PA Consulting Group

# Higher Education Statistics Agency

## International Benchmarking in UK Higher Education

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# Foreword

This report presents the findings from a brief review of international benchmarking in the UK higher education (HE) sector, commissioned by HESA from PA Consulting Group as part of the follow-up to the HESA Status Report, "*Benchmarking to improve efficiency*" (November 2010). The report presents a snapshot of current international benchmarking activities and experiences in the UK sector, provides an overview of the range of benchmarking resources available, and offers proposals for future approaches to meeting HE institutions' needs in this area.

We would like to record our thanks to the many people who helped in the production of this report, notably Jonathan Waller and colleagues at HESA, Giles Carden from the University of Warwick and all those who contributed through interviews, correspondence and seminars.

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# 1 Introduction and methodology

This report presents the findings from a brief review of international benchmarking in the UK higher education (HE) sector, commissioned from PA Consulting Group by HESA as part of the follow-up to the HESA Status Report, "*Benchmarking to improve efficiency*" (November 2010). The report presents a snapshot of current international benchmarking activities and experiences in the UK sector, describes and discusses the available benchmarking resources, and offers proposals for future approaches to meeting HE institutions' needs in this area.

## 1.1 Remit for the review

The initial HESA Status Report on benchmarking activities and resources focused on intra-national data about institutional operations, with an emphasis on the potential benefits of benchmarking for improving institutional efficiency. The current report was commissioned to extend that review to international comparisons of performance and operations, to assess the potential for learning from other HE systems.

Particular areas of interest for the review were:

- The uses of international benchmarking in relation to academic performance and non-academic activities
- Approaches taken by policy and mission groups, and known activities by government bodies and agencies
- Examples of international benchmarking best practice in a small sample of universities, with an assessment of impacts and benefits
- Review of available resources, including international university league tables, consideration of their linkage to business requirements, and assessment of quality, accuracy and timeliness of the data
- A compendium of sources and availability of data to support international benchmarking, within country or internationally

Based on this analysis, we were invited to develop:

  – Proposals for a possible model or models for international benchmarking by UK institutions
  – An assessment of the feasibility for implementing the proposed model, and the possible restrictions and constraints
  – Recommendations for HESA and the sector more broadly, for developments that might optimise the use of international benchmarking to improve institutional performance.

## 1.2 Scope, and approach to review

International benchmarking by HE institutions can be interpreted in various widely differing ways:

- Comparisons of the overall international standing or ranking of institutions against a ‘menu’ of data compilations in various international 'league tables'

- Data-based comparisons of institutions' international operations and performance, including data collected by international 'clubs' of universities
- Process-based comparisons of institutional management approaches, intended to identify and share good practices with regard to recruitment and other aspects of internationalisation
- Environmental and issues-based comparisons of developments and approaches in different countries
- Market intelligence on patterns of demand and competitor information from different countries

Each of these interpretations of benchmarking is very different in kind, and in its potential relevance and usefulness for institutions. Benchmarking is not an end in itself, and is useful inasmuch as it can inform better strategic or managerial plans and decisions. We therefore felt it important to start the review with an understanding of the institutional planning needs that would potentially be served through benchmarking, and then to assess the available resources and their value in that context. Our approach thus proceeded through:

- Needs assessment – based on consultation with a selection of institutions, identification of the critical needs and uses of international benchmark information among HESA's member institutions
- Review of available resources – desk research to identify and assess the available resources for benchmarking. The output of this stage is a conspectus of available international benchmarking resources
- Assessment of gaps and unmet needs – an assessment of the extent to which the available resources meet the sector's expressed needs for benchmarking information
- Proposals for meeting future benchmarking needs, including suggestions for a model approach for institutions.

## 1.3 Structure of the report

The remainder of this report is structured as follows:

- Chapter 2 presents the key messages arising from our consultations with selected institutions on their needs and experiences in international benchmarking
- Chapter 3 summarises the findings of our research into the available international benchmarking sources
- Chapter 4 offers our proposals for a possible model approach to institutional international benchmarking
- Chapter 5 offers conclusions and recommendations.

# 2 International benchmarking needs and experiences

Internationalisation is high on the strategic agenda for almost every UK university[1], and is extending in scope, from past emphasis on recruiting non-EU overseas students to UK campuses to impact on every area of institutions' teaching, research staffing and business development. In consequence, there is growing interest in the comparative standing and performance of UK institutions in a range of international contexts. This section discusses the business interests of UK universities in international benchmark data and related information.

## 2.1 Institutions' international interests and needs

While almost all universities and HE institutions have declared strategic commitments to growing internationalisation, the scope of this commitment and the progress of related plans and performance vary greatly across the sector. While some institutions are focused simply on growing their recruitment of non-EU student numbers, others are well advanced towards becoming fully international in every area of their operations. These differences in development are reflected in the kinds of international information most relevant to institutional planning and performance management.

The table below, based on a desk review of the published internationalisation strategies of UK universities, shows the range of performance criteria and measures currently used across the sector. Only a few universities appear to use all of these performance measures, although our experience is that the breadth of institutional interests is widening.

**Table 2.1: Commonly used KPIs for internationalisation**

| Theme | Indicators |
|---|---|
| STUDENTS | Overseas as % total UG |
| | Overseas as % total PGT |
| | Overseas as % total PGR |
| | No. of countries of origin (all students) |
| | Overseas student perceptions/experiences |
| STAFF | International as % total academic staff |
| | International as % professors/chairs |
| | % UK staff with overseas experience |
| | No. of countries of origin (all acad. staff) |
| | International staff perceptions/experiences |
| RESEARCH | % research awards from non-UK sponsors |
| | % research projects with overseas partners |

[1] See, for example, the priorities highlighted by institutional leaders in response to PA Consulting Group's most recent survey, summarised in "Life beyond the Looking Glass: how university leaders are responding to the new world of higher education", PA Consulting Group 2011.

| | |
|---|---|
| | % research undertaken overseas |
| | Number/value of projects for multinational corporations. |
| PARTNERSHIPS | Number of MoUs with overseas HEIs |
| | Membership of international HE networks |
| | Number of countries in which university operates |

It is noticeable that these KPIs are predominantly internal measures of institutional performance against their own targets or past performance, rather than being externally focused on performance in comparison to competitors and peers, whether national or international. This impression was confirmed in our discussions with a number of institutions (summarised below). Universities recognise that they are increasingly competing with both domestic and international rivals on all of these criteria, but appear to use comparisons with their competitors mainly as a basis for calibrating their own targets. Moreover, the comparisons that appear to matter to most UK universities are with their national peers, rather than with international players. There are important and perhaps a growing number of exceptions to this observation, discussed below.

One clear area of exception to the focus on intra-national comparisons is in 'whole institution' rankings in the various international 'league tables' of universities (described in detail in Section 3.4). We found highly ambivalent views of these rankings among UK universities. Most are highly sceptical of the reliability of the data used in these surveys and also of the relevance of criteria and weightings that attempt to standardise the concept of a 'good' university. On the other hand, there is a strong perception that institutional league table rankings are important factors in competition for non-EU students, and to a lesser extent as factors in attracting top flight academic staff. In consequence, those UK universities with realistic aspirations of appearing in Top 200, or even Top 50 international ranking tables do take these comparisons seriously within their internationalisation plans.

## 2.2 International benchmarking by UK universities

We interviewed planning officers and other staff from a sample of UK universities, representing a cross-section of institutional types, to understand their current priorities, activities and experiences of international benchmarking. We also held less structured discussions with a wider group of institutions attending two HESA benchmarking seminars.

Overall, we found that international benchmarking activities were relatively low priorities for almost all of the institutions we interviewed, and also of those attending the HESA seminars. While most institutions collect and review comparative data on their international performance, few use them systematically in their planning or management processes, and those that do, do so mainly in very specific areas, mainly either detailed analyses of research performance or to assess the perceptions of their international students.

All of the institutions interviewed were keen to stress that, while benchmarking and rankings can be important, there has to be a business purpose to them. "Weighing the pig does not make it heavier!" was the phrase used by one institution to make this point. The institutions were also aware of the potential trap of becoming ‘ranking obsessed’ and noted that the rankings should not of themselves drive institutional process – for example, an institution might be tempted to invest in research at the expense of improving the student experience simply to chase a higher overall ranking.

While all of the institutions questioned made some use of international benchmark information, they were very much aware of the limitations of such data comparisons, and used them 'for what they are

worth', mainly as a point of departure for more detailed investigation of specific areas, depending on their institution's strategic priorities. There was a sense of ambivalence from institutions towards international rankings, due primarily to the presence of subjective indicators and judgements in many of them. This ambivalence was however checked by the need to 'play the game' due to the perceived importance that league tables have gained in recent years, particularly in markets like China, where the THE and QS rankings are thought to carry considerable weight.

'High level' indications from various global league tables tend to lead onto more detailed benchmarking against UK comparators. This focus on UK competitors is primarily due to UK institutions having access to a much greater and better understood set of data for other UK peers. So, where for example, an institution might identify a relative weakness in its teaching scores in an international ranking table, they might look to break that down into student satisfaction and other more quantitative metrics (such as PGR per academic FTE) among UK competitors, to get a deeper understanding of what the underlying issues might be.

The benchmarking metrics and comparator sources used tend to focus on a few trusted sources, with Thomson Reuters research data and the i-graduate International Student Barometer cited by several respondents as the most used. A few research-intensive universities invest in commercial international analyses of individualised research performance, and use the data both for internal performance management and in making recruitment decisions. Few other institutions claimed to be doing "anything clever" with published sources, typically using them only to identify their institution's overall ranking on core metrics, usually against a defined set of UK comparator institutions.

Aside from concerns about the quality of data from outside the UK, identifying appropriate international comparators is seen as a stumbling block to international benchmarking. Several institutions wondered whether the limited extent of international benchmarking is because institutions lack trusted data for international institutions or whether it reflects historical practices, whereby the institutions have traditionally looked to a specific cohort of domestic comparators and stick to them. The institutions we spoke with observed that it is considerably more difficult to pick overseas institutions for comparison, as the depth of contextual knowledge is far lower; different socio-economic and political factors in other countries are felt to limit the value of cross-border benchmarking.

Some institutions use international institutional data as a tool to help in identifying potential overseas research and/or teaching collaborators, and also use overseas market data and business intelligence resources to support decisions about potential expansion into particular markets.

One area of largely unmet benchmarking interest was the employability of international graduates, which some institutions felt would be useful for their marketing in international markets.

More generally, the impression from these interviews was that most UK institutions feel that the potential value of international benchmarking is hampered by concerns over the reliability and relevance of the available data, and also by the limits of their own contextual knowledge of overseas markets and systems, within which they could form judgements based on comparative data.

## 2.3 Sector bodies and mission groups

Several sector bodies and groups provide valuable information services for their members on international market and policy developments, and also support visits and events intended to build links between UK and overseas institutions. For example, Universities UK sponsors the International and Europe Unit, which publishes an informative monthly bulletin of news and articles about developments and activities in overseas markets. The British Council is active in producing

international market analyses and reports. The Observatory on Borderless Higher Education, now part of the i-graduate group, offers a similar service on a subscription basis. However, with the exception of the Association of Commonwealth Universities, described in the following chapter (and not UK-focused), none of the HE sector bodies aims to provide any kind of data services or benchmarking analysis. For the most part, the activities of mission and sector groups in this area has been to stimulate understanding of the importance of internationalisation, in all its dimensions, for the health of the sector and the benefits to the wider UK economy, and to lobby for supportive policy and political measures.

# 3 Benchmarking information sources

There is a wealth of published data and analyses of international comparisons across the HE system, most of it published in the public domain along with some proprietary commercial products. This section presents a summary overview and commentary on the major sources, including some still in development; a more detailed conspectus of available resources is provided in Appendix A.

## 3.1 Overview of current benchmarking resources

The available international benchmarking resources and other sources of market and business intelligence fall into various types:

- Whole institution comparisons and rankings
- Cross-country comparisons of institutional performance in specific areas
- Narrative comparisons of process and/or policy approaches
- Information on national market characteristics
- Intelligence reports on national market developments.

Our desk research identified numbers of published and proprietary resources in each of these areas, described briefly in the following table and in more depth in Appendix A.

**Figure 3.1: Overview of available benchmarking resources - Market data sources**

| Title/Coverage/Comparison | Description |
|---|---|
| Title: OBHE (Observatory on Borderless Higher Education)<br>Coverage: OBHE includes more than 150 organisational members from 70 countries<br>Comparison: Market data | OBHE provides insights into recent developments, universities' information, and perspectives from university leaders, best practices in higher education, policy frameworks and cross border higher education insights. |
| Title: UNESCO Institute for Statistics Indicators<br>Coverage: Global (Country-wise)<br>Comparison: Market data | UNESCO releases education statistics on a country-wise basis. Indicators include gross enrolment rate, distribution of students, percentage of female students, gross completion rate, Inbound and outbound mobility rate, Number of students in tertiary education per 10,000 inhabitants, Percentage of tertiary graduates in education. |
| Title: OECD Higher Education Statistics<br>Coverage: OECD nations<br>Comparison: Market data | OECD reports on higher education provide comparative details on the indicators/statistics pertaining to the overall education system and environment within the respective OECD nations. |

| | |
|---|---|
| Title: OECD/Institutional Management in Higher Education insights (IMHE)<br>Coverage: More than 50 nations are members of IMHE<br>Comparison: Market data | Institutional Management in Higher Education (IMHE) is a part of OECD and acts as a forum to higher educational institutions. Through its publications and reports, IMHE provides information, insights, survey, reviews on higher education institutions and overall education environment across OECD nations. It provides reviews on higher education system across regions and also insights of the system on the overall development of the regions/cities.<br><br>Some latest publications from IMHE are:<br>- 'Higher Education Management and Policy' journal<br>- 'Higher Education in Regional and City Development' (Mexico, US, Berlin, Paso del Nort, Chile)<br>- Learning our Lesson: Review of Quality Teaching in Higher Education<br><br>IMHE also launched a Assessment of Higher Education Learning Outcomes (AHELO) to assess whether reliable cross-national comparisons of higher education learning outcomes are scientifically possible and whether their implementation is feasible. The study involves 15 participating nations and is expected to conclude in 2012. |
| Title: Global Higher Education Rankings<br>Affordability & Accessibility in Comparative Perspective<br>Coverage: 17 countries (Countrywise)<br>Comparison: Market data | Global Higher Education Rankings report studies the affordability and accessibility of higher education across the participating nations. Six indicators of affordability are reported on. These are:<br>- Education Costs as a % of Ability to Pay (ATP)<br>- Total Costs as a % of ATP<br>- Net Costs as a % of ATP<br>- Net Cost After Tax Expenditure as a % of ATP<br>- Out-of-Pocket Costs as a % of ATP<br>- Out-of-pocket Costs After Tax Expenditures as a % of ATP<br>Median income levels per country are used as a metric of ATP.<br><br>The study uses four indicators of accessibility:<br>- Participation rates<br>- Attainment rates<br>- The Educational Equity Index (EEI)<br>- Gender Parity index |

**Figure 3.2: Overview of available benchmarking resources - Market Intelligence Sources**

| Title/Coverage/Comparison | Description |
|---|---|
| Title: Higher Education International Unit<br>Coverage: Global<br>Comparison: Market Intelligence | The UUK International Unit (IEU) formed on 1 August 2010 by merging the UK HE International Unit and the UK HE Europe Unit is a central observatory of international and European issues and inform all higher education institutions and other stakeholders through its research, publications and websites and coordinates strategic engagement between UK and international stakeholders.<br><br>In representing the sector as a whole, the IEU works closely with higher education institutions and organisations, including the British Council, UK Department for Business, Innovation and Skills, UK Joint International Unit, UKTI, Universities Scotland, the Scottish Government, Higher Education Wales and the Welsh Government. |

| | |
|---|---|
| Title: British Council Education Market Intelligence (EMI)<br>Coverage: Global<br>Comparison: Market intelligence | British Council's Education Market Intelligence provides higher education statistics, information on universities, market profiling, country profiling, international student data, quarterly updates on developments, and other education market intelligence insights. |
| Title: Academic Analytics business intelligence reports<br>Coverage: US institutions<br>Comparison: Market intelligence | Academic Analytics created the Faculty Scholarly Productivity Index which ranked doctoral programmes in the US. The index measured the scholarly productivity of faculty based on:<br>- Publications<br>- Citations<br>- Financial<br>- Honorary awards<br><br>Academic Analytics is now focusing on business intelligence to university administrators apart from the Faculty Scholarly Productivity Index. |

**Figure 3.3: Overview of available benchmarking resources - Institutional Process Comparisons**

| Title/Coverage/Comparison | Description |
|---|---|
| Title: Association of Common wealth universities (ACU) Benchmarking Programme<br>Coverage: 16 universities from Australia, Canada, Hong Kong, New Zealand, the African continent, the United Kingdom and other parts of the Commonwealth<br>Comparison: Institutional process comparisons | The Association of Commonwealth Universities maintains a higher education benchmarking programme through a series of collaborative reviews of selected business processes, through an annual round of focused reviews. Universities share information on their activities in the selected themes, regarding:<br>- Approach<br>- Application<br>- Outcome<br><br>Through these benchmarking exchanges, information about good practices are also identified and shared, using the structure and criteria of the European Quality Excellence Framework. |
| Title: Benchmarking in European Higher Education Project<br>Coverage: European higher education institutions<br>Comparison: Institutional process comparisons | First Phase (2006-08): studied the concepts and practices of benchmarking in order to improve and increase their usage in higher education.<br>Second Phase (2008-10):<br>- Four benchmarking groups of Higher education institutions for wide exchange, advice and best practices in workshops. These groups focus on governance, university-enterprise cooperation, curriculum reforms and lifelong learning<br>- An online collaborative learning community (in a restricted area of the website)<br>- Benchmarking tools (questionnaires, reports, handbooks of good practices)<br>- A series of dissemination events |

**Figure 3.4: Overview of available benchmarking resources - Whole University Rankings**

| Title/Coverage/Comparison | Description |
|---|---|
| Title: Times Higher Education Ranking<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | Times Higher Education rankings are based on a selected set of parameters. Weight is given to each parameter and universities are scored on respective performance in each attribute. Overall weighted score is calculated to arrive with the final score for each university. It is one of the largest global surveys for higher education universities.<br>Parameters used for the evaluation process are:<br>- Learning environment<br>- Research<br>- Citations<br>- Industry Income<br>- International mix |
| Title: QS World Universities Ranking<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | QS World university rankings is one of the leading global university rankings. It ranks universities on the basis of parameters such as:<br>- Academic reputation<br>- Citations<br>- International students<br>- International faculty<br>- Employer review |
| Title: Academic Ranking of World Universities (ARWU)<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | ARWU ranks worldwide universities using objective indicators such as:<br>- Number of alumni winning Nobel prizes and Field medals<br>- Number of staff winning Nobel prizes and Field medals<br>- Number of highly cited researchers selected by Thomson Scientific<br>- Number of articles published in journals of Nature and Science<br>- Number of articles indexed in Science Citation Index - Expanded and Social Sciences Citation Index<br>- Per capita performance with respect to the size of an institution.<br>It is considered as one of the most influential ranking of world universities. |
| Title: CHE Excellence Rankings<br>Coverage: European Institutions (University rankings)<br>Comparison: Whole university ranking | Centre of Higher Education ranks a selected group of European institution in subjects such as biology, chemistry, mathematics, physics, political science, psychology and economics.<br><br>The centre also publishes 'CHE University Ranking' (for higher education institutions in German speaking countries) and 'CHE Research Ranking' (higher education institutions are analysed using a range of metrics from which users can extract the comparisons most relevant to their own interests. |
| Title: RatER Global University Ranking of World Universities<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | The Global University Ranking is the first international study for RatER and ranks more that 400 well-known global universities. These universities are analysed on the basis of attributes such as:<br>- Academic performance<br>- Research performance<br>- Expertise of faculty<br>- Availability of resources of the universities<br>- Level of socially significant activities of the graduates of universities<br>- Level of international activities of the universities. |

| | |
|---|---|
| Title: Webometrics Ranking of World Universities<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | The Webometrics ranking measures the overall volume, visibility and impact of web pages published by universities such as referred papers, conference contributions, thesis, reports, digital libraries, databases as well as general information on the institution.<br><br>Indicators used for the ranking methodology include:<br>- Size or the number of pages recovered from search engines like Google, yahoo, Live Search and Exalead.<br>- Visibility<br>- Rich Files<br>- Scholars |
| Title: 2010 World University Ranking<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | The World Universities Ranking by High Impact Universities ranks the top 500 universities worldwide on the basis of the research impact of the universities measured by:<br>- Research publications<br>- Citations |
| Title: SIR World Report<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | SIR World Ranking identifies best research focused universities across the globe. The rankings are based on the research work carried out by universities and involves evaluation criteria such as:<br>- Research performance<br>- Publications in high quality journals<br>- Citations |
| Title: Leiden Ranking<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | The ranking system considers all universities with more than 400 Web of Science indexed publications per year. Indicators used to rank the universities are:<br>- Number of publications (p)<br>- Simple citations per publication (CPP)<br>- Size-independent, field-normalized average impact, the CWTS crown indicator CPP/FCSm<br>- Size-independent, field-normalized average impact, the alternative crown indicator MNCS2<br>- Size-dependent 'brute force' impact indicator, the multiplication of P with the university's field-normalized average impact:<br>P * CPP/FCSm |
| Title: University Ranking by Academic Performance<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | University Ranking by Academic Performance (URAP) ranks the universities worldwide on the basis of parameters such as:<br>- Total number of articles<br>- Google scholar results<br>- Citation<br>- Cumulative journal impact<br>- High quality research<br>- International research collaboration |

| | |
|---|---|
| Title: The Performance Ranking of Scientific Papers for World Universities<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | This annual report from Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) ranks universities across the globe as per:<br>- Research productivity (number of articles)<br>- Research impact (number of citations)<br>- Research excellence (number of highly cited papers, number of articles in high impact journals) |
| Title: Professional Classification of Higher Education Institutions<br>Coverage: Global (University rankings)<br>Comparison: Whole university ranking | The professional classification of Higher Education Institution reports ranks the universities on the basis of number of alumni listed among CEOs or equivalent in the largest 500 companies.<br>The source which is used for the rankings are Fortune Global 500 http://money.cnn.com/magazines/fortune/global500/2010/index.html |
| Title: U-Multirank<br>Coverage: European Union<br>Comparison: Whole University Rankings | The project is funded by European commission and aims to design and test<br>-a number of focused institutional rankings (along the dimensions of a multi-dimensional classification)<br>-a set of field-based rankings (for different programmes in groups of institutions with high levels of similarity in relevant profiles as defined by the dimensions of the classification) |
| Title: European Research Ranking<br>Coverage: European Research Institutions<br>Comparison: Whole University Rankings | The parameters which are judged for the rankings are:<br>-Funding and project participation performance<br>-Networking activity and alliances<br>-Diversity of research areas<br>Ranking criteria<br>-Total project funding<br>-Total project funding per partner<br>-Total number of projects<br>-Networking rank (reputation)<br>-Partner constancy<br>-Project leadership index<br>-Diversity index |
| Title: Human Resources & Labor Review (HRLR) by Chasecareer Network<br>Coverage: Global (university rankings)<br>Comparison: Whole University Rankings | The Human Resources & Labor Review (HRLR) is a non-partisan, neutral college / universities ranking system, created by a team of multi-national experts and is based on a Human Resources & Labor Review Index (HRI and LRI), which provides measurements of the universities graduates' performance. |

| | |
|---|---|
| Title: International Student Barometer (ISB)<br>Coverage: 22 countries; 700 Higher Education Institutions<br>Comparison: Rankings of institutional characteristics | The ISB survey is made up of 68 questions and analyses the satisfaction of learning, living and support for international students. This survey is done twice a year and is administered by i-graduate.<br>Some factors which are measured during the survey include:<br>- Living cost<br>- Language support<br>- Employability<br>- Student advisory<br>- Earning money<br>- Careers advice<br>- Work experience<br>- International office<br>- Counselling<br>- Accommodation<br>- Library<br>- Worship facilities |

## 3.2 Other benchmarking developments

Given the clear indication from consultations that the relevance and transparency of data from outside the UK is a significant concern, we highlight below some significant benchmarking activities that are being undertaken elsewhere. The initiatives we review are:

- The Association of Commonwealth Universities (ACU) University Management Benchmarking Programme
- Indicators for Mapping and Profiling Internationalisation (IMPI)
- U-Map, the European Classification of Higher Education institutions
- EU feasibility study for creating a European University data collection

### 3.2.1 The ACU University Management Benchmarking Programme

Since 1996, the ACU has run an international 'university benchmarking programme' for universities primarily from the commonwealth. In previous years, up to 16 universities from Australia, Canada, Hong Kong, New Zealand, the African continent, the United Kingdom and other parts of the Commonwealth have participated. ACU anticipate that the numbers will be similar in subsequent years but in order to ensure a wide spread of international experience, the number of institutions from any single country may be restricted. Due to the increasing demand to take part in the exercise ACU may decide to operate two cohorts in each year, with a minimum of 8 and maximum of 15 participants. The topics and assessors would be identical for each cohort. The processes that have been benchmarked each year since 2001 are presented in table 3.2.

**Table 3.2: University processes benchmarked by ACU over the last decade**

| Year | Processes Benchmarked |
|---|---|
| 2011 | • Managing the university of the future<br>• Branding and Marketing<br>• HR Management (New forms of HR service delivery) |
| 2010 | • Strategic alliances<br>• Student experience |

| | |
|---|---|
| | • Managing of IT |
| 2009 | • Risk management<br>• Management of learning resources<br>• Managing sustainability |
| 2008 | • Leadership & governance<br>• Management of e-learning<br>• Internationalisation |
| 2007 | • Managing government interventions<br>• Widening participation<br>• Estates & facilities management |
| 2006 | • Developing management capacity<br>• Resource allocation<br>• Development funding |
| 2005 | • Strategic planning<br>• Recruitment & retention of key staff<br>• Branding |
| 2004 | • Engagement with community & region<br>• Multi-campus management<br>• Commercialisation |
| 2003 | • Leadership Development<br>• Strategic Alliances<br>• Change Management |
| 2002 | • Leadership and Governance<br>• Risk Management<br>• Student Experience |
| 2001 | • Strategic Planning<br>• Financial Management<br>• Learning Resources |

Benchmarking is undertaken by an initial institutional self-review process, using frameworks prepared by the ACU team and the specialist assessors (the latter are appointed for their international expertise in each area under review). Each participating university will receive a handbook, incorporating guidance notes for completing those frameworks. Each participating university prepares its responses (primarily using existing material), which are then submitted and evaluated by assessors with assistance from the ACU Benchmarking Project Manager. The assessment system used by the assessors is based on that used for the Malcolm Baldridge National Quality Awards in the USA and the European Quality Awards. Each framework or process contains a number of sub-topics, which are examined during the assessment. The criteria used are:

- Approach: which refers to the policy or technique adopted and whether it is right for the task (fit for the purpose)
- Application: which refers to the extent to which the approaches are applied to all relevant areas of the university
- Outcomes: which refers to how successful the university is in achieving the fundamental purposes in the areas to be examined and how this is monitored.

The current fees for participating in the ACU benchmarking are c.£7,000 and access to any of the ACU benchmarking information is restricted to members only.

### 3.2.2 IMPI

IMPI is a three-year project funded by the European Commission. The work is coordinated by CHE Consult GmbH (Centre for Higher Education Development) in Germany. ACA, NUFFIC, Perspektywy (of Poland), CampusFrance, and SIU (of Norway) are also core partners in this work.

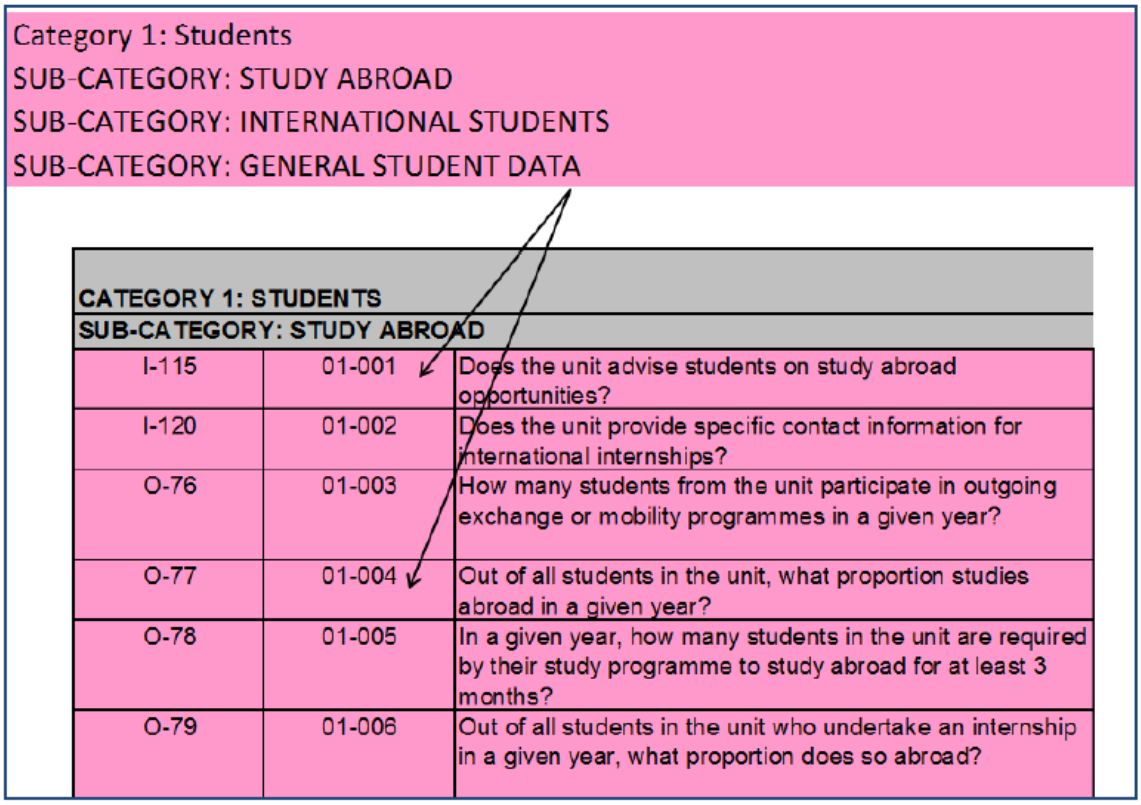
The IMPI project aims to develop and test a set of internationalisation indicators that can be used by European (and other) higher education institutions through the medium of an online interactive "toolkit". The idea is to help HEIs gain insight into their performance in terms of internationalisation, and to help them organise their thinking with regard to possible measures for improvement. The toolkit aims to provide options for thoughtful comparison among institutions, or among units within the same institution. It will also offer opportunities for HEIs to develop their own individualised profiles for internationalisation. It comprises a large set of over 300 possible indicators grouped into action categories and related to five goal dimensions that have so far been identified as:

- to enhance the quality of education
- to enhance the quality of research
- to prepare students effectively for life and work in an intercultural and globalising world
- to enhance the international reputation and visibility of the unit
- to provide service to society and community social engagement

For each of these currently nine action dimensions are available:

- Category 1: Students
- Category 2: Staff
- Category 3: Administration
- Category 4: Funding and finance
- Category 5: Curricula and Academic Services
- Category 6: Research
- Category 7: Promotion and Marketing
- Category 8: Non-Academic Services, and Campus and Community life
- Category 9: Other

For each category there are also sub-categories that allow users to organise their selection, for example:




The IMPI project is ongoing, with the second testing round currently underway. A planned symposium at the end of the project will be the last and most comprehensive way for interested parties to get involved. It is intended to take place in Warsaw in early summer 2012.

### 3.2.3 U-Map and U-multirank

The U-map project Higher education describes institutions on a number of dimensions, each representing an aspect of the activities of higher education institutions, as follows:

- Teaching and learning profile
  - Orientation of degree
  - Subject areas covered
  - Degree level focus
  - Expenditure on teaching
- Student profile
  - Mature or adult learners
  - Students enrolled (headcount)
  - Part-time students
  - Students enrolled in distance learning programs
- Research involvement
  - Expenditure on research
  - Peer reviewed publications
  - Doctorate production

- Regional engagement
  - First year bachelor students from the region
  - Importance of local/regional income sources
  - Graduates working in the region
- Involvement in knowledge exchange
  - Cultural activities
  - Income from knowledge exchange activities
  - Patent applications filed
  - Start up firms
- International orientation
  - Foreign degree seeking students
  - Importance of international sources of income
  - Students sent out in European and other international exchange programs
  - Incoming students in European and other international exchange programs
  - Non national teaching and research staff

The dimensions and indicators of the U-Map classification were selected after extensive consultation with various stakeholders and reflect their views and ambitions. However, U-map is intended to be a flexible tool and the dimensions and indicators are not set in stone.

The classification offers a variety of ways of analysing institutional profiles. Stakeholders can use the classification tool for their own specific purposes. They can apply U-Map to compare different institutions on one or more of the dimensions outlined above or they are also able to select the institutional profiles that best serve their needs and to identify the specific institutions that they are interested in.

Linked to the U-map project is U-Multirank. U-Multirank, which has been funded by the EU Commission, aims to allow students, policymakers, employers and universities to choose their own criteria to compare institutions (using the same dimensions and indicators outlined in the U-map project). U-Multirank is led by the Centre for Higher Education, a German think tank, and the Centre for Higher Education Policy Studies, a research institute at Dutch institution the University of Twente. The U-Multirank approach is based on a number of important principles:

- User driven: The nature of a university ranking should be determined by its purpose and by the needs of its potential users
- Multi dimensional: The importance of different dimensions and indicators varies among different user groups; a university ranking should not produce a consolidated score but should treat different dimensions separately
- Field specific and institutional rankings: Performance may vary considerably across disciplines within one university; an effective ranking should also offer field specific information
- Diversity: Ranking should respect the diversity of higher education institutions and compare only institutions with a similar profile
- Performance orientation: Ranking should focus primarily on achieved performance and not on inputs, reputation or descriptive characteristics

- Context: An international ranking must take into account the linguistic, cultural, economic and historical contexts of different higher education systems.

The project's pilot gathered data on 109 European institutions and 50 from outside Europe, including what is billed to be the first global survey of student satisfaction. Only four British institutions - Newcastle, Glasgow, Coventry and Nottingham universities - took part.

The U-Multirank final report is currently being prepared and a decision about whether U-Multirank will enter a second phase is expected early in 2012.

### 3.2.4 EU feasibility study for creating a European University data collection

The 'EUMIDA' project was established to ascertain the feasibility of a regular data collection of micro data on higher education institutions (HEIs) in all EU-27 Member States plus Norway and Switzerland. The project has reviewed the issues of data availability, confidentiality, and the resources needed for a full-scale exercise. Its main achievement is to have demonstrated that in all countries there actually exists a core set of data that shares the following features:

- it follows the definitions laid down in the UNESCO-OECD-EUROSTAT Manual
- it is routinely collected by the National Statistical Authorities
- it does not raise significant confidentiality issues
- it can be disaggregated at the level of individual units in a smooth way.

EUMIDA provides the collection of two sets of data:

- A core set of data to allow a broader characterisation of higher education institutions throughout Europe using a small number of variables. The indicators collected in this data set are the U-map indicators presented previously
- A full set of data allowing a more in-depth analysis of inputs and outputs of HEIs, including a detailed breakdown by scientific fields. This data aims to characterise more completely the set of inputs and outputs of higher education institutions, providing more precise quantitative data which are also disaggregated by scientific field. Thus, this requires a full characterisation of following types of inputs and outputs:
  - For inputs: human resources (personnel), finances, physical infrastructure, students
  - For outputs: educational production, research production, third-mission. These types are further disaggregated by relevant subtypes – for example for staff between academic staff and non-academic staff -, by level of quality, especially for outputs, and by subject domains to allow a more fine-grained analysis of subject specialisation of HEIs.

Moving forward, Eurostat have undertaken to develop the EUMIDA methodology during 2011 with a view to launching regular data collection in 2012.

## 3.3 Selected national benchmarking resources

The benchmarking resources described above all offer cross-country data sets, compiled either from published national data or through original research. HESA is one of relatively few national agencies collecting and publishing timely and reliable national data on institutional performance; other national data sets that may be useful for benchmarking specific aspects of institutional performance and practice are described here.

### 3.3.1 United States

***IPEDS***

IPEDS is the Integrated Postsecondary Education Data System. It is a system of interrelated surveys conducted annually by the U.S. Department's National Centre for Education Statistics (NCES). IPEDS gathers information from every college, university, and technical and vocational institution that participates in the federal student financial aid programs.

IPEDS provides basic data needed to describe, and analyse trends in, postsecondary education in the United States. IPEDS collects data on postsecondary education in the United States in seven areas, as follows:

- Institutional Characteristics: These include basic institutional contact information, tuition and fees, control or affiliation, levels of awards offered, types of programs, and admissions requirements.
- Institutional Prices: This includes tuition and fee data as well as information on the estimated student budgets for students based on living situations (on-campus or off-campus).
- Enrolment: Because enrolment patterns differ greatly among the various types of postsecondary institutions, there is a need for both different measures of enrolment and several indicators of access. In IPEDS, the following enrolment-related data are collected:
  - Fall Enrolment
  - Residence of First-Time Students
  - Age Data
  - Unduplicated 12-Month Head Count
  - Instructional Activity
  - Total Entering Class
- Student Financial Aid: the number of full-time, first-time degree/certificate-seeking undergraduate students who receive different types of student financial aid
- Degrees and Certificates Conferred (Completions)
- Student Persistence and Success: IPEDS collects two types of data to help track postsecondary student progress and success:
  - First–Year Retention Rates: The first-year retention rate measures the percentage of first-year students who had persisted in or completed their educational program a year later. These data have been collected since 2003
  - Graduation Rates: Graduation rate data provide information on institutional productivity and help institutions comply with reporting requirements of the Student Right-to-Know Act.
- Institutional Resources: IPEDS collects institutional data on human resources and finances. Because staffing patterns vary greatly across postsecondary institutions, IPEDS measures human resources in three ways: Employees by assigned position; Salaries (the number of full-time instructional faculty by rank, gender, and length of contract/teaching period; total salary outlay; and fringe benefits; and Staff — These data include demographic and occupational characteristics for staff at institutions.

***News & World Report College and University rankings***

One of the most popular American university rankings is provided by the magazine 'US News and World Report' which collects data from 1,400 institutions, either from an annual survey sent to each school or from the school's website. It is also based upon opinion surveys of university faculty and administrators who do not belong to the school. The key factors in the rankings are:

- Peer assessment: a survey of the institution's reputation among presidents, provosts, and deans of admission of other institutions (15%)
- Guidance Counselor assessment: a survey of the institution's reputation among approximately 1,800 high school guidance counselors (7.5%)
- Retention: six-year graduation rate and first-year student retention rate (20%)
- Faculty resources: average class size, faculty salary, faculty degree level, student-faculty ratio, and proportion of full-time faculty (20%)
- Student selectivity: standardised test scores of admitted students, proportion of admitted students in upper percentiles of their high-school class, and proportion of applicants accepted (15%)
- Financial resources: per-student spending (10%)
- Graduation rate performance: difference between expected and actual graduation rate (7.5%)
- Alumni giving rate (5%)

It does not appear that all the results that contribute to the overall ranking are provided separately by the 'US News and World Report' so the value to UK institutions in collating comparator data may be limited.

### 3.3.2 Canada

***PSIS***

PSIS is the Post Secondary Student Information System - the national survey that enables Statistics Canada to publish information on enrolments and graduates of Canadian postsecondary education institutions. Implemented in the year 2000, PSIS has begun to replace the three surveys that are currently used: the University Student Information System, the Community College Student Information System and the Trade and Vocational Student Survey.

PSIS provides a means of following students throughout their academic careers in order to build a comprehensive picture of student flows - that is, their mobility and pathways within Canadian postsecondary education institutions. Mobility refers to geographic movement. Pathways refers to movement among fields of study, levels of education, and registration status (full-time and part-time). A fundamental objective of PSIS is also to enable researchers to perform statistical studies of student mobility, pathways and their relationship to education and labour market outcomes.

***Common University Data sets***

Groups of Canadian Universities, typically based on geography, are engaged programmes to provide data in a common format. These are:

- Common University Data Ontario (CUDO): Ontario's 20 universities have worked together to develop and compile data to create CUDO – an online tool for students, parents and the public. CUDO offers key data, in a common format, about Ontario's universities. The data covers the following topics:
  - Number of degrees awarded, student enrolment and entering averages – all by program

  - Number of students living on campus and activities offered
  - Student satisfaction
  - First-year tuition and ancillary fees by program
  - Number of teaching faculty
  - Undergraduate class size, by year level
  - Research awards granted
  - Graduation rates and employment rates by program.
- British Columbia Higher Education Accountability Dataset (BC HEADset): BC HEADset has been created to demonstrate accountability on the part of British Columbia's higher education institutions. The topics covered by this data set are:
  - Applicants, Admissions, and Registrants
  - Applicants, Admissions, and Registrants by Program of Study
  - Location of High School
  - Average Entering Grade by Basis of Admission and Program of Study
  - Full-time and Part-time Students by Sex and Program of Study
  - International Students by Country of Citizenship
  - Retention and Completion Rates
  - Credential Awarded
  - Annualised FTE
  - Class size
  - Library Holdings
  - Income by Fund and Source
  - Expenditures by Fund and Type
  - Research Income by Source
  - Research Activity
  - Faculty by Rank and Discipline
- EDUCQ - Common University Data: Quebec universities are publicly disseminating a set of standardised data about their institutions, via a web portal aimed at facilitating navigation between institutions and topics. The topics cover:
  - Admission
  - Tuition fees and expenses
  - Enrolments (e.g. total by degree, international students)
  - Retention and Graduation Rates
  - Student Life
  - Finances
  - Destinations

***Maclean's University Rankings***

One of the widest used Canadian rankings is provided by Maclean's. Maclean's places universities in one of three categories (undergraduate, Comprehensive and Medical Doctoral), recognising the

differences in types of institutions, levels of research funding, the diversity of offerings. Maclean's weights the rankings on the following basis:

- Students and classes (20%): Maclean's collects data on the success of the student body at winning national academic award and measures the number of full-time-equivalent students per full-time faculty member
- Faculty (20%): In assessing the calibre of faculty, Maclean's calculates the number who have won major national awards over the past five years. To scale for institution size, the award count for each university is divided by each school's number of full-time faculty. In addition, the magazine measures the success of faculty in securing research grants
- Resources (12%): This section examines the amount of money available for current expenses per weighted full-time-equivalent student and measures total research dollars
- Student support (13%): Maclean's examines the percentage of the budget spent on student services as well as scholarships and bursaries
- Library (15%): This section assesses the breadth and currency of the collection
- Reputation (20%): This section reflects a university's reputation in the community at large based on a survey of university officials at each ranked institution, high school principals and guidance counsellors from every province and territory, the heads of a wide variety of national and regional organisations, and CEOs and recruiters at corporations large and small
- The results of the benchmarking are available at: http://oncampus.macleans.ca/education/rankings/

### 3.3.3 Australia

***Higher Education Statistics Collections***

The Higher Education Group of the Department of Education Employment and Workplace Relations (DEEWR), with the cooperation of the Australian Bureau of Statistics, is responsible for the collection and dissemination of statistics relating to the provision of higher education in all Australian universities. Data included in the Higher Education Statistics Collection relate to:

- courses conducted by higher education institutions
- numbers and characteristics of students undertaking courses
- student load
- completion of units of study and courses
- students' liabilities under the Higher Education Contribution Scheme (HECS)
- numbers and characteristics of staff in higher education institutions
- income and expenditure for higher education institutions
- research activity
- the educational profiles of higher education institutions
- Data is available from: http://www.deewr.gov.au/HigherEducation/Publications/HEStatistics/Pages/HEStatisticsCollection.aspx

***Group of Eight***

The Group of Eight (Go8) is a coalition of leading Australian universities, comprehensive in general and professional education and distinguished by depth and breadth in research. The Go8 is currently

expanding its capability to collect and analyse statistical data and largely draws upon the DEEWR data to provide profiles on the following basis:

- Net assets
- Revenue
- Research income
- Research income per academic FTE
- Industry funded research income
- Students (by level of study and residence)
- Student to academic staff FTE ratio
- Research only staff
- Proportion of staff with doctorate qualifications

Data is available from http://www.go8.edu.au/go8-indicators

***The Good Universities Guide***

The Good Universities Guide publishes information on all Australian Universities using a star grading system from 5 stars to 1. Rankings are presented on the following indicators:

- **Key ratings and comparisons**
  - Date established as a university
  - Research grants
  - Research intensity
- **Access and Equity**
  - Access by equity group
  - Entry flexibility
  - Indigenous participation
  - Proportion given credit for TAFE studies
  - Gender balance
  - Proportion who are school leavers
- **Who's There**
  - Number of HE students
  - Proportion of external students
  - Number from abroad
  - Proportion of part time students
  - Proportion of students over 25
- **The Experience**
  - Cultural diversity
  - Graduate rating: Teaching quality
  - Graduate rating: Generic skills
  - Graduate rating: Overall satisfaction
  - Staff qualifications

  - Student to staff ratio
- **Graduate outcomes**
  - Getting a job
  - Graduate starting salary
  - Positive graduate outcomes

Results are available from http://www.gooduniguide.com.au/ and the website includes notes on data sources for each indicator to assist interested parties understand the precise nature of the comparison.

### 3.3.4 Europe

The Eurodata publication on student mobility (2006), prepared a table outlining the national data providers in the Eurodata area. Although initiatives such as U-multirank and IMPI could provide significant levels of data, it is worth noting the national providers for information. These are listed in table 3.3 below; more detail is provided in Appendix A

**Table 3.3: National sources of HE data**

| Country | Unit |
|---|---|
| Austria | Ministry of Research & Science, National Statistical Office |
| Belgium | Observatoire de l`ensegnement superieur, Administratie Onderwijs en Vorming, Ministerium der Deutschprachigen Gemeinchaft, Belspo, Cref, Vlir |
| Bulgaria | National Statistical Office Ministry of Education and Science |
| Cyprus | Ministry of Education and Culture Statistical Office |
| Czech Republic | Institute for Information on Education Czech Statistical Office |
| Denmark | Statistics Denmark |
| Estonia | Ministry of Education & Research Statistic Estonia |
| Finland | Statistics Finland |
| France | Ministry of Higher Education & Research |
| Germany | Federal Statistical Office |
| Greece | National Statistical Service Ministry of Education |
| Hungary | Ministry of Education and Culture Central Statistical Office (HCSO) |
| Ireland | Higher Education Authority |
| Italy | Italian Ministry of Higher Education |
| Latvia | Central Statistical Office of Latvia |
| Lithuania | Ministry of Education & Science |

| | |
|---|---|
| Luxembourg | National Statistical Office |
| Malta | National Statistical Office |
| Netherlands | Dutch national statistical office Ministry of Culture, Education & Science |
| Norway | Ministry of Education & Research Statistics Norway, Norwegian Institute for Studies in Innovation, Research and Education |
| Poland | Central Statistical Office |
| Portugal | Ministry of Science, Technology and Higher Education |
| Romania | National Statistical Office |
| Slovakia | Institute of Information and Prognoses of Education and in some cases the Ministry of Education of the Slovak Republic |
| Slovenia | Slovenian Office of Statistics |
| Spain | National Institute of Statistics, Council of university coordination |
| Sweden | National Agency for Higher Education Statistics Sweden |
| Switzerland | Statistical Office |
| UK | HESA |

## 3.4 Data Quality Considerations

Many of the resources referred to in this report provide a basis for comparing individual institutions operating in different countries. Such comparisons should be approached with some caution, however, in view of different structures, data collection arrangements and data definitions across countries, as well as the preferred approaches of the compilers of the resources.

The following paragraphs note some issues of quality and status of the data used in international benchmarking resources. This commentary is inevitably partial and is only intended to be illustrative: a comprehensive analysis of quality issues within these extensive resources would be impossible within the context of this project. Five issues are considered:

- Comparability across countries
- Comprehensiveness
- Timeliness
- Issues concerning census and survey data collection
- The 'teaching vs. research' issue

### 3.4.1 Comparability across countries

First it is advisable to note that the very definition of higher education may be different from country to country. For example, although most countries of the world have adopted the International Standard Classification of Education (ISCED), developed by UNESCO, there are some countries (notably

countries of Eastern Europe) within which it is impossible to distinguish between ISCED level 4 (Post-secondary non-tertiary education) and level 5 (First stage of tertiary education). Note also that within ISCED, masters degrees are classified as ISCED level 5 and only advanced research degrees (doctorates) are at level 6.

A second structural issue, and one which is particularly important when comparing UK institutions with others worldwide, relates to the concept of part-time study. While this is a well-recognised concept in the UK, it is not meaningful in several other countries: indeed, within the EU, it is arguable that only the UK, Ireland and the Netherlands actually apply any real distinction between full-time and part-time study (although of course in reality not all students study at 100% of an FTE).

It is reasonable to assume that, if identical data capture methods have been used for all the institutions covered under a particular head, then comparisons may easily be made. This would appear to be true, for example, in the case of the Webometrics Ranking of World Universities, which is based on the visibility of each university in terms of its Internet presence. It would also appear to be true in relation to the reputational surveys of academic staff which are component parts of some of the resources referred to, for example the THE Rankings and QS Rankings.

However, in respect of many aspects of available data, it cannot be assumed that comparable methods have been adopted. For example, in both the UK and Australia, staff-student ratios (SSRs) are carefully calculated, on the basis of a reasonable estimate of FTE staff engaged in teaching (although different definitions apply in each country) and FTE students being taught. In some other instances a more broad-brush approach is adopted (for example, not distinguishing between teaching and research staff (as in the QS Rankings) or by using headcounts in both cases), and direct comparisons are difficult to achieve.

### 3.4.2 Comprehensiveness

When comparing institutions internationally through the resources identified in this report, it is important to note the limitations on the constituency of the institutions. There are 18,000 higher education institutions in the world according to the Catalogue of World Universities, and UNESCO recognises over 10,000. It would be impractical - and unnecessary - for compilers of international benchmarking resources to cover all of these: however, an awareness of the extent of coverage is important in considering the resources. For example, the QS Rankings currently cover 2,500 institutions, the THE reputation rankings cover up to 6,000 and the reputation opinions are drawn from 131 countries, and the International Student Barometer covers over 700 (self-selected) institutions in 22 countries.

### 3.4.3 Timeliness

In the UK, we are accustomed to having very recent data about our HE institutions. At the time of writing (June 2011), data about most aspects of HE students, staff and finance in the academic year 2009/10 has been available for several months. This is not universally the case. While many OECD countries engage in data collection annually, some do not: for example staff data in the USA is available only every five years. In some other countries, there is a marked time lag. Where benchmarking resources combine data from different countries, using different reference years, there is a danger of false comparisons being drawn. For example, the graduate recruitment market has changed dramatically in many countries including the UK over the last three years, and a comparison of 2010 graduates in one country with 2008 graduates in another would be dubious in the extreme.

### 3.4.4 Censuses and surveys

Data about staff and students in HE in the UK is routinely obtained by census, i.e. it is complete at the level of the individual student or member of staff. The only exception is data about graduate destinations which comes from surveys: but the return rate for the first survey after graduation is approximately 80%. In some other countries, notably the USA, data collection is based around surveys rather than censuses, and is unlikely to be as accurate despite the large numbers involved.

### 3.4.5 The "teaching versus research" issue

A specific aspect of the issue of relevance is the balance between teaching and research. It is notable that, among the resources identified in this report, several relate exclusively to research, while none relate exclusively to teaching. In those which do consider teaching, there is generally an underlying bias towards institutions with a high research reputation. For example, the QS Rankings arose from a consideration of "the world's top 500 universities based on citations per paper", and the THE Rankings survey "was sent to tens of thousands of experienced academics, based on the United Nations' estimates of global academic researchers by geographical area".

It is plainly more straightforward to measure research outputs and research reputation internationally than teaching quality - as the THE notes, its reputational scores for research and teaching "are combined at a ratio of 2:1, giving more weight to research, because feedback from the global higher education community suggests that academics have a greater confidence in their ability to make accurate judgements on research quality [than on teaching quality]". This fact underlies the predominance of research data within the benchmarking resources which have been identified. In some instances the only aspect of the teaching function is a simple analysis of the percentage penetration of international students – but this is hardly a basis for making quality comparisons across countries (though it may be within one country.)

We believe that institutions which focus on teaching and which wish to benchmark themselves against other similar institutions will not currently find ready-made resources to enable them to do so. There is of course an inherent difficulty here, in that there is no obvious data source for assessing teaching quality internationally. The International Student Barometer perhaps comes closest to providing relevant information, albeit that its coverage is limited to client institutions, while new developments like U-map are also attempting to address the issue.

# 4 Approaches to benchmarking

Our survey of institutional approaches to and experiences of international benchmarking has shown the wide diversity of priorities and progress across the UK sector in this area. It follows that any advice on approaches to benchmarking must be contingent on each institution's position on the spectrum of internationalisation goals and capabilities. This section offers a suggested framework within which institutions might frame their benchmarking requirements and approaches.

## 4.1 A maturity framework for internationalisation

As we observed earlier, universities differ widely in the focus and development of their internationalisation strategies, and hence in the kinds of benchmark information most relevant to their planning and decision-making. Some institutions have relatively limited internationalisation objectives, focused mainly on recruiting non-EU students, while others have more sophisticated and wide-ranging strategies impacting on every aspect of their business. Table 4.1 below offers a schematic framework for gauging the strategies of development in university internationalisation strategies. It suggests four broad levels of strategic maturity, from a 'beginning' stage at which the institution is starting to develop its international profile, to a fully integrated level in which internationalisation is firmly embedded in the culture and operations of the institution. The kinds of benchmark information most relevant to each stage of maturity are indicated in the last line of the table; it is interesting that the KPIs currently used by most institutions (as collated in Table 2.1) are focused mainly at the 'developing' level of the framework.

**Table 4.1: Internationalisation maturity framework**

| MATURITY LEVEL: | ❶ BEGINNING | ❷ DEVELOPING | ❸ EXTENDING | ❹ INTEGRATING |
|---|---|---|---|---|
| **STRATEGIC PRIORITIES:** | Growing overseas recruitment and revenues | ❶ plus growing international research capability/profile | ❷ plus growing international delivery, partnerships, and shared campuses | ❸ plus establishing university as a global business and brand |
| **MANAGEMENT MODELS:** | Ad hoc, stand-alone activities driven by individual enthusiasts | More centralised planning and control, with targeted projects | Institutional ventures and programmes with corporate support | International goals integrated into all academic processes |
| **FOCUS AREAS:**<br>**(a) STUDENTS** | O'seas recruitment led from faculties or depts, little planning | Central co-ordination of o'seas recruitment, mainly using agents | More recruitment through agreements and joint ventures | "All students are international", through 2-way exchanges and joint awards |
| **(b) RESEARCH & FACULTY** | Ad hoc examples of collaborative research projects | Targeted plans for internat'l research programmes | Joint research developments with o'seas HE partners | Expectation that all research is internat'l in scope and funding |
| **(c) OVERSEAS PRESENCE** | All operations UK-based | Some courses delivered o'seas thro' franchises & on-line | Substantial offshore delivery thro' partners and o'seas campuses | Up to half of HEI earnings come from international activities |

| | | | | |
|---|---|---|---|---|
| **BENCHMARKING APPROACH :** | Internal comparisons across depts. and vs. past performance | Intra-national comparisons with domestic peer HEIs | Focus on student and staff perceptions and international choices | Using international data for predictive market intelligence |

In PA's experience, the majority of UK universities would probably regard themselves as being in the 'developing' category, with plans in train to move towards the 'extending' stage, though some are still in the 'beginning' stage. There are relatively few UK universities that would claim to be in the fully 'integrating' stage; these are probably the ones most interested in their standing within international 'league table' comparisons.

This maturity framework is offered as a tool through which institutions might consider the kinds of benchmarking information and applications most relevant to the development of their particular internationalisation strategies. It may well be that individual institutions are at different stages of development in different areas of their business, especially as between research and students/teaching, depending on their wider institutional missions.

## 4.2 A strategy-contingent approach to benchmarking

The strong thrust of this report, backed by the experiences of institutions, is that benchmarking, whether based on domestic or international comparisons, is useful only inasmuch as it informs the relevant business decisions for improving strategic performance. It follows from this view that institutional approaches to benchmarking should be contingent on the current objectives, status and priorities of individual institutions. This suggests a four-stage, strategy-contingent benchmarking model, on the lines illustrated here and discussed below:


### Where are we now?

Using the maturity framework described above, institutions should undertake an honest self-appraisal of the current status of their internationalisation strategies, and determine their priorities for moving to the next levels. For institutions at the 'beginning' end of the spectrum, priorities are likely to be focused on growing the numbers and perhaps the diversity of international student recruits; for those at higher levels of maturity, they may be more focused on internationalising their curriculum and student offers (e.g. through increased staff and student exchanges).

### What do we need to know?

Having established their next wave of institutional development priorities, institutions will wish to understand the requirements and conditions for meeting those objectives (the 'critical success factors') and their current strengths and weaknesses with regard to them. This analysis will identify any gaps in the information or market intelligence available to the institution that might be addressed through a benchmarking exercise. For example, an institution with aspirations to improve its standing in international research rankings might wish to understand the particular metrics and levels of performance in them that differentiate the institutions currently above them in the relevant tables.

Others, focused on improving student recruitment, may be more interested in the factors affecting student choices in particular markets, and how they rate against expected standards. Whatever the specific business priorities, we would strongly recommend that institutions identify the relevant external criteria applied by their targeted customer or stakeholder groups - internationally mobile students and staff, research funders, potential academic or business partners - and focus on the comparative metrics that would enable them to benchmark their standing in these 'outside-in' judgements.

### What information is available?

Having identified specific business questions and information needs through these first two stages, institutions should identify the most appropriate available resources. In many cases the relevant data will be more specific and more granular than that provided in general benchmarking resources or data comparisons, which is the reason that the more sophisticated users of benchmarking resources found greatest value in specialised proprietary sources such as i-graduate's international student barometer or Academic Analytics and similar research performance databases. For all the reasons discussed earlier, in Section 3.4, considerable discretion is needed before drawing conclusions from ostensibly comparable 'public' data. It may well be that granular data, such as than being developed through projects like U-Map or even national source data will be more useful that 'processed' cross-country comparisons. Subject to this caveat, identification and analysis of comparative data in institutions' particular areas of interest should serve to indicate their relative strengths and weaknesses against chosen comparators.

### What can we learn (from benchmarking)?

In most instances, apparent differences and pointers towards differential performance do little more than highlight areas for further investigation. Differences in reported data or approaches between peer institutions may simply reflect differences in their respective contexts or history, which are not helpful in taking practical lessons from the comparisons. Nonetheless, even such constrained comparisons can be valuable in helping institutions to adopt an external perspective on their performance, as it may be seen by potential students, staff recruits or research funders. And a structured and results-oriented approach will usually give institutions a better understanding of their competitive position and the conditions for success, even if their routes to improvement will always be bespoke to their own history and ambitions.

As we have emphasised, the purpose of benchmarking is to develop institutions' understanding of the conditions and standards for international competitive success in their chosen business missions, and to enable them to take informed decisions about the activities needed to further their strategic goals. The insights gained through this process must then be translated into effective management actions and change programmes, designed to move the institution forward in terms of the maturity framework described earlier.

## 4.3 Benchmarking clubs and collaborations

Although our analysis has focused mainly on data-based benchmarking, the term is also applied to a range of more descriptive, narrative comparisons of particular processes and approaches between similar organisations. This approach is widely used in other sectors, often under the auspices of trade associations or independent third parties, through which member organisations contribute anonymised information about resourcing and productivity in selected areas. The approach clearly depends on high levels of mutual trust among the participants that the source of their contributions will be kept confidential.

Something similar is provided within the HE sector through benchmarking 'clubs' such as the members of the Association of Commonwealth Universities and the IMHE group, both described in Section 3.1. The relevance and value of such arrangements for participating institutions is somewhat serendipitous, since it depends on (a) the topics under review being pertinent to the current priorities of the institution, and also (b) the other members of the benchmarking group being appropriate as comparators. There may perhaps be a gap in the HE benchmarking market for a more systematic service through which institutions can share 'live' information for mutual benefits.

Further benefits from collaborative benchmarking may come from simple cost savings. As we have noted, sourcing and qualifying available sources of benchmark information demands a significant investment in in-house expertise, which could usefully be spread across institutions, for example to share views on the provenance and quality of particular data sources. There is also a significant investment of time demanded for participation in new benchmarking initiatives such as U-Map and EUMIDA, which might be prohibitive at institutional levels but could be more cost-effective as a collaborative undertaking.

Beyond sector-based collaborations of this kind, we expect a potent force for the extension of international good practices and performance standards to come from the growth in international academic and business collaborations, whether between HE institutions or through commercial service providers operating in multiple markets, such as INTO, Laureate and the global IT providers. The limitation of such sources of benchmark comparisons is the scope and reach of the partners concerned - an IT partner, for example, may have little market intelligence to offer on comparative research metrics, but could provide tailored advice on 'best practice' standards and approaches for core administrative processes.

# 5 Conclusions and recommendations

## 5.1 The need for global perspectives

More than ever before, higher education in all of its manifestations is becoming a global enterprise, in which the client groups (business, research funders, students) who determine the success of institutions are increasingly making their investment choices among the institutions that they consider to be world-class. There are real dangers for UK universities if they continue to frame and benchmark their international KPIs and their academic operations only against their domestic peers. World-class standing must be demonstrated from the 'outside-in', that is, based on evidence from the relevant international competitors. The strategic goals for international developments stated by many UK universities must be informed by international best-in-class standards.

There is no shortage of major cross-national benchmarking resources for comparing the standing and performance of universities, either at an institutional level or regarding specific aspects of their teaching and research activities. Our review has identified over 30 main sources of cross-national data comparisons, and we are sure there will be some we have missed. However, the interest and experiences of UK institutions in using these resources to benchmark their own plans and performance have mostly been quite limited. The reasons for this are two-fold: one is the somewhat domestic focus of most institutions' strategic planning, which has been mainly concerned with benchmarking against their national peers, even for international KPIs. The other has been a justified scepticism about the relevance and reliability of many of the 'public' international benchmarking resources, which collate data from numerous different sources and time bases and sometimes attempt to superimpose the outcomes onto a stereotyped model of the university.

Both of these reasons for limited historical engagement with international benchmarking are open to re-assessment. From the institutional perspective, UK universities are increasingly competing for students, staff and research funding on a global basis, and need to meet and demonstrate world-class standards of performance. From the benchmarking 'supply side' there are several important developments, especially within Europe, designed to address the shortcomings of consolidated ratings and rankings, giving users access to much more granular data that they can collate to produce more meaningful comparisons.

Higher education is, more than ever before, a truly global enterprise, and all universities are increasingly competing for internationally global business with international competitors. The global perspective and understanding that well targeted international benchmarking can offer will be crucial to the success of their responses.

## 5.2 Moving up the maturity curve

Overall, the emerging picture from this review is that international benchmarking is at an early stage of development for UK universities, but will become increasingly important for many, perhaps most, institutions over coming years. Benchmarking should be a central element to universities' internationalisation planning, both through in-house activities to make best use of the resources available and through collaborative activities to help improve the quality and availability of those resources.

There is no standard approach to institutional benchmarking. Institutions should adopt tailored approaches to identifying the comparative information most relevant to their particular internationalisation strategies and the maturity of their international business operations. While recognising that international 'league tables' have currency with some (but by no means all) transnationally-mobile students, there are limitations and even dangers in taking them too seriously in institutional planning; at best they may offer pointers for areas of apparent differences with overseas competitors that should be explored in more depth.

HE institutions should consider what competitor information and market intelligence is most relevant to their particular institutionalisation goals and their next stages of international business development. They should then select the most appropriate 'outside-in' benchmark resources for their particular needs, and incorporate these into their planning and performance management systems. In practice, institutions are likely to extract the greatest practical value from very specific (and usually commercial) comparative data sets in particular areas, such as research performance and student experiences.

The maturity framework and contingent approaches to benchmarking most appropriate to their current and next stages of development can provide practical tools for achieving this.

## 5.3 Benefits of collaboration

There are several major initiatives to address past limitations of international data collations, with more consistent standards and greater granularity in the reported information. Taken together, these factors should mean that UK universities are able to make greater practical use of international benchmarking in ways that are directly relevant to their strategic priorities.

While many institutions are understandably cautious about collaborative benchmarking activities, which they fear might require them to share sensitive proprietary information, they should perhaps consider making an exception for UK engagement with some of the richer international initiatives being developed to provide more reliable and granular comparative information, such as IMPI, U-Map and EUMIDA. While it would be prohibitively expensive and time-consuming for individual institutions to engage in the design and development of these initiatives, there may be benefits from a collaborative approach channelled through a single UK representative, such as HESA.

We recommend that detailed consideration be given to the scope and potential benefits from collaborative sector engagement in new benchmarking resources, possibly channelled through HESA or another national sector body.

# Appendix A: Detailed benchmarking resources

View Resources appendix (Excel document 576kb)

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