



University College Cork

Research Quality Review (RQR)

Report by Technical Group to QEC

January 2020

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1. RQR Technical Group

a. Remit

Under the Qualifications and Quality Assurance Act 2012, each institution must 'establish procedures in writing for quality assurance for the purposes of establishing, maintaining and improving the quality of education, training, research and related services'.

QAI Statutory Quality Assurance Guidelines (2016) state that each institution 'is responsible for organizing an integrated system of quality assurance in relation to its research activities. These should build upon the peer review mechanisms widely employed in research funding and publication and incorporate relevant metrics.'

UCC's approach to this has been to conduct institution-wide Research Quality Review (RQR) exercises and the RQR Technical Group (henceforth TG), after due consideration of the alternatives, saw no reason to deviate from this.

The TG was established by the Quality Enhancement Committee (QEC), chaired by the President, in order to design the outline principles and approach for the next RQR. QEC agreed that the focus of the TG's work would align with both the UCC Research and Innovation Strategy with an emphasis on research quality enhancement, and with the UCC Academic Strategy with an emphasis on research-based education.

The purpose of the TG has been to explore and develop a model of internal research quality review framed in light of the following:

Objectives & methodology

Prevailing approaches in higher education for the review of research quality in a national and international context, and practices/expectations of funding agencies for the quality of research;

UCC's strategic context as a research-intensive university with a research-based curriculum at its core;

The University's commitment to enhancement as articulated in the University Strategy, the Research & Innovation Strategy and the Academic Strategy.

Technical attributes

The scope and reliability of available quantitative and qualitative data to underpin description, analysis and review of research quality;

Attributes of research quality and impact both internal and external;

Administrative and technical infrastructure inclusive of accessibility of financial information, reliability of IT platforms and document repositories.

b. Membership

Membership of the TG has been by nomination of President Patrick O'Shea, in his capacity as Chair of QEC.

- Prof Chris Williams (Head, CACSSS) – Chair
- Prof Anita Maguire (VPRI)
- Prof Paul McSweeney (VPLT)
- Dr Helena Buffery (CACSSS – QEC representative)
- Prof Alan Kelly (SEFS – QEC representative)
- Prof Sarah Culloty (SEFS – as Chair of ACRIC)
- Prof Mathias Beck (COBL – ACRIC)
- Prof Patricia Kearney (M&H – initially as College representative, subsequently as Chair of ACRIC)
- Dr Maria Cahill (School of Law – College representative)
- Dr Caitriona Ni Laoire (ISS21 – RICU representative)
- Prof Eoin O'Reilly (Tyndall – RICU representative)
- Dr Ger Culley (Director of IT Services)
- Cormac McSweeney (Finance)
- Eoghan O Carragáin (Library)
- Dr David O'Connell (OVPRI)
- Dr Niamh Connolly (President's Office)
- Elizabeth Noonan (Director of Quality Enhancement)
- Education Officer, Students' Union
- Postgraduate Student Officer, Students' Union
- Deirdre O'Brien (QEU, Secretariat)

c. Process

The TG has met on seven occasions: 14 March 2019, 15 May 2019, 6 June 2019, 10 September 2019, 22 October 2019, 6 December 2019 and 20 January 2020. Initially the TG focused on scoping the objectives and parameters of the RQR, subsequently identifying the administrative and logistical infrastructure required as well as settling on a series of recommendations for the design of the process.

Reports on the TG's progress were submitted to Academic Council on 28 June 2019, to the Academic Leadership Forum on 26 September 2019, and to ACRIC on 18 December 2019.

2. Overall Approach

a. Key Principles

The RQR is an objective evaluation of the quality of research, university-wide, involving the participation of all units. Operating in accordance with disciplinary norms it is based on expert peer review of research output using transparent indicators, both qualitative and quantitative, to support an evaluation of research quality.

The RQR methodology will take account of the evolving national and European contexts for research in higher education. It will align with open science developments including issues of research integrity and the use of responsible metrics for evaluation of research quality.

The TG agreed the following key principles as guiding its approach to the design of the next RQR:

- To recognize research excellence wherever it may be found, embodying a broad definition of eligible research outputs, guided by disciplinary practices and norms, as well as respecting the integrity and importance of inter- and trans-disciplinary research;
- To evaluate research quality based on disciplinary peer review and in accordance with standards that can be read globally, following international best practice;
- To evaluate research quality based on the overall research profile, achievements and strategy of the research unit;
- To apply a definition of research impact which encompasses its social, cultural, educational, economic and public dimensions;
- To ensure that the evaluation of research quality is equality-sensitive, and that the RQR assesses the extent to which research policies and practices are aligned with EDI principles;
- To ensure the transparency of the RQR process and of its outcomes;
- That RQR scoring (at all stages, including at overall panel level) be based on clear arithmetical principles;
- That there be consistency of practice across UCC and that all units be included in the RQR and assessed equally;
- That the results of the RQR have to have clear implications for resource allocation (see b. below);
- That there be a decoupling of assessment in the RQR from the individual academic, combined with strict confidentiality of assessment outcomes.
- That there be no conflict between the research priorities articulated by the RQR and those embedded in UCC's promotion criteria (see c. below).

b. Resource Allocation Recommendations

It is the strongly held view of the TG that, for the RQR to be embraced as a meaningful exercise, it needs to have clear implications for resource allocation, agreed in advance of the commencement of the assessment process.

The following principles were articulated by ACRIC for the previous RQR process in 2013, and incorporated into the guidelines for the exercise:

- *Outcome will be used in resource allocation in a transparent manner which is agreed in advance; this includes but is not limited to RAM allocation;*
- *Strategic resource allocation with the objective of improving and enhancing research performance in partnership between the Colleges and the OVPRI must be at the core of how this is implemented;*
- *RAM allocation should be on a sliding scale – all areas should be allocated resource albeit at lower levels for lower performance;*
- *Within Colleges the same principles should apply in resource allocation to Schools.*

These principles are consistent with the approach taken by the TG on this occasion. In this context, the recommendation is that RQR resource allocation be addressed through two parallel, distinct mechanisms:

1. Resource Allocation via the RAM: RAM funding distributed via this methodology to the Colleges using the following sliding scale based on staff FTE per Unit of Assessment: 5 – maximum; 4 – 80 per cent; 3 – 60 per cent; 2 – 40 per cent; 1 – 20 per cent (and appropriate interim gradings – thus a grade of 4.5 in the RQR would translate into 90 per cent, a grade of 3.5 into 70 per cent, etc.). The RAM mechanism would not be available to those RICUs returned to the RQR.
2. Strategic Resource Allocation: focusing on strategic appointments, enhancing doctoral, post-doctoral and early career opportunities, strengthening infrastructure etc. To ensure appropriate alignment with national and international opportunities in the research landscape, to build on and complement existing strengths, and to identify new areas for growth, partnership in decision-making on these issues between the Heads of College and the VPRI is vital. The needs of RICUs may be addressed by this means.

Key decisions that need to be made are:

1. The overall scale of investment in the RQR resource allocation. It is recognised that this is a matter that is beyond the remit of the TG, although clearly the scale of investment needs to be meaningful.
2. The split between RAM and Strategic Resource Allocation. The Strategic Resource Allocation strand is likely to have greater impact in the long term and represents a key return on the investment and effort commanded by the RQR. The TG's recommendation is that the split be 40 per cent RAM and 60 per cent SRA (this was also ACRIC's preference for 2015 RQR).

c. Compatibility with UCC Promotion Criteria

The TG recognises that it is important that there is no significant conflict between the research priorities articulated by the RQR and those embedded in UCC's existing promotion criteria.

The research criteria evaluated for purposes of promotion fall into four areas: 'publications/outputs and profile', 'supervision and management of research students', 'research leadership, funding and collaboration' and 'innovation and impact'. Each of these is weighted equally in the current scheme (although it is possible these weightings may be adjusted in any revision of the promotion criteria in order to place greater emphasis on 'publications/outputs').

The TG considers that each of these areas of activity is captured in its recommendations for the RQR, although it notes that the RQR weightings differ from those of the promotion scheme. This is felt to be entirely justifiable given the TG's estimation of the relative contribution of the different elements of research activity captured by the RQR to the international research profile of the university. Furthermore, while promotion is focused on the individual academic, the RQR's emphasis is (at least in part) on the collective research achievement of a number of academics, an emphasis reflected in its design.

Overall, the TG believes that the priorities identified by the RQR do not conflict with UCC's promotion criteria.

3. Research Quality Review Proposals

a. Definitions

Research: For the purposes of the RQR, research is understood as a process of investigation leading to the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, insights, inventions, methodologies, solutions and understandings. This can include synthesis and analysis of previous research to the extent that it leads to new and creative outcomes. In some disciplinary areas it may involve the creation of artefacts, or may be embodied in artistic work, design or performance. Research does not include the development of teaching materials that do not embody original research. It does not include routine testing or routine analysis of materials, components and processes as distinct from the development of new analytical techniques.

Interdisciplinary Research: Interdisciplinary research is research that seeks to achieve outcomes that could not be achieved within the framework of a single discipline. It features significant interaction between two or more disciplines and/or moves beyond established disciplinary foundations in applying or integrating research approaches from other disciplines.

UCC supports and encourages research that crosses disciplinary boundaries and challenges existing paradigms. We recognise that it is often the work that brings together perspectives and knowledge from different disciplines that has the greatest potential to advance the frontiers of knowledge. It is important, therefore, that the format adopted by the RQR does not inadvertently penalise work that sits between or across established disciplinary boundaries. In order to support appropriate recognition of interdisciplinary research quality, the following measures will be taken:

- all RQR panels and assessors will be reminded of the obligation to recognize research excellence wherever it may be found;
- protocols will be put in place to ensure that interdisciplinary work is assessed by the most appropriate mix of assessors available;
- it will be seen (below) that two of the six characteristics that might be expected of ‘world-leading’ outputs are that the output is ‘a catalyst for the development of new thinking, concepts, practices, paradigms or policies’, and that it is ‘outstandingly novel, innovative or creative’. While there is no presupposition that interdisciplinary work is inherently privileged in respect of these characteristics, giving due weight to said characteristics is likely to reward successful interdisciplinary research appropriately.

Definitions of Research Quality

The RQR will operate with a five Level scale, although it will make use of a scoring system which includes half point scores (i.e. 4.5, 3.5, 2.5, 1.5, 0.5). The macro definition of Levels is as follows:

Level 5: Quality that is world-leading in terms of originality, significance and rigour.

Level 4: Quality that is internationally excellent in terms of originality, significance and rigour but which falls short of the highest standards of excellence.

Level 3: Quality that is recognised internationally in terms of originality, significance and rigour.

Level 2: Quality that is recognised nationally in terms of originality, significance and rigour.

Level 1: Quality that falls below the standard of nationally recognised work. Or work which does not meet the published definition of research for the purposes of this assessment.

It is important to note that ‘World-leading’, ‘internationally’, and ‘nationally’ refer to quality standards, not to the nature or geographical scope of particular subjects, nor to the locus of research nor its place of dissemination. For example, research which is focused on Ireland might be of ‘world-leading’ standard. Equally, work with an international focus might not be of ‘world leading’, ‘internationally excellent’ or ‘internationally recognised’ standard.

‘Originality, significance and rigour’ are well-accepted terms in context of research evaluation, and have previously been deployed in the UCC RQR. These broad categories are considered useful for evaluating research quality. Proposed definitions are as follows:

Originality will be understood as the extent to which the research makes an important, distinctive and innovative contribution to understanding and knowledge in the field. Research that demonstrates originality may do one or more of the following: produce and interpret new empirical findings or new material; engage with new and/or complex problems; develop innovative research methods, methodologies and analytical techniques; show imaginative and creative scope; provide new arguments and/or new forms of expression, formal innovations, interpretations and/or insights; collect and engage with novel types of data; and/or advance theory or the analysis of doctrine, policy or practice.

Significance will be understood as the extent to which the research has influenced, or has the capacity to influence, the development of the intellectual agenda of an academic field, or the development and understanding of policy and/or practical applications. Significance may be theoretical, methodological and/or substantive. Due weight will be given to potential as well as demonstrated significance, especially where the output is very recent.

Rigour will be understood as the extent to which the research demonstrates intellectual coherence and integrity, with a clearly articulated purpose, adopts precise, robust and appropriate concepts, analyses, sources, theories and/or methodologies, and presents compelling evidence in support of its findings. Account will be taken of the due consideration of ethical issues and of appropriate engagement with other relevant work.

More precise quality-level descriptors are suggested below in order to clarify further how ‘originality, significance and rigour’ may be identified in respect of the different elements of the RQR. Additional concepts – ‘vitality’, ‘sustainability’, ‘reach’ and ‘significance’ – which apply to specific elements of RAI2 and RAI3 are defined in those sections. It is further understood that peer reviewers will apply disciplinary-specific norms in assessing both quality levels and originality, significance and rigour.

b. Components, Weighting, and Operating Principles

The following structure is recommended for the RQR:

RAI1 – Selected Research Outputs – weighted at 50 per cent

RAI2 – Overall Research Activity and Research Environment – weighted at 30 per cent

RAI3 – Research Impact – weighted at 20 per cent

Results will be collated at panel level (except for 'M' type RICUs in respect of RAI2 and RAI3).

No scores will be attached to individual staff at any point in the process. All scores for individual outputs and impact case studies will be confidential and not visible in the final report.

The final score at panel level will be based on clear arithmetical principles without any scope for amendment by the assessment panels at the final stage.

The final score will only be rounded to a single decimal point.

c. RAI1: Selected Research Outputs

This is the single most important measurement of research activity conducted via the RQR and is weighted at 50 per cent. It is reached through the assessment of individual research outputs against the defined research quality scale.

How it will be assessed: all eligible staff will submit two research outputs published during the RQR census period (which may be 1 January 2015 to 31 December 2021). Each output will be reviewed and scored by two independent external reviewers. There will be no mechanism for double weighting outputs. If there are staff who do not have two research outputs then the missing output/s will be scored at zero.

Decisions on which outputs to return will be made by the RQR lead of the unit of assessment (School, Department or RICU as appropriate), bearing in mind the need to submit the best research outputs from those available (for which, please refer back to the definition of 'research' given above).

Decisions on **staff eligibility** have yet to be finalised but the key principle is that the research activity of the unit during the census period be appropriately recognized. This should mean that all academic and research staff employed by UCC at the census date will be expected to make a return to RAI1.

Adjustments will be made to the total number of research outputs required for staff who a) joined UCC during the census period; b) have had a period of maternity or other leave during the census period; c) have other special circumstances which may be considered to have compromised their ability to generate two research outputs.¹ Staff members who have joined UCC during the census period and who wish to submit items under RAI1 or RAI2a that were published prior to joining will be allowed to do so. However, all activity under RAI2b, 2c, 2d and 3 will be UCC-specific.

All forms of research output will be assessed on a fair and equal basis. The RQR seeks to recognize excellence in research across the spectrum of applied, practice, basic and strategic research, wherever that research is conducted. It seeks to recognize excellence in interdisciplinary and collaborative research, while attaching no greater weight to one form over another.

¹ From the last RQR guidelines on eligible staff – 'permanent and fixed term academic staff from Schools, Departments and disciplines specified in the respective College rules who were in place on the census date. In addition, full-time principal investigators within RICUs are included in this category'.

No particular form of output will be regarded as of greater or lesser quality than another per se, within the context of the norms of the discipline. **Research output types** may include (but are not limited to) those included in the table below.

| | |
|-----------------------------------|---|
| Authored Book | Edited Book |
| Chapter in Book | Scholarly Edition |
| Journal Article | Published Conference Contribution (with ISSN or ISBN) |
| Working Paper | Artefact |
| Device / product | Exhibition |
| Performance | Patent / Published Patent Application |
| Composition | Design |
| Research Report for External Body | Confidential Report for External Body |
| Software | Website Content |
| Digital or visual media | Research data sets and databases |
| Translation | Dictionary or encyclopaedia entries |
| Anthologies | Special issues of Journals |

It is noted that there will need to be provision made for the submission of hard copy outputs, where electronic copies are not available.

While recognising that it is important to seek to capture research excellence wherever it may be found (and thus not ruling out any output on the basis of its genre), at the same time the selection of outputs which do not contain what would generally be understood to be ‘research’, or which are ‘research-light’, should be discouraged. This would *normally* include textbooks, book reviews, and many shorter entries in dictionaries or encyclopaedias.

A related issue concerns the evaluation of editorial work. Such work may take many forms, and thus it is difficult to be in any way prescriptive about how the RQR assessment process will deal with edited texts, edited volumes of other primary sources, edited conference proceedings, editorial work involved with issues of journals, or edited books consisting of chapters by other scholars. What seems essential, however, is that for the purposes of the RQR any such editorial work is able to communicate its contribution *as research*, and that its claims to research quality are not invisible or implicit.

Ultimately it will be a matter of judgement for the RQR lead as to whether or not the output concerned qualifies as ‘research’ and, if so, what level of research quality it might be thought to attain.

Each research output may be accompanied by a **short statement** (of up to 300 words) offering clarification on any or all of a number of issues. These might include:

- A justification of the importance of the output in terms of the research quality levels.
- Where the output is a revised version of one published prior to the census period, the extent to which new material has been incorporated.
- Clarification around the extent to which the author has made a distinctive contribution to a co- or multi-authored output.
- A statement to clarify the research process where this is not evident within the output. This might be particularly appropriate for non-text submissions and databases.
- A statement to clarify the role of the researcher where this is not evident within the output. This might be helpful in the case of editorial contributions.
- Any rationale for grouping a number of short or related items as a single output.
- An identification of the research output as ‘interdisciplinary’, accompanied by a suggestion as to in which discipline it might also be assessed.

Cross-referral: as suggested by this last bullet point, protocols will need to be in place for the handling of outputs which might best or additionally be assessed by panels other than the one to which they have been returned. Such cross-referrals might be initiated by the request of the submitting unit (although it is suggested that the final decision on this will rest with the panel chair) or be initiated by a member of the assessment team itself.

In assessing outputs, assessors will look for evidence of originality, significance and rigour and apply the generic definitions of the quality levels as follows:

In assessing work as being **Level 5** (quality that is world-leading in terms of originality, significance and rigour), assessors will expect to see evidence of, or potential for, some or all of the following types of characteristics:

- a primary or essential point of reference.
- contributing formative knowledge, ideas and techniques which have had or are likely to have a profound influence.
- a catalyst for the development of new thinking, concepts, practices, paradigms or policies.
- a major expansion of the range and the depth of research and its application.
- the application of an exceptionally rigorous research design and techniques of investigation and analysis.
- outstandingly novel, innovative or creative.

In assessing work as being **Level 4** (quality that is internationally excellent in terms of originality, significance and rigour), assessors will expect to see evidence of, or potential for, some of the following types of characteristics:

- an important point of reference.
- contributing important knowledge, ideas and techniques which have had or are likely to have a lasting influence.
- an important contribution to the development of new thinking, concepts, practices, paradigms or policies.
- a significant expansion of the range and the depth of research and its application.
- a robust and highly professional application of appropriate research design and techniques of investigation and analysis.
- significantly novel or innovative or creative.

In assessing work as being **Level 3** (quality that is recognised internationally in terms of originality, significance and rigour), assessors will expect to see evidence of, or potential for, some of the following types of characteristics:

- a recognised point of reference.
- contributing valuable knowledge to the academic field which has had or is likely to have some influence.
- an incremental and cumulative advance on thinking, concepts, practices, paradigms, or policies.
- a useful contribution to the range or depth of research and its application.

- a thorough and professional application of appropriate research design and techniques of investigation and analysis.

In assessing work as being **Level 2** (quality that is recognised nationally in terms of originality, significance and rigour), assessors will expect to see evidence of, or potential for, some of the following types of characteristics:

- an identifiable contribution to understanding.
- a competent application of appropriate research design and techniques of investigation and analysis.
- providing some useful knowledge.

Work assessed as being **Level 1** will fall below the standard of nationally recognised work or will not meet the definition of research adopted for the purposes of the RQR.

A decision will need to be taken on the extent to which assessors' grades are reconciled, and the means by which this might be achieved. One option is for a simple averaging of the two grades independently reached; another is to encourage assessors to attempt to reach agreement through discussion. Both methods have their advantages and disadvantages, and would need to be applied not only to outputs falling in a single panel, but also to those outputs which were being assessed by more than one panel, or where cross-referral to another panel had been implemented. Another option would be to allow the panel chair to exercise a final judgement.²

² In the previous RQR a scoring system was devised which allowed the reviewers to input their scores online – the system then averaged the scores of the two reviewers (per output) but highlighted any discrepancies (a difference in score of 2 or more). Such discrepancies were then sent to the Disciplinary Vice Chair for adjudication on a final score.

d. RAI2: Overall Research Activity and Research Environment

RAI2 will assess the vitality and sustainability of the Unit of Assessment as a whole, both in terms of its existing state and future prospects, and in terms of its contribution to the vitality and sustainability of its discipline/s.

‘Vitality’ is defined as the extent to which a unit supports a thriving and inclusive research culture for all staff and research students, is engaged with the national and international research and user communities, and is able to attract excellent postgraduate researchers.

‘Sustainability’ is defined as the extent to which the research environment ensures the future health, diversity, wellbeing and wider contribution of the unit and its discipline/s, including investment in people.

The overall weighting within the RQR for RAI2 will be 30 per cent, and the grading will align with the five-point scale of the RQR. This will comprise the following four elements, the first weighted at 50 per cent of RAI2 (15 per cent of the overall RQR score) and the others together, also at 50 per cent of RAI2 (so, again, 15 per cent of the overall RQR score).

RAI2a - Total Published Output

A register of all research outputs published during the RQR census period by its academic staff, submitted by each Unit of Assessment. This will be organised under specific headings by type of output (see sample table below). It may be appropriate here to return (alongside more standard research outputs) textbooks or other outputs aimed at enhancing learning among third level scholars in RAI 2a as although these may not necessarily contain research they are often based on expertise acquired through research and they may make a distinct contribution to the vitality and sustainability of their discipline.

The assessment of RAI 2a will not be based on reading of individual outputs, except insofar as these have been submitted as part of RAI 1. Assessors will be expected to apply their disciplinary expertise in evaluating the information presented to them and in coming to a judgement as to the appropriate quality level for the portfolio.

RAI2a – Total Published Output – Sample Table

| Output Type (drop-down menu to be devised) | Author Name (including name of co-author if appropriate) | Output Title | Contribution of author | Publication Information 1 | Publication Information 2 | Publication Information 3 |
|--|---|--------------|------------------------|---|--|---|
| <i>Authored Book / Chapter in Book / Journal Article / Edited Book / Scholarly Edition / Published Conference Contribution / Website / Review Article / Textbook / etc</i> | | | | <i>For example: title of book or journal in which output appeared; title of publication series in which output appeared</i> | <i>Publisher details (publication house, place of publication) / Open Access details</i> | <i>Date of publication, ISBN/ISSN, page numbers etc, word count</i> |

For RAI2a – Total Published Output – the following **quality levels** will apply:

Level 5: A portfolio of total published output by the unit which, for the size of unit, may be considered to make a contribution to research and understanding that is world-leading in terms of originality, significance and rigour.

Level 4: A portfolio of total published output by the unit which, for the size of unit, may be considered to make a contribution to research that is internationally excellent in terms of originality, significance and rigour.

Level 3: A portfolio of total published output by the unit which, for the size of unit, may be considered to make a contribution to research and understanding that is of international calibre in terms of originality, significance and rigour.

Level 2: A portfolio of total published output by the unit which, for the size of unit, may be considered to make a contribution to research and understanding that is of national calibre in terms of originality, significance and rigour.

Level 1: A portfolio of total published output by the unit which, for the size of unit, may be considered to make a contribution to research and understanding that falls below national calibre in terms of originality, significance and rigour.

RAI2b – Research Grants

RAI2b – Research Grant monies spent in UCC during the RQR census period

Assessed within the context of patterns of research grant capture nationally and internationally in the discipline in Ireland, and with reference to the size of the unit as measured by FTE. Again, assigned a single score. Data to be provided for each year of the RQR.

a) Total verified amount spent for unit, broken down by year, and with data also provided on the total academic FTE in the submitting unit.

b) List of grants won, with the following information:

- Title of grant application / project
- Name of UCC investigator and details of status (PI, co-PI, contractual project co-ordinator, UCC co-ordinator etc.)
- Name of grant awarding body
- Name of grant scheme
- Date of award and period (span) of award
- Total sum awarded and amount awarded to UCC PI/co-PI
- Total sum spent in RQR census period in UCC
- Names, affiliations, status within project of collaborators

For units with a large number of grants over the census period (50 or more) aggregated summary data can be provided (at a minimum total number of awards, total grant funding and agencies/sources), highlighting key awards.

c) Contextual statement

500 words allowing the unit to sketch out the landscape of grant funding opportunities in the Irish context for this subject area, to ensure that appropriate standards of measurement are being employed by the panel in relation to each discipline.

RAI2c – Doctoral Completions

RAI2c – Doctoral Completions in UCC during the RQR census period

Assessed within the context of opportunities for doctoral study nationally and internationally in the discipline in Ireland, and with reference to the size of the unit as measured by FTE. Again assigned a single score. Data to be provided for each year of the RQR.

- a) **Total number of doctoral completions allotted to unit, broken down by year, and with data also provided on the total academic FTE in the submitting unit.**
- b) **Data on completions:**
 - Name of student
 - Title of thesis
 - Affiliation (where this is to a research centre or department as well as to a school, and including any cross-institutional affiliations)
 - Supervisor/s (indicating which supervisor/s are within the submitting unit and which not, and with some note on the division of responsibilities)
 - Any information on funding: awards, scholarships etc.
 - In addition the UoA should return data in relation to students supervised by the UoA but graduating from a different UoA.
- c) **Contextual statement**

500 words maximum allowing the unit to sketch out the landscape of postgraduate funding opportunities in the Irish context for this subject area, to ensure that appropriate standards of measurement are being employed by the panel in relation to each discipline.

RAI2d – Supporting Research

Each UoA will return information relevant to the fostering of research in its field, including research strategy, conferences organised, journal editorships, contribution to pedagogy, support for research career development throughout the research lifecycle, the alignment of research policies and practices with EDI principles and practices, the overall 'state of health' of the UoA staff cohort (that is, with appropriate numbers of both senior leaders and early career staff present; reflecting on gender balance both overall and across the staffing structure; and reflecting on the breakdown between staff on permanent and those on fixed term or specified purpose contracts). A narrative (maximum 5,000 words) will be supplied, accompanied by appendices.

There should be a section which provides an overview of the academic staff unit, supported by a data table:

- Overall profile of the staff cohort – data on start and end dates in UCC, gender, rank, contractual status of all staff returned to RQR, early career profiles, anonymised summary table of staff circumstances (details to be provided separately).

The overview should review the staffing of the unit over the census period and outline the staffing strategy for the next RQR cycle of 7 years. It should explain (if appropriate) how any research centres connect to the activity going on in the School / Department. It should also explain how the unit fosters and supports its staff in their research – whether there are unit research seminars, opportunities to present work-in-progress, effective research mentoring practices, provision and incidence of research sabbatical leave (with data on take-up) etc. It should explain how equality and diversity considerations inform the approach to supporting staff in their research – for example, how staff returning from maternity, parental or carers’ leave are supported. It should comment on how early career staff are supported.

There could be a series of sub-headings providing data on activities that support research, including but not limited to the following:

- Conferences organised (whether in UCC or elsewhere)
- Journal editorships
- Holding of leading roles in scholarly societies
- Participation in grant review and membership of panels
- Affiliation to or with funding bodies and national/international committees
- Visiting scholars (incoming and outgoing)
- Post-doctoral awards (including those already captured under RAI 2b)
- Research integrity and research ethics training
- Specialist training offered to external parties

Quality levels for RAI2b/c/d – Research Grant Monies / Doctoral Completions / Supporting Research

Level 5: A record of achievement and activity by the unit which, for the size of unit, may be considered to make a contribution to research that is world-leading in terms of its vitality and sustainability.

Level 4: A record of achievement and activity by the unit which, for the size of unit, may be considered to make a contribution to research that is internationally excellent in terms of in terms of its vitality and sustainability.

Level 3: A record of achievement and activity by the unit which, for the size of unit, may be considered to make a contribution to research that is of international calibre in terms of in terms of its vitality and sustainability.

Level 2: A record of achievement and activity by the unit which, for the size of unit, may be considered to make a contribution to research that is of national calibre in terms of in terms of its vitality and sustainability.

Level 1: A record of achievement and activity by the unit which, for the size of unit, may be considered to make a contribution to research that falls below national calibre in terms of in terms of its vitality and sustainability.

e. RAI3: Research Impact

The RQR2015 report raised the question of whether ‘impact’ should be included in the next iteration of the exercise. It noted (p.14) that ‘more consideration should be given to how to rate societal impact’ and also that ‘UCC needs to raise awareness of impact for Ireland’. The TG proposes that impact is introduced into the next RQR, defined in such a way as to encompass social, economic and public dimensions.

The overall weighting for RAI 3 within the RQR will be 20 per cent. This will comprise the following two elements, each weighted at 10 per cent of RAI 3 (10 per cent each of the overall RQR score):

RAI3a – Research Impact Strategy.

RAI3b – Research Impact Case Study/Studies³. The number of Research Impact Case Studies required from each unit will be fixed according to a sliding scale of academic staff FTE submitted, as follows:

| Staff FTE | Impact Case Studies Required |
|-----------|------------------------------|
| 0-19.99 | 2 |
| 20-29.99 | 3 |
| 30-39.99 | 4 |

One of the clearest recommendations of the last RQR was the need to strengthen links between public engagement activities described under RAI4-Research-related activities and research outputs. While there has been some work on developing and supporting the societal and economic impact of research, it is currently being approached in very different ways by the different constituent colleges (reflecting different understandings of impact), and for this reason it is sensible to proceed with caution in introducing it as a category of evaluation. However, given the increasing need to demonstrate the impact of research to national and international stakeholders, alongside external prioritization of societal challenge-based research activity (such as the increasing currency of the United Nations Sustainable Development Goals), it is imperative that as a research community we find ways of measuring and evaluating our activities in this area.

Impact, for the purposes of the RQR, may be understood as an effect on, change or benefit to, the economy, industry, society, culture, public policy, public services, health, the environment, or the quality of life, beyond UCC and beyond the world of other universities, whether in Ireland or elsewhere. It may include the activity, attitude, awareness, behaviour, capacity, opportunity, performance, policy, practice, process or understanding of an audience, beneficiary, community, constituency, organisation or individuals in any geographic location whether locally, regionally, nationally or internationally. Impact includes the reduction or prevention of harm, risk, cost or other negative effects. Public engagement per se does not constitute impact, although it may contribute to impact or be a means by which impact is achieved.

Key definitional terms in understanding impact are ‘reach’ and ‘significance’. Reach may be taken to mean the extent and / or diversity of the organisations, communities and / or individuals who have benefitted from the research. Significance is understood to be the degree to which the impact has enriched, influenced, informed, or changed the policies, practices, understandings or awareness of individuals, communities and / or organisations – in essence, ‘what changed’ as a consequence of the impact? There is no presupposition that ‘reach’ implies any measurement of geographical distance, nor is there any assumption that impact that takes place overseas has greater ‘reach’ than that which may take place in a

³ For UoA above 39.99 FTE one additional case study is expected for every 10 additional FTEs,

local community. Impact does not need to have been planned or anticipated from the original piece of research: the links may indeed be direct and causal, but they may also be diffuse and non-linear.

Template for RAI3a – Research Impact Strategy

| |
|---|
| <p>Unit of Assessment:</p> |
| <p>The Mission (maximum 300 words): This section will explain how and why the unit’s research matters. The goal is to utilise a story-telling approach that includes a compelling narrative along with robust data. Why does this research matter? What’s happening in the world that makes this unit’s research needed, valuable, useful, and required? Consider local, regional, national and international issues that this research addresses.</p> |
| <p>The Research (maximum 500 words): In this section, the unit will provide an overview of the range of research activities and projects contributing to research impact with a focus on what methods were used. The goal of this section is to demonstrate the originality, significance and rigour of underlying research and that it utilised an engaged research approach by sustaining dialogue with particular communities or partners. In this section, the inputs and activities are presented. Include testimonials or acknowledgement from external partners relevant to the research approach here.</p> |
| <p>The Impact (maximum 1000 words): In this section, the unit will describe how their research projects have relevance. Ultimately, this section is focused on linking outputs, outcomes and the actual or anticipated impact over time. A focus is on both the reach and significance of activities with the goal of corroborating the impact by choosing the most relevant indicative actions and customising them with the key performance indicators from the underlying research. The unit should explain how their research adds to the vitality and sustainability of UCC’s strategic goals in teaching and learning, research and innovation, external engagement, internationalisation, and infrastructural and financial sustainability. The unit should broaden this reach to include how this research is changing and informing the research landscape in Ireland and beyond.</p> |
| <p>Justification of Case Study (maximum 200 words): Short description of how and why Impact case studies have been chosen, and how they relate to the wider underpinning research of the unit.</p> |
| <p>Annex with Corroborating Evidence (maximum 5 pages): may include links, images, copies of testimonials, etc.</p> |

Template for RAI3b – Research Impact Case Study

| | | |
|--|----------------------------------|-----------------------------------|
| Section A | | |
| Unit of Assessment: | | |
| Title of case study: | | |
| Period when the underpinning research was undertaken: | | |
| Details of staff conducting the underpinning research from the submitting unit: | | |
| Name(s): | Role(s) (e.g. job title): | Period(s) employed in UCC: |
| Period when the claimed impact occurred: | | |
| Section B | | |
| <p>1. Summary of the impact (indicative maximum 100 words) This section should briefly state what specific impact is being described in the case study.</p> | | |
| <p>2. Underpinning research (indicative maximum 500 words) Details of the following should be provided in this section:</p> <ol style="list-style-type: none"> 1. The nature of the research insights or findings which relate to the impact claimed in the case study. 2. An outline of what the underpinning research produced by the submitted unit was (this may relate to one or more research outputs, projects or programmes). 3. Any relevant key contextual information about this area of research. | | |
| <p>3. References to the research (indicative maximum of six references) This section should provide references to key outputs from the research described in the previous section, and evidence about the quality of the research. Underpinning research outputs may include the full range of types recognised in RQR exercise and are not limited to printed academic work. All forms of output cited as underpinning research will be considered equitably, with no one type of output being preferred over others.</p> | | |
| <p>4. Details of the impact (indicative maximum 750 words). This section should provide a narrative, with supporting evidence, to explain:</p> <ul style="list-style-type: none"> • how the research underpinned (made a distinct and material contribution to) the impact; • the nature and extent of the impact. <p>The following should be provided:</p> <ul style="list-style-type: none"> • A clear explanation of the process or means through which the research led to, underpinned or made a contribution to the impact (for example, how it was disseminated, how it came to influence users or beneficiaries, or how it came to be exploited, taken up or applied). • Where the submitted unit’s research was part of a wider body of research that contributed to the impact (for example, where there has been research collaboration with other institutions), the case study should specify the particular contribution of the submitted unit’s research and acknowledge other key research contributions. • Details of the beneficiaries – who or what community, constituency or organisation has benefitted, been affected or impacted on. • Details of the nature of the impact – how they have benefitted, been affected or impacted on. • Evidence or indicators of the extent of the impact described, as appropriate to the case being made. • Dates of when these impacts occurred. | | |
| <p>5. Sources to corroborate the impact (indicative maximum of ten references) These could include, as appropriate to the case study, the following external sources of corroboration (stating which claim each source provides corroboration for):</p> <ul style="list-style-type: none"> • Reports, reviews, web links or other documented sources of information in the public domain. • Confidential reports or documents • Individual users/beneficiaries who could be contacted • Factual statements already provided by key users/beneficiaries | | |

Quality Levels for RAI3

Level 5: Impact narrative, case studies and supporting documentation indicate world leading reach and significance, both in the extent and/or diversity of the beneficiaries of the impact and the degree to which the unit's research has enabled, enriched, influenced, informed or changed the performance, policies, practices, products, services, understanding or wellbeing of beneficiaries.

Level 4: Impact narrative, case studies and supporting documentation indicate internationally excellent reach and significance, both in the extent and/or diversity of the beneficiaries of the impact and the degree to which the unit's research has enabled, enriched, influenced, informed or changed the performance, policies, practices, products, services, understanding or wellbeing of beneficiaries.

Level 3: Impact narrative, case studies and supporting documentation indicate international reach and significance, both in the extent and/or diversity of the beneficiaries of the impact and the degree to which the unit's research has enabled, enriched, influenced, informed or changed the performance, policies, practices, products, services, understanding or wellbeing of beneficiaries.

Level 2: Impact narrative, case studies and supporting documentation indicate national reach and significance, both in the extent and/or diversity of the beneficiaries of the impact and the degree to which the unit's research has enabled, enriched, influenced, informed or changed the performance, policies, practices, products, services, understanding or wellbeing of beneficiaries.

Level 1: Impact narrative, case studies and supporting documentation fall below national reach and significance, both in the extent and/or diversity of the beneficiaries of the impact and the degree to which the unit's research has enabled, enriched, influenced, informed or changed the performance, policies, practices, products, services, understanding or wellbeing of beneficiaries.

f. Panels

The TG recommends the following panel structure as the most appropriate for the next RQR. It is based on the 26 identifiable school units, 1 departmental unit and 3 'L' type RICUs.

'M' type RICUs will submit under RAI2 and RAI3 independently of the School with which they are paired, and be assessed independently for those elements. Each 'M' type RICU will also submit a narrative (maximum 2,500 words) addressing the ethos, orientation and achievements of the RICU during the RQR census period. This will not be formally assessed and will not duplicate information contained in RAI2d.

Each Panel will consist of a Chair and a number of assessors. It is recognised that panels will necessarily vary considerably in size and in internal complexity, and will need to be sensitive to variable disciplinary norms within panels as well as between panels. As already noted, protocols will be in place for handling research that crosses disciplinary or panel boundaries.

| Panel: | School or Research Institute: |
|---------------|--|
| 1 | Clinical Therapies |
| 2 | Pharmacy |
| 3 | Medicine |
| 4 | Dental School |
| 5 | Public Health |
| 6 | Nursing & Midwifery |
| 7 | Biological, Earth and Environmental Sciences |
| 8 | Computer Science and Information Technology |
| 9 | Engineering |
| 10 | Food and Nutritional Sciences |
| 11 | Biochemistry and Cell Biology |
| 12 | Microbiology |
| 13 | Mathematical Sciences |
| 14 | Chemistry |
| 15 | Physics |
| 16 | Cork University Business School |
| 17 | Law |
| 18 | Applied Psychology |
| 19 | Applied Social Studies |
| 20 | Education |
| 21 | English and Digital Humanities |
| 22 | Film, Music and Theatre |
| 23 | History |
| 24 | Human Environment: Geography, Archaeology and Classics |

| | |
|----|-------------------------------------|
| 25 | Irish Learning |
| 26 | Languages, Literatures and Cultures |
| 27 | Society, Politics and Ethics |
| 28 | APC Microbiome Institute |
| 29 | Tyndall National Institute |
| 30 | Environmental Research Institute |

In respect of 'M' type RICUs, their allocation to Panels is as follows:

Cork NeuroScience Centre – Panel 3

INFANT – Panel 3

Oral Health Services Research Centre – Panel 4

HRB Centre for Health and Diet Research – Panel 5

Insight Centre for Data Analytics – Panel 8

Food Institute – Panel 10

Centre for Synthetic Biology and Biotechnology – Panel 11

Analytical and Biological Chemistry Research Facility – Panel 14

Centre for Criminal Justice and Human Rights – Panel 17

Centre for Planning Education and Research – Panel 19

ISS21 – Panel 19

Centre for Marine and Renewable Energy (MaREI) – Panel 30

All 'S' type RICUs will be reviewed as part of their host Schools.

4. Implementation

a. Data Requirements

The RQR TG is concerned about the suitability of current data for the needs of the RQR and the potential risk to the RQR. The pilot presents an opportunity to investigate this matter and test the availability of data.

The data requirements come under the following categories:

Staff: listing of all academic and research staff at census date, with information on contractual FTE status. Presumably will be already allotted (in most cases) to a specific School, so attribution to panels should not be too difficult, but will require cross-checking. Additional information required in respect of gender, early career status, academic grade. Robust information on staff FTE per panel is fundamental to the metrics of all elements of the RQR as well as resource implications that will flow from its results.

Publications / Outputs: ideally relevant data for RAI2a should be downloadable from IRIS. There will need to be some quality control as not all IRIS outputs are appropriate for return to the RQR. In addition there are 'outputs' listed on IRIS which are 'premature'.

Open access: Information on adoption of open access policies.

Grant spend within UCC during census period, broken down by individual award, and by year of spend. Will need cross-checking to allocate appropriately to PI, CI etc, and thence to panels.

Doctoral completions within UCC during census period, by individual student, and by year of completion. Will need cross-checking to allocate appropriately to supervisors, and thence to panels. Will also need to source accurate data on final form of thesis title.

b. Number of Reviewers Required

In the last RQR those reviewing the outputs (remote reviewers) were asked to review up to 50 outputs. Many of those invited to be remote reviewers in the last exercise declined due to the volume of work expected for the stipend of €250. At the time of the last RQR the university could pay €250 to a reviewer and that reviewer was not required to pay tax. This facility has been withdrawn by Revenue and now any amount paid to a reviewer will be taxed. Anyone employed by the university must have a PPS number and so each individual reviewer employed will be required to apply for an Irish PPS number. This would be administered by QEU and involve significant resources in terms of staff time.

The number of reviewers required is as yet unknown. There were 1037 academic staff on the census in the last RQR. For the sake of clarity, the following two examples will use the round number of 1,000 staff.

Example 1: Each staff member is required to submit 2 outputs which results in 2,000 outputs to review. Assuming that each output should be assessed by two reviewers and that each reviewer should not exceed a maximum of 20 outputs then 200 reviewers would be required to assess 2000 outputs. Each reviewer is paid €250 resulting in a total cost of €50,000.

Example 2: Each staff member is required to submit 2 outputs which results in 2,000 outputs to review. Assuming that each output should be assessed by two reviewers and that each reviewer should not exceed a maximum of 40 outputs then 100 reviewers would be required to assess 2000 outputs. Each reviewer is paid €500 resulting in a total cost of €50,000.

Both examples above result in the same financial cost to the university but Example 2 is more efficient in terms of staff time and resources (co-ordinating the nomination of reviewers, contacting and inviting reviewers, applying for PPS numbers, facilitating contact between reviewers and Chairs etc.).

The number of reviewers required as outlined above is likely to be the minimum number recruited as this figure is based on a relatively low number of staff (1,000) and does not take into account disciplinary expertise; it is likely that more reviewers will be required to ensure that all outputs are assessed by a suitable disciplinary reviewer.

c. Financial Costs

The main cost of the RQR will be the cost of stipends both to the Chairs and remote reviewers. It is estimated that the stipend for the Chair will be €1,800 plus travel, food and accommodation expenses.

Total estimated cost:

Accommodation & Meals (30 Chairs)

| | |
|---|----------|
| Accommodation - €146 B&B (River Lee Hotel) x 2 nights | 8,760.00 |
| One evening meal - €50 a head | 1,500.00 |
| Tea/coffee/lunch - 1 day at an average of €20 a head | 600.00 |

Travel (30 Chairs)

| | |
|----------------------|-----------|
| Average of €400 each | 12,000.00 |
|----------------------|-----------|

Stipend & general expenses

| | |
|--|-----------|
| Stipend - €1,800 per Chair x 30 Chairs | 54,000.00 |
| Expenses - €200 per Chair x 30 Chairs | 6,000.00 |
| Stipend for those reviewing outputs (remote reviewers) | 50,000.00 |

132,860.00

It should be noted that this estimate compares very favourably to the current cost of running academic quality review on an annual basis (approx. €10,000 per quality review) and is significantly less than the cost of the last RQR (approx. €330,000). No quality reviews will be scheduled during the year that the RQR will take place.

d. Administrative

There will be four key administrative units involved in the RQR: Quality Enhancement Unit (QEU), Office of the Vice President for Research and Innovation (OVPRI), IT Services and Human Resources⁴.

QEU will project manage the RQR and liaise with relevant parties including the Implementation Steering Group. The QEU will manage the SharePoint site which will be used for all project communications and co-ordinate communication with the Units of Assessment, the Panel Chairs and the reviewers. The QEU will coordinate the selection and recruitment of reviewers. The QEU will co-ordinate the Chairs visit to campus. The QEU will manage the production of the RQR report working with the Implementation Steering Group.

⁴ The majority of the tasks outlined and assigned in this section are taken from the Data Infrastructure Action Table – last discussed in the RQR TG 6 December meeting (Item 4).

OVPRI will manage all aspects of IRIS and play a co-ordination role in ensuring that each of the following requirements are documented: RAI 2c Doctoral completions during the RQR census period; RAI 2b Research Grant monies spent during the RQR census period; Open access adoption rates (at School level). There are a number of operational and technical issues with IRIS which will need to be resolved with IT services: poor quality maintenance of data within IRIS (profiles); lack of proactive Training and support of the platform; difficulty in integrating the platform with other systems (ORCID, ACADEM). The key role of IRIS administrator will need to be filled as soon as possible to enable the resolution of some of these issues.

IT will manage the requirements around the upload of outputs and the scoring system. The Google systems used in the previous RQR process are proposed to be re-used again for this cycle of the RQR. IT Services are happy to sign off that technically and security wise, the service is fit for purpose. There are a number of elements to consider: (1) upload of documentation by units, (2) accessing documents by reviewers (3) scoring and (4) submission of reports. Different platforms may be used for different elements.

HR will need to manage the staff census. There will need to be provided for each UoA a dataset relating to submitted staff (headcount and FTE data preferred), containing robust and institutionally comparative data on the following:

- Contractual status (permanent / fixed-term) – hourly paid, adjunct or honorary staff are not eligible for return to the RQR
- Gender profile
- Early career staff profile
- Distribution across academic grades of staff cohort
- There will need to be a consistent approach taken to identifying the FTE in a given UoA for the purposes of determining i) the number of impact case studies to be submitted; ii) the per FTE grant spend; iii) the per FTE doctoral completion rate; iv) the multiplier to be used for resource allocation to each Unit of Assessment at the end of the process.

e. Timetable

The current proposed timetable for the implementation of the RQR is as follows:

January 2020: TG reports to QEC

February – August 2020: Communication and finalisation phase

September 2020: Establishment of RQR Implementation Steering Group

September 2020 – August 2021: Pilot exercise, including opportunity to review and revise

September 2021 – December 2022: Preparations for review

January – July 2023: RQR 2023

August 2023 – May 2024: Reporting

| Apr '19 | Jul '19 | Oct '19 | Jan '20 | Apr '20 | Jul '20 | Oct '20 | Jan '21 | Apr '21 | Jul '21 | Oct '21 | Jan '22 | Apr '22 | Jul '22 | Oct '22 | Jan '23 | Apr '23 | Jul '23 | Oct '23 | Jan '24 | Apr '24 |
|---|---------|---------|----------------------------------|---------|---------|--|---------|---------|---------|---|---------|---------|---------|---|---------|---|---------|---------|---------|---------|
| RQR Technical Group Feb 19 – Jan 20 | | | Comms Feb 20 – Sept 20 | | | RQR Implementation Steering Group Sept 20 – May 24 | | | | | | | | | | | | | | |
| | | | | | | | | | | Preparation for review Sept 21 – Dec 22 | | | | Review phase Jan 23 – July 23 | | Reporting phase Aug 23 – May 24 | | | | |

f. Implementation Steering Group

The RQR Implementation Steering Group will oversee and deliver the methodology approved by the University. Membership of the Group will include ex officio the VPRI and the Chair of the RQR TG along with membership from QEU, OVPRI, IT, HR, Finance Office and academic membership. The final membership of the Group will be decided by the President.

g. Pilot

The TG believes that it would be sensible to run a pilot RQR exercise involving at least two units in 2020-21 in order to test the process and to ensure the availability of appropriate data.

h. Options for Full Roll-Out

The TG needs to confirm that the RQR will be conducted university-wide within a specified time period, however, if for strategic exigences this is not possible roll-out could be phased on the basis of two Colleges per year across a two-year period.

i. A Note on Process

The TG believes that most of the assessments integral to the RQR can and should be conducted remotely and that the majority of assessors will not need to visit UCC in order to carry out their responsibilities. However, it is considered appropriate for panel chairs to visit UCC *prior to* the beginning of the assessment process.

Appendix: Data Infrastructure Needs for RQR

The Research Quality Review (RQR) Technical Group (TG) established a Data Infrastructure Sub Group (Ger Culley, David O'Connell, Patricia Kearney and Eoghan O'Carragain) to evaluate how to capture and structure research outputs for the RQR process, and the associated digital infrastructure needs in this regard.

The recommendations of this evaluation are detailed below and include a summary of actions required to deliver the data infrastructure needed to support the RQR exercise.

■ RAI 1 – Selected Research Outputs (50%)

IT Services recommends that a SharePoint website is set up to host research output data. We can ensure that this data remains in a UCC trusted environment, on the UCC Microsoft Cloud, hosted in Dublin. Using a safe cloud-based solution will make it easy for the research community to deploy their publication outputs on the platform, while it will also be convenient for remote panel assessors to access and review the data, in a safe and flexible way, on any device of their choosing.

Action: IT Services will build the required Sharepoint site, which will serve as the repository for research outputs. As part of the proposed RQR pilot exercise, the Sharepoint site folder structures and the permission structure will be tested and signed off.

■ RAI 2: Overall Research Activity and Research Environment (30%)

RAI2a (50% of RAI2): Total Published Output. This data will be extracted from UCC's Institutional Research Information System (IRIS), which will require the system to perform optimally and for all individual researcher profiles to be up-to-date. In order that IRIS is fit for purpose to support the RQR, the quality of the data hosted by IRIS needs to be significantly improved. Steps that need to be taken to achieve better data quality include IRIS stabilization, the implementation of the proposed ORCID integration with IRIS, standardization of how individual research inputs are mapped to Schools (and RICUs) via the Core HR system, and the implementation of additional functionality that facilitates the automatic assignment of open access status to outputs.

Action: The role of Research Systems & Reporting Officer within Research Support Services is currently vacant, and this post will need to be filled as priority. To facilitate the pilot and to ensure that IRIS is functional, fully populated, and in use by the research community, this vital role needs to be in place for a significant period of time in advance of the RQR.

IT Services will work with the Research Systems & Reporting Officer to enhance the IRIS Service to a level that can support the RQR.

RAI2b (a): Total verified amount spent for unit, broken down by year, and with data also provided on a per academic FTE as well as an absolute total basis. Research grant monies spent during the RQR census period will need to be extracted from the Agresso system and/or the Data Warehouse. This was a source of much frustration during the previous RQR. Agresso stores data in order to balance a budget, and does not map the research expenditure to the School or RICU that received it in a way that be easily extracted from the system. There is a requirement to develop reports that can provide a more accurate way of mapping research expenditure to Units of Assessment.

Action: IT Services, Research Support Services and the Finance Office (Research Grants Section) to agree an action plan on how the required reporting needs can be met and how these can be tested in advance of the RQR.

RAI2b (b): List of grants won (plus supporting information as per the RQR TG Report). Some of this information, but not all, can be extracted from Agresso and there are issues with mapping to Unit of Assessments as outlined above for RAI2 (a). However, for all of the required information to be extracted from a central system would require the implementation of new functionality either in Agresso or IRIS. In other words, migrating the current paper-based contracts assessment form procedure ('Appendix C') to an online process.

The alternative is to compile this information at Unit of Assessment level.

Action: IT Services, Research Support Services and the Finance Office (Research Grants Section) to investigate options in this regard.

RAI2c: Doctoral Completions during the RQR census period. This data should be available via the ITS student system; however, this area was also cited as an area of frustration in the previous RQR. Some of these frustrations are mitigated by the fact that this data will be reported at Unit level rather than at individual level. However, challenges remain with regard to ensuring all supervisors across different Units of Assessment can be accurately reported on.

Action: IT Services, Research Support Services and Graduate Studies Office will review how these reports can be generated to meet the needs of the RQR. This action might require a change of practice within the Registrars Office as to how the records are stored, or it may be possible to define a Data Warehouse report that identifies the data required.

■ RAI 3: Impact (20%)

This assessment indicator is comprised of a Research Impact Strategy at Unit of Assessment level and Research Impact Case Studies.

Action: The Research Impact Strategy and the Research Impact Case Study documents will be placed in the RQR SharePoint site, which will be tested as part of the pilot exercise.

Resource Implications

There is a significant body of work required to build the infrastructure and collate the data required for the RQR, particularly if we are to address some of the data issues encountered in the previous exercise. However, UCC can leverage the investments it has already made in technology and systems to meet many of the infrastructure needs.

The critical resource requirement to ensure the successful implementation of the RQR is filling the replacement Research Systems & Reporting Officer post within Research Support Services.

In addition, there may be some cost implications from the reporting needs required to fulfill RAI2, and a potential capital cost to implement additional functionality as part of RAI2b (b).

The clarity provided by the output of the RQR TG means that we are in a position to identify and meet the reporting and technology needs of the RQR. We request that the QEC approve this plan, and the associated recommendations within the plan, including the resource recommendations required to deliver on these initiatives.