



UCD Research

Thaighde UCD

University College Dublin
Belfield, Dublin 4, Ireland

T +353 1 716 4000

F +353 1 716 4001

An Coláiste Ollscoile, Baile Átha Cliath
Belfield, Baile Átha Cliath 4, Éire

ucdresearch@ucd.ie

www.ucd.ie/research

Ms Mary Dooley
Chair of the Steering Group
Strategic Planning and decision Support project
NUIG
Galway

UCD VP for Research Response to Draft Methodology for Prioritising Indicators
REF: Research and Innovation

Dear Mary,

The Strategic Planning and Decision Support project seeks to develop key performance indicators (KPIs) for the Irish Universities that will demonstrate the value the Universities create from public funds and will highlight our sectoral contribution towards achieving the national objectives. The draft methodology for prioritising indicators is a well presented and professional document that sets out a structured approach to developing performance indicators for a university system. I believe the approach to developing indicators for research and innovation could be further refined by the application of some key principles and the incorporation of some specific recommendations. I hope that the recommendations in this document will positively contribute to the development of KPIs for the Irish Universities and will assist the Steering group in developing this important work.

The Irish government has dedicated significant resources to achieving its research and innovation goals under the National Development Plan and the Strategy for Science Technology and Innovation 2006-2013 (SSTI). As a result the funded research environment has experienced unprecedented growth in the last few years and this recent growth is set to continue.

The short list of research and innovation indicators in table 3.1 were chosen following prioritisation and with a shift in emphasis towards outcome rather than input in the theoretical model. In view of (i) the length of the research life cycle (ii) the relatively recent increase in research funding in Ireland (iii) considerations arising from the differences in the research activity in Humanities and Social Sciences disciplines (HSS) and Science Engineering & Technology disciplines (SET) and (iv) the commitment to achieving institutional reform in the sector, the following underpinning principles are recommended when developing research and innovation performance indicators (PIs) for the sector.

Key underpinning Principles

1. Predictive indicators rather than measures of past achievement are appropriate to this phase of building research & innovation capacity in the Irish university system.
2. Different weightings are appropriate for HSS and SET indicators on the basis of disciplinary differences in research activity and outcomes.
3. The weighting for strategic relevance is to be determined by each university in the light of its strategic plans and taking account of the balance of academic staff across the HSS and SET disciplines in the institution.

Further specific recommendations

Theoretical level

Criterion 2 -Proposed double weighting of outputs versus inputs

To weight outputs as a double of inputs at this early stage of research capacity building in the HEIs is premature and will reward historical performance rather than recognise current success in gearing up as a predictor of future performance. We therefore recommend that this weighting is deferred for the next three years.

Criterion 3 -Ease of Implementation

A similar risk exists in applying undue weighting to 'what we can measure' rather than 'what is important to measure'. A bias towards past measures will prevail and efforts to reform may be masked by existing measures driven by former goals rather than new goals. We therefore recommend that the weightings for strategic relevance are double those for ease of implementation.

Criterion 4 - Reliability

Reliability will be driven by consistent technical definition to form a basis of comparison and support trend analysis. There are no working definitions as yet for the draft PIs. This is notable in the research publications category where the term "highly regarded 'publishers' is one that will be open to multiple interpretations at discipline, institution and sectoral level.

We recommend that a process to agree working definitions for research and innovation PIs is planned and implemented prior to finalising a short list of potential PIs or KPIs across the sector.

Criterion 6 – Strategic Relevance

The weighting for strategic relevance must be determined by the universities in the light of their own strategic plans and present academic and research profile. The balance of academic staff in Science Engineering and Technology (SET) disciplines versus those in the Humanities and Social Sciences (HSS) must be taken into account when applying weightings for strategic relevance. It is simply not meaningful to double the number of PhDs in a Business school. Outputs and outcomes in HSS extend to Policy and Influence. This is not captured in the current draft PI shortlist for research and innovation. We recommend that the universities determine the weightings for strategic relevance for each PI or KPI.

With regard to specific indicators for research and innovation in Table 3.1

Area 12. PhD Awards

The shift in emphasis in the theoretical model from input to just outcome is misplaced in this category at this stage of SSTI. Applying a principle of looking to future performance and in the context of SSTI goals, an appropriate PI is 'PhDs registered relative to 2003' as well 'PhDs awarded relative to 2003'. SSTI projections are based on both the numbers in the HEI system in 2013 and on those exiting the system in 2013. The PIs recommended here align perfectly with the definitions in SSTI in which 2003 is the absolute baseline.

13. Research Publications

In the light of the key principles 1-3 above, the inclusion of yield measures by volume is not meaningful unless defined by an internationally valid standard for each subject and paired with a quality indicator. Change from previous publishing volumes is also confounded by lack of standards, definition and quality measures. A validated baseline derived by a recognised expert third party experienced in evaluating the outcomes from publicly funded research is needed. We recommend that none of these measures can stand as expressed in table 3.1.

14. Citations

Citations are a relevant measure of outcome and quality. However citations take at least three years post publication to become valid indicators of impact. The citation measures that are relevant in 2008 are those of publications from 2005 and before. Citation measures are of little relevance in the Humanities. The relationship between volume and impact of research publications in HSS and SET cannot be validly derived from the measures listed in area 13 and 14 in table 3.1. We recommend an alternative approach is taken to generating a PI for research publications.

15. Research Funding

- Given the relatively recent increase in research funding in Ireland, input measures are needed as predictors of future performance. Therefore the PI € research income per academic staff FTE weighted differently for HSS and SET must be included.
- The descriptor for Private Sector sources must be extended to include EU funding in line with the definition agreed with the Department of Finance.

16. Innovation

- Include a PI for revenues from licensing and royalties

17. Commercialisation

- Include a predictive PI such as number of formal collaborations with Industry partners by industry sector

26. Financial Management

- Include a PI for € research capital infrastructure awarded. Research capital infrastructure is a critical to building research and innovation capacity and quality. It is a predictive indicator for research performance.

29. Human Resources – Key HR facts & statistics and staff profile

- Explicitly include research as a staff category in the relevant indicators

I do hope you will find these recommendations helpful. I believe the PIs and KPIs we select and the principles upon which we apply them will have a significant impact in the sector over the next decade and therefore need our careful consideration. Please contact me should you require any further information or clarification

With all good wishes.

Yours sincerely,
Office of the Vice-President
for Research
13 JUN 2008
Prof Des Fitzgerald
Vice - President for Research

cc : Dr Aoibheann Gibbons