Demonstrating your research success relies on accurate data.

Over the past 10 years, international university rankings have grown in visibility and prominence, stretching beyond influencing the university selection process made by students and faculty. In different parts of the world, rankings can play a pivotal role in:

- How governments measure research excellence for your institution
- Whether or not a company selects you to partner with, and
- A funding body’s decision to invest in research at your university

Although rankings are not the sole indicator of your institution’s reputation, they do provide a quantitative way to benchmark universities nationally, regionally and globally.

If you are seeking to establish, improve or maintain your institution’s reputation and standing, understanding how your research output and citation data are used in calculating international university rankings is essential. Being confident that data about your institution, its researchers and outputs are accurate and up-to-date in the sources used by rankings organizations puts you in a better position to drive your university’s rankings and reputation.

Here we take a practical look into the influence of research output data, specifically Scopus® data, in rankings methodology and the role leaders at universities can take to ensure such data is an accurate reflection of their institution’s research.
THE INFLUENCE OF RESEARCH AND INSTITUTIONAL DATA IN TWO RANKING METHODOLOGIES

Ranking organizations develop their own unique methodology but are reliant on data inputs from a range of external resources. This often includes a university’s own institutional data and researcher data from bibliometric (citation indexing) databases, such as Scopus.

Figure 1: Times Higher Education applies Scopus data in its methodology to examine “how much each university is contributing to the sum of human knowledge, … whose research has stood out, has been picked up and built on by other scholars and, most importantly, has been shared around the global scholarly community to expand the boundaries of our understanding, irrespective of discipline.”

Looking at the Times Higher Education World University Rankings (WUR) the methodology behind their global performance tables is based on 13 performance indicators, grouped into five areas: teaching, research, citations, international and industry income (see figure 1).¹

A critical component of the rankings equation is research output. In the case of the WUR, data stemming from research output influences the calculation in the areas of:

- Citations (30% of the calculation)
- Research productivity (6% of the calculation)
- International collaboration (2.5% of the calculation)

Like Times Higher Education (THE), research output plays a critical role in the rankings methodology for QS (Quacquarelli Symonds).² Based on information accessed on the QS website accessed November 2018. For their calculation, citations per faculty account for 20%, still an influential part of the equation. It’s worth noting that they exclude self-citations. For their Subject ranking Scopus h-index data also accounts for one of the applied metrics.

¹Based on information accessed on the THE website November 2018.
²Based on information accessed on the QS website accessed November 2018.
With researcher and research output data underpinning a significant part of the rankings equation, universities need to be confident that the data used is as complete and accurate as possible. One way to help achieve this is through instilling a culture of good data hygiene practices—pro-actively validating and cleaning data—across your institution.

VALIDATE RESEARCH OUTPUT DATA
As individual researcher output data collectively feeds a large arm in the rankings calculation, validating such data for your institution is a logical first step. The key is to first get researchers onboard as active participants in tracking and verifying their researcher profiles, ensuring their work is properly attributed to the correct networks and institutions, both on internal and external facing entities.

As an example, author profiles generated by Scopus are algorithmically made, yet individuals are able to review their profiles and request corrections as needed, without requiring a subscription. Given the influential role of data in rankings and evaluation, you want to ensure the work your university is doing is as accurately reflected as possible – data transparency is an essential ingredient to enable that to happen.

CASE EXAMPLE
City University of Hong Kong (CityU) recognized the value of undertaking clean data initiatives to more accurately reflect their research performance and outcomes. An ambitious university in the greater China region, CityU is focused on rising up in international rankings with a growing portfolio of innovative research. Ensuring that the output of their research faculty is properly attributed on Scopus was a key step forward in pro-actively managing the university’s research reputation.

INSTITUTIONAL PROFILES
Institutional publication data are included in various ranking methodologies, such as Times Higher World University Rankings and QS World University Rankings. Included are documents from all affiliations that are part of an institution’s hierarchy. The Scopus Institutional Profile Wizard (IPW) allows universities to modify their affiliation profiles and correct their organizational hierarchies to ensure the correct set of affiliation profiles are grouped together and displayed on Scopus accurately.
“We learned that when we started to clean up our data, and that was through the process of first creating data identifiers and then unifying our Scopus IDs, that many of our faculty had been underreported. So, in this process the average faculty gained about 20 publications, gained 500 plus citations, and gained in h-index of over three. So, these were really institutionally major gains: time saved, faculty more happy, better reporting, higher quality reporting and a rise in our recognition, which then feeds into rankings.”

— Professor Christian Wagner, Chief Information Officer, Associate Provost (Quality Assurance), City University of Hong Kong

BE摊ER DATA. BETTER DECISIONS.
Whether looking to establish, improve or maintain your institution’s reputation and standing, the research output and citation Strong data attributed to your university is a determining factor. Data hygiene practices can lead to a more accurate reflection of your university in ranking outcomes through the validation of research output and citation data attributed to your institution. Further, deep analyses of the same data can yield actionable insights that propel your institutional strategy forward and help you manage your reputation.

Further, as an institution aspiring to be a regional leader in research management practices, CityU migrated its research management solutions onto Elsevier’s Pure, creating a single, trusted source of research metadata and researcher profiles. In addition to including data from Scopus, Pure ingests data from internal campus systems and external sources, consolidating research metadata silos. Data can then be interrelated for simplified reporting. Read the case study.
Empowering knowledge.

Elsevier’s Research Intelligence solutions answer the most pressing challenges researchers and research managers face, with innovative solutions that improve your ability to establish, execute and evaluate research strategy and performance.

Scopus gives you high quality data and tools to decide where and how to drive your institution’s research agenda, impact and competitiveness. Scopus data powers the decisions of global rankings organizations, funding sources, and assessment bodies around the world – and it can help you too.

SciVal offers quick, easy access to the research performance of over 10,000 research institutions and 230 nations worldwide – so you can visualize research performance, benchmark relative to peers, develop collaborative partnerships and analyze research trends.

Pure is a versatile centralized system that facilitates evidence-based approaches to your institution’s research and collaboration strategies, assessment exercises and business decisions. It enables building reports, performance assessments, managing researcher profiles, networking, expertise discovery and more – with less administrative burden.

Analytical Services provides research institutions and funders accurate, unbiased & consultative analysis on research performance by combining high quality data sources with technical and research metrics expertise. Our offerings range from simple, targeted reports to comprehensive multidimensional studies, as well as data delivery and web integration services to meet your research management needs.

For more information please visit elsevier.com/research-intelligence/research-managers