Democratising data in higher education

Results from the 2021 QS Institutional Data Usage Survey

Contents

Foreword

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I am pleased to introduce Democratising Data in Higher Education: Results from the 2021 QS Institutional Data Usage Survey – a unique exploration of how universities throughout the world are using data to inform their strategic decision-making, where the shortcoming in current practices are and what measures can be implemented by institutions to improve their overall data-driven capabilities. We hope that this will prove a useful resource for universities seeking to better understand their own data capabilities, what they do particularly well, and to identify areas for potential improvement.

The data illustrate a variety of challenges facing universities in being able to effectively utilise their data, and while each institution has their own differences and idiosyncrasies, we have seen enough commonalities in this project to be confident that many of these challenges are common and widespread throughout the world of higher education.

Broadly, the challenges we have identified relate to at least one of the following three themes:

People and processes – Institutions requiring the policies and processes in place to effectively capture, process and utilise data sources from all over the institution, to do so in a repeatable and time-efficient manner, and to have the requisite level of internal capabilities to make the best use out of their data assets.

Platforms and technology – Having access to technology that can help to securely and reliably collect and store data across business units, minimisation of labour-intensive human operations from data processing and analysis, and robust software and hardware which can be tailored the intricacies of each institution's unique practices.

Data availability – While most data-driven institutions collect a vast array of data to help inform their operational practices and strategic decision-making, there is still an appetite for more data – particularly in emerging areas of strategic priority. This relates to both internal data – universities better understanding and measuring their own performance, as well as external data – benchmarking themselves against their local and international peers.

In addition to these ongoing challenges, we also observed an emerging appetite for a greater investment in data relating to 'social impact' – a vital organisational consideration which is rapidly growing in importance, both within higher education specifically and within the corporate world more generally. We have seen throughout this research that while institutions are excited to invest in their own social impact, the relatively immature nature of the field means there is a shortage of frameworks, tools and data sources for effectively measuring and benchmarking impact. We see a greater appetite for internal and external investment in this field and expect social impact to be an increasingly important consideration for university decision-makers over the coming decade.

But what should the takeaway from all this be? The breadth of the challenges facing universities in maximising their ability to effectively collect and use institutional performance data means there is no 'magic bullet' – no single process, platform, consultancy or service provider can address all of the issues identified in this research. We do not attempt to propose any such solution in this whitepaper and anticipate that each institution would require a bespoke solution designed with their specific needs and objectives in mind.

What we have attempted to do here, is to identify some of the emerging trends and challenges relating to the usage of performance data within higher education, demonstrate that these challenges are routinely faced by organisations of varying ages, sizes and regions, and suggest what addressing some of these individual challenges could look like.

I hope that you find this whitepaper an illuminating insight into the world of data-driven decision making within higher education, and that it may assist some institutions looking to understand how they can take the 'next step' in building their data-driven capabilities.

Methodology

This research project consisted of two components – an online survey of key data-users and stakeholders from the global higher education community, followed by a series of semi-structured video interviews with a selection of stakeholders who completed the survey and volunteered for an interview.

This whitepaper synthesises the findings of each of the two stages of the project.

Key details

Stage 1: Online Survey	Stage 2: Stakeholder Interviews
10-minute online Qualtrics survey, issued to contacts from QS marketing lists	8 x 1-hour interviews with stakeholders who completed the survey and opted into a follow-up interview
4,891 invitations sent and 356 responses received (7.2% response rate)	Stakeholders were screened for relevance, seniority and geographic distribution
225 completed responses received (63% completion rate)	Conducted via Zoom between 12-22 April 2021
Partial responses included in analysis where relevant	No incentive was offered for participation

### Sample Composition

Stage 1: Online Survey	Stage 2: Stakeholder Interviews
Seniority • Senior Leadership – 40% • Manager – 30% • Operational – 19% • Other (e.g. academic) – 11% Role Type • Executive – 23% • International engagement – 22% • Planning and research – 22% • Marketing – 10% • Admissions – 7%	Interviewees came from universities in the following nations • India (x2) • Australia • Canada • United States • Italy • New Zealand • Poland

Survey Demographics

Geography	Seniority	Role Type
Africa/Middle East – 13%	Senior Leadership – 40%	Executive – 23%
Asia – 23%	Manager – 30%	Research & and planning – 22%
Eastern Europe – 13%	Operational – 18%	International engagement – 22%
Latin America – 5%	Other – 11%	Marketing and admissions – 17%
North America – 11%		Other – 16%
Oceania – 6%		
United Kingdom – 8%		
Western Europe – 20%		

The report was compiled by Chris Strods (Market Research and Data Manager), with input from other members of the QS Intelligence Unit.
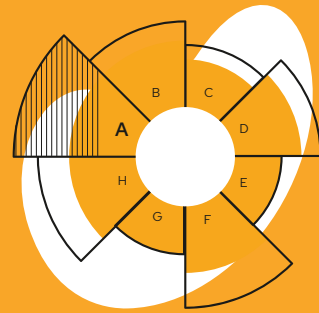
Executive Summary

Individual data literacy and organisational data maturity are critical for fostering an effective data-driven institution

One of the greatest challenges faced by many institutions in the effective usage of data is their internal data literacy, both in terms of understanding what data is available to them, and being able to appropriately analyse it in a consistent, repeatable, and reliable manner. This is a personnel challenge – hiring, training, and equipping staff in the right tools and techniques to perform the necessary data functions - as well as a logistical one – getting the necessary data into the hands of those who need to use it.

Currently, many institutions feel they are lacking in both of these areas. Skill gaps among staff are limiting them to only rudimentary analysis, interpretation, and presentation of available datasets, while organisational 'siloes' mean that internal data is often difficult to find, stored and processed inconsistently across schools and administrative functions, and lack the proper data governance to ensure the quality of the data and the subsequent analysis that is generated from it.

In addressing the former challenge, institutions can look to improve the overall data competency within their workforce by placing an emphasis on data literacy within the hiring process and providing training to current staff to augment their data skill set. The latter challenge will likely require a more complex approach, and could potentially incorporate:

- Tools and platforms to centralise the collection and storage of data for consistent storage and access

- Development of organisation-wide policies and procedures to ensure consistent collection, usage, and interpretation of available data

- Investment in automation of manually performed data-related processes, such as data loads, transfers, and routine analysis

Return on investment is always an important consideration when making decisions relating to data acquisitions

Institutional decision-making, including allocation of resources and decisions on investment priorities, are always made in the context of financial prudence and a clear link to a strategic need, such as:

- Boosting enrolments

- Improving institutional performance (typically measured through rankings)

- Securing access to research funding

- Compliance with external reporting requirements

The research reflected a common belief that proposal for investments in data are much more likely to be successful when they can be directly tied to one of these strategic priorities, or otherwise demonstrate a clear, positive financial return.

Conversely, a data product, service or other initiative which might primarily serve a goal of internal efficiency may be less likely to see fruition if the commercial benefit cannot be clearly demonstrated. To make the best case for further investment in data, the goal for institutions and the individuals within them wishing to expand their data-driven practices is to align their usage of data with the organisation's strategic performance indicators and external requirements.

The utility of currently available data is limited by a lack of granularity, and a lack of relevant, 'open' data sources

The most common shortcoming with the availability and utility of external and third-party data sources is the lack of granular data which can be individualised and tailored for each institutions' specific purposes, particularly in relation to data used for the purpose of benchmarking against other institutions. A common complaint is that available data does not allow institutions to conduct their own benchmarking analysis on their preferred criteria (for instance, comparing their own performance to those of other local universities, or those in the same ranking bracket). Instead, they are often reliant on broad, pre-prepared data categories, such as national or global averages.

The lack of granular data is reflected in the way that data is currently being accessed, with static reporting being far more common than importing raw datasets, utilising live data feeds or interactive benchmarking reports. Given the appetite for customized and bespoke data and insights, universities may be receptive to more dynamic reporting tools.

Addressing these challenges necessitates an increased willingness among institutions and other third-party providers of relevant data to share more of what they have, to increase inter-institutional collaboration, and to foster a culture of 'open data', rather than relying on gatekeepers to determine what data is important and how it should be analysed.
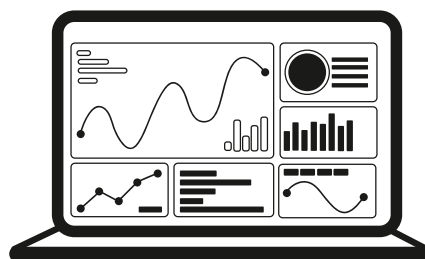
Social impact is here to stay, but the surrounding data landscape is immature

This research has confirmed that Environmental, Social and Governance (ESG) and 'social impact' are areas of growing importance within higher education, and are expected to continue to grow in prominence over the coming years. This rise of social impact is being driven primarily by the needs of a more socially conscious younger generation who will be factoring an institution's corporate citizenship into their decisions regarding where to study, as well as an increased global governance and compliance focus on ESG. As a result, much greater investment in impact initiatives, as well as the systems to measure and evaluate impact, is expected in the near future.

However, despite the growing importance of ESG and social impact, few believe that they currently have the required data, tools or expertise to effectively measure their own performance, or to benchmark themselves against their competitors. They are currently grappling with trying to understand what 'best practice' looks like and feel that there is a lack of external data in the social impact space. Social impact initiatives are often performed in an ad-hoc fashion, with little in the way of guiding frameworks, other than the United Nations' Sustainable Development Goals (SDGs). The coming years will likely see an emergence of new frameworks, measurement tools and datasets to help institutions to measure and benchmark and evaluate their own social impact.

As is the case with investment decisions in general, investments relating to social impact typically come with an expected financial benefit. The lure of significant investment in social impact is that it may contribute to student enrolments by attracting socially conscious students, open access to impact-related research funding and grants, or, by improving a universities' overall reputation. Conversely, a failure to address social impact to the same degree and effect as competing universities may result in a lost opportunity, presenting a degree of urgency for institutions looking to establish themselves as the market leaders in social impact.
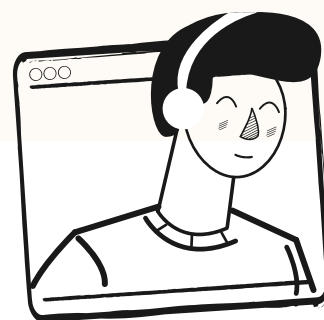
Building institutional data capabilities

Where are the main institutional data challenges?
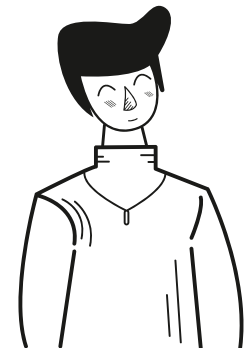
To improve data-driven decision making and increase the extent to which data systems are integrated into the process, it is important to understand where institutions currently see their limitations relating to the effective use of data.

As the below chart shows, there are three issues most likely to be experienced by universities when working with data – 42% reported 'process and practice limitations' when working with data, 40% said they did not have access to

the right platforms, software, and technology to maximise their use of data, and 40% said they experienced difficulties finding the right data they needed to make decisions. 32% also reported an unwillingness on the part of their institution to make investments into the data and systems they need to reach their desired levels of maturity.

What do you see as the top barriers to your department using external data more effectively?

Barrier	Value
Process/practice limitations	42
Platform/technology constraints	40
Can't find the data we need	40
Unwillingness to invest in data	32
We have too much data	15
Something else	13
Don't know	6
None	3
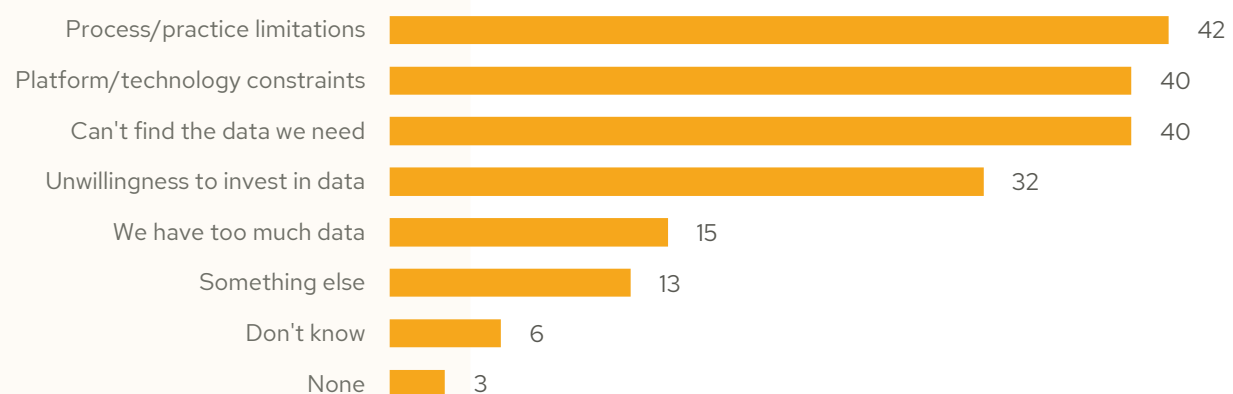
Interviews and text-based survey responses expanded on each of these issues, providing further context and examples.

Process/practice limitations (Experienced by 42%)

The issue most likely to be experienced by universities related to their use of data is not having the right processes in place to use data in the way they desire. Often, these process-related challenges could be reduced to one of two key themes:

• Poor data literacy – Staff working with data not having the desired level of skill in processing, analysing, and interpreting the data available to them in a rigorous, consistent, and repeatable way.

"Our data analysis is only descriptive, not predictive. We lack the analytical perspective"

• Manual processes – Systems have not been configured to communicate with each other to share data, or to produce data in the desired format, and hence require manual intervention for tasks like cleaning, restructuring and importing/exporting. Manual processes are more resource-intensive, and likely to result in errors and inconsistencies.

Platform/technology constraints (Experienced by 40%)

A similar proportion of universities report lacking the tools they need to do what they want to do with data – whether that be relating to data collection, processing, analysis or reporting and presentation. The two key ways in which this challenge appears to manifest are:

• Outdated/bespoke systems – Many universities report being tied to the usage of old, legacy systems (often produced 'in-house' rather than making use of off-the-shelf solutions). These systems, which may have been appropriate when they were developed, are no longer fit for the purposes they are now being used, and updating them to add new functionality can prove difficult, costly, and time-consuming.

"It shouldn't take two days to find an answer [using data]"

• Lack of automation – Similar to the issue of manual processes, many systems currently in use cannot be configured to automate routine tasks, or to produce a consistent, automated analysis or a dataset, necessitating manual intervention. This is particularly the case for data which may come in an unstructured format, such as qualitative feedback.

"It's very hard to incorporate qualitative data into the decision-making process... we need tools and platforms to infer knowledge from [qualitative feedback]"

Can't find the data we need (Experienced by 40%)

Aside from the challenges presented by ageing and unfit-for-purpose software and systems, many institutions also suffer from data availability challenges, which can manifest from both internal and external sources.

- Internal data silos – A typical university is a large organisation which consists of a federation of smaller organisational units, such as individual schools, offices, and unified corporate functions. As a result, many institutions report challenges with data 'silos' – with different parts of the university independently managing different datasets, and utilising their own interpretations, definitions, and analyses of the data available to them. This presents two challenges for data-driven institutions – firstly, understanding what data is available and whom to ask for it, and secondly, managing the inconsistencies in data structure and formatting that are inherent to this model of governance.

"The best maintained data is external"

- External data gaps – Aside from the challenges associated with accessing and utilising internal data resources within an institution, a common challenge many face is simply not having access to the right external data they need for effective decision-making – either the data doesn't exist, the institution doesn't have the right permissions to access it (particularly competitor or government data), or it isn't available in the format that they need it to be (such as only aggregate data being available, rather than raw datasets).
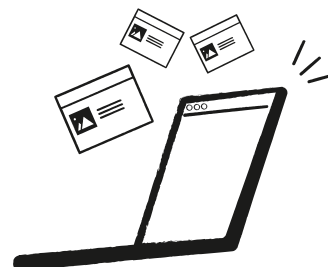
Unwillingness to invest in data (Experienced by 32%)

The final of the four key barriers to effective data use is an institutional resistance to making the necessary investments in data – which could include datasets, the tools and software to analyse them, or the training/recruitment required to build a workforce with the required skillset to maximise the utility of the availability data. Some believe that their university leadership tends to adopt a conservative approach to this kind of investment, and are more likely to be led by external drivers than internal needs. As a result, investment in data generally needs to come with a strong business case that ties an investment to a key institutional performance metric, such as attracting research funding or boosting a university's ranking.

Other barriers

Other than the above, respondents listed a range of other potential barriers to effective use of data, including:

- The high cost of accessing the relevant datasets and systems to use them

- The 'time lag' effect, where, by the time data has been collected, processed, and analysed, it has become outdated and no longer relevant for the purpose it was intended

- A lack of organisational resources to dedicate sufficient time into maximising the use of available data

- Much of the available external data lacks 'comparability', and does not allow universities to benchmark themselves against similar universities. Rather, it is often presented in aggregate and lacks the granularity required to maximise its utility
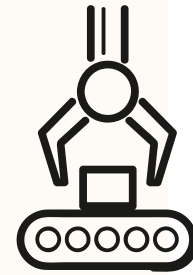
How is external data currently being used?

The most common ways of accessing external data are still through traditional, static reports – 71% of respondents reported using static reports which had been prepared internally, while 56% rely external providers to provide reporting and analysis.

In comparison, fewer institutions appear to be taking advantage of more advanced and interactive ways of accessing data – 40% will access raw external data and import into their own systems for analysis, while only 29% make use of interactive dashboards, and just 17% make use of 'live' feeds of real-time data to feed into their internal systems.

What are the main ways your department consumes and interprets external data?

Reports prepared by internal teams	71
Through reports prepared by external providers	56
Importing the data into their own systems	40
Externally-provided self-service dashboards	29
Live data feeds into internal systems	17
Other	3
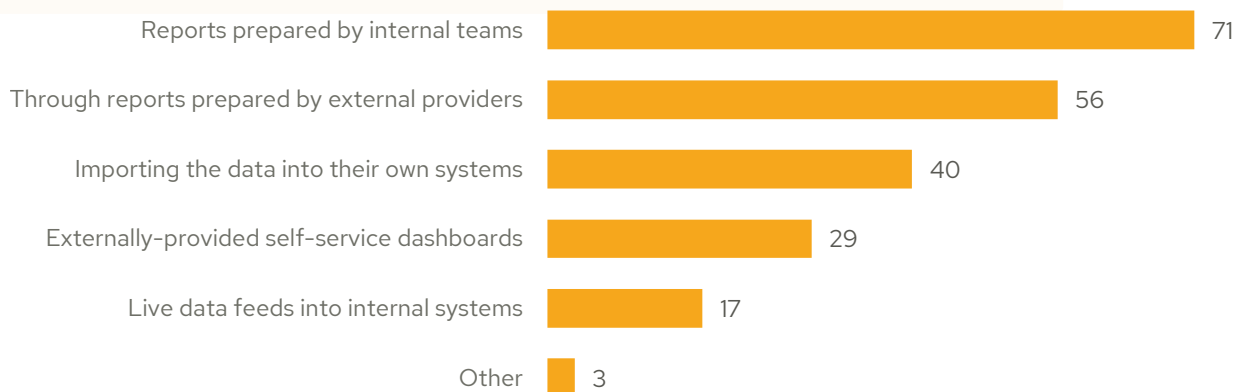
Given these results, it is unsurprising that few institutions are drawing on data in frequent and continual fashion – across each of the 11 topic areas, as few as 16% for *Alumni Engagement and Fundraising* and as many as 34% in the case of *Research* are drawing on data for decision-making on a weekly basis or greater.

The most common data access frequency is 'monthly', while sizeable proportions will only access data on an annual basis.
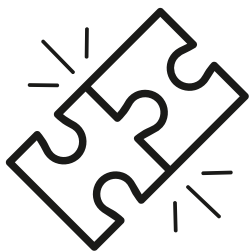
How frequently do you need to draw on data for decision-making in this area?

Area	Daily	Weekly	Monthly	Annually
Research (n=54)	9	25	50	16
Environmental Impact (n=15)		33	13	53
Innovation and Knowledge Transfer (n=36)	6	26	51	17
Internationalisation and Global Engagement (n=88)	7	23	47	24
Student Marketing, Admissions and Enrolment (n=66)	8	22	48	23
Employability and Graduate Outcomes (n=38)	11	19	35	35
Teaching and Pedagogy (n=42)	10	17	49	24
Institutional Governance and Strategy (n=58)	9	17	43	31
Community Engagement and Social Impact (n=38)	8	16	42	34
Student Engagement and Experience (n=42)	2	17	59	22
Alumni Engagement and Fundraising (n=27)	4	12	48	36

■ Daily   ■ Weekly   ■ Monthly   ■ Annually

Note: Sample sizes for each topic in brackets. Due to small sample sizes for some topics, results should be considered indicative only

In many cases, this is understandable – certain institutional operations, such as preparing annual reports and making rankings submissions, are conducted on an annual basis, and hence it may be appropriate for data to be analysed on an annual basis. In these cases, there may be no additional benefit to having a 'live' or interactive data feed.

However, the interviews conducted as part of this project revealed two use cases where having more frequent and interactive access to data may be of institutional benefit:

- Increased data granularity for benchmarking – As has been mentioned in prior sections, one of the key limitations in currently available data – particularly that which is pre-packaged and aggregated into static reports – is that it often does not provide the appropriate level of granularity for institutions to make 'like-for-like' measurements between their own performance and another benchmark group. Greater provision and usage of raw datasets, live data feeds and self-service dashboards present an opportunity to provide institutions with greater control over their own data and analyse it in the way that will yield the most useful insights for them.

- Live feeds for performance tracking – Traditional methods of performance tracking and evaluation often have a relatively long lag-time – a university's ranking in a particular year is based on their performance in the previous year(s). There is some appetite for more frequent data which can be used for benchmarking and performance evaluation. Examples of such data include:

  » Live feed of aggregate international student enrolments and/or student visas granted, to allow institutions to measure their own relative performance

  » Integrated feeds from research and citation databases

  » Continuous student sentiment trackers to monitor changes in study intention (for example, in relation to COVID-19 travel restrictions)

External evaluations as a driver of investment

There are a range of external metrics and evaluations which inform university strategy and decision-making, with the most commonly relied-upon being relevant university rankings and accreditations. 73% said that rankings have 'a great deal' or 'a lot' of impact, and 70% said the same of relevant accreditation schemes.

How much influence do the following external performance evaluations have on decision-making at your institution?

	A great deal	A lot	A moderate amount	A little	None at all
Accreditations	40	30	21	5	4
University rankings	37	36	21	5	2
Subject/programme rankings	32	33	24	8	3
Institution ratings (e.g. stars)	25	30	22	12	10
International awards	21	28	30	12	9
Domestic awards	15	29	34	12	10
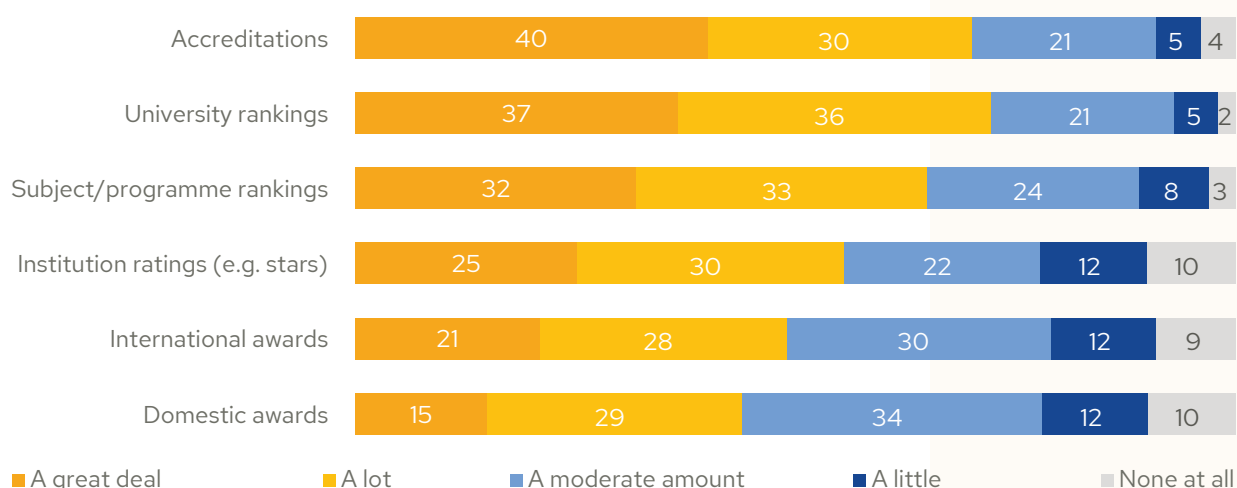
This data reinforces the feedback from the interviews, which indicates that complying with regulatory/quality frameworks and boosting rankings are two of the most significant influences of institutional strategy. This can have both positive and negative consequences.

Positively, there is a clear set of externally derived indicators that can be used to inform decision-making. However, it can be sometimes difficult to generate enthusiasm or 'buy-in' for a data-related investment when it does not immediately or obviously contribute to improved performance on one of these metrics.

In particular, an investment which may lead to an increase in efficiency, automate a process which was previously performed manually, or otherwise perform a function which does not directly link to an external metric, can be more difficult to achieve under a strategy driven by external needs.

"[to get an investment approved] we need to directly link to a compelling financial case"

"Universities are like big companies... things are not easy to change. Sometimes change can reveal problems"

This is clearly not a universal rule, however. Some universities – particularly younger universities and those who have identified an institutional need to build their brand and reputation, appear to express a greater willingness to invest in data at all levels of the organisation to achieve this goal.

"The university is ready to invest to bring us up to the best... it's easy to get sign off [on an investment]"
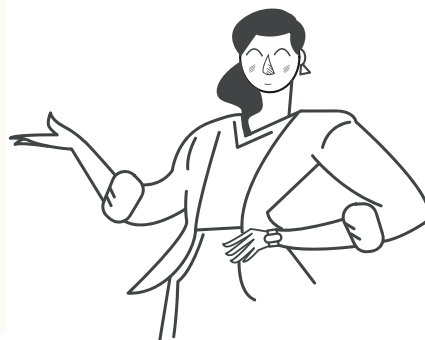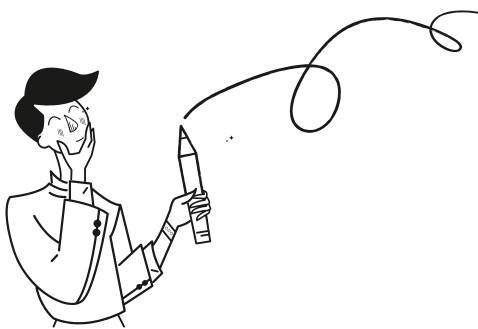
The internal versus external data balance

While internal and external sources of data are both important repositories of information for all priority areas, there is a tendency for internal data sources to be more highly valued than external. The two exceptions to this rule were *innovation and knowledge transfer and research*, both of which rely very heavily on external research databases to measure performance.

Interviews suggested a tendency for external data sources to be primarily used as a tool for benchmarking performance against other universities – a process which also requires the collection of internal data. For most topic areas, it is clear that an effective, data-driven approach will incorporate a range of both internal and external datasets.

How important are [internal/external] sources of data and insights to making decisions?

Topic	Internal	External
Innovation and Knowledge Transfer (n=36)	86%	92%
Research (n=54)	82%	87%
Internationalisation and Global Engagement (n=88)	88%	77%
Institutional Governance and Strategy (n=58)	95%	70%
Employability and Graduate Outcomes (n=38)	79%	70%
Community Engagement and Social Impact (n=38)	92%	68%
Environmental Impact (n=15)	87%	64%
Student Marketing, Admissions and Enrolment (n=66)	91%	60%
Teaching and Pedagogy (n=42)	74%	57%
Alumni Engagement and Fundraising (n=27)	81%	56%
Student Engagement and Experience (n=42)	93%	43%

Percentage of 'extremely' or 'very' important

■ Internal   ■ External

Note: Sample sizes for each topic in brackets. Due to small sample sizes for some topics, results should be considered indicative only

Top external data sources (Combined Topics)
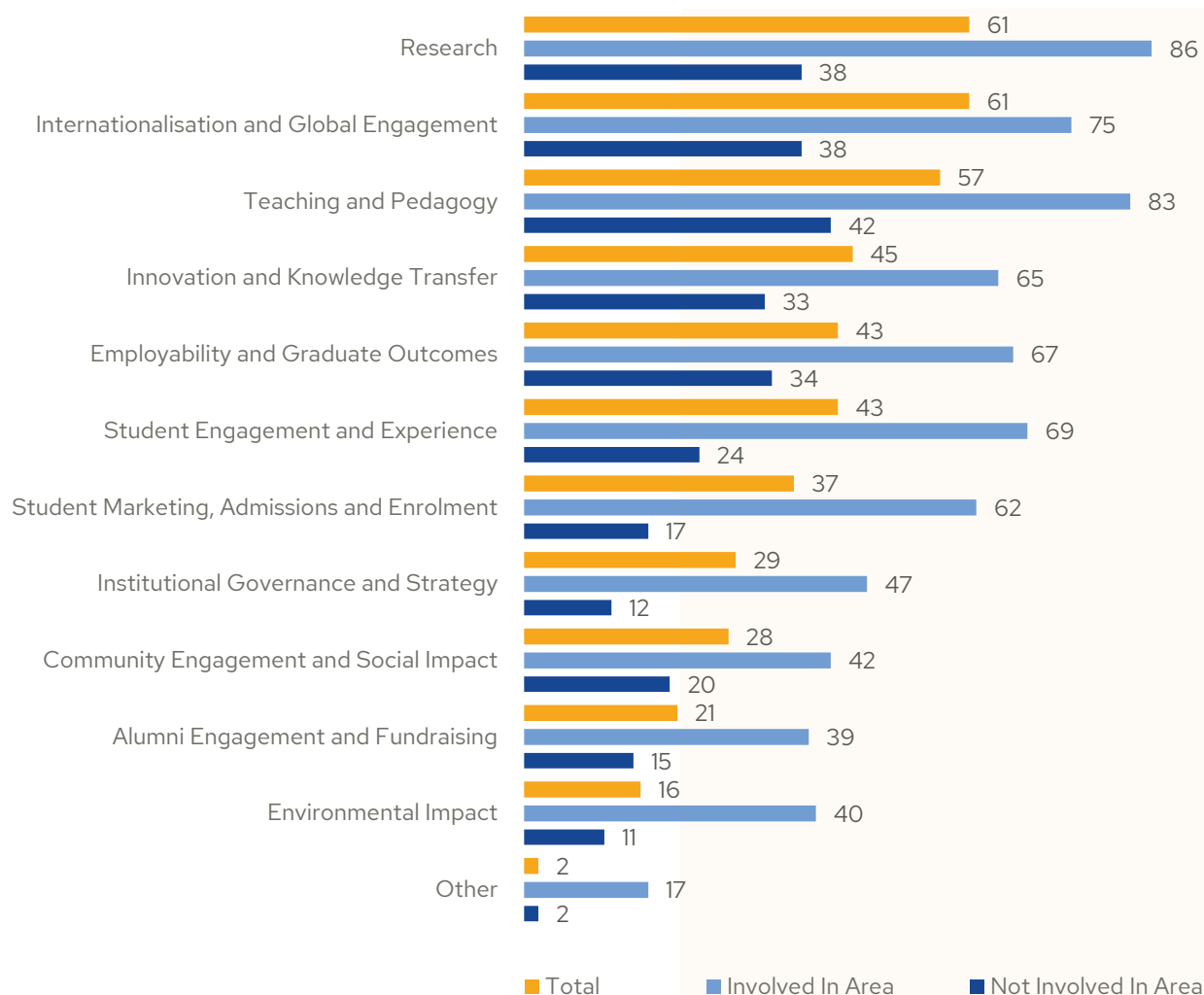
Research-specific datasets	• Scopus/SciVal • Clarivate/Web of Science (WoS) • Professional communities and data shared between connections
Government Data	• Student visa and enrolment statistics • Funding and grant programs • Government performance frameworks (e.g. TEF, QILT) • Other intergovernmental reporting (e.g. OECD, UN)
Other data sources	• University rankings and ranking reports • Research reports (e.g. student, faculty, academic surveys) • Competitor data (e.g. universities' annual reports) • Bespoke market research projects

Where is data most important?

Overall, a majority of respondents identified *research* (61%), *internationalisation and global engagement* (61%), and *teaching and pedagogy* (57%) as a top five priority area. For most other topic areas, the proportion ranged between 28% and 45% who placed it in their top five, while community *engagement and social impact* (28%), *alumni engagement and fundraising* (21%), and *environmental impact* (16%) were least likely to be selected.

These figures are, to some extent, a reflection of which fields respondents are most likely to be involved in – there is a very clear trend for respondents to favour the fields which they are personally involved in over those which they are not. After removing those who are involved in each area from the calculations, *teaching and pedagogy* is seen as the most important topic area (42%), followed closely by *research* (38%), *internationalisation and global engagement* (38%), *employability and graduate outcomes* (34%), and *innovation and knowledge transfer* (33%).

Please identify the performance areas that you feel are of greatest strategic importance to your institution today?

Area	Total	Involved In Area	Not Involved In Area
Research	61	86	38
Internationalisation and Global Engagement	61	75	38
Teaching and Pedagogy	57	83	42
Innovation and Knowledge Transfer	45	65	33
Employability and Graduate Outcomes	43	67	34
Student Engagement and Experience	43	69	24
Student Marketing, Admissions and Enrolment	37	62	17
Institutional Governance and Strategy	29	47	12
Community Engagement and Social Impact	28	42	20
Alumni Engagement and Fundraising	21	39	15
Environmental Impact	16	40	11
Other	2	17	2

■ Total ■ Involved In Area ■ Not Involved In Area

Notes: Up to five areas selected. 'Involved in Area' includes respondents who said they worked in that area or had an interest in it, while 'not involved in area' includes respondents who do not work or have an interest in the area.
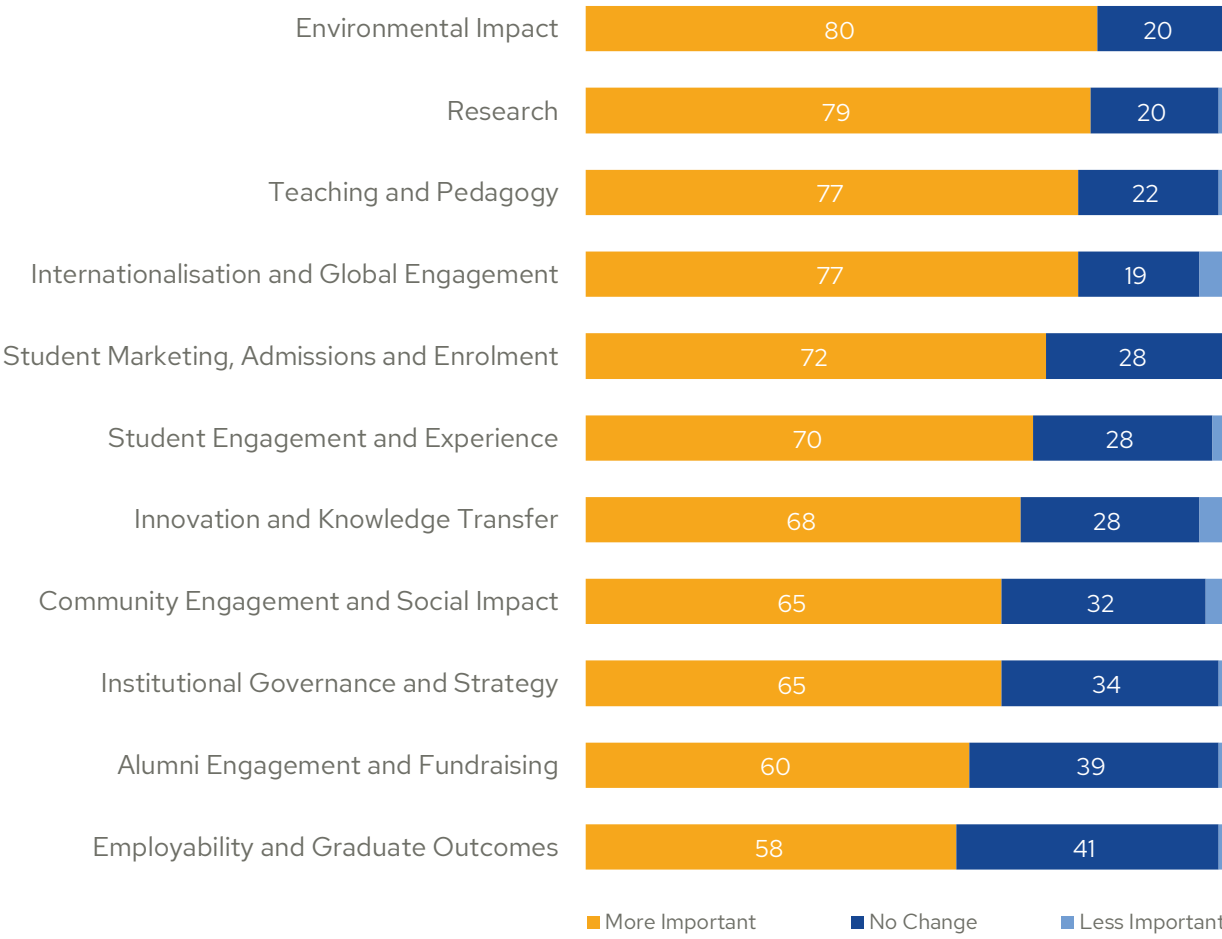
Overall, this data reflects the fact that the areas of the greatest strategic importance to most institutions are those which help deliver on the institution's core responsibilities of teaching and learning, conducting research, and engaging with the global education community.

In light of this, it is particularly interesting to see the environmental impact – which ranked at the bottom of the list of overall importance – ranks at the top of the list for 'growth in importance' – 80% of those with some involvement in environmental impact believe that it is becoming more important to their institution, ranking above research (79%), teaching and pedagogy (77%), and internationalisation and global engagement (77%) – the three most important topics overall.

The data suggests that, whilst environmental impact (as well as the related field of community engagement and social impact, which 65% said was becoming more important), is still a second-tier issue when compared to the core university functions, these areas are clearly becoming more prominent – and with it, an increased desire for data to help navigate this burgeoning strategic focus areas. This dynamic is discussed further in the final chapter.

How do you think the strategic importance to your institution of your selected areas has changed over the past three years?

Area	More Important	No Change	Less Important
Environmental Impact	80	20	
Research	79	20	
Teaching and Pedagogy	77	22	
Internationalisation and Global Engagement	77	19	
Student Marketing, Admissions and Enrolment	72	28	
Student Engagement and Experience	70	28	
Innovation and Knowledge Transfer	68	28	
Community Engagement and Social Impact	65	32	
Institutional Governance and Strategy	65	34	
Alumni Engagement and Fundraising	60	39	
Employability and Graduate Outcomes	58	41	

■ More Important   ■ No Change   ■ Less Important

Identifying gaps in available data

The ability for institutions to effectively implement institution-wide data-driven strategies is dependent on having access to the right data - both externally and internally sourced – to answer the most important questions.

The survey revealed a range of *data gaps* across each of the relevant topic areas, the most common of which have been aggregated into the below table:

Data gaps by topic area

Innovation and Knowledge Transfer	• Social impact and sustainability data • Online learning evaluation data • Data on patents and commercialisation of research
Research	• Social impact and sustainability data • Discipline-specific benchmarking • Best-practice data from high-performing institutions
Internationalisation and Global Engagement	• More timely and detailed student visa and enrolment statistics • Benchmarking data from competitor institutions • Analysis of future market trends
Institutional Governance and Strategy	• More granular data underpinning university rankings • Data on funding and research grants • Trends in university management models • Faculty-level benchmarking data
Employability and Graduate Outcomes	• Future trends in industry, skill, and career demand • Career-specific salary and employment data • Employer sentiment data
Community Engagement and Social Impact	• Frameworks for measuring and tracking impact • Benchmarking data from competitor institutions • Market trend data relating to investment in social impact
Environmental Impact	• Impact measurement data and benchmarking

Student Marketing, Admissions and Enrolment	• Data from emerging international student source markets, including Africa, South America, and Eastern Europe • Benchmarking data from competitor institutions • More data on student experience and satisfaction • Digital marketing, SEO, and content optimisation data
Alumni Engagement and Fundraising	• Graduate outcomes survey data • Data on alumni engagement and fundraising performance
Student Engagement and Experience / Teaching and Pedagogy	• Live online engagement data and dashboards • Case studies on successful online learning approaches • Benchmarking data from competitor institutions

Note: Student Engagement and Experience and Teaching and Pedagogy combined due to similarity of gaps

While the specific gaps differ between each topic area, there are a number of key themes and ideas which impact multiple topic areas:
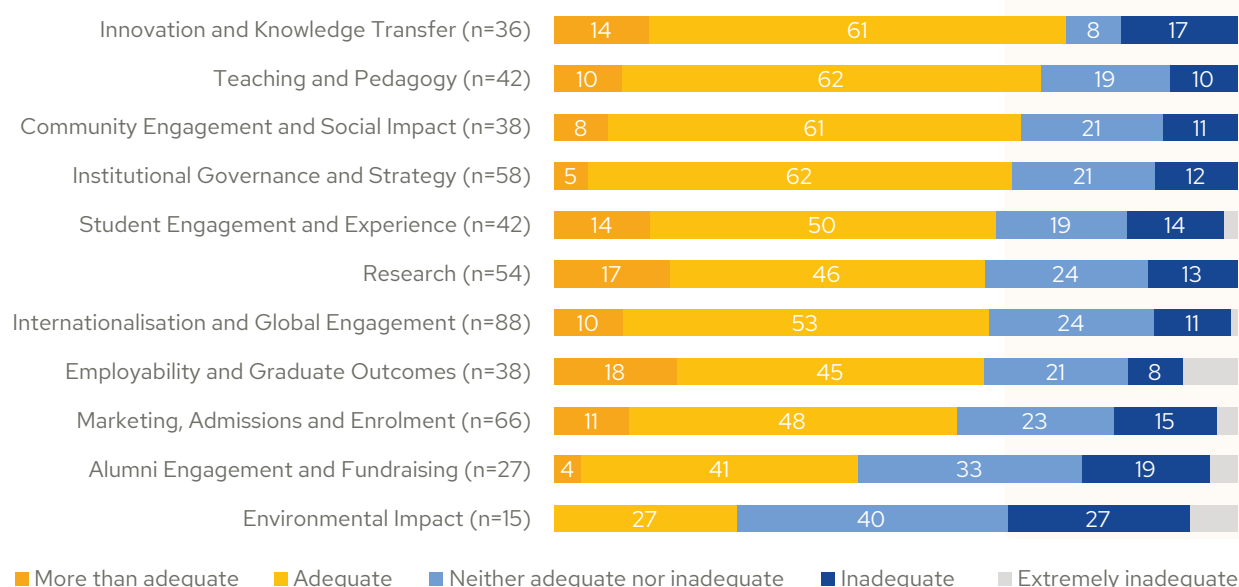
Data Gaps – Common Themes

- Detailed and granular benchmarking data is a very important consideration for many different topic areas across all parts of the university

- There is particular interest in data which can help universities measure and evaluate the study experience during COVID-19 (particularly online study), and to understand how other universities have met the challenges this mode presents

- Many universities are seeking data on 'emerging markets' for international recruitment, as they look to diversify from the traditional key markets of China and India, and into regions such as Africa, South America, and Eastern Europe

- There is a need not just for data, but also for expert analysis of the data – particularly in relation to predicting future trends around models of teaching and learning, careers and graduate outcomes, and student mobility

- The growing importance of social impact applies to many fields, with institutions seeking data on how they can use social impact concepts to inform their research programs, innovation practices, and institutional strategy

Overall satisfaction with the availability of data and insights for each topic area varies widely. While all but two of the topic areas had a majority say the available data was adequate, less than one-in-five said that the available data was 'more than adequate' – suggesting room for improvement despite an overall positive sentiment.

Notwithstanding the small sample size, satisfaction was significantly lower for environmental impact data than for other topic areas – just 27% felt the data available to them was adequate. This will be discussed further in the following section.

When making decisions, how adequate do you feel the data and insights you have access to are?

Topic	More than adequate	Adequate	Neither adequate nor inadequate	Inadequate	Extremely inadequate
Innovation and Knowledge Transfer (n=36)	14	61	8	17	
Teaching and Pedagogy (n=42)	10	62	19	10	
Community Engagement and Social Impact (n=38)	8	61	21	11	
Institutional Governance and Strategy (n=58)	5	62	21	12	
Student Engagement and Experience (n=42)	14	50	19	14	
Research (n=54)	17	46	24	13	
Internationalisation and Global Engagement (n=88)	10	53	24	11	
Employability and Graduate Outcomes (n=38)	18	45	21	8	
Marketing, Admissions and Enrolment (n=66)	11	48	23	15	
Alumni Engagement and Fundraising (n=27)	4	41	33	19	
Environmental Impact (n=15)		27	40	27	

■ More than adequate ■ Adequate ■ Neither adequate nor inadequate ■ Inadequate ■ Extremely inadequate

Note: Sample sizes for each topic in brackets. Due to small sample sizes for some topics, results should be considered indicative only

The growing importance of impact

It is clear that Environmental and Social Governance (ESG) and the broad concept of 'social impact' are areas of significant and growing importance within the higher education sector. The past few years in particular have seen global higher education – and the wealthier, established institutions in particular - reinforce their standings as good corporate citizens with a positive impact on society.

This social good can come in many forms – universities can equip students with the skills they need to address the societal challenges of the day, produce relevant and useful research which can be applied to the wider world, and utilise their resources to remove inequities in educational attainment. In many ways, universities are already addressing these challenges, both through their ordinary teaching, learning and research functions, as well as through specific initiatives like scholarships, grant programs, and sponsorships of social impact-orientated initiatives.

The emerging challenge for higher education is to find ways to measure, quantify, and assess the scale and nature of their 'social impact', moving social impact from an ad-hoc and incidental by-product of normal operations, into a conscious and measurable goal which informs strategy, decision-making, and investment.

This project reinforces the growing important of social impact and ESG in higher education. While social impact does not rank as highly as the more established performance areas in terms of overall importance, a majority believe that both 'environmental sustainability' and 'community engagement and social impacts' are growing in importance.

Each interviewee indicated that social impact considerations are becoming a more important part of the strategic planning process, and that they expect to be making investments in this space over the coming years.

"We are changing our entire strategic planning framework to have an SDG focus... we want to measure our impact on all goals"

"There are a lot of new initiatives in planning and research... we want to improve our research to benefit society"

"Being able to benchmark ourselves [on social impact] is part of building a data-driven culture"

The de-facto standard method for conceptualising social impact is through the UN Sustainable Development Goals (SDG), a broad collection of 17 goals aimed at creating a sustainable global future. Each goal has a series of associated targets, which can be used to measure progress.

Using data for social impact

Despite the evident and growing importance of social impact, there is a clear deficit in the availability of not only relevant data, but of the tools, platforms, and frameworks required to effectively measure and evaluate social impact and performance against the SDGs within a higher education setting. As was shown in the previous section, just 27% of those who work directly within the 'environmental impact' area believe they have access to adequate data. For 'community engagement and social impact', the figures are better – 67% say the data they have access to is adequate, but just 8% said that it was 'more than adequate'.

A lack of data makes it difficult for institutions to both measure the impact of their own initiatives, and to benchmark themselves against their competitors.
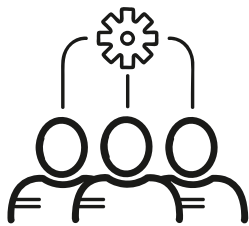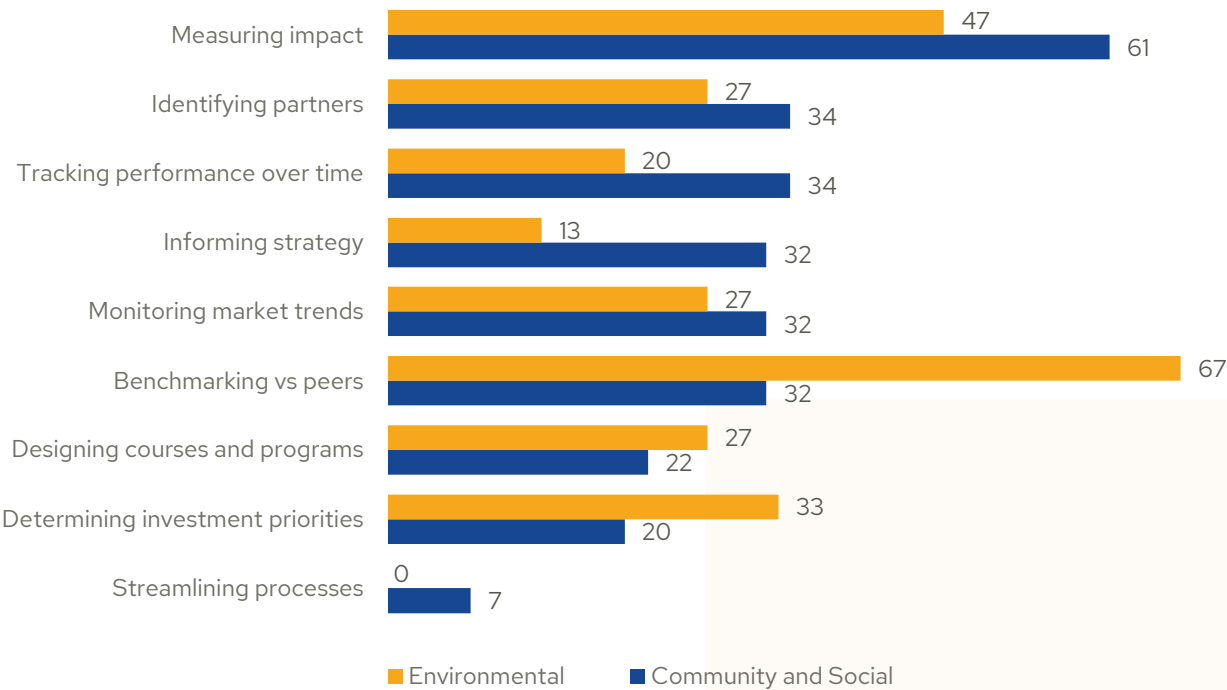
"We have initiatives in place, but they're not being measured"
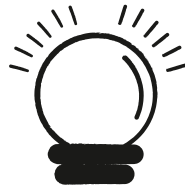
"It's hard to benchmark against other universities without access to the data"

When interviewees were asked to list the specific data sources that are used to inform the community, social and environmental impact functions, most suggested general sources like government reports, rankings, and research databases. However, the currently available data does not provide enough granular detail to develop clear and comprehensive benchmarks, and the available tools do not allow institutions to easily measure and evaluate their own performance against the SDGs.
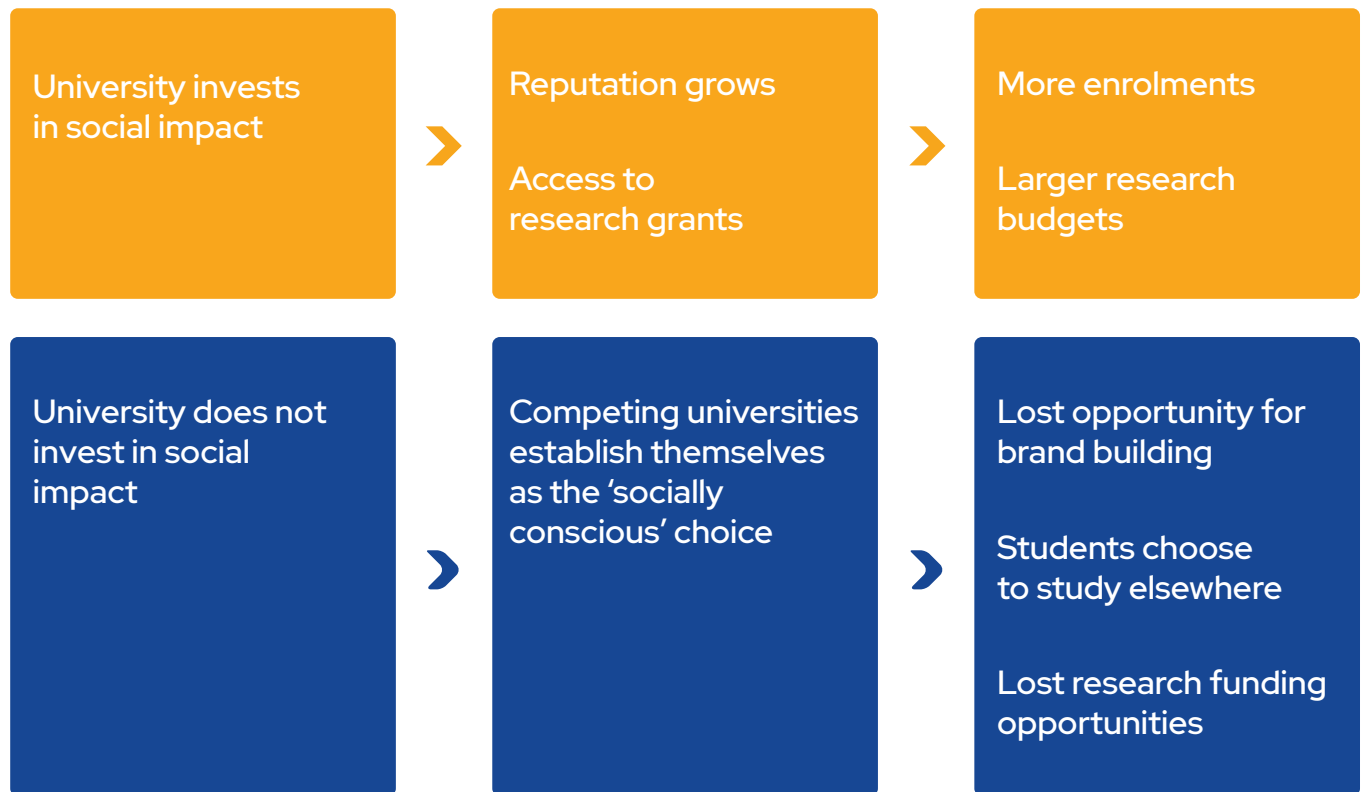
Given the importance of data for the measurement of environmental and social impact, addressing these shortcomings is of critical importance. 61% of those involved in community engagement and social impact say that 'measuring impact' is one of the primary uses of external data, while 47% of those involved in environmental sustainability said the same.

What are your priority uses for external data?

Priority use	Environmental	Community and Social
Measuring impact	47	61
Identifying partners	27	34
Tracking performance over time	20	34
Informing strategy	13	32
Monitoring market trends	27	32
Benchmarking vs peers	67	32
Designing courses and programs	27	22
Determining investment priorities	33	20
Streamlining processes	0	7

■ Environmental ■ Community and Social

The Social Impact Proposition

University invests in social impact	→	Reputation grows Access to research grants	→	More enrolments Larger research budgets
University does not invest in social impact	→	Competing universities establish themselves as the 'socially conscious' choice	→	Lost opportunity for brand building Students choose to study elsewhere Lost research funding opportunities

About QS

QS Quacquarelli Symonds is the world's leading provider of services, analytics, and insights to the global higher education sector. Our mission is to enable motivated people anywhere in the world to fulfil their potential through educational achievement, international mobility, and career development.

Our QS World University Rankings portfolio, inaugurated in 2004, has grown to become the world's most popular source of comparative data about university performance. Our flagship website, www. TopUniversities.com – the home of our rankings – was viewed 149 million times in 2019, and over 94,000 media clippings pertaining to, or mentioning, QS were published by media outlets across the world in 2019.

QS portfolio

- **QS Digital and Events** provides prospective undergraduate, graduate, and MBA applicants with independent guidance throughout their search and decision making. Our world-class digital platforms include TopUniversities.com, TopMBA.com, and QSLeap.com which support search and inform applications to programs matching their profile and aspirations. In parallel, prospective students can meet, either virtually or face-to-face, with admissions officers of international universities and business schools. For universities and business schools, it offers effective and innovative digital and off-line student recruitment and branding solutions.

- **QS Enrolment Solutions** supports higher education institutions to maximize their student recruitment with a range of specialist services, from data-driven insights and high-quality lead generation to optimized communications and student conversion. With over 20 years of experience QSES has an unequalled understanding of international student decision-making.   Our international office locations (UK, Romania, India, Malaysia and Australia) enable us to operate across time zones to deliver high value to our partners and exceptional services for applicants.

- **The QS Intelligence Unit** is a leading originator of institutional performance insight drawing on unique proprietary datasets gathered in pursuit of its published research. Best known for the widely referenced QS World University Rankings, today comprising variants by discipline and geography, the unit also operates a sophisticated, multi-dimensional quality standard; a comprehensive analytics platform facilitating advanced benchmarking; and an in-demand consulting team. Our insights both inform and are informed by frequent presence and digital conferences for educators, university leaders, and policy makers.

- **QS Unisolution** is dedicated to developing SaaS technology solutions to increase the efficiency and effectiveness of international mobility, relations, and recruitment functions within education, positively impacting the educational experience for the students, staff, and partners we serve.

For more information about the QS services, please contact b2bmarketing@qs.com

To continue empowering motivated individuals and institutions across the world alike during the coronavirus outbreak, QS's response has included:

· Moving its student recruitment events online, ensuring that universities and talented potential applicants across the world are still able to achieve high-quality personalized engagement.

· Expanding its range of digital marketing offerings, empowering student recruitment teams as they seek to maintain outreach and enrolment efforts.

· Launching a webinar series designed to enable university faculty and administrators alike to share best practices as they transition their educational offerings into the virtual classroom.

· Ongoing surveys of prospective students and institutions globally to analyze how the COVID-19 crisis is impacting them.

In 2019, as part of our commitment to sustainability, QS became a certified CarbonNeutral® Company, reflecting our efforts to reduce our impact on the environment through a range of efficiency initiatives and offsetting unavoidable emissions through a verified carbon offset forestry project in Brazil.