The Role and Implications of Rankings for Higher Education Institutions: What We've Learned and Should Know

Professor Ellen Hazelkorn
President, EAIR
Policy Advisor to the Higher Education Authority (Ireland)
Director, Higher Education Policy Research Unit (HEPRU)
MENA-AIR Conference, Byblos, Lebanon
March 2015

Do we measure what we value? or Do we value what we measure?

Not everything that counts can be counted, and not everything that can be counted counts. (Sign hanging in Einstein's office at Princeton)

Themes

1. Putting Rankings in Context

2. What We've Learned about Rankings

3. What We Should Know about Measuring Quality & Performance

4. Use Rankings Strategically

1. Putting Rankings in Context

Policy Context

- **Globalisation and competition between nations**
  - Knowledge is key factor in international competitiveness;
  - Amplified role of HE for knowledge-intensive economies;
  - HE as magnet for mobile capital and talent – is putting a premium on elite institutions and their students;

- **Trend towards market-steering governance mechanisms**
  - Increased emphasis on accountability;
  - Global market requires assurances about quality;
  - Growing need to (re)regulate market;

- **Increasing desire for comparative or benchmarking data**
  - Drive-up performance and productivity;
  - Underpin strategic decision-making;
  - "Consumer" information for students/parents;
  - Dissatisfaction with robustness of traditional collegial mechanisms.

D·I·T

Higher Education
Policy Research Unit

Evolution Of Rankings

- Global Rankings emerged in 2003 –
  - Part of US academic system for 100 years but today popularity is worldwide;
  - Significant force impacting and influencing policymakers and the academy;
- **Four phases:**
  - Phase 1 (1900 -1950s) Sub-National/Elite Rankings
  - Phase 2 (1959 – 2000) National Rankings
  - Phase 3 (2003-) Global Rankings
  - Phase 4 (2008-) Supra-national Rankings
- Today, 10 major global rankings and 150+ national/specialist rankings.

Global Rankings

- Academic Ranking of World Universities (*ARWU*) (Shanghai Jiao Tong University, China), 2003
- **Webometrics (Spanish National Research Council, Spain), 2004**
- National Taiwan University Rankings (formerly Performance Ranking of Scientific Papers for Research Universities, HEEACT), 2007
- Leiden Ranking (Centre for Science & Technology Studies, University of Leiden), 2008
- SCImago Journal and Country Rank (SJR) (Spain), 2009
- University Ranking by Academic Performance (URAP) (Informatics Institute of Middle East Technical University, Turkey), 2009
- *QS* **World University Rankings (Quacquarelli Symonds, UK), 2010**
- *THE* **World University Ranking (Times Higher Education, UK), 2010**
- **U-Multirank (European Commission, Brussels), 2014**
- **Best Global Universities rankings (USNWR, US), 2014**
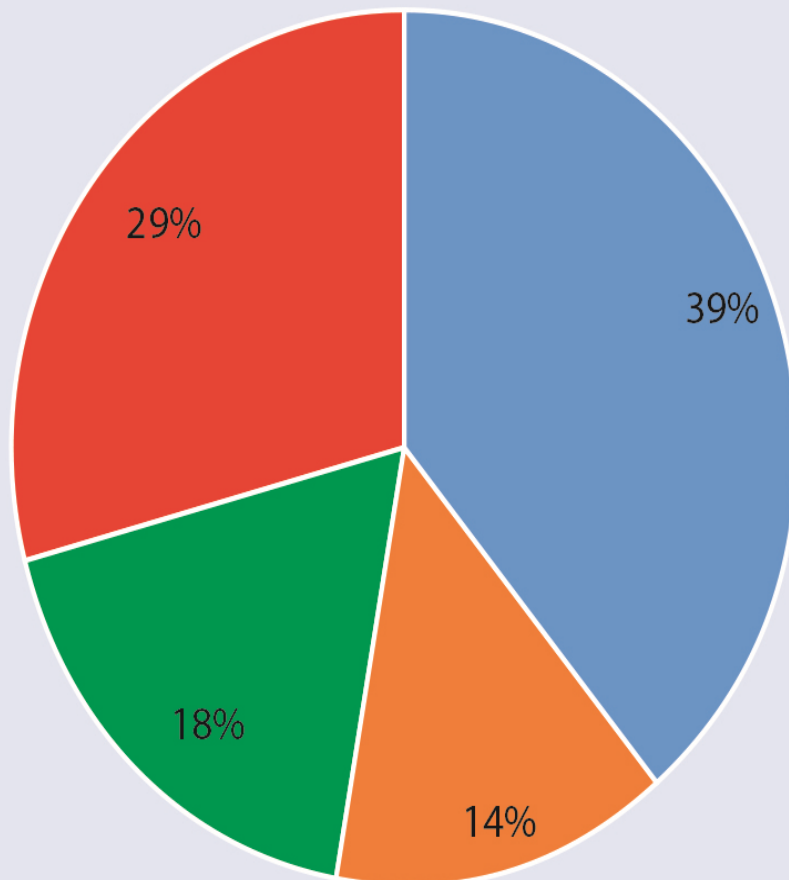
Rankings' Legacy

- Rankings **purport** to measure higher education quality, but
    - Focus on *limited set of attributes* for which (internationally) comparable data is available;
    - Assumes the indicator is a meaningful measure of quality.
- **Nonetheless**, they have succeeded in:
    - Acting as a wake-up call about the *value of higher education;*
    - Placing consideration of HE quality within *wider comparative and international framework*
    - Challenging self-perceptions. No more self-declaration
- With onslaught of global rankings, **HE world has become more competitive and multi-polar.**

2. What We Have Learned about Rankings

What Have We Learned

- Rankings are **a driver of higher education decision-making** at the institutional and national level;

  - Highlights ambition and sets explicit strategic goal;

  - Identifies KPIs used to measure performance and reward success;

  - Rankings help identify under-performers and "reputational" disciplines.

- **Students**, high achievers and international, use rankings to inform choice;

- Other HEIs use rankings to identify potential partners or membership of international networks;

- Employers and other stakeholders use rankings for recruitment or publicity purposes;

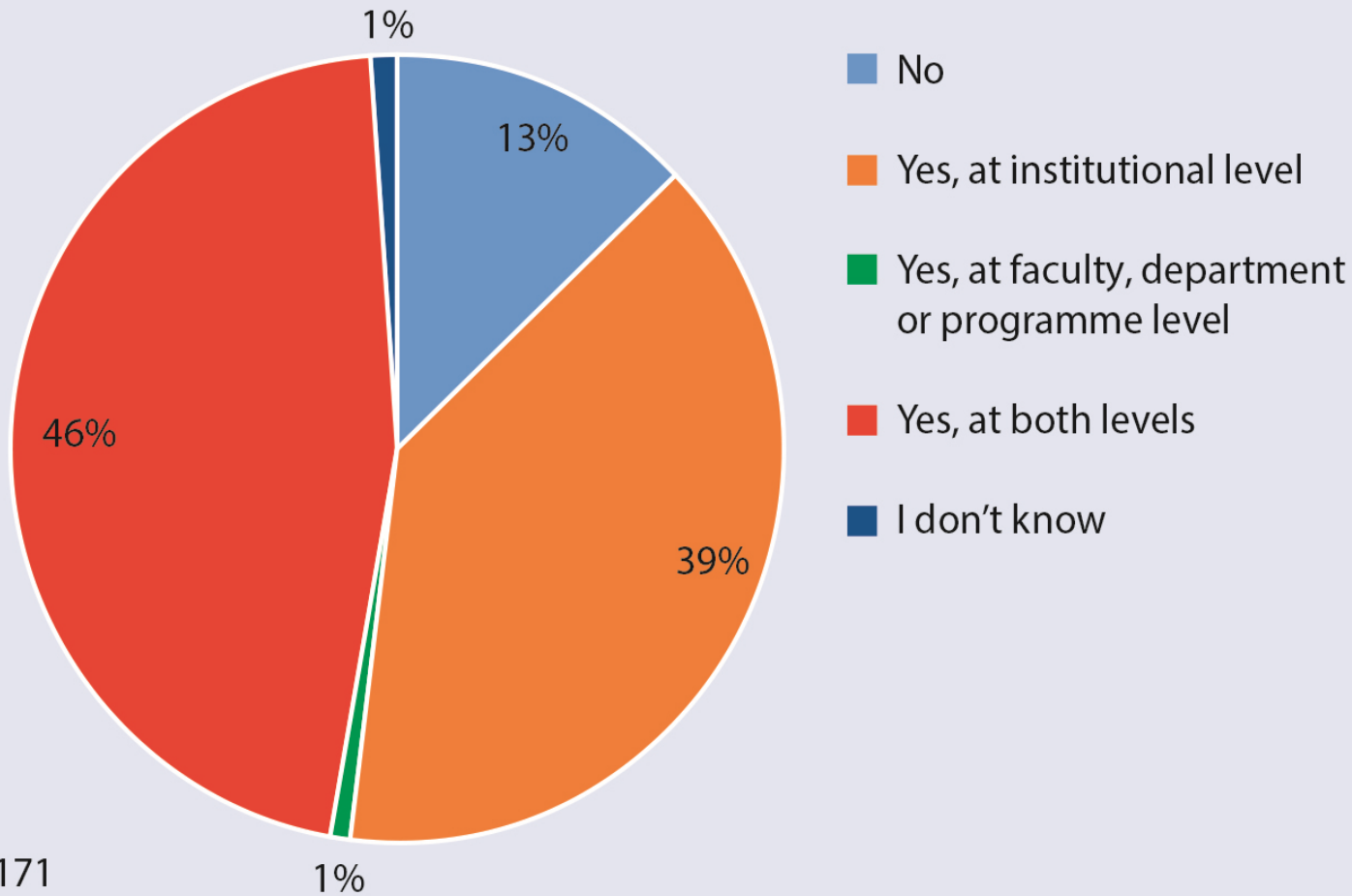- **Government policy is increasingly influenced by rankings**.

Rankings' Role In Institutional Strategy

Legend:
- No
- Yes, and our institution formulated a clear target in terms of its position in national rankings.
- Yes, and our institution formulated a clear target in terms of its position in international rankings.
- Yes, and our institution formulated a clear target for both national and international rankings.

Pie chart values: 39%, 14%, 18%, 29%

N = 171

Does Your Institution Monitor Its Position In Rankings?

1%

13%

46%

39%

1%

N = 171

- No
- Yes, at institutional level
- Yes, at faculty, department or programme level
- Yes, at both levels
- I don't know

Process for Monitoring Rankings

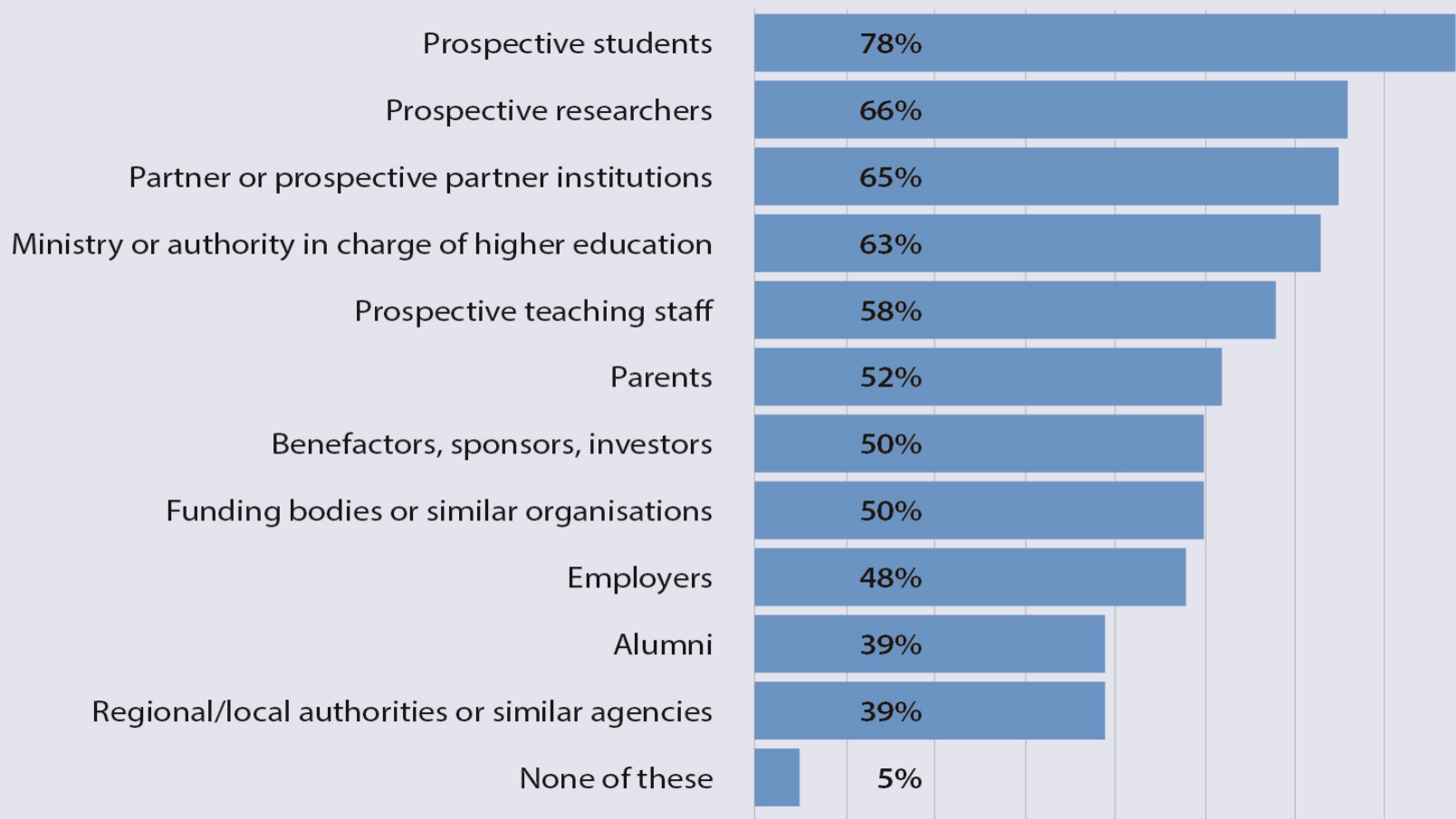| Process for monitoring rankings	
We have a specialist unit/section of the institution which monitors our position in the rankings regularly.	33%
We have one or several persons at institution level who monitor(s) our position in the rankings regularly.	54%
We have one or several persons at study field, department or programme level who monitor(s) our position in the rankings regularly.	12%
We occasionally look into rankings to inform strategic decisions or for precise purposes, but not in a systematic way.	23%
There are discussion platforms (committees, meetings…) organised at institutional level, where the issue of rankings is discussed on a regular basis.	26%
There are discussion platforms (committees, meetings…) organised at faculty, department or programme level, where the issue of rankings is discussed on a regular basis.	12%
Other	5%

Reasons For Monitoring Other Institutions

Reason for monitoring other institutions	
Benchmark purposes (compare yourself to other institutions) at national level	84%
Benchmark purposes at international level	75%
Establishing/maintaining national collaborations	23%
Establishing/maintaining international collaborations	56%
Establishing/maintaining staff exchange	28%
Establishing/maintaining student exchange	37%
Other	2%

N = 137. The results do not add up to 100% as respondents to this question could indicate multiple replies.
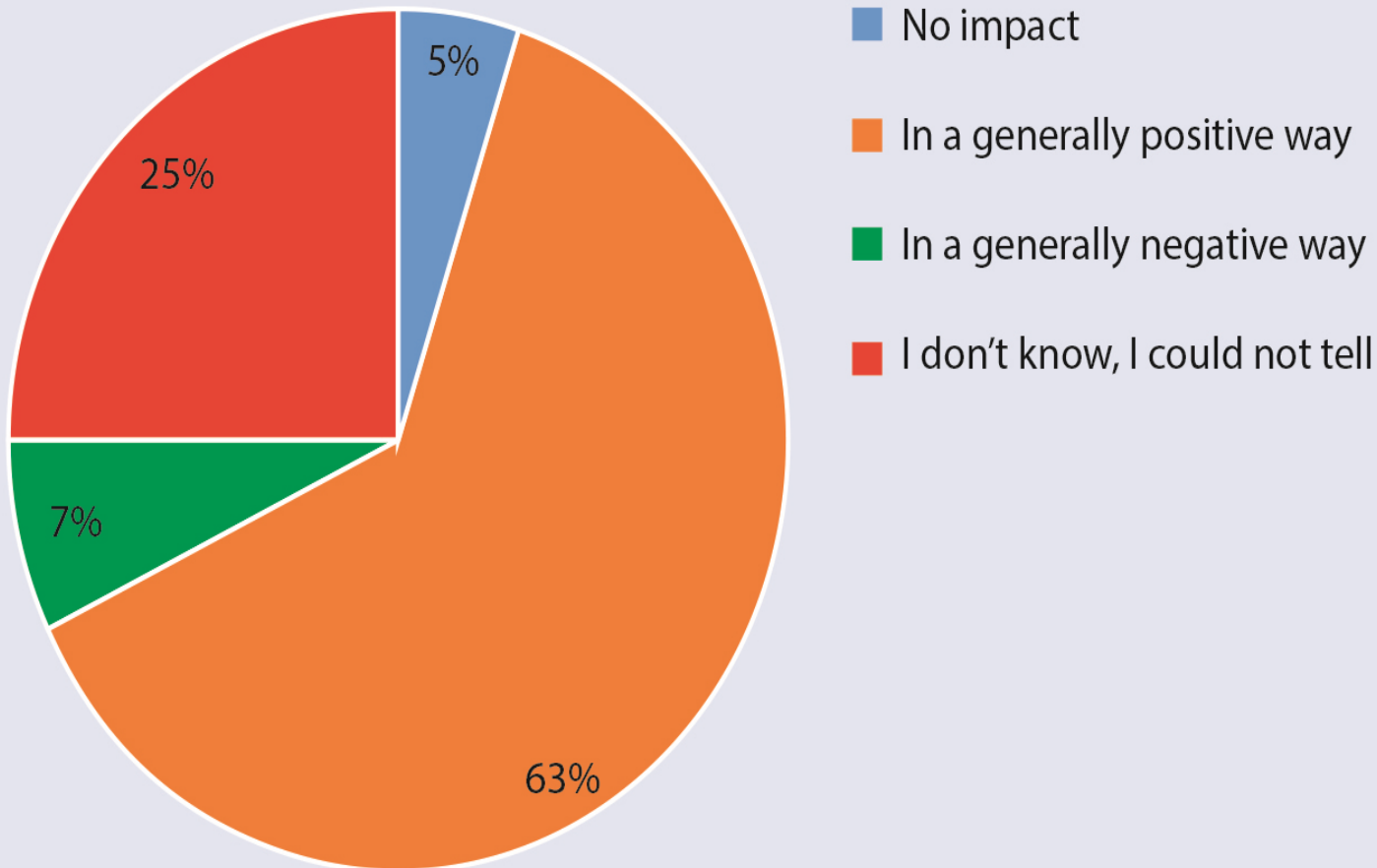
Groups Most Influenced By Rankings

Group	Percentage
Prospective students	78%
Prospective researchers	66%
Partner or prospective partner institutions	65%
Ministry or authority in charge of higher education	63%
Prospective teaching staff	58%
Parents	52%
Benefactors, sponsors, investors	50%
Funding bodies or similar organisations	50%
Employers	48%
Alumni	39%
Regional/local authorities or similar agencies	39%
None of these	5%

N = 171. The results do not add up to 100% as respondents to this question could indicate multiple replies.
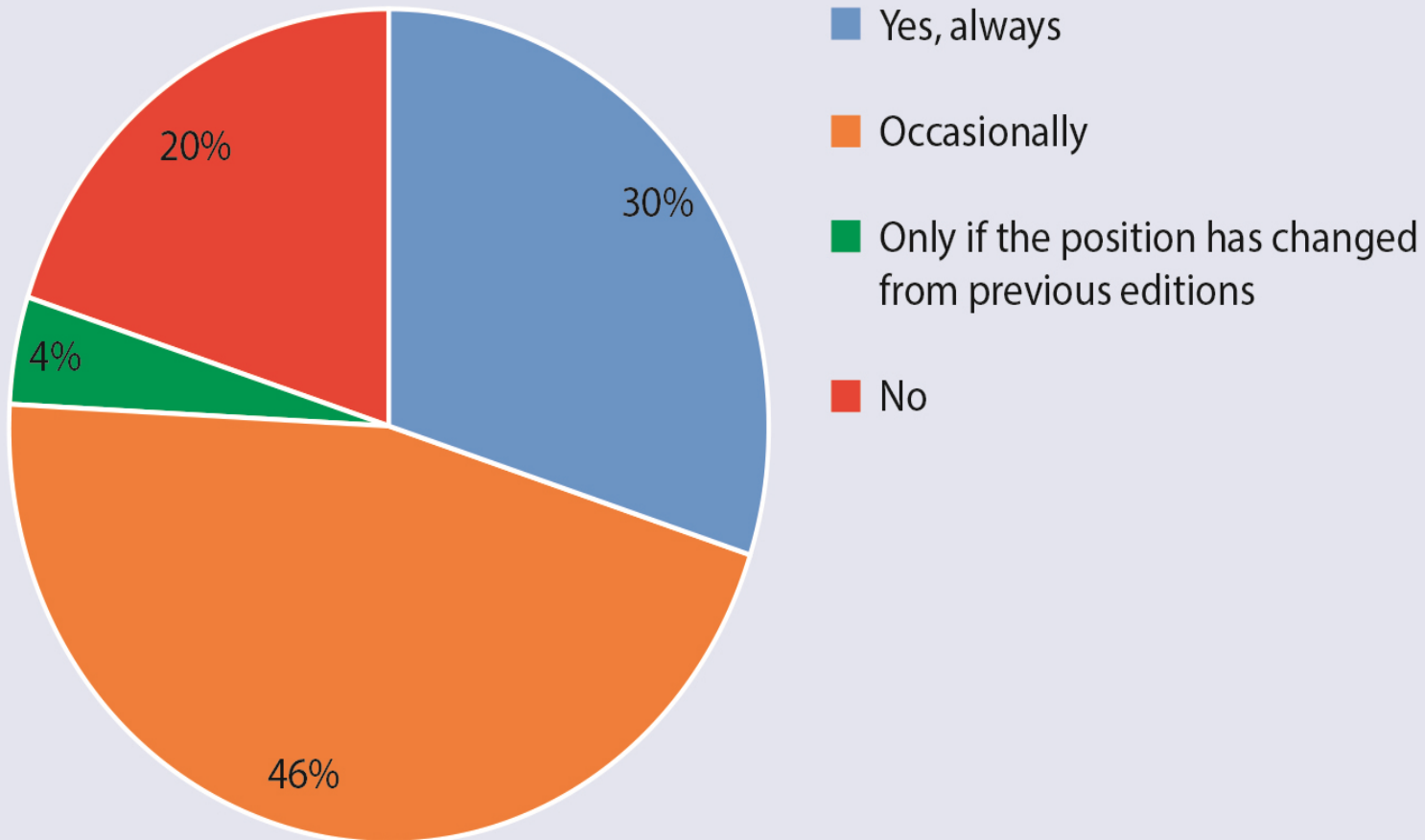
Examples Of Actions Taken

Research	Increase output, quality and citations
	Recruit and Reward faculty for publications in highly-cited journals
	Publish in English-language journals
	Set individual targets for faculty and departments
	Increase number/proportion of PhD Students
Organization	Merge with another institution
	Develop/expand English-language facilities
	Establish Institutional Research capability
	Embed rankings indicators as a performance indicator
	Form task group to review and report on rankings.
Students	Target recruitment of high-achieving students, esp. PhD students
	Offer scholarships and other benefits
	More international activities and exchange programmes
	Open International Office and professionalise recruitment
Faculty	Recruit/head-hunt international high-achieving/HiCi scholars
	Create new contract/tenure arrangements
	Set market-based or performance/merit-based salaries
	Reward high-achievers & Identify weak performers
	Enable best researchers to concentrate on research
Public Image/ Marketing	Reputational factors
	Professionalise Admissions, Marketing and Public Relations
	Ensure common brand used on all publications
	Expand internationalisation alliances and membership of global networks

How Rankings Affect Reputation?

5%

25%

7%

63%

No impact

In a generally positive way

In a generally negative way

I don't know, I could not tell

N = 171

Rankings For Marketing Or Publicity

Legend:
- Yes, always
- Occasionally
- Only if the position has changed from previous editions
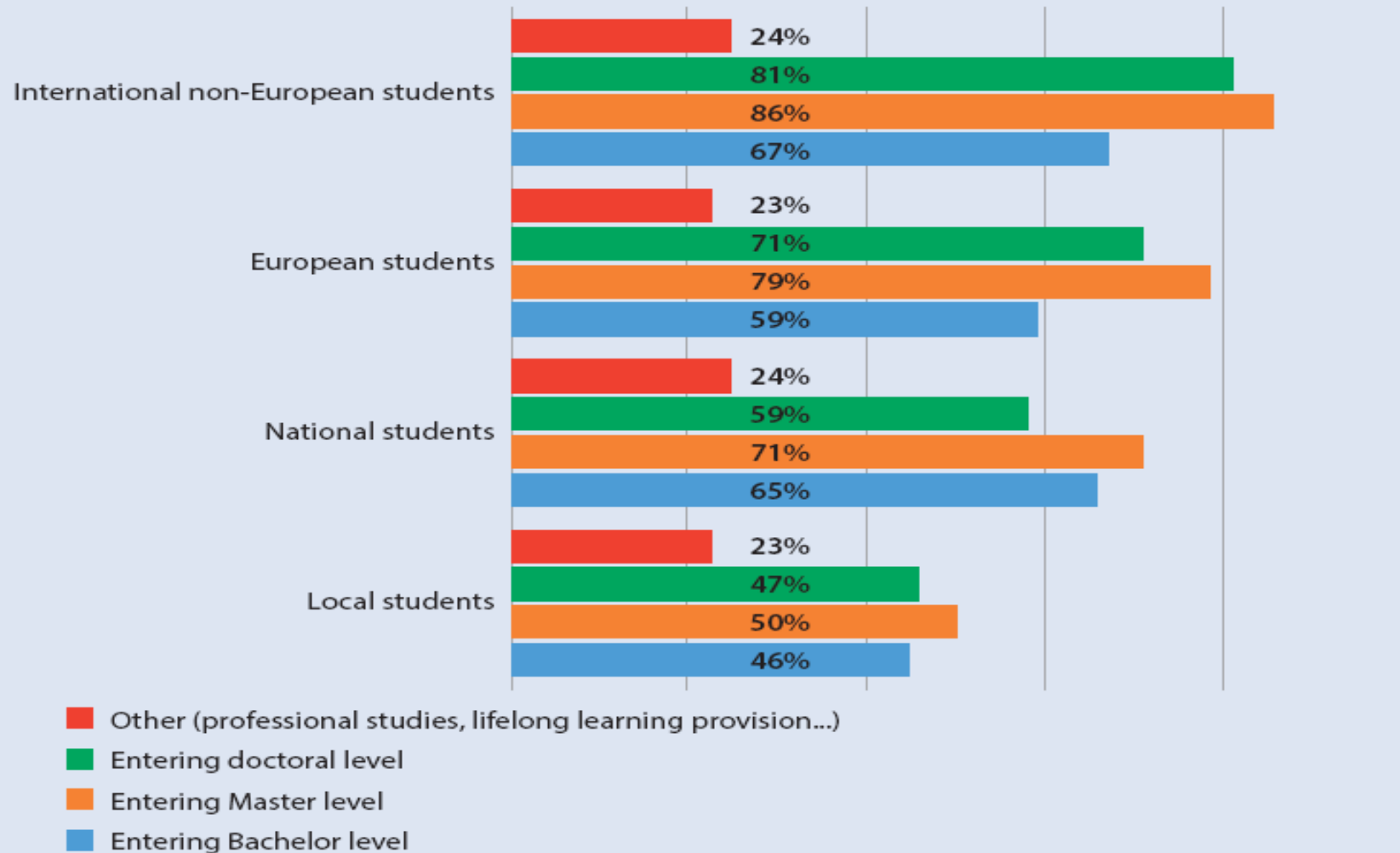- No

20%
30%
4%
46%

N = 171

Student Reaction: Some Findings

- **80% undergraduate and postgraduate** (taught and research) students **have a high interest in rankings**, with no real difference between undergraduate and postgraduate students (i-graduate, 2014);

- **High achieving and high socio-economic students** are most likely to make choices based on non-financial factors, e.g. reputation and rankings;

- **International students continue to rate reputation and position** in rankings as key determinants in their choice of institution, programme and country;

- **Strong correlation between rankings, perceptions of quality, institutional reputation and choice of destination**, at the national and institutional level;

Students Most Influenced By Rankings

	Other (professional studies, lifelong learning provision...)	Entering doctoral level	Entering Master level	Entering Bachelor level
International non-European students	24%	81%	86%	67%
European students	23%	71%	79%	59%
National students	24%	59%	71%	65%
Local students	23%	47%	50%	46%

■ Other (professional studies, lifelong learning provision...)
■ Entering doctoral level
■ Entering Master level
■ Entering Bachelor level

N = 133. The results do not add up to 100% as respondents to this question could indicate multiple replies.

Top 10 Factors Influencing Student Choice, 2010 and 2014

Priority – 2014	Priority – 2010	Factor	Mean Score – 2010	Mean Score – 2014
1	2	Reputation (value in my career) of a qualification from this university	3.49	3.74
2	3	Reputation of this Institution	3.48	3.44
3	4	Quality of research	3.4	3.42
4	n/a	Reputation of the education system in this country	3.38	n/a
5	6	Personal safety and security	3.28	3.24
6	7	Cost of education (tuition fees)	3.25	3.21
7	10	Specific programme title	3.25	3.09
8	n/a	Cost of living	3.2	n/a
9	n/a	Earning potential of my chosen degree from this Institution	3.17	n/a
10	9	Position in ranking/league tables	3.14	3.09

Source: © International Graduate Insight Group Ltd. (i-graduate), 2014
NB. For 2010 figures, "n/a" means the "Factor" listed for 2014 did not feature in the top ten most important factors in 2010.

3. What We Should Know about Measuring Quality & Performance

Why Assess Higher Education?

- **Cross-national comparisons are inevitable** by-product of globalization and will intensify in the future;

- Systems and HEIs must be accountable and responsible – whether dependent on public or private funding;

- Measuring HE performance and productivity, student learning outcomes etc. is **unquestionably important**;

- Good quality, international comparative information is essential to **underpin strategic leadership and decision-making** at the national and institutional level;

- Enable countries/universities to gain a greater understanding of their own situation by learning from/sharing experience and "good practice";

- Provide **assurances to the public** about the contribution of HE to society and economy.

Typology Of Transparency Systems

- *College guides*: fulfil public service role, helping and informing domestic undergraduate students and their parents.

- *Accreditation*: used to certify the legitimacy of a particular HEI including the authority to award qualifications, either directly or via another agency;

- *Evaluation and Assessment*: used to assess quality of research and/or teaching & learning to compare and sometimes rank performance;

- *Benchmarking*: used to manage more strategically, effectively and efficiently as systematic comparison of practice and performance with peer institutions.

- *National rankings*: underpin accreditation, benchmark performance, aid resource allocation;

- *Global rankings*: international comparison of institutional performance and reputation.

What People Want To Know

- Teaching and learning: environment and quality;

- Fields of specialisation/department: level of intensity, expertise, quality and competence;

- Faculty quality: qualifications, expertise and track-record, research,

- Efficiency level: how much output vis-a-vis funding;

- Graduate expectations: career, salary and lifestyle;

- Employability of graduates: trends and competences;

- Research capacity of HEI & research team;

- Research infrastructure: level of use and efficiency;

- Performance benchmarked regionally, nationally & internationally;

- Attraction capacity and internationalisation;

- Etc.

Academic Quality Rankings

- Compare institutions by using a range of indicators:
  - Indicators are chosen by the designers of each system – according to what each organisation believes are measures or reflects academic quality;
  - Different indicators are weighted differently.
- Final score aggregated to single digit in descending order
  - "List of the best colleges, universities, or departments in a field of study, in numerical order according to their supposed quality" (Webster, 1986, 5);
  - Often referred to as a "league table"

D·I·T

Higher Education
Policy Research Unit

Understanding Rankings

- There is **no such thing as an objective** ranking
- Because:
    - The evidence is never self-evident;
    - Measurements are rarely direct but consist of indicators;
    - Choice of indicators and weightings **reflect value-judgements** of the rankings organisations.
- Each indicator is considered independently from each other - with no consideration as to context, history, mission, etc.
    - In reality, there is a relational aspect to the indicators or multi-collinearity

What Rankings Measure

Global Rankings Measure

- Bio- and medical sciences Research
- Publications in *Nature* and *Science*
- Student and Faculty Characteristics (e.g. productivity, entry criteria, faculty/student ratio)
- Internationalization
- Reputation – amongst peers, employers, students

Global Rankings Do Not Measure

- Teaching and Learning, incl. "added value", impact of research on teaching
- Arts, Humanities and Social Science Research
- Technology/Knowledge Transfer
- Impact and Benefit of Research
- Regional or Civic Engagement
- Student Experience

Who Uses Rankings

Students, public opinion and government are **biggest users of rankings** & more likely to be negatively influenced

- Domestic undergraduate students
- Internationally mobile students and faculty
- Postgraduate students
- Government/Policymakers
- Academic partners and academic organisations
- Employers
- Sponsors, philanthropists and private investors
- Industrial partners
- Higher education institutions
- Public opinion

Advantages

- Provide simple, quick and easy way to measure/compare HE performance and "quality";
- Place HE within wider comparative and international framework;
  - Inform student choice and stakeholder opinion;
  - Beacon to attract/retain mobile capital and talent;
  - Performance assessment of scientific-scholarly research;
  - Signal of what to expect upon graduation and from graduates;
  - Value-for-money and return-on-(public) investment;
- Accountability tool, esp. in societies/for HEIs where QA culture/practices weak or immature;
- Heighten attention to quality and drive-up performance:
  - Accelerate modernisation agenda;
  - Emphasize institutional strategic decision-making and data collection/analysis:

D·I·T DUBLIN INSTITUTE OF TECHNOLOGY · INSTITIÚID TEICNEOLAÍOCHTA ÁTHA CLIATH

Higher Education Policy Research Unit

Disadvantages

- HEIs are complex organisations meeting diverse needs, but rankings usually measure/compare "whole institutions" using same set of indicators;
    - Undermines mission diversity, and ignores diversity of student cohort;
    - Drives isomorphism/norming around single model of HE or quality/excellence;
- Academic quality is complex and not easily reduced to quantification;
    - Use of proxy variables can misrepresent and lead to unintended consequences;
    - Difficulty obtaining meaningful indicators and (international) comparative data;
    - Bibliometric data is unreliable for all disciplines, and doesn't capture the impact or benefit of research;
- Leads to simplistic comparisons: whereas, statistical differences between institutions are insignificant;
- International differences can be very great;
- Indicators can encourage perverse behaviour – over-emphasis on small set of indicators.

Data Sources

	Independent or third party sources	HEI own data	Survey data of students, peers, employers or other stakeholders
Advantages	• Government data considered most accurate; • Bibliometric/citation data (Thomson Reuters, Elsevier Scopus, Google Scholar) is very extensive; • UNESCO/OECD data extensive	• Richest and most comprehensive data	• Can capture valuable stakeholder opinion about a wide range of issues and measure esteem
Disadvantages	• Government data collected for national purposes; thus, cross-jurisdictional comparisons are problematic; • Bibliometric/citation data primarily captures research in physical/biological sciences; problems with citation and other biases; • International data comparisons can be difficult and misleading	• Can be open to significant distortion or manipulation; • No guarantee of consistency even if standard set of questions being asked; • International comparisons can be difficult because of different data definitions, and policy context.	• Reputational data are susceptible to bias, low response rate, self-perpetuating a view of quality, and gaming; • Concerns about sample size, response rate, etc.

4. Use Rankings Strategically

Rankings-led Strategy

- **Quality traditionally assessed via "self-regulating" QA and peer-review**, but:
  - QA can be difficult to compare internationally;
  - Interest in going beyond measuring and evaluating quality to linking performance and productivity to resource allocation.
- **Rankings have filled gap**:

Many governments and HEIs have adopted a **rankings-led strategy**:

  - Restructure HE systems to create "world-class" or flagship universities;
  - Embed indicators in strategic planning, and use to measure performance and reward success;
  - Use indicators for scholarships, and to target collaboration and professionals;
  - Re-orientation in research priorities towards "reputational" disciplines,
  - Etc.

What Are You Trying To Achieve?

- **What is your institution trying to do?**
  - What are your institution's profile, mission and goals?
  - How much, if any, attention should your institution pay to rankings in this context?

- **How is your institution trying to do it?**
  - What are your institution's goals? How is progress measured?
  - Are rankings the most appropriate measurement?

- **How does your institution know it works?**
  - How does your institution assess its performance?
  - What is your institutional research capacity? How can this be enhanced?

- **How does the institution change in order to improve?**
  - Would other transparency instruments be more useful for benchmarking and helping improve performance?

Choose Meaningful Indicators (1)

- Quantitative vs. Qualitative Measures

- Inputs vs. Outputs vs. Impact

- Appropriate Unit of Analysis: department, institution, discipline?

- Student Performance:
  - Entry Criteria vs. Learning Gain vs. Added Value
  - Satisfaction vs. Engagement Survey
  - Traditional 18-22 vs. low SES, mature, learner-earner, etc.

Choose Meaningful Indicators (2)

- Research:
  - Traditional bibliometrics vs. Breadth across all Disciplines
  - Citation count vs. impact measures
  - Technology transfer/Commercialisation vs. Knowledge transfer
  - Past performance Vs Potential
  - National vs. International Significance
  - English vs. National language

- Reputation/Satisfaction:
  - Gap between numbers surveyed and response rate;
  - Benefits older institutions in developed countries and global cities with which there is an easy identification;
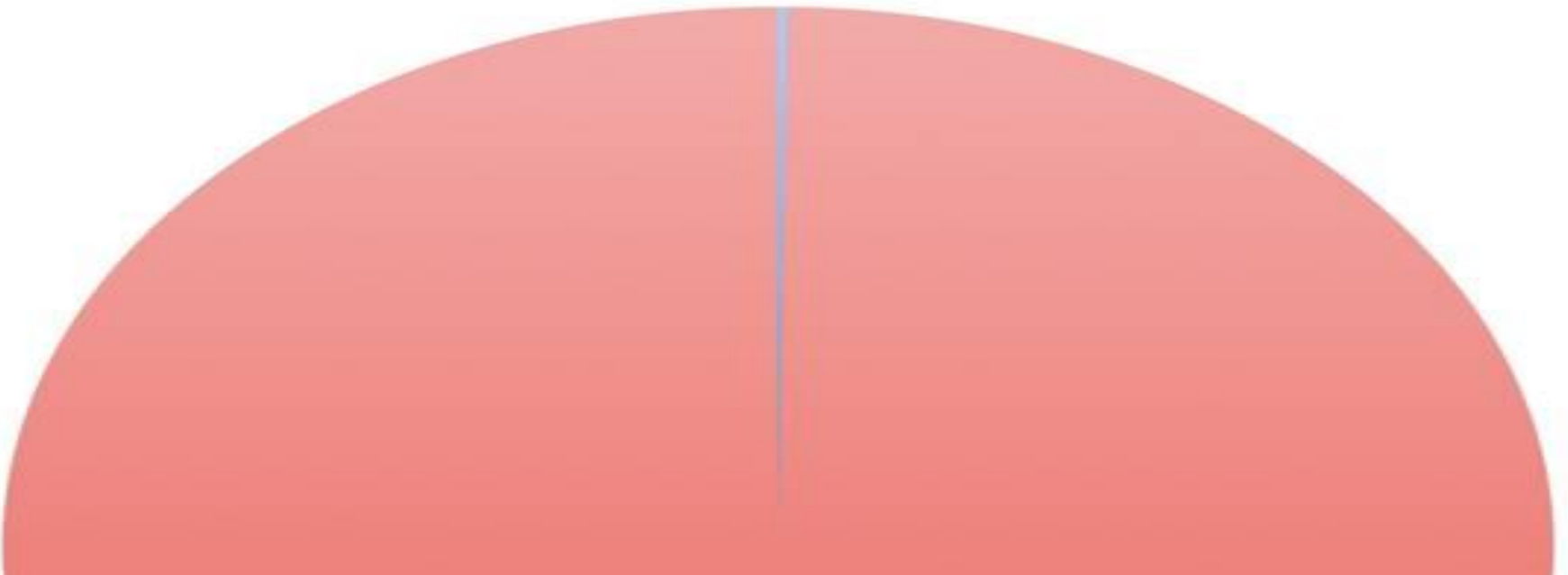
- Context is always important

Beware Unintended Consequences

- **Quality is a complex concept**:
  - No internationally agreed definition;
  - Many indicators simply measure easily available data;
  - Many indicators focus on inputs;
- International comparisons not always appropriate or relevant;
  - Why should a country or institution align itself to indicators chosen by others?
- Adopting a rankings-led strategy can affect/reorient priorities and practices, leading to perverse behaviour and "gaming";
- Because rankings incentivise behaviour, what is measured is critical.

Higher Education
Policy Research Unit

Obsession with Elites

- ~18,000 HEIs worldwide (as per WHED data).
- 196m worldwide enrolments 2012 (WB)
- Rankings as top 100 = 0.5% HEIs or 0.4% students worldwide
- **Obsession with rankings is skewing our understanding of student cohort**;

Number of HEIs

Significance of Institutional Research

- IR - has traditionally provided information gathering and data analysis to underpin strategic planning, recruitment strategies, financial assessment and budgeting, *etc.*;

- Today, **IR is at the forefront of strategic decision-making** and performance measurement – and wide-ranging international debate about measuring and assessing HE performance:

  - Skills required in data collection and data analytics;

  - Knowledge of policy and institutional context;

  - Understand what is being measured, why, and the consequences.

- **Professionalization** taking place at all levels:

  - Institutional, National and supra-national

  - Agency

  - Commercial

Dos and Don'ts

Don't

- Use rankings as a stand-alone evaluation tool;
- Use rankings to inform policy or resource allocation decisions;
- Incentivise perverse behaviour by the choice of indicators;
- Direct resources to a few units/faculty and neglect the overall purpose of HE.

Do:

- Be true to your mission, and ensure rankings are aligned with institutional values and objectives, and have a clear purpose;
- Ensure indicators are fit-for-purpose, and measure outcomes in preference to inputs whenever possible;
- Identify appropriate peers, and engage in data-sharing for benchmarking;
- Understand the limitations of rankings, and the unintended consequences.

Higher Education Policy Research Unit (HEPRU)

Ellen.hazelkorn@dit.ie

http://www.dit.ie/hepru

http://goo.gl/FHpNf

ELLEN HAZELKORN

Rankings and the Reshaping of Higher Education

The Battle for World-Class Excellence

2ND EDITION

D·I·T

Higher Education Policy Research Unit