leading peer-reviewed international journals. As a Department, while pursuing its collective research project, it should also take a planned and strategic approach to increasing its overall number of external grant applications. It should also ensure that each colleague is advised and supported in developing his/her programme of publications and applications through a system of mentoring.

Issues

Please see the general matters raised in the Panel M introduction.

Recommendations

In addition to matters raised by the chair of Main Panel M and under 'Overall Research Activity and Performance', the University should consider the administrative burden imposed on small departments by reviews and promotions procedures and whether procedures could be streamlined and thus made less onerous. The University administration should review its timetable to see whether the research time staff have in the vacations is maximized. This is particularly important for Modern Languages academics, whose research regularly requires them to spend time in archives and libraries abroad.

Overall Conclusion

The Department of German is working under great pressure to sustain its student numbers and its research productivity at the same time. Its achievement in the assessment period should thus be commended, even though there is scope for considerable improvement in postgraduate recruitment and in the active management and promotion of research. Two

new permanent appointments have given the Department vital support. If the wider environment in which it operates can be improved (see issues raised in the Panel's Introduction), it can consolidate its strengths and raise its collective profile in the field of German Studies internationally.

DEPARTMENT OF GERMAN

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		31%	62%
2.	Research Related Activities	3	
3.	Funding	2+	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		40%	60%

Overall Assessment: Level 3

Quality Profile

Published Output

The Panel examined in close detail the outputs of current staff in the areas of Mexican Studies, Modern Spanish Narrative, Golden Age Literature and Galician Poetry. It also considered their outputs over the review period and noted those of staff now retired but research active in the review period. The outputs range from very good to world-leading.

Some work can be seen as genuinely agenda-setting; this work is not only rigorous but also original and a very significant contribution to knowledge in the relevant field. There is also excellent work that has had or is likely to have impact and shape future scholarship. Other work was deemed to have enough elements (originality, rigour, and discipline) to be considered as very good work with a likely significant impact.

Publishing patterns are geographically international in most cases, though some individuals should consider publishing in a wider range of international outlets.

Postgraduate Training

The Panel noted a very strong performance in the support of postgraduate activity, especially given the size of the unit and the context in which it has to operate. Recruitment and completion rates are very good. Numbers have been increasingly healthy and there has been very impressive growth since 2007 in the number of PhDs conferred. The striking completion rates would suggest an excellent level of training and supervision. The Panel commended the encouragement given to postgraduates to participate in conferences and to publish, and noted the strong external profile generated by the Department's postgraduates.

Postgraduate activity takes place across the Department's three main remaining research areas: Golden Age Studies, Modern Spanish Narrative and Latin American Studies. The Department was traditionally considered as very strong in Medieval and Golden Age Studies, but the retirement of two outstanding scholars specializing in these periods means a decline in activity in these areas. There is a particularly high level of

postgraduate activity in Latin American Studies, specifically Mexican Studies. This is highly commendable, but there is scope for extending activity in Golden Age and Modern Peninsular Spanish Studies. Galician Studies is also an area of steady activity and given the Department's unique status as a centre for Galician Studies, this is an area for potential continued recruitment and development. However, this is only likely to happen if the University supports Galician Studies by confirming a permanent position in this area.

The Panel welcomed the development of a College Graduate School and noted growing provision here and within the Library for research training and the development of generic and transferable skills. More development is needed at institutional level of formalized policies and processes on training, monitoring and supervision at postgraduate level, but the panel was pleased to note that this was already being taken seriously and that a number of initiatives at institutional level were in hand. The Panel welcomed the creation of a postgraduate library, but remained concerned about a lack of adequate space and computer provision in Modern Languages. In general Library resources for postgraduate research are patchy and ILL support is wholly inadequate for students working on foreign cultures.

Research Related Activities

Researchers in the Department are active in all the main relevant areas indicated in the Guidelines, and in some of them in an outstanding way. The record in peer reviewing and external examining of research degrees is very good. The Department is particularly strong in the area of international conference organization. Moreover, the Panel was impressed by the way these conferences linked into specific research projects and led to specific high-quality research outputs. The organization of a biannual conference on Spanish Golden Age Studies and an annual one on Latin American Studies has been crucial in putting Hispanic Studies at Cork on the international map and in developing a vibrant and collaborative research community within and beyond UCC. The activities of the Centres for Mexican Studies and Galician Studies are equally impressive and important, though the latter now requires proper institutional support. The Panel noted

the ongoing intellectual expansion and development of core research activities into new and interdisciplinary areas (including links with art, film, Chicano Studies and XIXth Century Latin American Studies). All researchers are extremely well linked into appropriate international research networks. KT activities are strong and appropriate, properly linked to hard research as opposed to substituting for it.

Funding

The Department is commended for its attraction of funding for a range of research-related activities (including postgraduate support) from a wide range of sources: internally (CACSSS and UCC), nationally (e.g. ICRCHSS) and, more remarkably, internationally from bodies such as Xunta de Galicia, Institut Ramon Llull, Instituto Cervantes, Spanish and Mexican Foreign Affairs Ministries. The ability to continue to attract funds from the Xunta de Galicia will doubtless depend on the continued institutional support within UCC for the Centre for Galician Studies.

While the Department has benefited from the support of the College and Research Office, it is clear that there is scope for improved support at institutional level, particularly in bids for larger grants. The Panel noted the absence of a dedicated Humanities Project Officer within the institution. The development of an HRI should help with grant-capture support and this should be one of the Institute's main focuses.

Peer Esteem

Impact factors and examples of professional contribution and standing are extensive and important. It is reasonable to say that, from the outside, the unit is widely regarded as the best in Hispanic Studies in Ireland and enjoys a very strong reputation amongst the wider international scholarly community.

An important aspect of the peer esteem indications is the standing of the two recently retired Professors. While, as the review clearly demonstrates, the other people in the Department are of the calibre to maintain very high standards, they must have additional staff to allow the unit to function properly and thrive.

Research Environment

The research environment as evidenced within the Department, in terms of its own culture, activities and practices, is exceptionally good. The staff are enthusiastic, committed, hard-working, collegial, and conscientiously focused on developing and improving their own research as well as developing a new generation of highly-professionalized scholars. They are all fully engaged with an international research agenda and work well individually and as a team in generating awareness of and engagement with appropriate research initiatives. The Centres for Mexican and Galician Studies are a crucial element in the unit's research environment (once again, the latter requires proper institutional support for it to be sustained). It should be noted that there is also a very strong, active and internationally-orientated research culture in the areas not attached to a Centre, namely Golden Age Studies and XXth Century Spanish Narrative.

It is nonetheless recommended that the Department, with appropriate support, introduce a more formal structure for strategic research management.

The research environment at institutional level is less commendable. Though healthy in some areas, Library holdings show major gaps and funding levels are problematic. Centrally, there appears to be virtually no proper formal structure for strategic research management. At the very least, communications on such matters would appear to be poor. Staff development policies appear to be inadequate and are in serious need of improvement in order to foster an appropriate research culture and identify appropriate means of support. Clearer and more clearly communicated policies need to be put in place with regard to research monitoring and support, in particular (but not only) for Early Career Researchers. The apparent culture of leaving such responsibilities in the gift of the Head of Department or individual staff is clearly problematic (though, in the case, of Hispanic Studies, staff have taken to this responsibility very well). The recent suspension or curtailment of a number of schemes for research support is also clearly detrimental to the maintenance and development of research quality. In particular, the perceived threat to a proper

system of sabbatical leave is a matter of huge concern (a proper system of eligibility for consideration for sabbatical leave in at least 1 semester in every 7 would have been an essential component of any Research Environment submission in the UK RAE). The lack of maintenance of appropriate staffing levels in Hispanic Studies especially is a particular concern: indeed it seems almost perverse given the exceptional quality of the unit and its clear ability to recruit well.

It should be noted that the score given for research environment is based on departmental rather than institutional factors. It is clear that in the UK RAE, the lack of proper institutional support would have been damaging to research environment scores.

Overall Research Activity and Performance

Research activity in all aspects ranges from very good to world-leading. The Panel commends an outstanding performance in an extremely challenging context.

Issues

The key issues have been raised in the text above. Staffing levels need to be improved urgently. The University needs to address strategic research management. Basic research support funding needs to be re-introduced as soon as possible. Sabbatical leave needs to be properly supported. Library resources need to be revisited. Research space for postgraduates needs to be considered.

DEPARTMENT OF HISPANIC STUDIES

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		60%	100%
2.	Research Related Activities	5	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		75%	100%

Overall Assessment: Level 4

Recommendations

It is recommended that consideration be given to:

- The generic recommendations given at the beginning of the Panel M report (especially re the provision of sabbatical leave, institutional research management policies and procedures, the re-introduction of basic research support, the maintenance of adequate levels of staffing).
- The urgent addressing of the staffing situation in Hispanic Studies. The immediate confirmation of the (apparently previously promised) permanent replacement post for a senior lecturer (following her Chair appointment) will help stabilize the provision of Galician Studies. At least one further full-time academic post should be created as a priority. Provision at this level would still certainly represent a saving on the Department's previous level of provision. A further full-time academic position would be desirable for proper consolidation and development of the discipline.
- Consideration should be given to making an external appointment at professorial level for the new position of Head of School. This might allow for stronger leadership and research management. If the appointment were for a Hispanic Studies specialist, then more than one problem might be addressed simultaneously.

Quality Profile

Published Output

Outputs published by colleagues in the Department during the assessment period dealt with varied aspects of modern Italian literature and of Italian and European film studies. Some of the outputs set the works studied in the context of critical theory. The outputs included co-authored monographs, articles published in peer-reviewed journals and invited essays in edited collections. Their quality was rated by the panel as ranging from level 2 up to level 4. One of the outputs submitted within the 'best three' was not published within the period specified for the review; hence the presence of a small percentage at quality level 1.

Postgraduate Training

The Panel commended the strength of postgraduate recruitment since 2003. The Department has more than played its part in supporting the national policy of increasing research postgraduate numbers. This marks a successful change in approach after a period in which doctoral study was discouraged. Postgraduate student numbers are now buoyant. Eight of the 15 registered during the review period graduated outside UCC, including four who have been attracted from Italy. Italian film studies, a distinctive specialization of UCC within Ireland, have recently played an important part in this expansion. Ten of the fifteen PhD students received competitive funding awards, and this indicates their high quality. The recruitment policy is now leading to successful completion of PhDs: three in 2008, after several fallow years. In the longer run, the Department may need to keep an eye on preventing supervision loads from becoming too heavy.

Pathways into doctoral research are provided by the taught MA programme in Italian, which has a cultural and a language stream, and by the MA in Film Studies. The Department does not offer an MA by Research, and it might consider adding this to its portfolio of postgraduate degrees.

The recent creation of the Graduate School of CAC-SSS has provided welcome new opportunities for

cross-departmental training for all research postgraduates in generic research skills. The Department makes a substantial and valuable contribution to this programme: for instance, a colleague organizes a module in professional training for those nearing completion of their thesis. Training for doctoral students is offered by the Department in the form of workshops, for instance on seminar presentations. Doctoral students are required to draw up a development plan in consultation with their supervisor. The taught MA in Italian includes a compulsory Research Methods module. The Library offers training in information retrieval.

The provision of study space for postgraduate researchers in the College as a whole has not kept pace with the expansion of student numbers, and this problem should be addressed as soon as resources permit.

Research Related Activities

The Panel commends members of the Department for their activities in organizing conferences and conference panels during the assessment period. As well as benefiting the wider research community, these activities have helped considerably to raise the profile of Italian at UCC. The Department organized, among other events, the biennial conference of the Society for Italian Studies (for Great Britain and Ireland) in 2003. A welcome initiative, and an example of good practice, was the launching in 2008 of a Graduate Conference in Italian Studies, intended mainly but not solely for students in Ireland. An Irish centre for graduate studies in Italian literature and film is now being considered. Further academic conferences are planned in 2009 and 2010.

The panel also welcomed and commended strong evidence that research postgraduates in the Department have been active in presenting their work in publications and at conferences.

Funding

The Department made considerable use of internal funding throughout the assessment period, particularly from the Arts Faculty's Conference Fund and Publication Fund. One colleague benefited from two

IRCHSS awards within the period (and has obtained a very substantial grant from the same source in order to study Irish home movies for two years from December 2008).

Awards of research funding from external sources were spread rather unevenly across the Department. The Panel recommends the drawing up of concerted plans for individual and collaborative external grant applications in coming years.

As mentioned above, substantial scholarship funding was obtained by PhD students. Awards included five prestigious President's scholarships and three IRCHSS awards.

Peer Esteem

Evidence of esteem was reflected in factors such as membership of editorial boards for book series and journals; external examining for a PhD degree overseas; peer reviewing of grant and scholarship applications, journal articles and books; visiting professorships and invited lectures; and membership of committees of learned bodies.

A colleague in the Department received a CACSSS Research Achievement Award in 2006.

In assessing peer esteem, the Panel took into account the 'academic age' and personal circumstances of individual members of the Department.

Research Environment

Research in Italian can draw on the Library's very substantial collection of books on Italian literature from all periods and of video material. The Panel was very pleased to learn that the Library budget allocation for Italian has been improved markedly since the Quality Review of 2004/5. Currently there are subscriptions to sixteen periodicals. However, the Panel shares the Department's concern that the process of book ordering, which has to be carried out on paper rather than online, is unnecessarily laborious and that, once ordered, books take too long to arrive in the library. The Panel recommends that attention is given to the

implementation of the facility for online book ordering that is at present offered on the Library's website.

The Department runs a series of research seminars with invited speakers, often from outside Ireland. A colleague helps to organize a research seminar in Film Studies. Both the departmental series and conference attendance by PhD students are funded by income earned through the provision of evening classes in Italian (and currently Polish) language and in Italian film. However, the Panel was informed of a recent decision that this income cannot be carried over from year to year. The College could consider supporting such activities from its resources.

The Panel felt that research in the Department would benefit from the resolution of a number of wider organizational and infrastructural issues:

- There is a lack of research management at local level, i.e. below College level. Staff development processes do not provide adequate advice and support in the planning of individual research activities including publication and grant applications. The introduction of a system of annual reporting on research and of a system of research mentoring would benefit the career development of all members of staff, not only the less experienced. Reporting on research would also provide an efficient means of sharing information on research activities at departmental level. This report might be updated half-yearly. The Panel recommends that a member of staff in the Department – or perhaps in the School, in due course – should be designated as director of research or research advisor; s/he would oversee and coordinate research activities, and liaise both with colleagues and with the School or College.
- It has been difficult and is currently impossible for staff to benefit from applications for study leave; and when leave was available, it entailed doubling up teaching in advance. There is a perception that possibilities for leave in CACSSS have been reduced under pressure from other Colleges. This is particularly regrettable in Modern Language studies, for which extended research in overseas libraries and archives is often essential. The Panel recommends the introduction of a fair and transparent system of

applying for (and then of reporting on) research leave. Without such a system, it will be impossible for colleagues to undertake major research projects.

- There is uncertainty within the Department about the introduction of a School of Languages and about the benefits that it might bring to Italian. It is right that Italian should retain its departmental identity and a degree of autonomy, but the benefits of a School might include greater awareness of shared research interests, leading to increased possibilities for collaborative and interdisciplinary activities such as joint grant applications, joint research seminars, joint supervision of research postgraduates and School-wide taught MA programmes; sharing of best practice in research; relief from some non-subject-specific administration; and the sharing of the administration of some service language teaching.
- There is no workload model to ensure that staff undertake a set of teaching and administrative responsibilities that is reasonable and appropriate to their level of experience, and that incorporates time spent on research. It appears that staff on probation need to undertake a fairly heavy teaching load in order to be confirmed in their posts; yet research time for colleagues at the start of their career may well need special protection.
- Although it has been decided to create a Humanities Research Institute when funding permits, at present there is no College-level office that could provide information about research grants and assistance in applying for them.
- There is a perception that some administrative processes, e.g. promotion, are unnecessarily time-consuming.
- The departmental website could be used more fruitfully to provide information on research activities and to attract postgraduates. Technical help in managing the site should be provided from outside the Department.
- There is currently a lack of training in research supervision and in internal examining procedures. This should be addressed at University level.

- The current freezing of the promotions exercise and of travel grants will not help to encourage research activities.

Overall Research Activity and Performance

There have been four members of academic/research staff in the Department of Italian throughout the assessment period, except in 2004-05, when the staffing level fell to three. The present staff comprises three senior lecturers and one lecturer. There has not been a chair in Italian studies since 2003-04, and the loss of a chair inevitably brings a potential loss of research leadership. The Panel noted that one colleague was on maternity leave twice between 2003 and 2008.

All academic colleagues show strong commitment and enthusiasm in activities related to research. They have taken the decision to focus on modern studies, and this provides a sense of collective purpose for their work. Their overall aim is 'to establish the Department as the centre of excellence in Ireland for the theory-based study of modern and contemporary Italian culture, both literary and visual'. Individual members have distinctive expertise in certain areas. Some common themes link their research, and these links provide opportunities for collaboration, of which some use is being made. A recent new appointment at lecturer level has been of clear benefit to the Department's research activities. The Department has interesting and viable plans for research in the medium term, including publications of monographs, conferences and possibly an online journal. The research interests of one colleague extend beyond Italian studies and have recently come to include Ireland; the integration of these interests into the overall research activity of the unit will be important.

The Panel commended the Department for its helpful and informative written and oral submissions to the Research Quality Review.

Issues

See above, especially under Research Environment.

Recommendations

It is recommended that consideration be given to implementing suggestions made in the Quality Profile.

Overall Conclusion

The Department of Italian in UCC has established itself over the review period as a lively and important centre of research in modern literature and film. Members of staff show a high level of commitment to research, they work in a collegial spirit and they have developed some

distinctive research expertise. Activities over the period represent a considerable and creditable achievement in many respects, especially in postgraduate recruitment and conference organization. The judgements on the quality levels attained by the Department need to be seen in the context of what has been achievable within the wider research environment in which the Department operates. There is clear potential for continued success in Italian research in UCC in the future as long as full support is provided by the University.

DEPARTMENT OF ITALIAN

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		17%	42%
2.	Research Related Activities	3	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		25%	75%

Overall Assessment: Level 3

Quality Profile

Published Output

The panel noted that, despite the Institute's short history of two years, a considerable amount of publications had been produced. Until now publications are mainly about research into Chinese sport (6 out of 9 submissions), but the Institute wishes to expand into Chinese history, political science, and social change in China. The Irish Institute of Chinese Studies is certainly the Department in the EU that has carried out the most research on Sports History in China.

The quality level ranges from 5-2.

There seems to be a good entrepreneurial team-spirit among the four researchers, which is promising for future research output.

The Panel recommends that the Institute's members aim at publishing in a more targeted fashion, in major peer-reviewed international journals. Materials provided during the visit suggest that the Institute's members are already aware of this challenge.

Postgraduate Training

The Irish Institute of Chinese Studies has 13 Ph.D. students and aspires to have a number of up to 40. In order for the Institute to benefit from PhDs, they need to be fully integrated as part of the research environment. It is unclear to the panel to what extent such a large numbers of PhDs could receive sufficient supervision. It was mentioned that the policy was to produce 'researchers' rather than research: if this is the case it does not appear an entirely appropriate formulation of policy. In addition, adequate space for postgraduates is perceived as a problem.

The Institute also runs a Masters program in Contemporary Chinese Culture and Business. Most of the teachers come from other departments, which is understandable, but not ideal. A couple of diploma programs are also run by the Institute. In this area too, the panel recommends a more focused approach.

Research Related Activities

The staff of the Irish Institute of Chinese Studies engage in a wide range of research related activities. These include editorship of journals, arranging conferences and participating in conferences in other places and giving lectures. In addition the Institute is setting up 'The Asian Studies Ireland Association' (ASIA). The organization is to be based at IICS. These activities have facilitated knowledge transfer and a strong awareness of IICS, which seems more and more to be becoming a centre of excellence for Chinese Studies in Ireland. The trade-off between arranging conferences and allocating time to core research should be carefully considered.

Funding

IICS has received funding from IOC and WADA and the Department is applying to a wide range of external funding entities such as ASEF, EU-China Dialogue ESF. Under current conditions, writing these applications seems necessary in order to keep IICS as a dynamic Department; but it is important that administrative backup is in place as many of these applications are time consuming. Hopefully the University will be supportive of this endeavour.

Peer Esteem

Outputs typically provide new historical information, but sometimes lack a sufficient theory-building dimension. Other articles are rigorous and most of them conceptually clarifying. Not all provide substantial new knowledge about Asia.

From an academic point of view, it might not be a good idea to publish so much in edited volumes: they typically have a small circulation and the review process is rather weak.

Research Environment

The research environment at IICS seems unstructured. The newly-appointed staff appear to be involved in teaching and administration as much as more experienced staff. The Panel suggests that early

career staff are protected and given appropriate time and support to pursue and develop their career.

All members of IICS are research active, which is seen as an expression of the team spirit at IICS for which it should be commended.

Overall Research Activity and Performance

The overall level of research activity is good for a department that is two-years old, but the panel feels it is time to target more prestigious journals – so called A journals in social sciences. These journals will typically feature in appropriate citation indexes.

Issues

If IICS wishes to continue doing research in the social sciences, key data bases are needed and the space issue has to be solved.

Recommendations

It is recommended that consideration be given to:

- Fixed research time for the academic staff;
- the space issues brought up be considered by the University.

The potential of a very dynamic research environment at IICS exists, but it requires a physical framework, where the researchers can meet and discuss formally as well as informally. This will be even more important as the Institute develops and grows larger.

Overall Conclusion

To sum up, IICS is a very dynamic, small department with a lot of potential. With the rapid growth projected, the Panel recommends that a clear strategy for developing and sustaining activity be worked out.

IRISH INSTITUTE OF CHINESE STUDIES (IICS)

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		89%	89%
2.	Research Related Activities	Above average (4)	
3.	Funding	Excellent (5)	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		89%	89%

Overall Assessment: Level 4

Panel N

Department of History

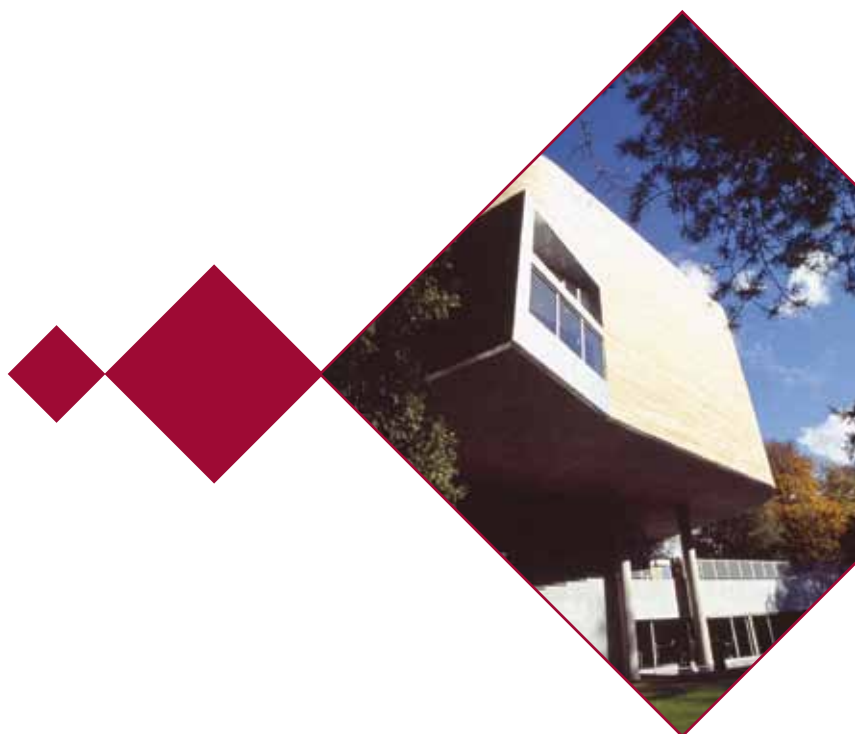
Discipline of History of Art

Department of Classics

Department of Philosophy

Roinn an Bhéaloidis – Folklore

Study of Religions



Panel Members

- Professor George Boyce, Department of Politics and Government, University College of Swansea, Wales
- Professor David Braund, Department of Classics & Ancient History, University of Exeter, UK
- Professor Nicholas Davey, Department of Philosophy, School of Humanities, University of Dundee, Scotland
- Professor Douglas Davies, Department of Theology and Religion, Durham University, UK
- Professor Martin Goodman, Professor of Jewish Studies, University of Oxford, UK
- Dr. Debbie Lewer, Department of History of Art, University of Glasgow, Scotland
- Dr. Martin Lovelace, Department of Folklore, Memorial University of Newfoundland, Canada
- Professor John Morrill (CHAIR), Department of History, Selwyn College, University of Cambridge, UK
- Emeritus Professor Dame Janet Nelson, Department of History, King's College London, UK

Site visit

The site visit was conducted over 3.5 days from 19 – 22 January 2009 and included visits to departmental and library facilities in UCC and meetings with:

- Professor Paul Giller, Deputy President, Registrar & Senior Vice-President Academic
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor Michael Berndt, Head, College of Medicine & Health
- Professor David Cox, Head, College of Arts, Celtic Studies & Social Sciences
- Mr. Brendan Cremen, Office of Technology Transfer
- Professor Stephen Fahy, Chair, Academic Council Research Committee

- Mr. John Fitzgerald, Librarian
- Professor Patrick Fitzpatrick, Head, College of Science, Engineering & Food Science
- Professor Alan Kelly, Dean, Graduate Studies
- Ms. Michelle Nelson, Head, Graduate Studies Office
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Professor Brian Bocking, Head, and staff of Study of Religions
- Professor Dermot Keogh, Head, and staff of Department of History
- Mr. Simon Knowles, nominee of Head, and staff of History of Art
- Professor Graham Parkes, Head, and staff of Department of Philosophy
- Dr. Stiofan Ó Cadhla, Head, and staff Department of Folklore & Ethnology
- Dr. David Woods, Head, and staff of Department of Classics

An exit presentation of the principal findings of the Panel was made to Heads of institutes/departments in the afternoon of the fourth day.

Introduction

This is a report in three sections

- A. Introduction and Narrative (A1-15)
- B. Matters for the College and Senior Management (B1-16)
- C. Departmental Reports (C1-C6 each in 8-12 paragraphs). A 'score-sheet' following the guidelines received by the Panel is attached to each Departmental report.

The Panel intends that from the beginning each Department should be shown Sections A, B, and their own report from Section C, with or without the scoresheet.

All members of Panel N have contributed to the writing of this report, and all have commented on earlier

recensions of the whole. All members unanimously approve of everything contained in it. It is hoped that the report reassures the University that much research of good quality is being published and to good effect; but the Panel also believes that there are a number of challenges (perhaps rather more top-down than bottom-up) that need to be faced up to if research quality, volume and impact are to be optimised.

Section A: Introduction and Narrative

A1. Panel N consisted of nine scholars from England, Scotland, Wales and Canada. There was an excellent spread of skills amongst them: some had extensive prior knowledge of UCC especially as externs to the Departments involved in this review, and some had extensive knowledge of the research culture in Ireland, both from service on IRCHSS committees and, in one case, from service on the HEA committee that reviewed PRTL I-III. Some members of the Panel had little or no such experience and brought the critical eye of newcomers to the system. Several members had extensive experience of the UK RAE, either from membership of panels or from managing Departmental and school submissions; others had served on AHRC panels (one had been on the Council itself and had served as Chair of its Research Committee) or had experience of evaluating research programmes for EU/EC funding bodies. One brought valuable transatlantic experience.

A2. Before arriving at Cork, members of the Panel had read more than 1,500 pages of material submitted by the six Departments covered by Panel N. They received six submissions of between 41 and 750 pages from those six Departments and also five Quality Improvement/Assessment reports with their follow-up documentation (these reviews were conducted between 2002 and 2004). The Department of the Study of Religions is too new to have been through the QI process. Members of the Panel had also spent

significant time reading the (up to) three key outputs identified to them by academic members of staff and they had gained a sense of the wider research activity of submitted members of staff.

A3. The Panel arrived in Cork on the evening of Monday 19 January and had an initial briefing that evening. It spent three full days in UCC from 20 to 22 January (beginning at 0830 and ending with a working supper). During those days a total of 29 hours was spent in engagement with the process. Members of the Panel met with all six Departments and, in each case, almost all those members of staff not on leave attended those meetings. In some cases graduate students also took part in these formal sessions. The Panel also had scheduled meetings with members of the Senior Management Team, with the Head of the College of Arts and with members of the Library staff. It also asked to see the Dean of the Graduate School.

A4. The Panel spent more than half of its time alone and deliberating. Members read such outputs as had not been available to them before arriving in Cork, and reread (in the light of the Departmental meetings) some outputs that had already been read. In all cases, more than one member of the Panel, including non-specialists, took part in the discussions that led to the formal grading of outputs – i.e. non-specialists listening to and confirming/challenging specialists' suggested grades. The whole Panel takes responsibility for the consistent application of grading. The members of the Panel also shared experience about the structures which enable and which inhibit the achievement and development of effective research cultures within Departments/schools (from the bottom up) and those which enable/inhibit effective research cultures at senior management level (from the top down).

- A5. The Panel concluded that it was essential to draw up this report in three parts, two looking at top-down issues that affect all Departments, one looking at the issues that are specific to each Department.
- A6. This was a complicated review because of the very different natures of the Departments reviewed. History has almost thirty permanent staff, all the others have fewer than ten and in most cases 4-6, but one, the Study of Religions, has only two. Some (e.g. History and Classics) are as old as UCC itself, others much younger (History of Art was established (within the Department of History) in 2001), the Study of Religions is entirely new and only three years old. It was also noted that all Departments (except for Study of Religions) had seen major changes of leadership in recent years, with the retirement or departure of their Heads or senior Professors (Medieval History, Philosophy, History of Art, Folklore, Classics) and in several cases the non-replacement of the Professors (Medieval History, History of Art, Folklore, Classics). In some cases this had serious consequences for the balance and effectiveness of the Departments and their ability to retain or develop established research foci.
- A7. The Panel would like to offer the following comments on the process as it was experienced.
- A8. The Panel commends UCC on the process it has undertaken and, in general, the way it has been structured. Although the material submitted to the Panel was uneven in quality and completeness, the process was designed to elicit the right kind of information for this kind of review.
- A9. The Panel is deeply grateful to all staff in the Quality Production Unit for the excellent arrangements (social as well as academic!). The members of the Panel were very well looked after and all reasonable requests for additional information or meetings were met.
- A10. The returns were uneven. The Panel was surprised that no attempt had been made to ensure that the Departmental submissions had been screened for consistency. It was frankly astonished that the Head of College had no knowledge of the contents of any of the returns. Some returns were especially defective on aspects of 'research culture' and most of the missing numbers in the Departmental reports in section C (as they point out at the appropriate places) result from this.
- A11. The Panel felt that the inclusion of the 2002-4 Quality Improvement reports and follow-ups was of great value.
- A12. While the Panel was happy to see graduate students (all fiercely loyal to their Departments) at the Departmental meetings, it would have welcomed the opportunity to have a private meeting with a number of graduate students to talk about their experience of the research culture of the institution.
- A13. From what it heard (for there was too little about it in the written submissions), the Panel came to believe that more could be done to monitor the progression of doctoral students. It is now routine in UK universities for all PhD students to have a second supervisor/assessor whose role is essentially a monitoring one, and for them to undergo formal (at least) annual reviews of progress.
- A14. The Panel had a most helpful meeting with the Dean of Graduate Studies and it considers that this should be scheduled into all Panel visits. It would have welcomed greater clarity in the paperwork about the inter-relation between the Graduate School and the Departments.
- A15. The Panel was concerned at the lack of evidence of the existence of strong links between Departmental research committees (where these existed) and the College. Their sense (to put it no more strongly) is that Departments do not effectively monitor the research plans

of individual scholars, and that College does not monitor the effectiveness of Departmental monitoring or even of Departmental research policy.

Section B: Matters for the College and Senior Management

- B1. The Panel took the view that the Departments reviewed contained many scholars with outstanding research potential but that the lack of a consistent research culture had prevented too many of these scholars from realising this potential to the full.
- B2. In general, the laudable plans of senior members of the University to encourage research seem to be inhibited by worrying failures of communication in both directions, and a serious vagueness about the way policy reviews are implemented and assessed.
- B3. In particular, the role of the College of Arts, Celtic Studies and Social Sciences in the encouragement of a research culture was insufficiently clear, and the expectation of senior officers of the University that the College would play a central role in this respect was not borne out either in the self-presentation of the Departments or in the Panel's discussion with the Head of College.
- B4. One effect of this lack of clear communication was the variable size and type of the items submitted by the Departments for review by the panel as research outputs. It was evident that no proper guidance had been given to Departments as to what would be deemed appropriate for submission as an output and no attempt had been made at College level to ensure that Departments submitted their most appropriate work for appraisal. The grading of some Departments may have been prejudiced as a result.
- B5. The Panel noted that, because there had not been a consistent culture which encouraged production of research at an international level in UCC during the period under review, it would be inappropriate to expect the same quantity of research as can be found in research universities elsewhere, and that in fact the total amount of output was low across most the departments reviewed.
- B6. The Panel therefore decided to base its judgement of research output not on the quantity but on the quality of the (three) key pieces of research submitted by each individual. The Panel would note that in all Departments known to them in the UK, decisions on what to submit for the RAE was taken out of the hands of individual scholars. Normal practice is for Departmental/school committees, often working with outsiders, to review the works nominated by individuals. A typical example from the recent RAE was a Department that asked individuals to submit a complete list of publications with rough rankings which were then scrutinised by the panel who sent suggested lists of four submissions (often changing the order) back to each scholar for discussion with the panel making the final decision. However the final decision was reserved for the departmental or school RAE panel.
- B7. The Panel judged these three key outputs per scholar rigorously to an international standard. (There was a partial exception to this in the case of Roinn an Bhéaloidis where [regrettably] there was no member of the panel competent to read work in Irish).
- B8. The Panel recommends that research output should be reviewed again in three or four years after staff have had sufficient time to prioritise research appropriately, and that mechanisms should be established to monitor the quantity and the international quality of research.
- B9. The Panel noted that many synergies for research were possible both within and across

Departments but that such synergies were not always currently articulated or encouraged. The Panel noted that promotion of such synergies between Departments might well be a role for the College, but that there was little sign of such a role in operation at present.

B10. The Panel noted a number of areas in which the funding reserves and personnel policies of the University did not sufficiently support research. In particular, the panel noted a widespread perception among many members of staff that there are deficiencies in the University's policies on sabbatical leave (which appear to penalise staff in small Departments) and on promotions (for which there appears to be no provision to offset to any extent excellence in research and graduate supervision against a diminution in undergraduate teaching). The Panel noted the lack of any policy to incentivise young and recently appointed staff to maximise their research output.

B11. The Panel was much impressed by the library and the enthusiasm of its staff, and believes that the library is a major research asset for the Departments under consideration. The Panel noted, however, that in certain areas the library stocks are seriously underdeveloped for research use; that current policies for the use of inter-library loan are detrimental to research in small Departments and may need reconsideration; and that liaison between the library and Departments needs to be further strengthened, clarified and publicised.

B12. The Panel also thinks it appropriate to draw out some more specific conclusions that focus on the interaction of the academic staff, and on the University's practices as they bear directly upon quality research support, and the Library.

B13. While the ball is and should be in the court of the Departments to introduce greater monitoring and encouragement of a research culture to create a more considered approach to when,

where and how each academic member of staff completes and disseminates her or his research, the Panel feels that there is much the College and the central bodies of the University can and should do to assist and facilitate the work of individuals and departments. The Panel saw no evidence of indolence, sloth or downright opposition to change; but it did witness a lot of incomprehension and suspicion of what lay behind this Quality Review initiative, and it invites the University to see that there is much they can do to assist and free up staff energies.

B14. The Panel notes some incoherence in arrangements for Sabbatical leave and career development. There appears to be confusion about the criteria for the granting of Sabbatical leave. The University needs to clarify its requirements for leave and to give clear explanation why, or why not, leave has been granted in particular cases. In the opinion of the Panel, this is something that can better be left to College or Departmental level as in almost all UK and North American HEIs. It seems to the Panel inappropriate that where a Department believes research leave is necessary or even desirable for the achievement of the research objectives of members of staff and believes that appropriate teaching arrangements are in place to cover for absence, a committee outside the Department and College can (and does) deny leave. The Panel was told (and could not get this confirmed) that leave was approved only for the completion of projections not for their development. If that is the case, the Panel assumes that a model appropriate to some disciplines is being imposed on all, and it thinks it unhelpful to UCC's aims to develop a strong research culture in the Humanities and Social Sciences disciplines. Clarity on these issues would help Departments manage their research plans more effectively. Staff should be offered guidance and support for career development. In particular, the criteria for promotion to the grade of Senior Lecturer should be reviewed in the light of the University's drive for quality research leadership. For example, there is

a widespread perception that if a scholar is given lighter teaching duties for a semester or year in order to complete a major research project, this would count against them in any application for promotion. This and other of the present requirements seem to be both rigid and contradictory.

B15 The University might consider whether its research funding regimes constructively support research. It should review what funding streams can be accessed and also the sums of money available to promote research and their allocation. For example, the Review Panel was concerned to hear that staff in small Departments could only take leave if the individuals concerned paid for the costs of replacement teaching. The Panel thinks that money should be made available for small Departments where staff cannot cover for one another's leave to ensure appropriate leave cover. This should, of course, in no way compromise the incentive for Departments to apply, collectively or individually, for national and international research funding. The issue of University financial support for foreign language courses for academic staff, in furtherance of their research work, should be addressed.

B16. The University must address the issue of how best to incentivise younger staff in commitment to research. This relates to the issues of financial support, career development and promotion discussed above, but more specifically to the need to strike an appropriate and fair balance between teaching and research. The teaching workloads of young or newly appointed staff should be carefully monitored (in many UK universities, some targeted teaching relief is often made available in the early years). It is of course important to arbitrate fairly between the interests of younger and long-serving staff; this should be done on the principle of encouraging and facilitating research of the highest quality.

B17. A library is the hub of a University's research support structure. UCC is fortunate in having a superb library building, and enthusiastic and expert staff. The Special Collections' premises and organisation are impressive. The recent acquisition of consortium-led access to journals and electronic publications has been a major positive development. The Review Panel offers some observations on how the Library's role might be further enhanced. Holdings are uneven: for example (and especially) those in the History of Art fall well below those necessary for a Department required to undertake research of international standard. The inter-library loan arrangements need to be reviewed. This is a costly facility, and one that must of course be assessed in the light of other pressing claims on the Library's resources, but it is a vital asset in research work, and the University should be aware of the implications of keeping it at its present level. Low levels of use and high costs to the individual have suppressed demand. The rapid spread of on-line resources will reduce the cost of a proper service but not eliminate it. In most research-intensive universities in the UK and North America, this service is generously funded for staff and postgraduates. It cannot be said often enough that libraries are to the Arts and Humanities as laboratories are to the hard sciences. Liaison between Departments and Subject Librarians could be further developed. The Library should continue to be vigilant in ensuring quick and regular delivery of copyright books.

SECTION C: DEPARTMENTAL REPORTS

C1 DEPARTMENT OF HISTORY

General points:

C1.1 Before arriving at Cork, panel members had read the designated outputs with the utmost care. In a number of cases, outputs were read by more than one panel member. In some cases outputs were re-read during the panel's visit. All were discussed by History specialists on the panel.

C1.2 Those panel members who visited the Department of History, and relevant parts of the Library, were in general very favourably impressed by what was seen and heard.

The Panel warmly commends the History Department's evident commitment to research-led teaching and its engagement in research nationally and internationally. It equally commends the Department's evident commitment to public engagement with wider communities and outreach at local and regional levels. The Panel recognises that tension can arise between these two sets of strong commitments and it appreciates that balancing them is not always easy: it does nevertheless think that some rebalancing is necessary so that the Department can play fully to its research strengths. The Panel thinks this is best achieved by a stronger Departmental research committee that works with each member of staff to plan and monitor research activity and outputs. Hitherto there has been no pressure to place monographs, essays and articles with higher-profiled and disseminated publishers. The Panel found a significant number of the outputs nominated by members of the Department as their best work had appeared in books and journals with very limited international visibility (it checked against international library catalogues). Many of the publications would have benefited from the kind of rigorous peer review available from major international publishers. Much of the very good or excellent work showed potential to have been raised by a notch in such an environment. Regular (annual?) guidance (not

mandation) at Departmental level (perhaps with occasional input from critical friends from outside Cork) about what to publish, and where to publish could and should make the work of this Department even more distinguished and better recognised internationally.

Specific headings:

C1.3 **Published output**

The Panel rated a clear majority of outputs at 'very good' or better, and some were rated of world-class standard. A minority were rated no more than adequate. As the Department itself is aware, several of its members entered no outputs at all, and a further three members entered fewer than the three assessable outputs sought: these shortfalls inevitably reduced the overall rating of the Department on the Panel's criteria. However, the Panel has learned that those without research outputs are (in consequence) on part-time contracts. These members of staff are excluded from the gradings of research outputs, but (under the rules given to us) have to be taken into account under the headings relating to peer esteem and research environment.

C1.4 **Post-graduate training**

The Panel rated this highly, noting much evidence of efficient and innovative post-graduate teaching and organisation.

C1.5 **Research-related activities**

The Panel considered these good, commending in particular the volume of papers read at conferences, conference-organisation, and publication of conference proceedings. Activities in these areas were clearly extensive. Nevertheless, the Panel considered that it could have been still more fruitful had it had more coherent direction at the level of the Department as a research unit.

C1.6 Funding

The Panel rated this highly. It was evident that members of the Department had successfully accessed a variety of funding streams. There was clear evidence of a growing confidence and achievement in this area.

C1.7 Peer Esteem

The picture here was patchy. Some Department-members were considered outstanding, while the majority were considered good or adequate. A minority did not attain the level of adequacy, however, and this last finding suggests a need for more vigorous monitoring, not least through regular staff appraisal, of research effort (but see C1.1). The Panel considered that such monitoring ought to operate both within the Department and also at College level.

C1.8 Research Environment

The Panel judged this good, but it considered that insufficiency of strategic and co-ordinated self-reflection within the Department had somewhat reduced potential strength in this area. At the same time, the Panel noted

with concern the Department's perception of institutional indifference.

Overall Assessment

Panel N is reluctant to give overall grades for reasons that are contained in the main body of the report. The Panel felt that failure to ensure full and consistent responses from departments over and above the full record of research outputs by members of staff – i.e. responses that would allow the Panel to evaluate research environment and research culture, and the rather different ways in which internal and external policies impacted on different departments – made the award of overall grades especially difficult. Panel N unanimously reiterate that its chosen criterion was to grade according to RAE-type standards. In the UK it has taken nearly twenty years to achieve optimum performance around those standards, with individuals being guided in their research activity and huge institutional investment in changing research environments away from seeing research as being 'fitted around' teaching. The Panel does not think that its overall grades are reliable guides to research 'capacity'. With all that in mind, and with an insistence that these grades should not be used for the purposes of any resource allocation within UCC, the following overall grades are offered in the table.

DEPARTMENT OF HISTORY

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		25%	68%
2.	Research Related Activities	3	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		12 %	52 %

Overall Assessment: Level 3>4

General Points

- C2.1 The discipline of History of Art is small and has been in existence for seven years. Assessment was on the basis of 4.4 staff, currently research active in History of Art.
- C2.2 The Panel was impressed by the commitment, aspiration and enthusiasm of the young staff. It particularly recognises and commends the pro-active approaches that have been taken to post-graduate teaching and the establishment of successful new courses. In the Panel's view, these programmes have considerable potential for ongoing development and as a basis for strengthening the research culture of the Unit.
- C2.3 It was noted that the strong initial momentum of the Unit, in terms of its international research activity, has slowed. In part, this was due to the loss of key staff, but the panel sees no reason why, with adequate support, this momentum might not be regained. On the basis of the submission and the visit to the Unit, the Panel is of the view that the History of Art team has good international potential in terms of research.
- C2.4 As is to be expected in view of the comparative youth of the Unit, much of this potential is still being realised. The Panel emphasises that the research activity of staff will need encouragement and practical support over the coming years if it is to yield significant international research output. The Panel were concerned by some of the difficult conditions (including specifically accommodation, library support and provision, and sabbatical leave policies) under which staff and research students work.
- C2.5 The Panel noted with regret that arrangements for its visit to the unit were inadequate – the lack of a fitting meeting space, disruption to the meeting and the absence of the head of department for the second half of the visit meant that not all questions could be addressed as thoroughly as the Panel would have hoped.

Specific Points:

C2.6 **Published output**

Published output was read, assessed and compared by a number of panel members. Assessment was based on the three best outputs by staff. In some cases, staff did not have three assessable outputs, but legitimate reasons for this were recognised (one member of staff is on a 0.4 contract, another is a very new appointment at a very early career stage). On the basis of the outputs assessed, all were judged to be at least adequate, with a strong proportion very good, some excellent and a small proportion of world-leading status.

C2.7 **Postgraduate Training**

The unit submission contained only sparse information about postgraduate training, so it was not possible for the panel to form as full a picture of this as it would have liked. Nonetheless, it is clear that the Unit has attracted an impressive number of research students. It noted that current supervision of PhDs is not evenly spread among staff and recommends that PhD supervision in a wider subject range is developed. The growth of taught MA courses was recognised as a particular strength. Anecdotal evidence that postgraduate students are required to pay for foreign-language training was, however, a cause for concern. The Panel recommends that the policy regarding the acquisition of language skills for research be reviewed and improved.

C2.8 **Research-related activities**

These were assessed as adequate, but in need of improvement and development. Past research-related activities (such as the hosting of a programme of international speakers and events) were extensive, but this activity has diminished in recent years. Nonetheless, staff are active on an individual basis. Most are working well given the constraints of their circum-

stances and limitations on their opportunities for wider activity. Greater international activity should be encouraged.

C2.9 **Research Funding**

The acquisition of external funding could be improved. The Panel recognised that strong, funded research work is being carried out in the unit, but in assessing the unit as a whole, the level of funding was considered no more than adequate.

C2.10 **Peer Esteem**

In accordance with points made above, it was noted that evidence of peer esteem was clearer in previous years than at present. Nonetheless, there are some individual indicators of very good and excellent peer esteem. Given the early and mid-career status of most staff, it is hoped and anticipated that peer esteem of the unit will grow in the coming years.

C2.11 **Research Environment**

The research environment was the cause for greatest concern for the panel. Compared with other Departments and institutions internationally, the panel considered the research environment inadequate. The main factors that are failing to support and are even inhibiting the production of high-quality research are the inadequate library holdings in History of Art, and the severe and counterproductive limits on staff and research students' to access inter-library loans. Adequate access to research materials is all the more vital given the poor subject-holdings at UCC and Cork's geographical distance from major research libraries. It was noted that the unit's programme of visiting speakers is limited. The Panel recommends that the unit and University explore collaborative possibilities (with e.g. other Departments and the Glucksmann Gallery)

to enhance such activities and to enable more visits from international scholars in the field of History of Art. Sabbatical leave policies were also identified as a factor inhibiting a significant and sustained research output. Given the considerable research potential of the unit, measures to remedy these poor conditions are strongly recommended.

Overall Assessment

Panel N is reluctant to give overall grades for reasons that are contained in the main body of the report. The Panel felt that failure to ensure full and consistent responses from departments over and above the full record of research outputs by members of staff – i.e. responses that would allow the Panel to evaluate research environment and research culture, and the rather different ways in which internal and external policies impacted on different departments – made the award of overall grades especially difficult. Panel N unanimously reiterate that their chosen criterion was to grade according to RAE-type standards. In the UK it has taken nearly twenty years to achieve optimum performance around those standards, with individuals being guided in their research activity and huge institutional investment in changing research environments away from seeing research as being 'fitted around' teaching. The Panel does not think that its overall grades are reliable guides to research 'capacity'. With all that in mind, and with an insistence that these grades should not be used for the purposes of any resource allocation within UCC, we offer the overall grades in the following table.

HISTORY OF ART

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		36%	72%
2.	Research Related Activities	2	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		60%	80%

Overall Assessment: Level 3

- C3.1 The University should clarify the future of this unit, whose numbers have been allowed to dwindle in recent years through the non-replacement of departing and retiring staff. The three permanent staff now in place (with one temporary appointment) continue to maintain a clear and laudable commitment to high-quality research of international significance, despite substantial teaching loads. The unit as presently constituted offers clear scope for significant synergies with other Departments across UCC.
- C3.2 Neo-Latin in particular offers a major research opportunity, which UCC should consider very carefully with a view to targeted investment. While other research topics should continue to be pursued within the Department, it is Neo-Latin which has the greatest potential for research development, building on an impressive record of external funding, postgraduate activity and substantial publication (especially under the aegis of the respected European publisher, Brepols). Among the Departments considered by this review, there is already an important synergy with History (although this may have been put at risk by recent retirements and non-replacements). The Panel notes also the major research resource won for the Library in 2004 in connection with this activity (Transmissions & Transformations: 450,000 euros, jointly with History and English).
- C3.3 The possibility that Classics might be associated formally in a Centre for Medieval Studies was given close consideration. However, the Panel was not convinced that such a Centre would be advantageous either to the Department or to the Humanities as a whole.
- C3.4 **Published Outputs.**
- These judgments are based wholly upon the work of the three permanent staff currently in post. The work of the recently-retired staff member, which was also submitted, is not included in these figures. The work of a young scholar on a temporary contract was treated in the same way. It shows real promise, but needs further development. The Panel draws attention to the high ratings given to most of the research of the Department, which represents important achievement at international level.
- C3.4 **Postgraduate training**
- While aware of appropriate training, the panel saw no documentation on this and so offer no grading.
- C3.5 **Research-related activities**
- The Department is heavily committed to international and interdisciplinary research, including international conferences held at UCC and full engagement with the European scholarly world. The International Latin Summer School is important to these links and should be encouraged, with its surplus unfrozen for investment in acquisition of research materials as in the past
- C3.6 **Research funding**
- This has been very healthy and promises to continue, given UCC support.
- C3.7 **Peer esteem**
- The Department has been notably successful in making a name for itself in Neo-Latin and other interdisciplinary niches.
- C3.8 **Research environment**
- The Summer School should be supported energetically. The Library now constitutes a fine resource.

Overall Assessment

Panel N is reluctant to give overall grades for reasons that are contained in the main body of the report. The Panel felt that failure to ensure full and consistent responses from departments over and above the full record of research outputs by members of staff – i.e. responses that would allow the Panel to evaluate research environment and research culture, and the rather different ways in which internal and external policies impacted on different departments – made the award of overall grades especially difficult. Panel N unanimously reiterate that its chosen criterion was to grade according to RAE-type standards. In the UK it has taken nearly twenty years to achieve optimum performance around those standards, with individuals

being guided in their research activity and huge institutional investment in changing research environments away from seeing research as being ‘fitted around’ teaching. The Panel does not think that its overall grades are reliable guides to research ‘capacity’. With all that in mind, and with an insistence that these grades should not be used for the purposes of any resource allocation within UCC, the Panel offers the grades in the following table.

Note added after finalisation of report

Appendix B contains some brief comments made by the Panel in response to commentary from the Department of Classics. The Panel requested this be appended to the report.

DEPARTMENT OF CLASSICS

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		78%	78%
2.	Research Related Activities	4	
3.	Funding	4	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		34%	100%

Overall Assessment: Level 4>3

General Observations

C4.1 Although a long-established Department, the Philosophy team has recently experienced considerable changes: the retirement of long standing members of senior staff, the major university-wide restructuring initiatives and the appointment of two new staff one of whom is now Head of Department. The unit is for the most part a young, motivated one in the process of reconstruction. Under new and focussed leadership, there is a clear chance of achieving a world-leading status in the innovative area of comparative Philosophy and most certainly international performance in other key areas of continental Philosophy and aesthetics. A clear challenge for the Department will be the formation of a coherent and unifying Departmental research policy which will, at the same time, invest time and effort in targeting areas of likely success and nurturing the research of early career lecturers whose interests do not necessarily fall within the main grouping.

Specific Headings:

C4.2 Research Evaluation

The Panel applied exactly the same criteria in the assessment of research outputs as those deployed by the British RAE Panels. This immediately restricted the type of output evaluated: book reviews, translations of standard texts without a very substantial scholarly commentary, teaching material though innovative, editions of essays edited by a Department member without a contributing essay from that member, short introductory essays to collections in which the distinct contribution of the submitted staff member could not be discerned, and PhD manuscripts, were all discounted. This led to 20% of the Department's output being judged as non-permissible in RAE terms. UCC requested the visiting panel to judge its Departments' research according to interna-

tional standards and this it did. The resultant judgement is not intended to be harsh but to assist both the Department and the University towards the pressing need to focus clearly on what is properly defined as a legitimate research output (monographs, collaborative books, innovative essay collections, learned articles in peer-reviewed journals, etc) in order to deploy its funded research time towards achieving properly understood and, it is to be hoped, profitable ends.

C4.3 Published Outputs

The Review Panel noted that 7 members of staff submitted a total of 20 items for review. The Panel adjudged the outputs to attain the following research gradings. The rationale for grading a clear proportion at 0 is explained above. Both the Department and the University should agree on an internationally recognised definition of research outputs. It must be noted that this grading does not reflect the Department's more likely grading. World-class work of one new member of the team was known to the Panel but because of a lack of clarity concerning definitions of research output by UCC, this work was not submitted.

C4.4 Post-Graduate Training

No grading can be given: the Department's report gives no evidence of its own procedures or of its relationship with the Graduate School. The Panel noted that the unit has in the past nurtured a known supportive climate for a limited postgraduate community and has a commendable plan to expand Philosophy postgraduate activity.

C4.5 Research-Related Activities

The Department has an impressive level of international involvement with scholars world-wide and should contemplate utilising that involvement explicitly in Cork.

C4.6 **Research Funding**

Performance in this area is low. There are small signs of a nascent culture of grant application which should be much further developed. It would be excellent if the unit could undertake a campaign for applications, in particular to secure the advantages of professional advancement, over-head income, staff expansion and teaching relief. If UCC does not set targets for such income, the Department should set its own targets.

C4.7 **Peer Esteem**

The Department achieved a good range of gradings, given the wide profile of the staff, their career stages and expertise.

C4.8 **Research Environment**

The inherited ad hoc provisions for the discussion of papers and policy direction amongst staff are excellent and should be made a proper part of its strategic self-reflection. There is a commendable culture of self-help in the Department which should be built on specifically with regard to research development. A clear work-load module might be developed so that the whole team can understand its mutual investment in teaching and research. There is plain evidence of workshops and visiting speaker programmes. The Department might consider more inter-disciplinary research projects to extend its research mass and to widen the experience of both staff and students. All staff in the Department should be fully acquainted with all appropriate research procedures across the University and where inadequacies exist, lobby internally and externally to remedy them.

C4.9. **Conclusion**

This is a fine and potentially healthy research Department. It has a substantial base to build on and is already exemplary in its international

outlook. Focussed planning, clear strategic directions, inter-disciplinary cooperation, careful teaching and good time- and resource-management should see this young team develop into one of the most effective Philosophy Departments in Éire.

Overall Assessment

Panel N is reluctant to give overall grades for reasons that are contained in the main body of the report. The Panel felt that failure to ensure full and consistent responses from departments over and above the full record of research outputs by members of staff – i.e. responses that would allow the Panel to evaluate research environment and research culture, and the rather different ways in which internal and external policies impacted on different departments – made the award of overall grades especially difficult. Panel N unanimously reiterates that its chosen criterion was to grade according to RAE-type standards. In the UK it has taken nearly twenty years to achieve optimum performance around those standards, with individuals being guided in their research activity and huge institutional investment in changing research environments away from seeing research as being ‘fitted around’ teaching. The Panel does not think that its overall grades are reliable guides to research ‘capacity’. With all that in mind, and with an insistence that these grades should not be used for the purposes of any resource allocation within UCC, the Panel offers the overall grades in the following table.

DEPARTMENT OF PHILOSOPHY

Quality Profile¹

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		10%	57%
2.	Research Related Activities	4	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		28%	85%

Overall Assessment: Level 3

¹ The research evaluated did not fully include all the research output of the newly appointed Professor of Philosophy

C5. ROINN AN BHÉALOIDIS (FOLKLORE AND ETHNOLOGY)

C5.1 Published output.

The Panel was impressed by the obvious cohesion of this Department and it recognized that the Department clearly saw their work as a collective achievement. Collaborative working as practised in this Department is to be commended.

C5.2 Assessment was somewhat complicated by the inclusion of work by part-time staff, a doctoral student who also does some teaching, a member who retired during the assessment period, and one member who has been on leave for two years.

C5.3 A high proportion of research published by members of this Department is in Irish which the panel was not equipped to assess. Staff members were cognizant of the difficulty this presented in the academic “bench-marking” of their work but felt that the responsibility to publish in Irish outweighed personal advantage. In some parts of Europe (e.g. Scandinavia) research grants are made conditional on publication in English or German. For example the international peer review of applicants for places at the Collegium of Advanced Study in Helsinki can only submit work in those languages. This includes applicants in the area of Folklore and Ethnology. If UCC wishes to follow ‘best European practice’ it would have to encourage such practice. The custom in Wales is to support dual-language publication. Major publications from the Centre of Advanced Celtic Studies at Aberystwyth are published in Welsh first and a year later (with a Welsh Assembly grant) in English. So there are many models. But wherever international peer review and evidence of international impact are seen as a measure of distinction, Irish-only publication would be seen as being at a disadvantage. The Panel neither endorses nor discourages this view and is mindful of the very different historical and cultural reasons for privileging within Ireland the Irish language in research publication. On this occasion, it

was unable to grade any of the work submitted in Irish.

C5.4 All this made it difficult to reduce a complex and varying situation to numerical scores. Clearly, however, all staff in the Department are active researchers with publication records which range from adequate to excellent.

C5.5 The assessment of the quality of research outputs in Béaloideas presented additional specific problems for the Panel. This was due to the fact that, in addition to creating standard monographs, essays and journal articles, the Department has also taken advantage of new media for the dissemination of their research, including a website on traditional song, CDs, radio programmes, films, exhibitions, and a searchable database. Given the subject matter of Folklore studies: oral literature in performance, custom, traditional crafts, and many other fields, this embrace of new media is essential. Comparison with the research outputs of Folklore Departments in North America, Scotland, and the rest of Europe, would show that publication in new media is well accepted, and indeed is expected.

C5.6 In the light of all the foregoing, the Panel assessed twelve outputs submitted to them. It felt all but one reached at least an adequate standard, and demonstrated significance; that a clear majority of the outputs were of very good standard demonstrating significance to the discipline, and that some – but less than a third – can be called of excellent quality in originality, significance and rigour.

C5.7 Postgraduate training

The Panel’s opinion is that this was not adequately reported for it to render a full opinion, but that nevertheless some points deserve mention. Since 2003, eight M.A./M.Phil. degrees have been conferred; nine Ph.D. students are in progress. Given the small number of full-time staff, this reflects a substantial work-load.

A distinct achievement of the Department is its post-graduate journal *Beascna*. This is an excellent initiative, giving training in academic editing and journal production, and it speaks well of the enthusiastic attitude of students in the programme, and of the level of mentoring provided by their teachers. The Panel examined the copy provided and found that it contained work of professional academic standard. Once more, there is a tension between publication of outputs in a worthwhile local journal (with low visibility and unchallenging peer review) cuts against publication in internationally recognised and competitive journals leading to limited challenge and impact.

C5.8 **Research-related activities**

The Panel considered that at present the Department's research activities were adequate but capable of improvement. This judgment, however, depends on assessment of the more conventional forms of research being conducted in the unit. A very strong component of this Department's sense of its own mission is contained in its perceived obligation to "give back" to the community which provides the knowledge, *béaloidéas*, that is the subject of its research. The principal embodiment of this mission is the Northside Folklore Project. This is a highly original and socially responsible example of a university's outreach to the public who help to sustain it. Through participation in Ethnographic information-gathering, unemployed people have gained new skills, especially with computers and other media, helping them with re-entry into the workforce. The concept of "public Folklore", in which experts in Folklore place themselves at the service of communities, helping them with projects which materially improve their lives, rather than in any sense exploiting them as "raw material" for disinterested academic study, is the current face of Folklore studies in North America where, for example, more

than half of the membership of the American Folklore Society, the leading professional body, are employed as public and applied Folklorists in heritage organizations, government agencies, and private companies. The teaching of skills and theories underlying public Folklore are an expected element in post-graduate education in U.S. and Canadian Folklore programmes and Cork's Northside Folklore Project is on the leading edge of this development. While the admissibility of this kind of activity as "research" posed questions for the majority of the Panel a minority opinion would argue to the contrary. The Panel did recognize the importance of university outreach to the community, and praised the Department's work in this regard.

C5.9. **Funding**

The Panel rated this as adequate. It was apparent that the Northside Folklore Project has been diligent and creative in sustaining its activities from a variety of sources external to the University. The Department has also been receiving substantial external support for its CD-ROM, *An Léann Dúchais Leictreonach*, a valuable teaching resource for Irish Folklore studies. It is not clear that these awards were made through a rigorous peer review (and academic) process. There was no evidence of successful bidding for Research Council funding.

C5.10 **Peer esteem**

The Panel rated this as ranging from adequate to excellent. Two of the senior members of the Department have won major book prizes for their works, and a recently appointed younger member has taken part in several international teaching and research exchanges. A great deal of the energies of the member most associated with the Northside Folklore Project have been taken up with this very time-consuming activity; nevertheless

the staff member does enjoy an international reputation as an experienced public Folklorist in addition to work as an academic Folklorist.

C5.11 Research environment

The Panel felt there was inadequate information on this to allow for grading, but noted the strong mutual support which staff-members were obviously providing to each other, and that the post-graduate journal *Beascna* was a real strength. When questioned as to what would most improve their situation as a research unit, Department representatives answered: the provision of an archivist/technician. Given that the organization, storage, and retrieval of primary research data in Folklore and ethnology creates distinct problems not found in most other disciplines, this response is entirely understandable. Much of the work of digitization is currently being done out of good-will by staff but this obviously takes up time which could be freed up for scholarly research.

Overall Assessment

Panel N is reluctant to give overall grades for reasons that are contained in the main body of the report. The Panel felt that failure to ensure full and consistent responses from departments over and above the full record of research outputs by members of staff – i.e. responses that would allow the Panel to evaluate research environment and research culture, and the rather different ways in which internal and external policies impacted on different departments – made the award of overall grades especially difficult. Panel N unanimously reiterates that its chosen criterion was to grade according to RAE-type standards. In the UK it has taken nearly twenty years to achieve optimum performance around those standards, with individuals being guided in their research activity and huge institutional investment in changing research environments away from seeing research as being ‘fitted around’ teaching. The Panel does not think that its overall grades are reliable guides to research ‘capacity’. With all that in mind, and with an insistence that these grades should not be used for the purposes of any resource allocation within UCC, the Panel offers the grades in the following table.

ROINN AN BHÉALOÍDIS – FOLKLORE & ETHNOLOGY

Quality Profile

	Metric	Level	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		22%	53%
2.	Research Related Activities	2	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		25%	50%

Overall Assessment: Level 2>3

C6.1 Comments on this Study of Religions Department are, properly, qualified by the fact that it originated with fixed-term appointments of individuals in 2006 and 2007 leading to the two permanent appointments, of different individuals, from January 2008 and September 2008 who were the sole personnel in post at the time of the assessment. This time-frame inevitably meant that much material in the documentation consisted in descriptions of the present and of anticipated plans for the future and not in accounts of past performance.

C6.2 **Published Outputs**

A focus on this material made it evident that, in terms of the publication of the two current staff members, all was of a very good standard, much was excellent, and some was of world-leading quality.

C6.3 **Postgraduate training**

As far as postgraduate activity was concerned, there was nothing to report at this stage.

C6.4 **Research-related activity**

Already a fine picture was emerging as far as research-related activity is concerned, in that a major research award had very recently been gained to study forms of Islam in Ireland. This is important because it inaugurates the unit's strategic plan to work on religious phenomena in Ireland that also bear a relevance to global issues, and because it reflects from the very beginning a commitment to seek out research funding. This grant will also facilitate the academic career development of the new lecturer at a very early point in his work. Furthermore, this grant offers prospects for future developments along similar and allied thematic lines.

C6.5 **Peer esteem**

As for peer-esteem, this also has excellent potential for the future. The new professor comes not only with extensive experience of teaching, research, and academic management in different kinds of universities in Scotland and England but also with an extremely strong reputation for work in both theoretical aspects of the Study of Religion and in the focused study of Japanese religious-cultural contexts.

C6.6 While these considerations make it clear that the Study of Religions is a promising innovation within the UCC College of Arts, Celtic Studies & Social Sciences, the Panel is concerned that this unit stands at a potentially vulnerable stage within its early development. The hope and expectation of the Panel is that it will be enabled by the University to fulfil its promise. The Panel expresses some apprehension over such funding issues and seriously hopes that financial problems will not inhibit the current strategic vision of creating an appropriately integrated Department.

C6.7 **Research environment**

In terms of research environment, there is a huge opportunity for the future in this field of study, with potential for global and local interests to develop and cohere. This would be greatly enhanced through synergies with adjacent disciplines within UCC and the panel hopes that these opportunities will be fully exploited. The areas of Philosophy, Folklore and Ethnology, and the Social Sciences all present obvious avenues of exploration that would be valuable in and of themselves whilst also fostering an attitude of collaborative research within UCC.

C6.8 The Research Strategy sections of the Quality Review Submission Form seem eminently incisive on both the strengths and weaknesses of the current situation, and once

more the panel's attitude is entirely supportive of the planned schema for a rounded Departmental growth, always assuming that the commitment that UCC demonstrated in initiating this innovative development can be sustained in terms of basic economic resource.

Overall Assessment

Panel N is reluctant to give overall grades for reasons that are contained in the main body of the report. The Panel felt that failure to ensure full and consistent responses from departments over and above the full record of research outputs by members of staff – i.e. responses that would allow the Panel to evaluate research environment and research culture, and the rather different ways in which internal and external policies impacted on different departments – made the award of overall grades especially difficult. Panel

N unanimously reiterates that its chosen criterion was to grade according to RAE-type standards. In the UK it has taken nearly twenty years to achieve optimum performance around those standards, with individuals being guided in their research activity and huge institutional investment in changing research environments away from seeing research as being 'fitted around' teaching. The Panel does not think that its overall grades are reliable guides to research 'capacity'. With all that in mind, and with an insistence that these grades should not be used for the purposes of any resource allocation within UCC, the Panel offers the grades in the following table.

Overall Assessment:

The Panel was of the opinion that it is too early in the life of this unit for any overall grade to be possible.

STUDY OF RELIGIONS

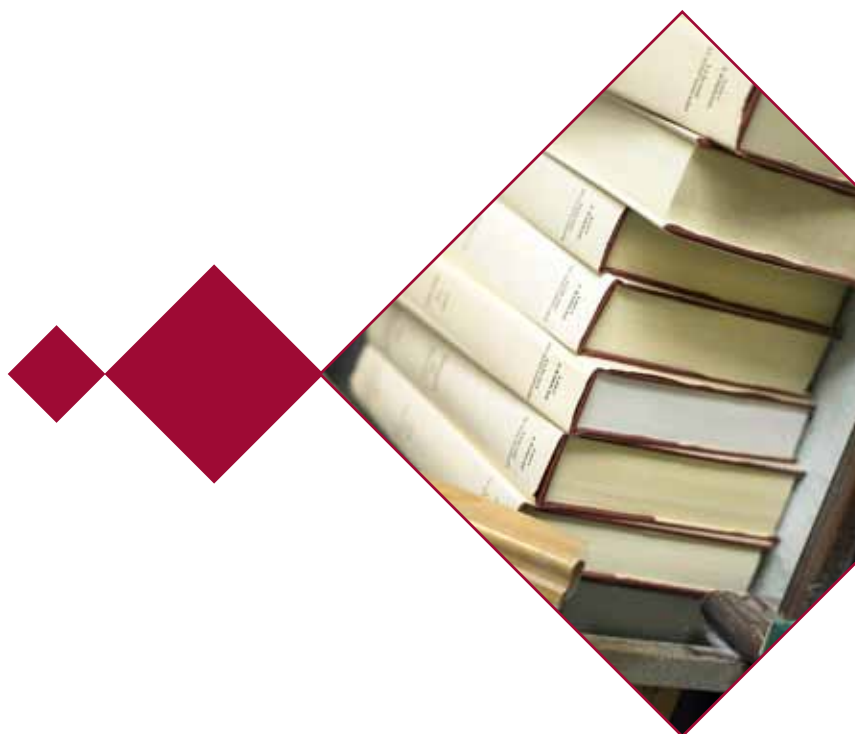
Quality Profile²

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		67%	100%
2.	Research Related Activities	N/A	
3.	Funding	4/5 Outstanding start	
4.	Peer Esteem	Only 2 staff	

² The Panel considered that, given the recency of the establishment of Study of Religions, an overall score could not be awarded.

Panel O

Department of Music
Drama & Theatre Studies



Panel Members

- Professor Jeanice Brooks, Professor of Music, University of Southampton, UK
- Professor Stephen Bottoms, Professor of Drama and Theatre Studies, University of Leeds, UK
- Professor Maria Delgado (CHAIR), Drama & Theatre Studies, Queen Mary College, University of London, UK
- Professor Christopher Fox, Department of Music, Brunel University, UK
- Professor James Kippen, Faculty of Music, University of Toronto, Canada
- Professor Ian Watson, Chair of the Department of Visual and Performing Arts, Rutgers University-Newark, USA

Site visit

The site visit was conducted over 3.5 days from 21 – 24 April 2009 and included visits to departmental and library facilities in UCC and meetings with:

- Dr. Michael Murphy, President
- Mr. Diarmuid Collins, Bursar
- Professor Peter Kennedy, Vice-President for Research Policy & Support
- Professor David Cox, Head, College of Arts, Celtic Studies & Social Sciences
- Professor Stephen Fahy, Chair, Academic Council Research Committee
- Mr. John Fitzgerald, Librarian
- Professor Alan Kelly, Dean, Graduate Studies
- Mr. Mark Poland, Director, Office of Buildings and Estates
- Dr. Norma Ryan, Director, Quality Promotion Unit
- Dr. Ger Fitzgibbon, Head, and staff of Drama & Theatre Studies
- Dr. Paul Everett, Head, and staff of Department of Music

An exit presentation of the principal findings of the Panel was made to Heads of departments in the afternoon of the fourth day.

Introduction: scope and context of this review

The Panel has found research of internationally excellent standard, and some world-leading outputs, in both subject areas under assessment by this review. Furthermore, there is significant potential for the development of research activity, in both subject areas, around coherent research foci that build on existing strengths. The Panel recommends that UCC takes all appropriate steps to nurture and develop research in these areas, including the provision of targeted funding.

The Panel considers that the disciplines under review have made considerable steps in fostering their research cultures during the assessment period, and realises that both the institution as a whole and the disciplines concerned face challenges in maintaining this trajectory in a climate of financial constraint and insecurity. At present, there appears to be something of a gap in communication and mutual understanding between UCC's senior management and the disciplinary units under review. It is imperative that these problems be addressed, and that more transparent procedures be developed, in order for the institution to effectively realise its full potential in these subject areas.

This expert review has been informed by the following means:

- The Panel studied, prior to arrival in Cork, the Guidelines for Research Quality Review (RQR); the RQR Submission Forms and Appendices both for Music and for Drama and Theatre Studies; the Peer Review Group Reports for both subject areas.
- Both prior to arrival, and on site, the members of the Panel scrutinised, discussed and assessed research outputs submitted for review.
- The Panel met with the President of UCC, the Vice-President for Research Policy and Support, the Director of the Quality Promotion Unit, the current and prior Chairs of the Academic Council Research Committee, the UCC Librarian and the Arts and Multimedia subject librarian, the Dean

of Graduate Studies, the Head of the College of Arts, Celtic Studies and Social Sciences, and the Director of Buildings and Estates.

- The Panel had scheduled meetings with the Board of Drama and Theatre Studies and the Department of Music.
- The Panel met with graduate students from both subject areas.
- The Panel toured relevant facilities for both subject areas, including library facilities.
- The Panel examined documents including the UCC Research Performance overview for 2002-07 (comparing UCC's performance with its main competitors), Peer Review group reports for both disciplines, and the Departmental Materials Budget Allocations for 2008-09 (for both Drama and Music).

All panel members have contributed to the authorship of this review and take responsibility for the comments and gradings presented.

While the Panel has presented individual reports for each unit being assessed, there are common findings for UCC's senior management and the College (CACSSS) to address in both areas.

The Panel would like to commend UCC and its disciplinary units for undertaking this process of self-assessment as a means of informing and developing research planning and strategy. However, the Panel would like to propose that a process of consultation, involving all relevant parties, be initiated in order to develop appropriate frameworks for any future research quality assessment. This process might include:

- Clearer guidelines or parameters for the development and support of research in its widest forms, in accordance with UCC's stated definition of research. This may involve the construction of a template for practice-based research outputs that would allow for the framing of research questions, the articulation of research findings, and the collection of relevant documentation through research portfolios.

- Clearer guidance to departments/units on the appropriate management of output selection for review. This would include, for the sake of equal opportunities, criteria for appropriately-scaled reductions in the numbers of outputs expected of early career researchers and fractional appointments. Also, due consideration should be given to the status of MA, MPhil and PhD theses, which would not be considered as appropriate for submission in comparable research exercises elsewhere.
- Clearer guidance to departments/units on the presentation of collective research strategies (rather than individual researchers' strategies), within clearly formulated templates and word limits.

Quality Profile

Published Output

The Panel noted that UCC is in transition from a teaching-intensive institution to one developing and articulating a research agenda – a significant shift for instruction-orientated disciplines such as Music. This, coupled with the large number of early career researchers, is appropriately reflected in the total quantity of the outputs listed in the submission. The Panel's numerical gradings of output quality levels relate to the three, self-selected outputs chosen by each researcher reviewed. For the most part, these selections appear to have been judiciously chosen from the overall profiles of work. However, in some cases, the self-selection procedures did not necessarily locate the three items for each researcher that best embodied significance, originality and rigour. In future, such decisions might better be arrived at through consultation with a subject-specific research committee, and care should be taken to ensure that nominated outputs meet the criteria for research as currently outlined in Appendix A of the RQR guidelines.

In Music, the Panel considered 36 of the outputs nominated for assessment. For early-career researchers, the Panel selected for consideration a proportion of the three nominated outputs per staff member, based on the date of entry to academic employment and/or completion of the PhD. The Panel elected not to consider outputs from one researcher no longer in post, for whom some outputs were not available on request; this individual was subtracted from the total FTE staff numbers. One researcher, who was appointed by the census date but did not formally take up her appointment until she completed a prestigious external fellowship, has been included in the Panel's consideration and the total FTE staff. The Panel noted the appearance of several important outputs in the period since the census date, either recently in print or scheduled for 2009 publication or dissemination – a sign of continued research productivity.

Research in Music at UCC covers a broad range, including outputs in composition, musicology and ethnomusicology, and performance. The Panel consid-

ered traditional text-based outputs as well as outputs in other media in each of these areas, and scrutinized a considerable amount of practice-led research. Each area shows a range of achievement, with an encouraging proportion of internationally excellent or world-leading work in all of the music research domains in which the department is active (42% of assessed outputs at levels 4 or 5).

Work in composition embraces several different genres, including both theatre and concert music, some involving conventional acoustic resources and some employing innovative digital technologies. Research in musicology shows a healthy blend of established methodologies and newer critical tools, with several members of staff engaging productively with major debates in the discipline. The department has taken steps to enhance its research in ethnomusicology with highly promising results, and the panel encourages the department to consider how ethnomusicological perspectives can aid in developing its capacity in practice-led research in traditional music. The Panel noted a lack of clarity over the research content of performance outputs, some of which might better be considered to fall into the domain of professional practice or pedagogy. Practice-led research in performance is still an emerging field in Irish higher education, and the Department of Music is in an excellent position to shape the national discussion once it has developed its own coherent research strategy in this area.

Postgraduate Support and Training

The Panel notes UCC's ambition to double postgraduate research student numbers by 2013 (from a 2003 base). However, national funding structures explicitly exclude scholarship applications by prospective students wishing to work in the practice-based research areas of performance and composition – which are among the current growth areas internationally.

The Panel encourages the development of clearer guidelines for postgraduate supervision. These might include: annual reviews of progress; documentation of supervision meetings; guidance on appropriate timescales for the handing back of written work with comments.

In Music, the Panel noted the healthy increase in postgraduate numbers resulting from the establishment of new MA programmes and the investment of income generated by undergraduate teaching (JYA) in research studentships. The absence of external funding programmes for critical areas of music postgraduate research, especially in practice-led domains, means that the Department should be supported in these initiatives, which fit well with institutional aspirations for a larger postgraduate community. The Panel noted with concern that there are apparently plans to remove JYA income generated by the Department of Music from its control. This will eliminate a highly effective tool for enhancing postgraduate research culture and will hamper Music's ability to realise postgraduate research strategy. The Panel also noted that any reduction of part-time teaching budgets is likely to have an adverse effect on both recruitment and training, reducing the opportunities for employment within the department for postgraduate research students.

The Panel noted that the relatively large number of early career members of staff, whose research profiles and ability to attract postgraduate students are still in an early phase, is likely to affect plans for increased postgraduate recruitment. Development of institutional support structures for research supervisors is especially important for these staff members. Retention, development and promotion of early-career researchers will be essential to maintaining and accelerating the growth in research student numbers the department has achieved to date.

Research Related Activities

Members of staff in Music pursue research-related activities in their principal areas of research, but also work in adjacent domains; there is productive engagement by musicologists and composers with performance, for example. Several members of staff participate in international research networks, at times in a leadership capacity. Members of staff have organized conferences within the assessment period that have attracted prestigious international participants, and maintain a good presence in international conference circles, although cuts to support for conference

attendance may have an adverse effect on their ability to continue this activity. Research by staff members informs their engagement with music festivals, concerts and opera production, principally at a national level but with some high-profile international activity. Musicologists have taken a particularly proactive role in new disciplinary bodies, having been instrumental in the establishment of an independent Society for Musicology in Ireland (formerly a chapter of the UK's Royal Musical Association, with which it continues to enjoy close links), including the editorship of its journal. Musicologist members of staff are also involved with prestigious international publication venues as advisors or members of editorial boards.

Funding

Music has enjoyed some success in winning nationally funded postgraduate studentships and also gained funding for a postdoctoral fellowship, but it is important to note that the main national fund for postgraduate studentships is not open to students working in either composition or performance, both areas of strength for Music at UCC. Institutional support for lobbying for change in this policy would be a valuable initiative.

There have also been a number of successful bids to other national sources of funding for individual projects, particularly from the Arts Council of Ireland for work in performance and composition. More substantial international awards enabled the establishment of the Traditional Dance Archive, and they have also supported some other work, particularly in ethnomusicology.

Funding bids have evidently clustered around particular individuals and particular projects and it may be useful for staff to consider a more concerted policy. Much greater institutional support is needed to enable staff in Music to maximise and extend their expertise in the targeting of funding sources and in the development and submission of applications. In the current economic climate EU funding sources are of growing importance and active institutional support is needed to assist staff in the development of bids for these funds.

Peer Esteem

The Panel considered esteem factors relating to 12.5 (FTE) members of staff.

There is an obvious disparity between the percentage profiles for outputs and esteem in Music. In large part this is because there is a high proportion of early career researchers whose work, while of high quality in its own right, has yet to receive wider recognition. Nevertheless there is evidence that staff have a number of good contacts with prestigious publication sites for written work and that some of the work in composition and, to a lesser extent, in performance has attracted significant international attention. A number of staff have been successful in gaining research funding, in some cases from highly competitive international funding schemes. The Panel was pleased to note the highly active role members of the department have taken in the development of national research bodies in musicology.

Research Environment

Music maintains a supportive and collegial research environment within the discipline, and links with external research networks are already good and becoming stronger. Maintenance of provision for external speakers and conference organisation will support further development. The Panel notes that the Music Department has been successful in attracting excellent early career staff with considerable potential for future research achievement and for the recruitment of top-quality graduate students. However, faculty retention will be a challenge if a lack of resources impedes the upward trajectories of its early career scholars. In particular:

- undergraduate teaching loads appear to be substantially above the University average in expected contact hours, which severely restricts available research time;
- there are difficulties in securing sabbatical leave, owing to both a lack of transparency in procedures as well as problems in covering teaching loads for absent staff;

- career promotion is essential if senior faculty are to become effective mentors capable of providing models of research leadership and development;
- the dissemination of the processes and results of research is crucial for career advancement, but is severely hampered by the current freeze in funding support for conferences and other research fora.

The Panel recognises the comparatively greater investment of time in graduate student teaching and mentoring. If graduate representation is to continue to increase in the Music Department alongside popular and successful undergraduate teaching, then some consideration of faculty positions as well as the balance between full-time and fractional appointments is necessary to the success of the graduate programmes.

The Panel noted the need for effective support for early-career scholars embarking on their research careers. The high proportion of early-career appointments in this unit, however, poses challenges to effective mentoring, especially given the other administrative roles devolving to these same few members of senior staff. Senior staff who entered the institution in a different climate may also need support of their own in order to orient their work more effectively toward an enhanced personal and departmental research profile.

The Panel recognises the importance of maintaining library resources, and in the context of the physical distance of the Music Department from the UCC Library there is an even more urgent need to ensure that IREL and other electronic library resources continue to provide essential access to research materials. The expertise of an Arts and Multimedia subject librarian with a clear understanding of the research needs of both staff and postgraduate research students is key to ensuring that the relevance of a relatively small library collection is maximised.

Overall Research Activity and Performance

In terms of research outputs, the quality profile is most impressive but the other research indicators are also encouraging. Nevertheless the Panel believes that there is potential for even greater achievement and would

urge UCC to make every effort to support further developments in music.

Issues

The Panel has identified a series of issues for concern in the report above but would also refer UCC to the recommendations below.

Recommendations to UCC:

It is recommended that consideration be given to:

- ensuring the retention of good research-active staff at all levels, in order to develop and sustain a research culture. Several aspects of the current situation, such as the procedures for promotion, the lack of transparency in arrangements for sabbaticals, and inadequate funding for teaching cover and travel to conferences and archives, are significant impediments to retaining staff;
- developing greater transparency between senior management and the music staff, particularly in the areas of UCC policy and procedures, workload allocations and networks of communication between all levels of the institution.
- developing appropriate support and mentoring structures for both senior and early-career staff;
- intervening in national postgraduate research funding debates, to amend the guidelines currently excluding applications from practice-based researchers in composition and performance;
- ensuring that Music retains the ability to channel JYA funding into financial support for postgraduate students ;
- revising the criteria for promotion to ensure that they are not determined by issues that are inappropriate to the discipline, particularly the numbers of postgraduate students supervised to completion.

Recommendations to the Department of Music:

It is recommended that consideration be given to:

- clarifying procedures for the development and documentation of practice-based research in

music, as a dimension integral to these identified areas of excellence;

- engagement in national fora for the formulation and development of guidelines and criteria for determining excellence in practice-based research;
- defining what mentoring or support researchers in Music need to develop or maintain personal research profiles, appropriate to their status as early-career or as senior scholars, and working with the institution to put support structures in place;
- encouraging more researchers to submit research outputs to journals and publishers of the highest international esteem;
- further consolidating the existing research collaborations with external partners beyond Ireland which facilitate access to additional funding streams;
- investigating opportunities for pooling resources for postgraduate training, not only within UCC but at a regional and national level;
- developing clearer guidelines for postgraduate supervision;
- exploring the potential benefits in a structural alignment of Music with Drama and Theatre Studies, as two research areas with common interests and strengths in practice-based modes of critical investigation;
- engaging positively and creatively with UCC administrative and management structures, to facilitate greater understanding at all levels of the particular research needs of this discipline.

Overall Conclusion

There is evidence of considerable achievement during the period under review but it is also evident that there remains even greater potential for UCC to develop as a centre of excellence for research in Music of both national and international significance.

DEPARTMENT OF MUSIC

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		42%	59%
2.	Research Related Activities	4	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		24%	64%

Overall Assessment: Level 3

Quality Profile

Published Output

The Panel noted that UCC is in transition from a teaching-intensive institution to one developing and articulating a research agenda – a significant shift for instruction-orientated disciplines such as Drama and Theatre Studies. This, coupled with the number of early career researchers, is appropriately reflected in the total quantity of the outputs listed in the submission. The Panel's numerical gradings of output quality levels relate to the three, self-selected outputs chosen by each researcher reviewed. For the most part, these selections appear to have been judiciously chosen from the overall profiles of work. However, in some cases, the self-selection procedures did not necessarily locate the three items for each researcher that best embodied significance, originality and rigour. As noted in the introduction, such decisions might better be arrived at in future through consultation with a subject-specific research committee, and care should be taken to ensure that nominated outputs meet the criteria for research as currently outlined in Appendix A of the Research Quality Review guidelines.

In Drama and Theatre Studies, the Panel considered 18 designated research outputs from 6 members of staff.

The Panel identified a proportion of research that was judged to be of world-leading standard in the exploration of linkages between national identities and embodied performance practices, in and across the theatres of Europe. Further important research, of an excellent standard and of significance to the discipline, was located in these areas, and also in the field of performer training. The Panel notes that, in relation to comparable research quality exercises, the 39% of outputs graded at 4 and 5 is a very impressive figure.

The Panel would have welcomed a clearer articulation of the research content of performance and applied practice outputs, some of which might better be considered to fall into the domain of professional practice or pedagogy. Practice-led research in Drama

and Theatre Studies is still an emerging field in Irish higher education, and the unit of Drama and Theatre Studies staff at UCC is in an excellent position to shape the national discussion once it has developed its own coherent research strategy in this area.

The Panel would like to make clear that the outputs graded at 1 were unclassifiable, rather than of an unclassified standard, because they did not meet the criteria for research outputs as defined in Appendix A of the RQR Guidelines.

The unit's five-year strategic plan locates a core research strategy in the dialogue between performance, theory and text. This would benefit from further consideration in relation to the areas of research excellence identified by the Panel in its scrutiny of the outputs.

Postgraduate Support and Training

The Panel notes UCC's ambition to double postgraduate research student numbers by 2013 (from a 2003 base). However, national funding structures explicitly exclude scholarship applications by prospective students wishing to work in performance-based research areas —which are among the current growth areas internationally.

The Panel encourages the development of clearer university wide guidelines for postgraduate supervision. These might include: annual reviews of progress; documentation of supervision meetings; guidance on appropriate timescales for the handing back of written work with comments.

In Drama and Theatre Studies, the Panel welcomes the development of MA provision to build postgraduate studies in the discipline. It is also extremely encouraging that a number of postgraduate research students are already registered with the disciplinary unit. The Panel notes that, given the time it takes to build up a new discipline within a higher education institution, Drama and Theatre Studies have made promising progress to date.

The development of further postgraduate recruitment in staff areas of expertise would be greatly enhanced

by the provision of further studio spaces and technical provision for practice-based research.

The Panel recognises the comparatively greater investment of time in graduate student teaching and mentoring. If graduate representation is to continue to increase in Drama and Theatre Studies, then some consideration of faculty positions (including career promotion for staff members capable of providing models of research leadership) is necessary for the success of the graduate programmes.

Research Related Activities

The Panel notes the excellent range of research-related activities that Drama and Theatre Studies staff have been involved in. These include:

- world-leading editorial work in bringing research resources into the public domain, which have impacted on the pedagogy and teaching of drama internationally;
- strong engagement with professional theatre practice internationally, particularly in the areas of intercultural and psycho-physical performance;
- strong engagement with Irish theatre culture nationally, through the development of new performances; reviewing performances for magazines and journals; translations of foreign-language plays for Irish audiences;
- creation of ongoing dialogues between the academy and professional theatre organisations;
- ongoing contribution to debates around the development of rubrics for practice-based research in Ireland;
- external examination of PhD theses internationally, and extensive manuscript review for major publishers;
- high-profile conference organisation within Cork, attracting international contributors and audiences.

Please see also the positive bullet points listed under “Research Environment” below.

Funding

The Panel notes that, despite the fact that the discipline is still in its early stages of development at UCC, Drama and Theatre Studies staff have had some success in attracting external funding support from research bodies and arts funding organisations, both within Ireland and beyond (e.g. Irish Arts Council, Goethe Institute, American Society for Theatre Research, UK Arts and Humanities Research Council, Ireland Fund of France, Servier Monde Pharmaceuticals). It is also encouraging that initiatives are currently being undertaken to pursue, more vigorously, funding opportunities such as PRTLII.

Funding bids have evidently clustered around particular individuals and particular projects and it may be useful for staff to consider a more concerted policy building on research links with other HEIs. Much greater institutional support is needed to enable staff in Drama and Theatre Studies to maximise and extend their expertise in the targeting of funding sources and in the development and submission of applications. In the current economic climate EU funding sources are of growing importance and active institutional support is needed to assist staff in the development of bids for these funds.

The Panel recognises the limited funding streams in Ireland for arts research at both postgraduate and academic staff level, particularly for practice-based work. Institutional support for lobbying directed at changing this policy would be a valuable initiative.

The Panel also notes the very difficult financial situation currently facing UCC as a whole, and the way in which this is impacting on Drama and Theatre Studies in particular, given the small staffing base of the unit, which makes any teaching relief (for research activities) extremely hard to facilitate.

Peer Esteem

The Panel considered esteem factors relating to 7 members of staff.

Given the relatively early career status of several of the Drama and Theatre Studies research staff, the unit is to

be applauded for the strong levels of esteem demonstrated in the submission. This esteem is evident in:

- world-leading and sustained input into the dissemination of materials on performer training and embodied theatre practice;
- strong profile in international conference contexts;
- consultancy and advisory work in both the higher education and professional theatre sectors, internationally;
- recognition for a wide range of research-related creative activities;
- key role in the establishment of the ISTR (Irish Society for Theatre Research).

Research Environment

Research capacity and potential is evident in:

- the appointment of three full-time College lecturers in Drama and Theatre Studies, including a senior, internationally recognised scholar-practitioner in the field;
- the development of productive relationships with staff from Modern Language departments, which has helped identify a research focus in contemporary European theatre and drama;
- informal mentoring and mutual support among colleagues for the development of research;
- the establishment of the PERFORUM research forum, which has brought internationally distinguished practitioners and scholars to Cork, to speak and facilitate practical experimentation;
- the provision of IREL and other electronic library resources, which provide essential access to research materials in the field;
- the expertise of an Arts and Multimedia subject librarian, with a clear understanding of the research needs of both postgraduate research students and staff;
- good connections with both local arts organisations and internationally-recognised theatre companies and practitioners, as well as with leading higher education institutions outside of Ireland.

Research capacity and potential has been impaired by a number of issues:

- short-term appointments and frozen posts, which impede future planning;
- heavy teaching loads, which appear double the University average in expected contact hours, and thus severely restrict research time available;
- difficulties in securing sabbatical leave, owing to both a lack of transparency in procedures, and problems in covering teaching loads for absent staff;
- difficulties in attending conferences and other research fora, particularly owing to the current freeze in funding support for these activities;
- limited provision of dedicated performance spaces and technical support, for practice-based research activities;
- apparent difficulties in retention of research staff, owing to the issues outlined above;
- absence of Departmental status, and the consequent absence of a full-time Head of Department, making the further development of a coherent research environment difficult to achieve.

Overall Research Activity and Performance

In terms of research outputs, the profile is very impressive. Given the relatively recent formation of the unit, other research indicators also appear encouraging. UCC needs to consider appropriate levels of investment in this subject area, in order to realise the clear potential of the unit.

Issues

The Panel has identified a series of issues for concern in the report above, and would refer UCC to the recommendations below.

Recommendations to UCC:

It is recommended that consideration be given to:

- formalising Departmental status for Drama and Theatre Studies, as an essential step towards further enhancement of a cohesive research culture;
- appointing a Professor to lead the research agenda of the new Department;
- addressing urgently the distinctly inadequate spatial, technical and administrative provision for research in a laboratory-based subject;
- ensuring the retention of good research-active staff at all levels, in order to develop and sustain a research culture. Several aspects of the current situation - eg. promotion procedures, inadequate funding for sabbaticals, teaching cover, travel to conferences and archives, etc. - are concrete impediments to retaining staff;
- developing greater transparency of procedures between senior management and the disciplinary unit, particularly in the areas of: UCC policy and procedures; workload allocations; networks of communication between all levels of the institution.
- intervening in national postgraduate research funding debates, to amend the guidelines currently excluding applications from practice-based researchers in performance;
- exploring the diversification of possible funding streams for postgraduate research in Drama and Theatre Studies;
- developing appropriate support and mentoring structures for both senior and early-career staff;
- revising criteria for promotion to ensure that they are not determined by issues that are inappropriate to the discipline - e.g. numbers of postgraduate students supervised to completion.
- defining what mentoring or support researchers in Drama and Theatre Studies need to develop or maintain personal research profiles, appropriate to their status as early-career or as senior scholars, and working with the institution to put support structures in place;
- prioritising established areas of international excellence, in particular research on embodied performance and national traditions in and across the theatres of Europe;
- clarifying procedures for the development and documentation of practice-based research in Drama and Theatre Studies, as a dimension integral to these identified areas of excellence;
- developing existing plans for the Centre for Research in Creative Practice, with these previous points in mind;
- continuing an active engagement, in national fora, with the formulation of guidelines and criteria for developing excellence in practice-based research;
- encouraging researchers to submit research outputs to journals and publishers of the highest international esteem;
- further consolidating the existing research collaborations with external partners beyond Ireland, which facilitate access to additional funding streams;
- developing clearer guidelines for postgraduate supervision;
- exploring the potential benefits in a structural alignment of Drama and Theatre Studies with Music, as two research areas with common interests and strengths in practice-based modes of critical investigation (this might include collaboration on the Centre for Research in Creative Practice);
- engaging positively and creatively with UCC administrative and management structures, to facilitate greater understanding at all levels of the particular research needs of this discipline.

Recommendations to the Board of Drama and Theatre Studies:

It is recommended that consideration be given to:

- clarifying structures for discipline-specific research management, as an enabling mechanism for formulating a more empowered, cohesive research culture in Drama and Theatre Studies;

Overall Conclusion

There is evidence of considerable achievement during the period under review but it is also evident that there remains even greater potential for UCC to develop as a centre of excellence for research in Drama and Theatre Studies of both national and international significance.

DRAMA AND THEATRE STUDIES

Quality Profile

	METRIC	LEVEL	
1.	Published Output	% of published output ranked 4 and above	% of published output ranked 3 and above
		39%	72%
2.	Research Related Activities	4	
3.	Funding	2	
4.	Peer Esteem	% of staff whose peer esteem is ranked at 4 and above	% of staff whose peer esteem is ranked at 3 and above
		43%	100%

Overall Assessment: Level 3

