



# Making the right grade

With debate ongoing about the funding of third-level education, university presidents Brian MacCraith and Jim Browne ask what exactly we should be aiming for

**R**ecently announced results from university ranking systems have shown a significant fall for most Irish universities, with no Irish university now in the top 100. This has attracted considerable media comment. Irish universities are funded largely from the public purse and it is important, therefore, that the general public understands the significance or otherwise of such ranking results.

Two ranking systems, the Times Higher Education (THE) and the Quacquarelli Symonds (QS), are considered most relevant for universities in this part of the world. The key question is whether or not these systems provide a valid measure of the quality of university performance.

So what do they measure, what do they fail to measure, and are they appropriate to universities in general and to Irish universities in particular?

## What do ranking systems measure?

The results of any ranking system depend strongly on the choice of performance indicators (or metrics) and the weightings assigned to them. But what gets prioritised?

It is not surprising that most ranking meth-

odologies have a particular focus on the teaching and research missions of universities. Direct measurement of quality is difficult, however, so rankings usually employ various indirect or proxy metrics. Yet some of these proxy metrics are quite removed from teaching or research.

Here, we examine the THE rather than the QS system, based on the more sophisticated approach of the former (it uses 13 separate indicators as opposed to six for QS).

An analysis of the THE ranking methodology highlights some important features:

(a) 33 per cent of the total ranking is based on a 'reputational survey', where over 17,500 randomly selected academics from 137 countries offer views on the perceived prestige of institutions in terms of the quality of their research (18 per cent) and teaching (15 per cent). The objectivity of this element of the ranking is clearly open to criticism.

(b) When all 13 indicators are considered, it becomes clear that more than 73 per cent of the available ranking marks are associated with research.

(c) The biggest single measure of research, accounting for 30 per cent of the full ranking, is the 'citation impact', which measures the impact of a research paper by the number of times that paper is cited by other researchers. This metric – the only measure of research quality rather than quantity in this system – is restricted to a sub-set of all journals, and is a poor indicator of performance in some disciplines, in particular the humanities.

(d) Overall, reputation (33 per cent) and citation impact (30 per cent) account for the majority of any institution's score. The remaining indicators (*see table*), which include important evidence-based performance metrics, are all weighted at 6 per cent or less.

## What's not measured

It is also important to highlight the many important areas of core university activity that are not measured in the prominent ranking systems. THE and QS do not measure the quality of the teaching and learning experience for students in any meaningful sense.

Quite astonishingly, no credit is given for the innovation activity of universities. In particular, their important role in generating intellectual property, executing licences, creating spin-outs and contributing to economic development is not measured.

## The significance of this year's ranking data for Ireland

In evaluating the performance of Irish uni-

versities in this year's rankings, the time periods associated with the various indicators provide a useful context:

- the data (income, staff numbers, student numbers etc.) submitted by all institutions are from the academic year 2008/2009;
- citations were counted for the period 2005-2009; and
- the reputation surveys were carried out in 2011.

An analysis of the data from this year's THE ranking highlights some startling facts:

### Reputational survey

The dramatic fall in the rankings for most Irish universities in the THE system can be attributed almost exclusively to the 'reputational survey' element of the scoring.

For example, NUI Galway and DCU experienced a greater than 80 per cent drop in reputational survey scores relative to 2010 for teaching and research. Similar falls in this score were experienced by all of Ireland's leading universities. The impact of this sharp drop on the overall ranking score cannot be overstated. In fact, if last year's reputational data were used in this year's analysis, then DCU and NUIG would achieve similar or better ranking scores compared to 2010.

There is no rational, performance-related explanation for such a dramatic fall in reputation over the course of one year. Given the subjective nature of the survey, however, it is quite plausible that international media coverage of Ireland's economic difficulties could have played a role in influencing this outcome.

### System volatility

The ranking systems exhibit significant year-on-year volatility in their results. This is evident not only this year but analysis of previous years' results also shows similar (if less dramatic) trends. For example, NUI Galway moved from 467th to 320th to 232nd and back to 357th over a period of the past four years in the THE ranking. This does not correlate in any logical sense with performance.

Similarly, when one compares the two ranking systems (which, in broad terms, aspire to measure very similar performance indicators), UCC and DCU improved their positions this year in the QS ranking while all other Irish universities dropped, whereas in the THE system, all universities except NUI Maynooth fell in the ranking.

### What does it mean?

Ranking systems serve a useful general purpose by drawing attention to performance measurements and international benchmarking in a global context. The methodologies must be treated with great caution, however, because they are blunt instruments, their re-

sults are volatile and, most importantly, they provide a distorted view of 'quality' that is inappropriate for Ireland's universities.

Given the difficulty associated with reversing reputational damage and given that the institutional data, such as income and staff-student ratio, submitted this year do not reflect the even deeper Exchequer cuts from 2009 onwards (including the expected significant cut in research funding in the coming budget), it is likely that the rankings of Irish universities will fall even further in the coming years. Even if it were so desired, Ireland cannot win at the rankings game at this time.

A major improvement in the rankings would require a significant increase in investment (which is clearly not possible for the Exchequer) and would take time. Universities are not, after all, like Premier League football clubs, which can invest in star players to deliver a quick bounce.

Some commentators suggest that Irish universities should pursue high rankings as a priority. It is useful then, to consider the type of profile that an Irish university would adopt if it were to prioritise the achievement of a high position in the rankings to the exclusion of all other activity.

Research, measured only in terms of its academic impact, is clearly the main driver of ranking position. Taken to extremes, this would suggest a strategy of encouraging colleagues:

- to focus only on research publications in recognised academic journals;
- to ignore translational research and to disengage from industrially-oriented or applied research; and
- to avoid innovation, to ignore the development of intellectual property and to eschew the time-consuming process of commercialisation.

Such a university might also de-prioritise investment in innovations in teaching and learning. Such a university might think twice before allocating scarce resources to support access for students from socio-economically disadvantaged backgrounds.

Staff who allocate their time to these activities would be deemed to be 'off message' from the perspective of international ranking systems.

Is this the type of university that our country needs at this, or any other, time? Is this what our enterprise sector needs to help us innovate our way to economic stability? Is this what employers want from our universities? Is this what students themselves want?

Our universities need to focus on a more balanced agenda that is appropriate to Ireland's needs and that enables our graduates to compete and flourish in a globalised society. In this context, we need to continually benchmark ourselves against the world's best and to pursue excellence in those areas that are important to us.

Recent research carried out by Ecofin, at the request of ministers for finance in EU countries, highlights the ability of Ireland's higher education system to maintain high quality through difficult circumstances. In that study, Ireland ranked first both in terms of graduates per 1,000 inhabitants and in terms of how international employers rate our graduates for employability.

Irish universities have – and are establishing – international reputations for excellence in specific and appropriate fields of expertise. However, what would a university do if it wanted to prioritise rankings above all else? We cannot excel at everything and we do not have the resources to reach the lofty heights of what are, frankly, inappropriate league tables. We can and will achieve world-class status in selected areas if we invest and manage strategically.

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## THE's ranking methodology

Teaching (30%)	Weighting
Reputational survey	15%
PhD awards per academic	6%
Undergrads per academic	4.5%
Institutional income per academic	2.25%
PhD awards/bachelor's awards	2.25%
<b>Research (30%)</b>	
Reputational survey	18%
Research income (scaled)	6%
Papers per academic & research staff	6%
<b>International outlook (7.5%)</b>	
Ratio of international to domestic staff	2.5%
Ratio of international to domestic students	2.5%
Proportion of internationally co-authored research papers	2.5%
<b>Industry income (2.5%)</b>	
Research income from industry per academic staff	2.5%
<b>Citations (30%)</b>	
Citation impact (normalised average citations per paper)	30%
<b>Total</b>	<b>100%</b>



**Students at DCU: Irish universities need to prepare their students for the modern workforce**