Add power to your decisions.
Inform institutional research priorities with better data.

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University leaders are often challenged to find robust and accurate information to inform institutional priorities. Scopus data bring critical acumen to strategic decision-making about your research enterprise by providing access to comprehensive and authoritative research information, as well as researcher and institutional profiles.

With Scopus data, institutional leaders can gain a competitive advantage in stimulating economic development, attracting and retaining top talent, winning research funding, forming collaborative partnerships across sectors, and strengthening institutional reputation through rankings.
As the world enters what’s being called the “fourth industrial revolution,” higher education leaders face pressures to ensure their institutions are active participants. As posed in a World Economic Forum article, “this is the time to ask whether the global higher education community will only react to how the business world is shaping the fourth industrial revolution or if it will be among the key players of shaping [it].”¹

“The complexity of the systems developed to meet the demands of the fourth industrial revolution necessitate interdisciplinary and collaboration as a precondition for innovation.”¹

— Prof. Dr. Sabina Jeschke, RWTH Aachen University (Germany)

Universities that embrace cross-sector collaborations and partnerships are better positioned as key players in driving economic development. Likewise, government bodies are increasing their roles beyond funding to become facilitators of these efforts, as evidenced by:

- Russia’s newly announced Ministry of Science and Higher Education will “… creat[e] at least 15 world-class centers for education and research based on cooperation between [sic] universities, research institutes and business structures.”²
• The United Kingdom’s Research and Innovation (UKRI) organization, whose strategic prospectus is to “ensure everyone in society benefits from world-leading research and innovation … [and] tackle the environmental, social and economic challenges of the 21st Century.”

• Germany’s Excellence Strategy (Deutsche Forschungsgemeinschaft, DFG), which continues from previous initiatives to enhance “… research profiles, and [facilitate] cooperation in the research system.”

• Australia’s Science and Research Priorities, which were developed with researchers from higher education, industry leaders and government representatives to “increase productivity, achieve sustainable economic growth, create jobs, and improve national well-being.”

Each example reflects an urgent need to accelerate the exchange of knowledge among governments, universities and industries to stimulate economies and solve society’s most pressing challenges.

“In this work, those of us leading and benefiting from the technology revolution must help lead the way. This is not someone else’s problem; it is a call to action. … At MIT, we are deeply engaged in defining the current problem [ethical implications of emerging technologies] and forecasting challenges ahead. And we are urgently seeking allies who want to join in developing creative, collaborative solutions — and in building a future in which technology works for everyone.”

— President L. Rafael Reif, Massachusetts Institute of Technology (United States)
Data are recognized as important components to high-speed knowledge exchanges across sectors. According to Amberlyn Thomas, University of Queensland, “data that can help illuminate the flow of knowledge from university to industry to society” are needed to assess and showcase the “benefits flowing from university research.” High-quality data — clean, relational and comprehensive — propel leaders to make the evidence-based decisions needed to place their institutions at the forefront of economic development.

THE SCOPUS DATA FACTOR
The 3.7 terabytes of data contained in Scopus power analyses used by:

- The United Kingdom’s Department for Business, Energy & Industrial Strategy (BEIS) to assess the performance of the UK’s research base compared with seven other research-intensive countries. Read International Comparative Performance of the UK Research Base 2016.

- The National Research Foundation of Korea (through SciVal, powered by Scopus) to gain a deeper view of the R&D work unfolding in its focus domains and monitor the country’s progress over time. Read Driving the Country as Innovation Powerhouse: National Research Foundation of Korea.

- The State of New Jersey’s (United States) efforts to stimulate economic growth by building connections between the state’s industries and subject-matter experts at five of its research-intensive universities. Read Database will Reveal New Jersey’s Research Assets to Fuel Innovation.

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"A country’s expenditure on Research & Development (R&D) creates a market that extends far beyond the active R&D community: the R&D expenditure does not just pay the salaries of skilled researchers and provide the necessary infrastructure to support them in their work, it generates supply and demand for services and products across many industries."

— International Comparative Performance of the UK Research Base 2016 (p23)
Attract and retain key researchers.

What are your institution’s true research strengths? Which emerging areas should you pursue? Who is your top or rising talent? Accurate insights in these areas can help inform resource investment decisions that will better position you to both attract and retain top talent — and in the process, strengthen your institutional research mission.

Kiel University had well-defined goals in the area of attracting and retaining key researchers. One strategic objective focused on enhancing the visibility of four specific areas of interdisciplinary science and allocating resources to sustain growth in these areas.

“The establishment of new professorships and the retention of key players are the most important decisions a university president must make.”

— Thomas G.C. Bosch, Vice-President (2010-2013), Kiel University (Germany)

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“More and more people are using [SciVal] when they go to recruit staff. They use it to see what [the candidate’s] profile is and their publication output profile over a number of years.”

— Liam Cleere, Senior Manager, Research Reporting and Analytics, University College Dublin (Ireland)

THE SCOPUS DATA FACTOR
The granularity and transparency of Scopus Author Profiles and Scopus Institutional Profiles data provide intuitive ways to understand what is happening in research, both at your institution and globally. These features enable you to gain a clearer picture on which research teams, facilities and partnerships to fund so you have an edge in identifying and evaluating top research talent.

See the power of insights gained from Scopus Author Profiles in the Elsevier report, Gender in the Global Research Landscape. This groundbreaking analysis employs Scopus data to drive powerful insights into the state of research through a gender lens. Incorporating data from across 20 years, 12 geographies and 27 subject areas, Scopus data enable unique and informative views into the entire breadth of a university’s knowledge domain.
Discover impactful collaborators and partners.

Collaboration between institutions, as well as partnerships across higher education, government and industry, increase researcher and institutional visibility. Research has shown that institutions with a diverse array of partnerships and collaborations have higher citation rates.¹⁰

The ability to discern which collaborators and partners have the potential to propel your strategic objectives forward gives your institution a distinct competitive advantage. This is true whether your objective is to secure funding or encourage innovation, commercialization of research or economic development.

“What we don’t know necessarily at the top level is how successful [international] partnerships have been. So, one of the things we are working on ... is simply getting some tracking so we can monitor joint publications between us and our various international partners.” ¹¹

— Ian Rowlands, Research Information and Intelligence Specialist, King’s College London (United Kingdom)

“Our goal is to commercialize our research results and turn them into actual products that can be sold to benefit people, in collaboration with industry.” ¹²

— Sea-fue Wang, President, National Taipei University of Technology (Taiwan)
“If I’m looking for international collaborators … it’s usually not too difficult to find experts among the people already working with us. But identifying experts among people not already working with us would be impossible without SciVal [powered by Scopus data]. That is invaluable.”

— Michelle Hutnik, Director of Research Analytics and Communications, Penn State (United States)

THE SCOPUS DATA FACTOR
Scopus data include 71+ million research outputs captured and associated with more than 70,000 institutional profiles and 105 countries. Scopus tools enable in-depth examination of an institution’s strengths to identify potential collaborators and industry partnership opportunities. For example, using Field-Weighted Citation Impact, you can measure an institution’s or a country’s productivity, scholarly citation impact or areas of strength. Additionally, Scopus data reveal the impact of your decisions, enabling you to set future goals with greater confidence.

A Heliyon article illustrates the power of putting Scopus data to work for addressing, documenting and understanding scientific advances that evolve from drug discovery.

“Beyond assembling a set of facts about a major scientific advance, the data assembled contribute to the understanding of collaboration across domains and can be used to enrich portfolio analysis, planning and optimization, as well as communications of the societal value of research. For the portfolio manager, such data, when coupled with aggregate measures, enable review on a scale that manual assembly would not permit.”
See how National Taipei University of Technology is using Scopus data, along with SciVal, to benchmark its research strengths and boost international collaborations.


Case 3: Diversify teams for a competitive advantage
POWERING FINGERPRINT ENGINE

Technology makes identifying research trends, or exposing and analyzing connections among groups of people (e.g., researchers, funders, reviewers), organizations (e.g., institutions, agencies, associations) or geographic areas possible. Elsevier’s Fingerprint Engine is one such technology. It mines the unstructured text of scientific documents — from publication abstracts and patents on Scopus to grant proposals, funding announcements and awards, and other sources — and then maps the information to a ranked set of standardized, domain-specific concepts, known as the Fingerprint™. The output delivers a custom index of key-weighted terms and concepts perfectly matched to add more power to your data analyses. Elsevier’s Fingerprint Engine helps reveal insightful connections by aggregating, comparing and searching across fingerprints of people, publications, funding opportunities and ideas. Fingerprint Engine relies on Scopus data. It is the technology behind SciVal, Pure and Expert Lookup, as well as the cornerstone of Elsevier’s Analytical Services (see page 20).
Win research funding.

Access to transparent and deeply indexed research data gives you the flexibility to structure information in a way that optimizes your institution’s image in funding proposals and applications.

For example, the availability of in-depth research and citation data made an invaluable difference for the University of Nottingham (United Kingdom). It was able to analyze the data in an optimal way to successfully apply for and secure a large-scale funding scheme from the National Institute of Health Research (NIHR).

“We used SciVal [powered by Scopus data] to drill down really into some of the information that was provided to us by the funder in order to get the optimum groupings that could be combined … Nottingham came out of this competition very successfully and had one of the largest awards from the NIHR … worth 23 million pounds …”

— Richard Masterman, Associate Pro-Vice Chancellor for Research Strategy, Policy, Performance and REF, University of Nottingham (United Kingdom)

THE SCOPUS DATA FACTOR
One hundred fifty possible data fields are captured from each of the 71+ million indexed records on Scopus. The University of Nottingham leveraged this highly structured data to create the analyses and discernment needed to accurately showcase the strengths of the university’s biomedical research, which positioned it to win NIHR funding.

How are institutional leaders using research data to address pressing challenges? Hear Richard Masterman (University of Nottingham, United Kingdom) and others in our collection of case studies.
Strengthen institutional rankings and reputation.

Over the past 10 years, Scopus data have powered a wide spectrum of highly influential global and regional rankings, including the Times Higher Education’s World University Rankings, the Financial Times’ MBA Ranking, the QS World University Rankings, and Maclean’s University Rankings Canada.

Citations to published research clearly reveal the influence of research in ranking methodology. For example, the 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.”

By using the same data as ranking organizations, you can better draw insights into your specific areas of strength and uncover areas for improvement to drive your own rankings. Additionally, you can gain similar insights about other institutions for benchmarking and comparison.

“We want to become [one of] the top 100 Universities in the whole world.”

— Jeffrey J.P. Tsai, President, Asia University in Taiwan
THE SCOPUS DATA FACTOR

Rankings organizations turn to Scopus data for reliability and transparency. The **depth and breadth of research information on Scopus**, which include over 23,700 peer-reviewed serial titles, 166,000 books and 8.3 million conference papers from more than 5,000 publishers, provide the global view you need to benchmark your institution against the global world of research. As Trevor Barratt, managing director of the *Times Higher Education* (THE) states, “Four years ago, THE’s World University Rankings had 400 universities ranked; we now have 1,100. With Elsevier’s help, we have a much more global view of universities and their performance.” (See box below.)

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Read perspectives shared by Trevor Barratt, managing director of the *Times Higher Education* (left) and M’hamed el Aisati, Elsevier’s VP of Product Management, Funding and Content Analytics (right) about the breadth of research across all disciplines that make Scopus data invaluable in ranking methodology.
Add power to your institution.

Along with informing your institutional strategy, Scopus data power the entire university engine:

- Principal investigators use the Scopus platform (Scopus.com) to discover ideas, monitor global research trends, identify potential collaborators, and manage their own impact and reputation.
- Library leaders use Scopus to steer researchers toward key and emerging research.
- Department heads use Scopus data through SciVal to evaluate researcher performance and benchmark progress.
- Research Office staff use SciVal, Funding Institutional, Expert Lookup, Pure, and our consultative services to combine institutional information with Scopus data to secure research funding, find advantageous partnerships and benchmark performance against other institutions.
- University leaders use custom analytic reports backed by Scopus data to deliver actionable insights for making strategic decisions.
- National-level evaluation and assessment agencies integrate Scopus data as trusted information when conducting research performance evaluations, developing national strategies and informing policies. Examples include the United States’ National Science Foundation’s Science and Engineering Indicators and the United Kingdom’s Research Excellence Framework.

Scopus data are pivotal in the National Science Board’s 42 science and engineering indicators.

Source: National Science Foundation, based on Scopus abstract and citation database.
The power of data through the funders’ lens.

Research funders and science policymakers leverage the power of data to guide funding strategies and determine allocation, evaluate research impact and return on investment, facilitate knowledge exchange, and inform policy and legislation.

**Find grant reviewers:** The grant application process largely relies on expert referees. Funders use Scopus data through tools such as Expert Lookup, which can be used to increase the pool of potential reviewers and help identify experts who are leaders in their field.

**Evaluate grant proposals:** Research success depends upon standout researchers who are more likely to generate fruitful research results, made possible by adequate funding. To get a comprehensive overview of the human capital in funding programs, funders combine data provided by applicants with data sourced from Scopus Author Profiles. These analyses are used to determine research funding attractiveness and return on investment.

**Facilitate knowledge exchange:** Knowledge dissemination and exchange among researchers is essential for producing scientific outputs with high social, medical and economic impact. Scopus data play a key role in informing funders about which research collaborations may be the most productive for sciences and tackling big questions.

**Stimulate research:** A keystone of Elsevier’s Analytical Services and solutions such as SciVal, Scopus data help funders understand the breadth and depth of the global R&D landscape, including trends and strengths of both countries and institutions. Scopus data are also useful to policymakers on making evidence-based decisions about where to stimulate research through funding.

The National Science Board relies on Scopus data for its 2018 Science and Engineering Indicators, the biennial report that “… address an emerging set of trends of particular interest to planners and policymakers at all levels whose decisions affect our national S&E enterprise.”

Scopus data are recognized globally for excellence. More than 4,000 universities and 150 leading research organizations choose Scopus data from that of any other data provider for research assessment and evaluation purposes.

“For me, Scopus is the index and minutes of science. If you think about it, we’re looking at literally millions of papers, and there are untold stories there which we are trying to get the bottom of.”

— Ian Rowlands, Research Information and Intelligence Specialist, King’s College London (United Kingdom)

THE SCOPUS DATA MODEL
The data that go into Scopus follow the model that articles are written by authors who are affiliated with institutions.

This relational data model means that Scopus can tell you who is researching what and where they are doing it with higher accuracy than anything else.
SCOPUS DATA FACTS

Scopus is the world’s most curated, authoritative database of peer-reviewed research literature, capturing over 3.7 terabytes of data monitored for currency, accuracy and completeness.

More than 150 data fields are captured from each indexed record and structured following a relational data model. This model, along with the depth and quality of Scopus data, serves as the engine behind the detail and accuracy you need to discern the who, what, where and how of research analyses.

* Scopus in their words — Ian Rowlands, King’s College London. www.elsevier.com/research-intelligence/case-studies (accessed March 19, 2018).

* Scopus is updated daily. Numbers reported as of July 19, 2018.
Research Intelligence solutions.

**Scopus**
As the most curated, authoritative abstract and citation database of peer-reviewed research literature, Scopus delivers a comprehensive view on the world of research.

**SciVal**
A robust solution that offers access to and configurable views of the research performance of 9,700 research institutions and 230 nations and regions worldwide.

**Pure**
A versatile system that allows you to centralize information and facilitate evidence-based approaches to your institution’s research and collaboration strategies, assessment exercises and business decisions.

**Expert Lookup**
An online tool that helps institutions and funders identify scientific experts who meet funding priorities, as well as locate the right reviewers for papers and grant applications.

**Funding Institutional**
Gain a competitive edge with a holistic view of the research funding landscape using a single solution that combines over 20,000 active funding opportunities with information on over two million awarded research grants from a wide range of funders.

**Mendeley Data**
An open, cloud-based management platform that enables secure storing, accessing and sharing of research datasets.

**Digital Commons (bepress)**
An institutional repository and publishing platform to publish, manage and increase recognition for everything produced on campus; integrates with a full faculty research and impact suite.
Research Intelligence services.

**Analytical Services**
Elsevier’s consultative services to institutions provide accurate, unbiased analyses on research performance. We combine high-quality data sources with technical and research metrics expertise to deliver actionable insights. Our Analytical Services team uses Scopus data to underpin both custom reports and comprehensive multidimensional studies.

**Scopus Custom Data**
Acquire specified datasets from Scopus in a rich and structured XML format so you can conduct your own analyses, enrich an in-house database, showcase your institution’s publication output and more.

**POWERING RESEARCH METRICS**
Metrics give a balanced, multi-dimensional view for assessing the impact of published research. Scopus data power an evolving suite of metrics at the journal, article and author levels to complement more qualitative insights. Metrics powered by Scopus data include CiteScore® metrics, Source-Normalized Impact per Paper (SNIP), SCImago Journal Rank (SJR) and Field-Weighted Citation Impact (FWCI). Scopus also integrates data from PlumX Metrics to present a richer and more comprehensive picture of an individual article’s impact.
Better data. Better decisions.

Put the power of Scopus data to work for you.

We would like the opportunity to demonstrate how our data, solutions and consultative services can help you decide where and how to drive your institution’s research priorities, impact and competitiveness.

Request a consultation