SciVal in a nutshell

For research managers

Belgrade, 24th May 2019.

Preamble

SciVal's key differentiators

1. Incredibly flexible and easy to navigate

1. Based on most comprehensive data source in the world, Scopus

2. Easy to use >> perform simple analyses or take several metrics to create uniquely tailored analytical reports

3. Analysis and scenario modeling for any researcher or groups in the world, based on full publication history (thanks to our Scopus Author Profiles!)

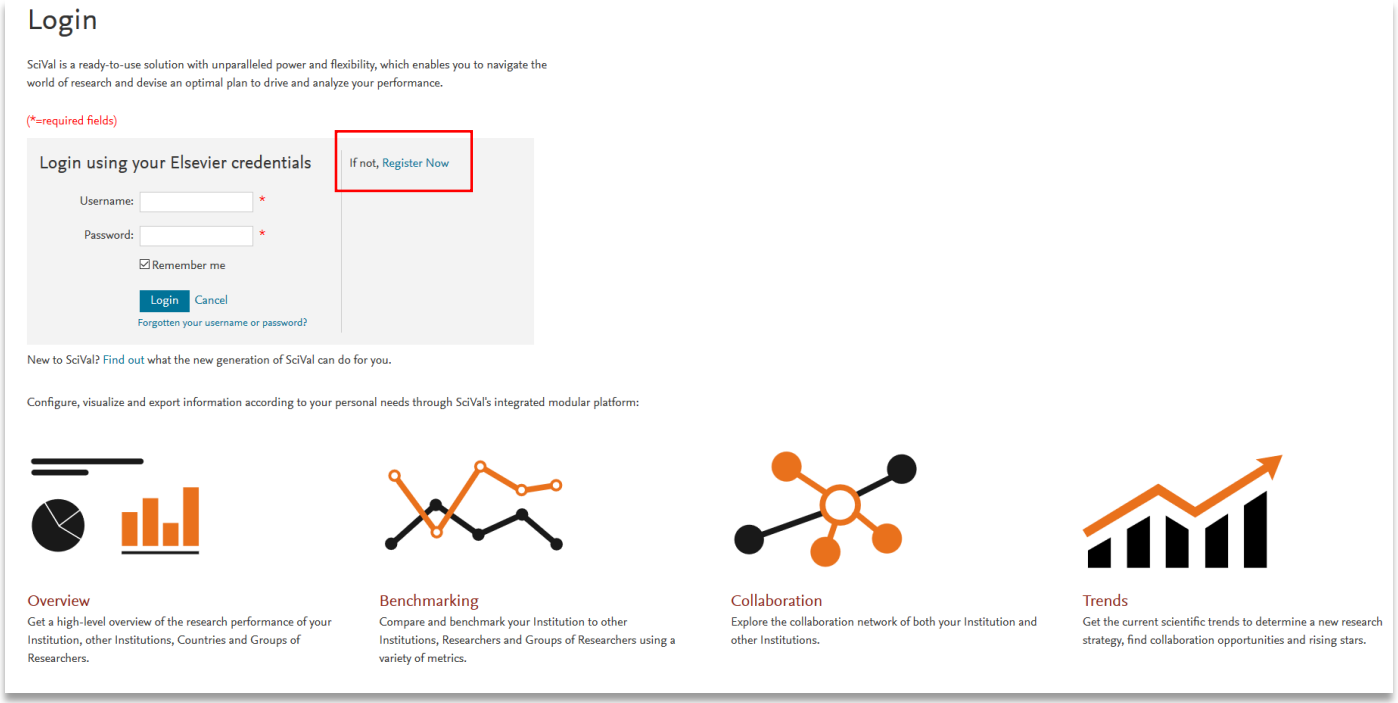
Objectives

Help you gain an overview of SciVal and a primer on using it practically so you can get started after the session.

Topics covered will include:

1. What are the basics?
2. How can SciVal help me?
3. What is the underlying dataset?
4. Considerations around the data and metrics
5. Location and content of the help files

Accessing SciVal at www.scival.com



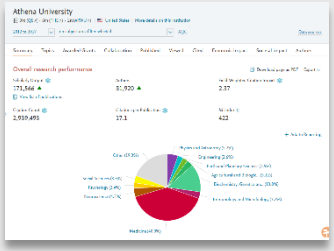
If you haven't previously registered for Scopus or ScienceDirect then please go to **Register Now.** Use VPN off-campus or ask Shelly for a Remote Access link

SciVal in a nutshell

SciVal offers quick, easy access to the research performance of over 10,000 research institutions and 230 regions and countries

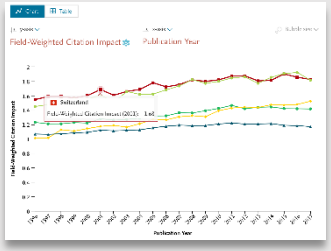
Visualize research performance

Ready-made-at a glance snapshots of any selected entity



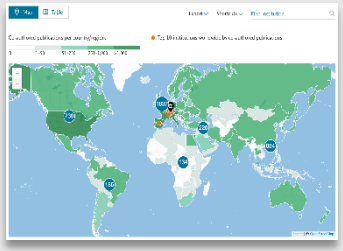
Benchmark your progress

Flexibility to create and compare any research groups



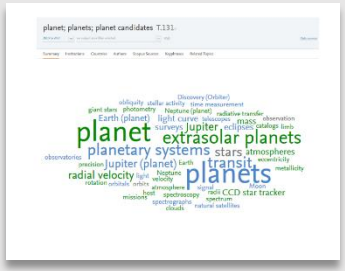
Develop collaborative partnerships

Identify and analyze existing and potential collaboration opportunities



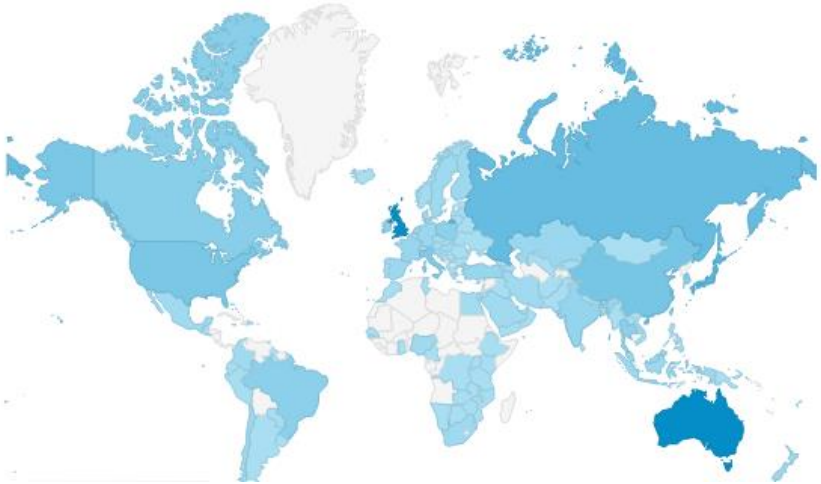
Analyze research trends

Analyze research trends to discover the top performers and rising stars



SciVal today

- **Measuring research performance** of **9,900 academic, corporate** and **governmental institutions**
- More than **600 customers,** across **80 countries,** since its **launch in 2014.** Predominantly academic institutions.
- Very strong presence in **UK, Australia, Japan, China and Russia**
- **Corporate customers** include: Unilever, Siemens, Boeing
- Several **funding organizations** and **national government bodies**



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Short release cycles – iterative design

Previous 2018 releases

- **Topic Prominence in Science**: Representative publications and Topics for Researcher
- Remove hyper-authored papers & view only the “real” collaborations
- **Reporting enhancements**: one library instead of two for easier navigation

Pascal 12 June

- **Hierarchical structures** from Pure into SciVal
- **Reporting enhancements** – custom naming an renaming of analyses
- h5-metric update allows year-on-year comparisons
- SciVal API supports predefined groups of researchers and countries

Qushji 10 July

- **Topic Prominence in Science**: Key contributors + support for groups of institutions
- **Reporting enhancements** – instant report from Overview summary page + Trends

Ride 28 August

- **Topic Prominence in Science**: Related Topics
- Additional subject classifications (incl. THE, QS, KAKEN)
- See only the publications from your researchers when published at your 'home' institution.

We are here

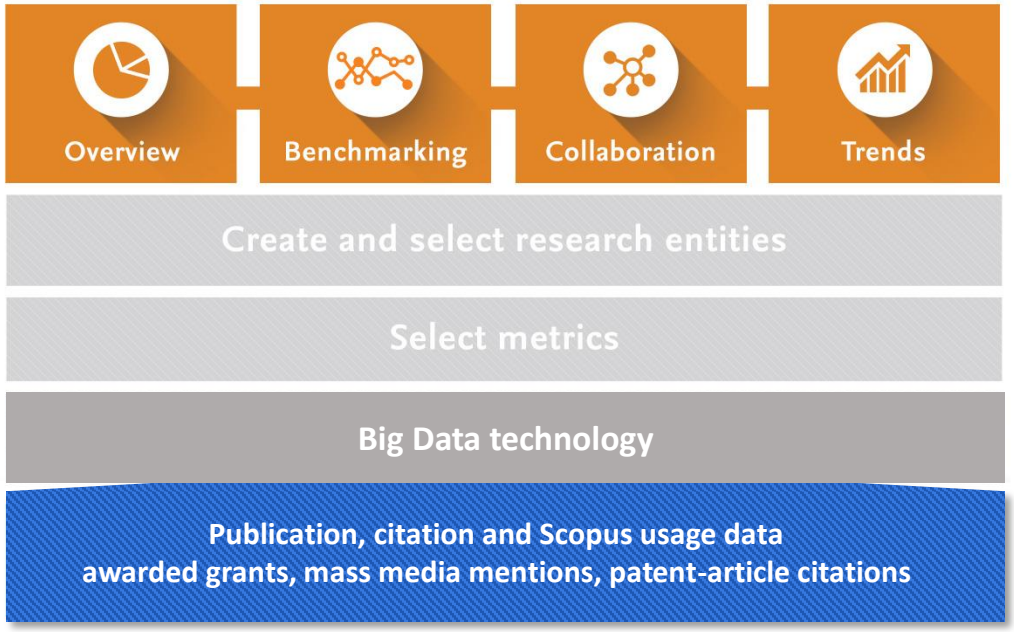
Sagan 18 September

- **Reporting enhancements**: Reporting in Collaboration module
- Diacritic support. To help you find an institution faster
- Enhanced import researcher flow. Manage your **hierarchy** in SciVal using a master spreadsheet. .

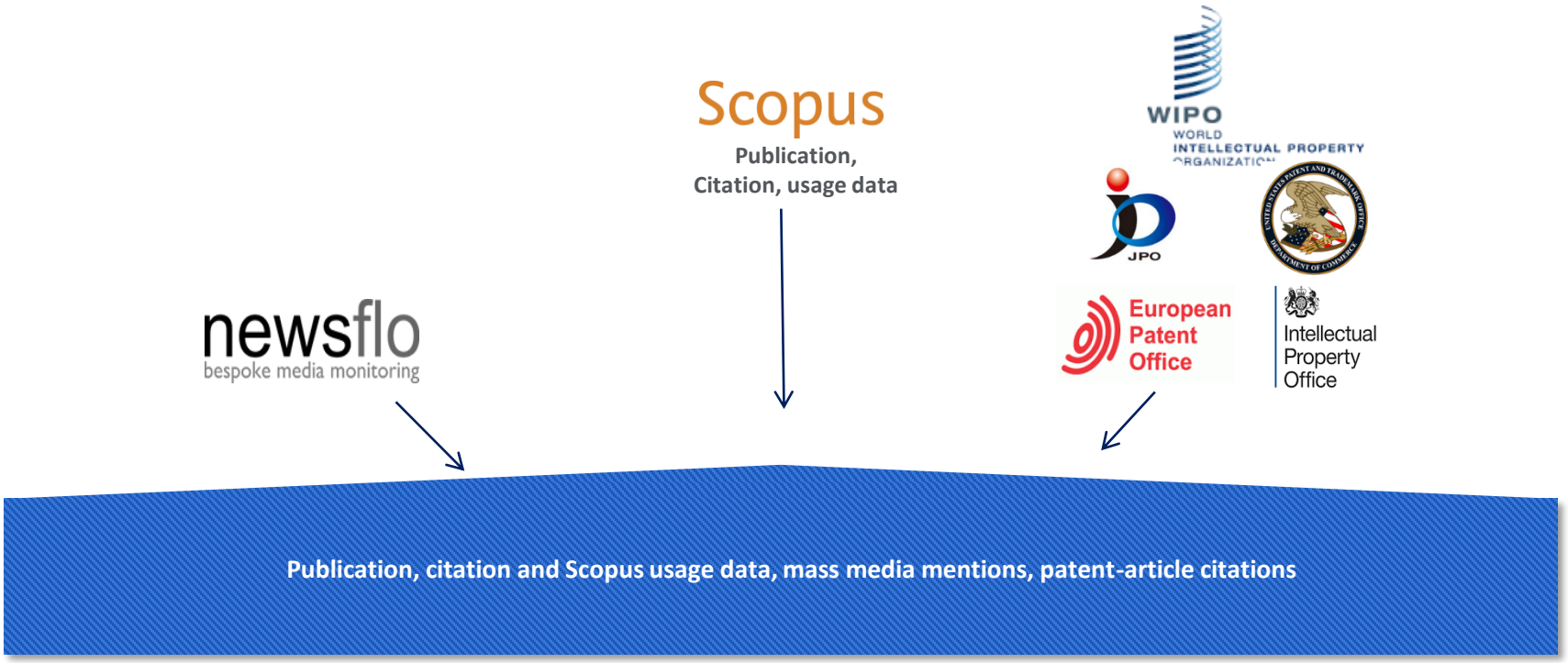
Roadmap 2019

Theme	Q1	Q2	Q3	Q4
Move to Spark	HPCC to Spark Migration - Phase 1 Infrastructure maintenance and improvements		HPCC to Spark Migration - Phase 2	
Enhanced functionality		Implementation of ID+	Topics for Publication Sets, who has cited my Researchers / University	
Support researchers in SciVal + new metrics	Improve researcher onboarding experience	Metrics wizard: Responsible use of metrics	Introducing researcher/faculty-level use cases in Collaboration module	**SciVal Metrics Exchange pilot**, PlumX metrics
Optimizing our core platform	**Richer visualization options across SciVal and in Reporting**	First and corresponding author as options in Scholarly Output	Advance flow to create Research Areas (better search, quicker iteration)	University Systems as new institutional entity type

The layers of SciVal



The foundation of SciVal



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Benefits for a broad range of users

SciVal supports the needs of a broad range of institutional users by providing ready-made, at-a-glance snapshots for flexible, institution-specific insight

Vice chancellors of research	• 360 degree Performance Overview to inform strategic planning • Identify institution's strengths and short-comings
Research administrators	• Create management-level reports • Accelerate institutional and cross-institutional collaboration • Support and win large grants
Department heads	• Evaluate researcher and team performance for recruitment and retention decisions • Model-test scenarios by creating virtual teams
Researchers	• Raise visibility and highlight achievements • Expand networks • Locate collaborators and mentors

What are the questions addressed using SciVal?

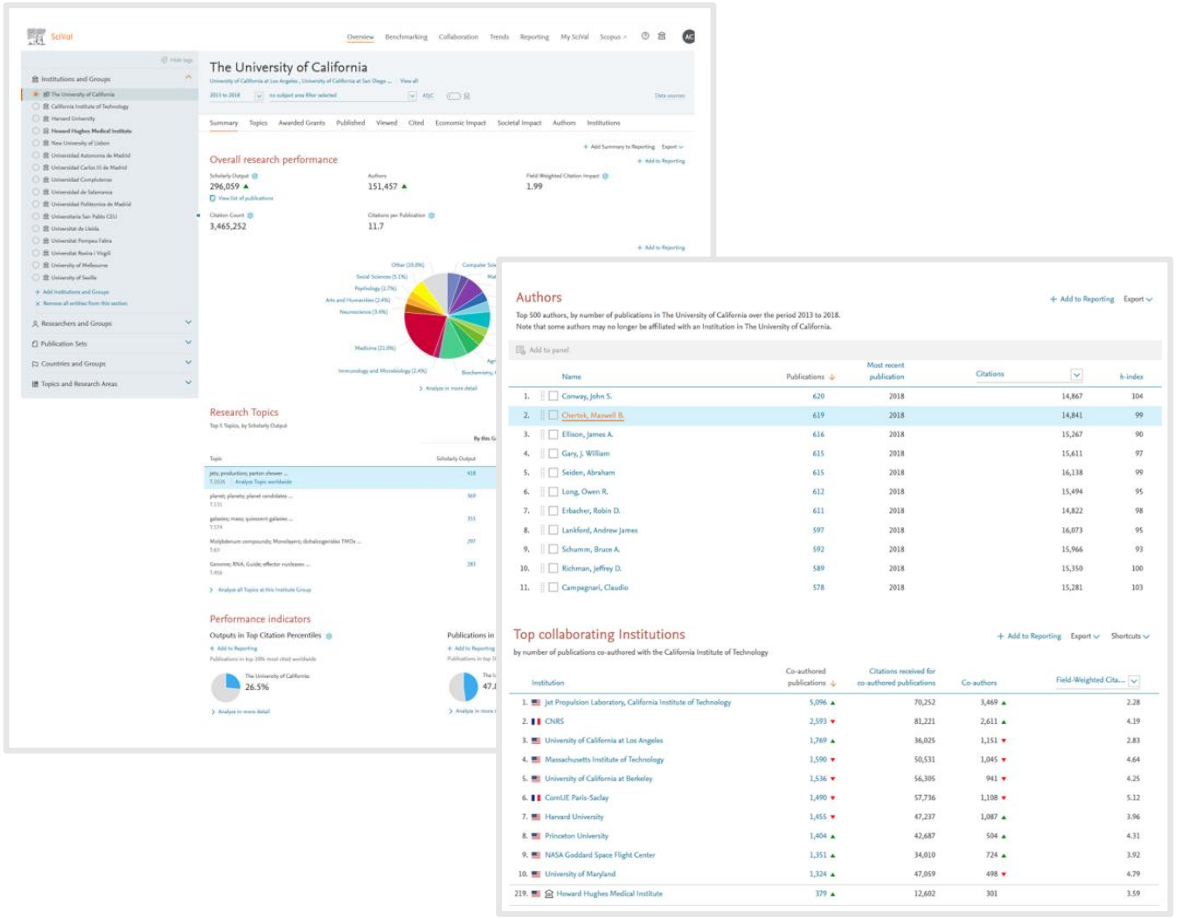
“How can we demonstrate excellence in a way that best shows our unique strengths to secure funding and attract students?”

“I want to explore the various scenarios I’m considering to set up a centre of excellence. How can the data provide me with insights?”

“My VC is going to China; who do our academics collaborate with there and how can we expand?”

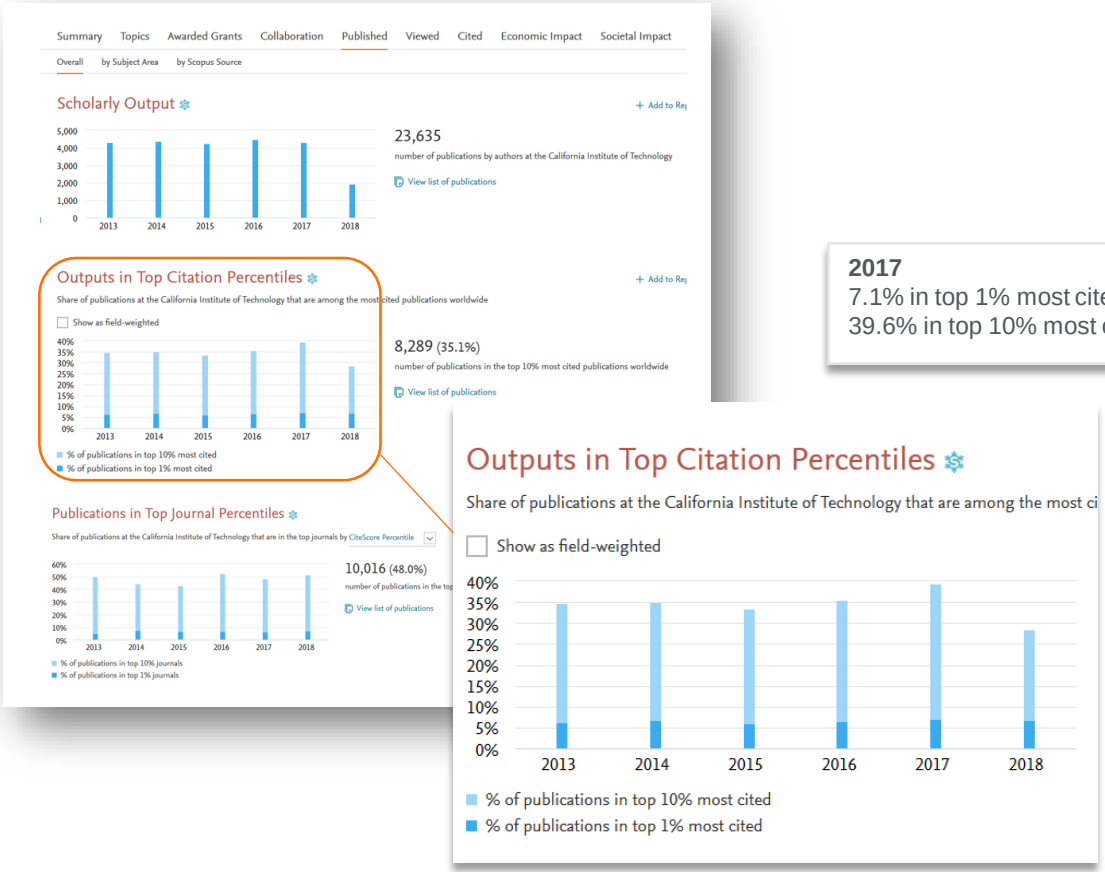
“How can I see who’s excelling in a specific subject compared to my researchers, for potential collaboration opportunities?”

“How can we demonstrate excellence in a way that best shows our unique strengths to secure funding and attract students?”



View the disciplinary focus of your institutions and your top researchers

Look through different metrics to identify ones that demonstrates your institution's research excellence



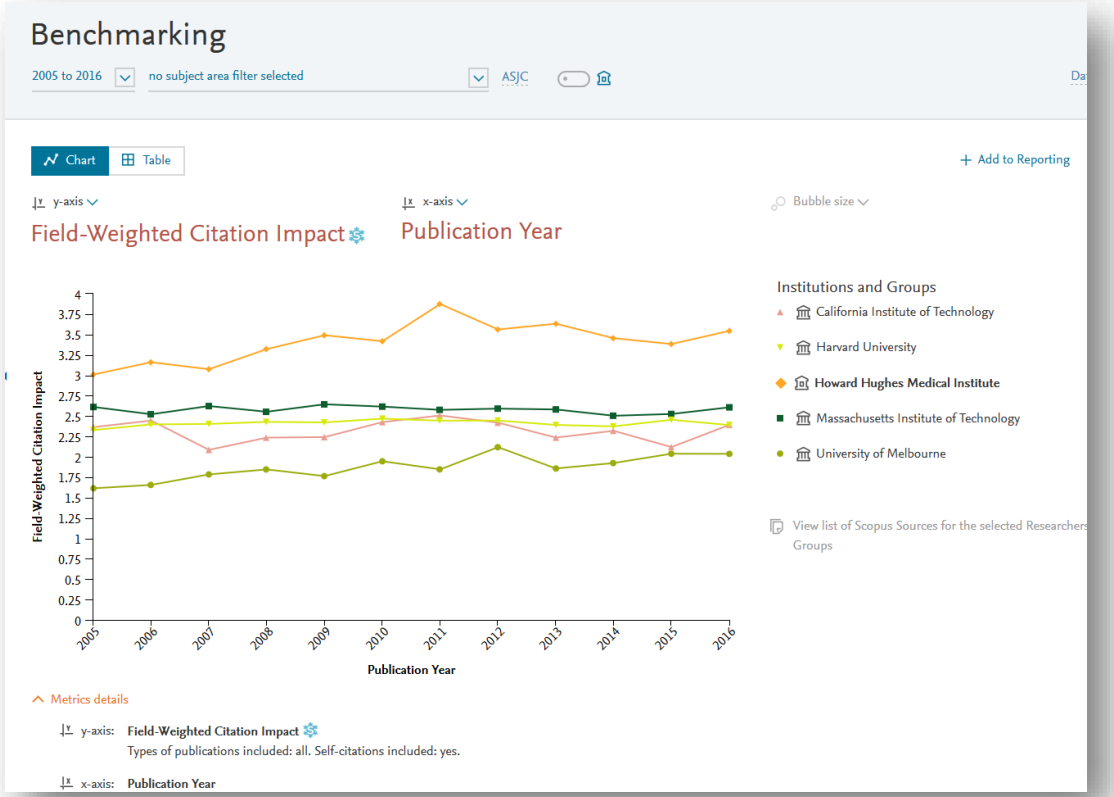
2017
7.1% in top 1% most cited
39.6% in top 10% most cited

See how many of your publications fall into the top 1% and 10% of the most cited articles in the world

Look through different metrics to identify ones that demonstrates your institution's research excellence

View Field-Weighted Citation Impact that normalizes citation behavior for differences in size, field and publication-type

“I want to explore the various scenarios I’m considering to set up a centre of excellence. How can the data provide me with insights?”

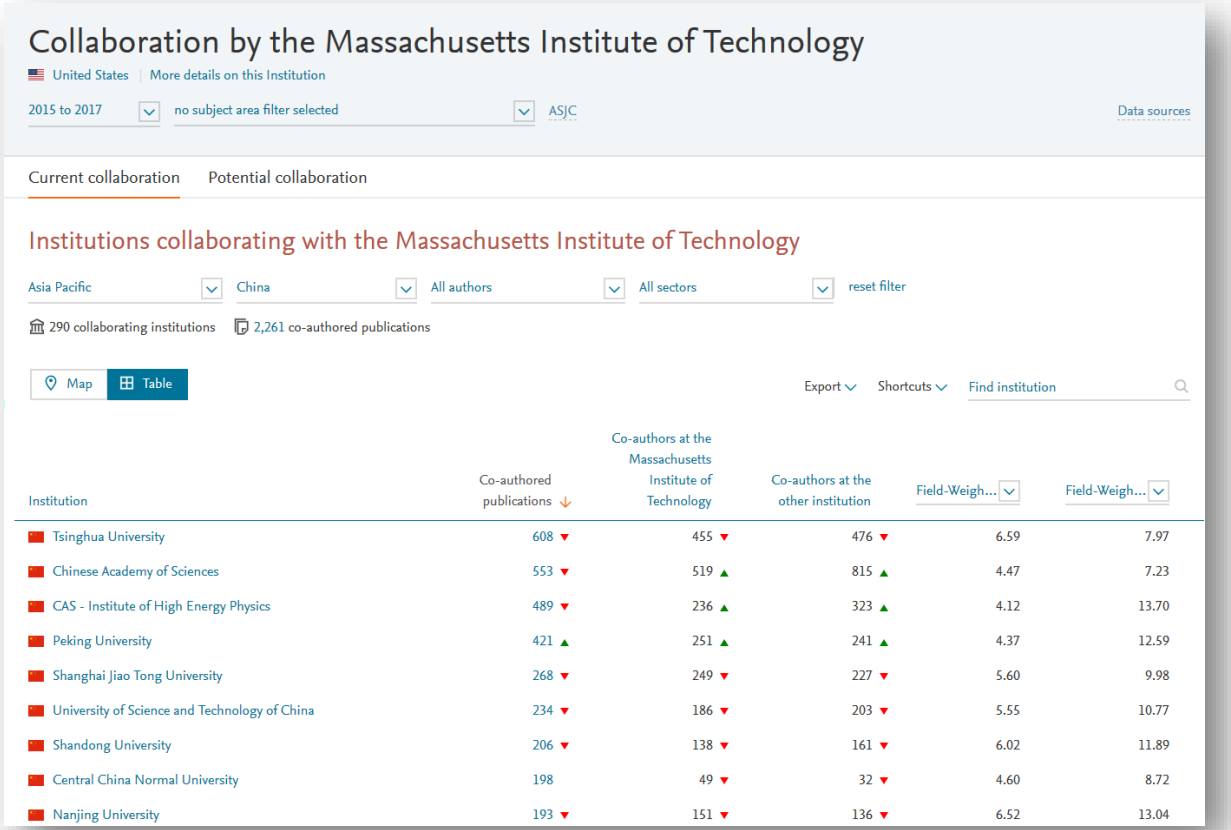


Test scenario by creating virtual teams and compare using multiple metrics

“My VC is going to China; who do our academics collaborate with there and how can we expand?”

Drill into the map to identity your collaboration partners in China

Identify existing and potential collaboration partners



Collaboration by the Massachusetts Institute of Technology

United States | More details on this Institution

2015 to 2017 | no subject area filter selected | ASJC | Data sources

Current collaboration | Potential collaboration

Institutions collaborating with the Massachusetts Institute of Technology

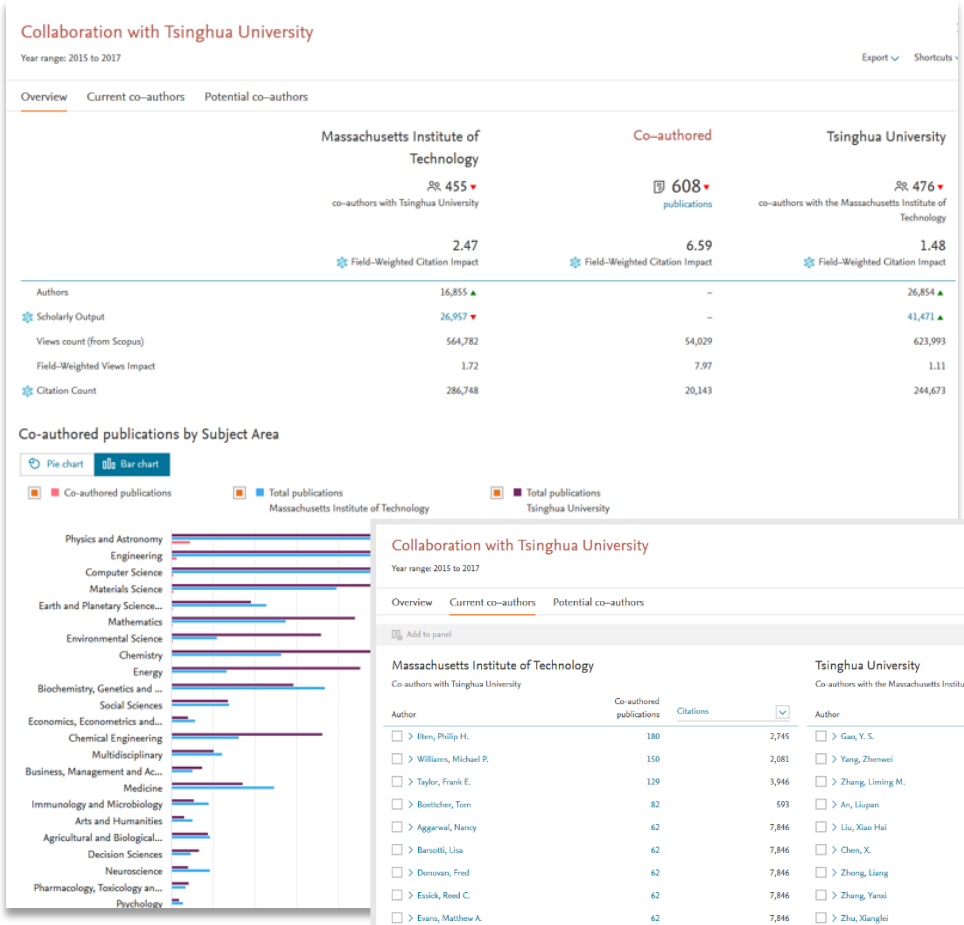
Asia Pacific | China | All authors | All sectors | reset filter

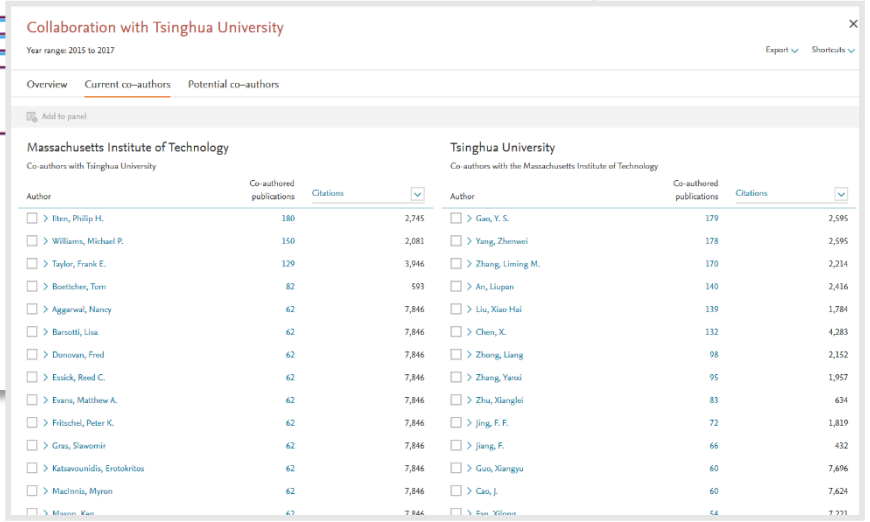
290 collaborating institutions | 2,261 co-authored publications

Map | Table | Export | Shortcuts | Find institution

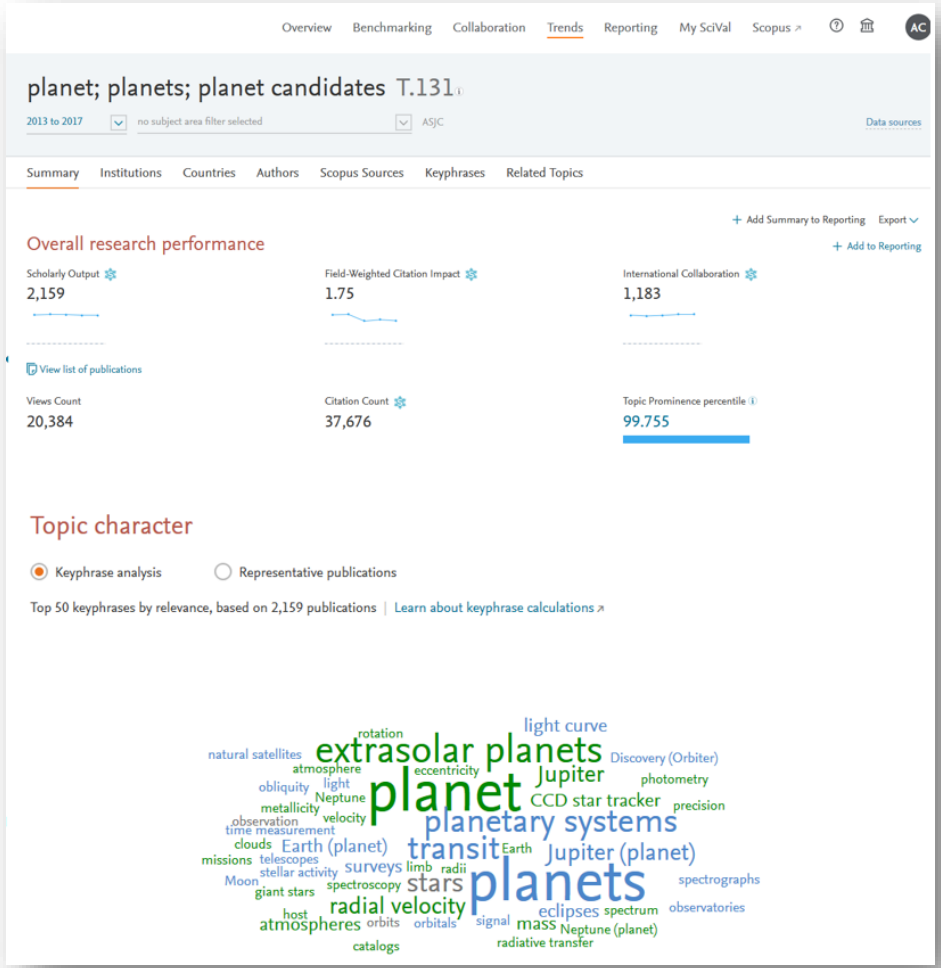
Institution	Co-authored publications	Co-authors at the Massachusetts Institute of Technology	Co-authors at the other institution	Field-Weigh...	Field-Weigh...
Tsinghua University	608 ▼	455 ▼	476 ▼	6.59	7.97
Chinese Academy of Sciences	553 ▼	519 ▲	815 ▲	4.47	7.23
CAS - Institute of High Energy Physics	489 ▼	236 ▲	323 ▲	4.12	13.70
Peking University	421 ▲	251 ▲	241 ▲	4.37	12.59
Shanghai Jiao Tong University	268 ▼	249 ▼	227 ▼	5.60	9.98
University of Science and Technology of China	234 ▼	186 ▼	203 ▼	5.55	10.77
Shandong University	206 ▼	138 ▼	161 ▼	6.02	11.89
Central China Normal University	198	49 ▼	32 ▼	4.60	8.72
Nanjing University	193 ▼	151 ▼	136 ▼	6.52	13.04

Assess the activity level and identify researchers





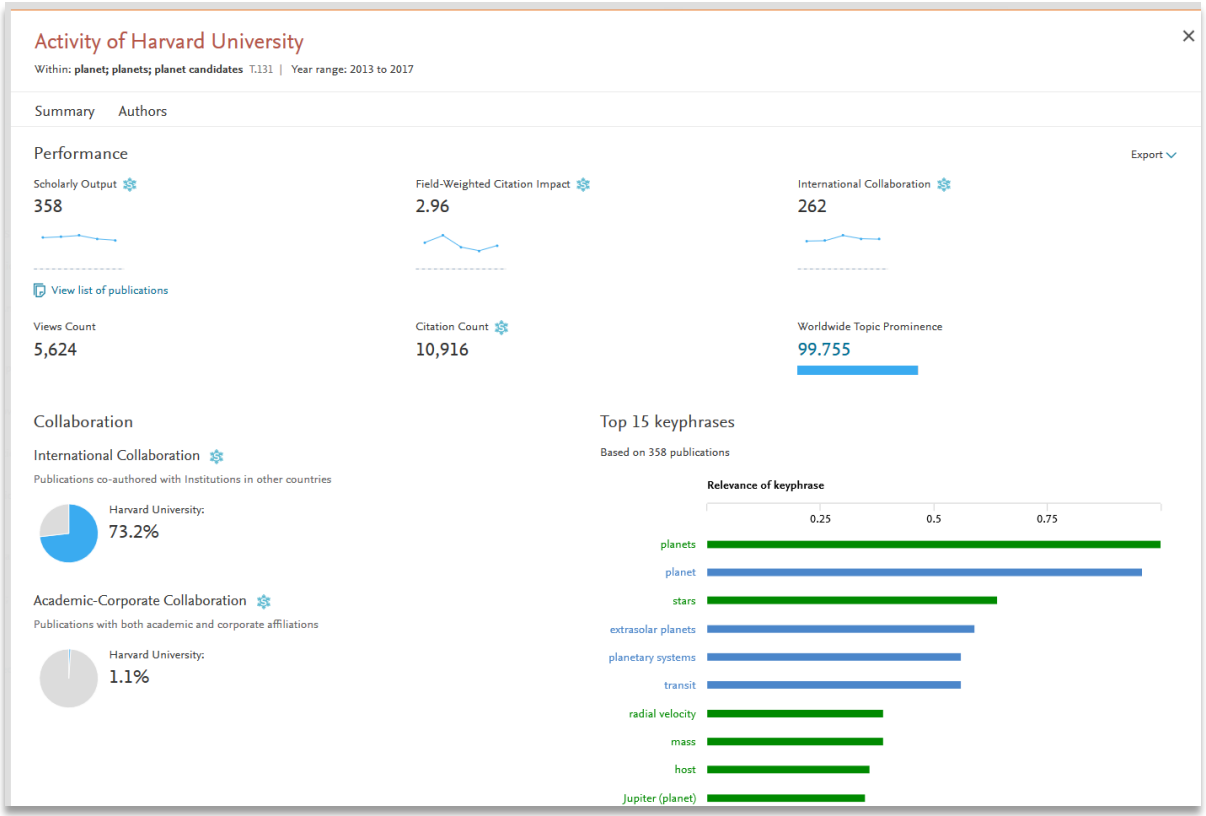
“How can I see who’s excelling in a specific subject compared to my researchers, for potential collaboration opportunities?”



Choose or create your own Research Area in SciVal

Analyze all or a specific part of the Research Area

Choose a specific key phrase within the Research Area, then view the performance of the top institutions, countries, authors and journals and compare them to your institution for potential synergies



SciVal. Solution to your strategic planning challenges

Gain immediate access to view and analyze the world's research to:

- View the ready-made, at-a-glance snapshot of your research performance or of any team or institution around the world
- Benchmark your team's or institution's performance against any set of peers.
- Model test scenarios by creating virtual teams and newly emerging research areas.
- Evaluate existing and identify potential collaborative partnerships, locally or globally
- Track and monitor top performers and rising stars for any research topic of interest.

Other useful resources

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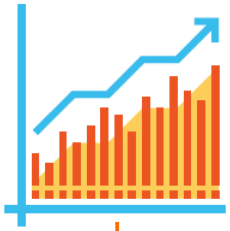
Research metrics can be used to…



Analyze the strengths of research at the institution

Determine where research is a good potential investment

Demonstrate Return on Investment of research money

Identify rising stars amongst the early career researchers

Tell a better narrative about everything that is happening with research

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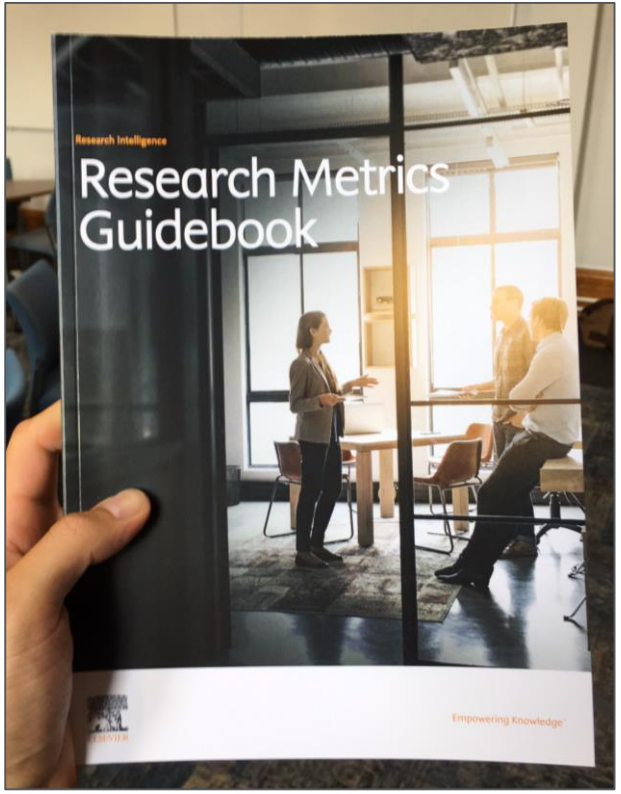
Research Metrics Guidebook

- **Topics –** Expand and enhance
- **Organisational hierarchies in SciVal** – Easy method to create and maintain
- **Reporting** – Simplify, enhance and expand the functionality
- **Improve our metrics support –** Relaunched support hub, refreshed Metrics Guidebook, in-product guidance, reporting templates, Metrics wizard
- **Additional –** REF year range, new subject classifications, home institution filter and hyper-authored papers, Collaboration module overhaul



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Research Metrics Guidebook

This comprehensive metrics guidebook is intended to be a straightforward, practical companion for you to find the right metrics to meet your objectives.

- **Understanding metrics**
  - Scopus as data source
- **Selection of appropriate metrics**
  - What affects their values, besides performance?
- **For each metric**
  - Situations in which they are useful
  - When to take care and how to address short-comings
  - Worked examples

4.0 SciVal and research metrics

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Two Golden Rules for using research metrics

Always use both qualitative and quantitative input into your decisions

- **Benefit from the strengths of both approaches**. Don't replace one with the other
- Combining both approaches = **closer to the whole story**
- Valuable intelligence comes when these approaches **show different messages**

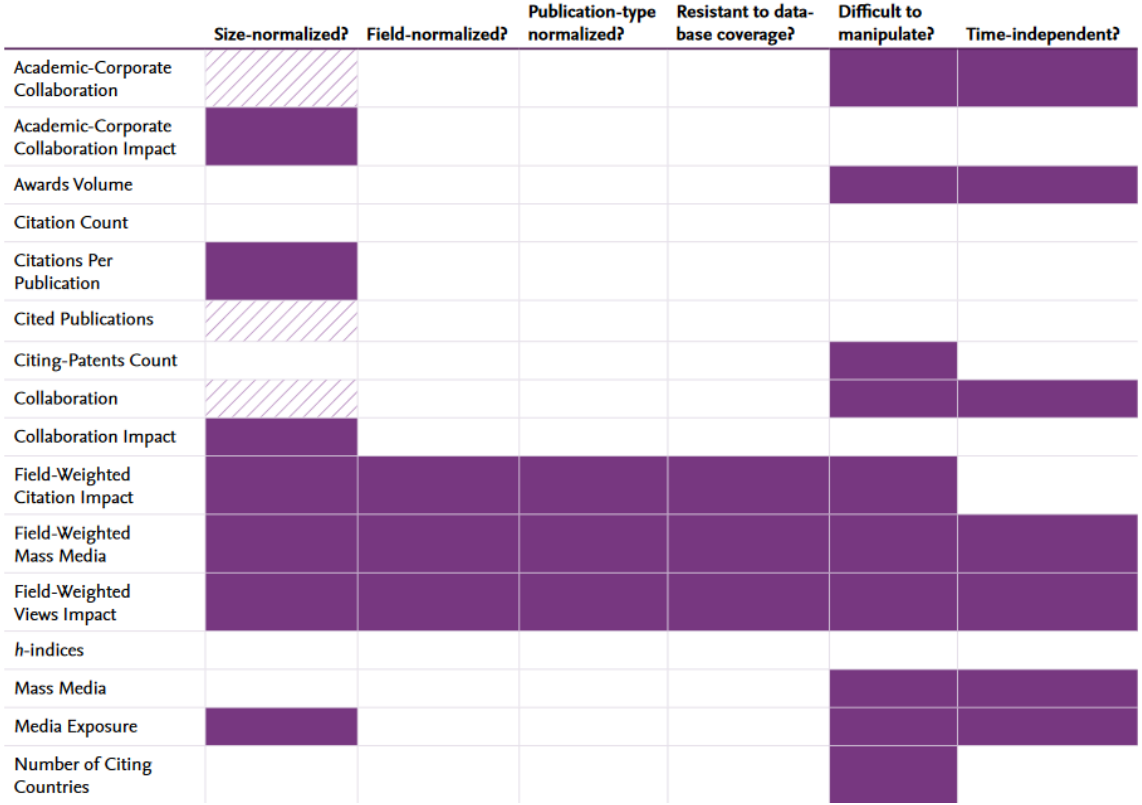
Always use more than one research metric as the quantitative input

- One metric's strengths can **complement** the weaknesses of others
- There are many different ways of being excellent
- **Using multiple metrics** drives desirable changes in behaviour (harder to game)

How to choose a metric

There are **6 factors**, which can affect the value of a metric:

- Size
- Publication-type
- Manipulation
- Discipline
- Database coverage
- Time



A basket of >30 sets of metrics at your disposal

Productivity metrics
- Scholarly Output
- Outputs in Top Percentiles
- Publications in Top Journal Percentiles

Citation Impact metrics
- Citation Count
- Citations per Publication
- Cited Publications
- Number of Citing Countries
- *h*-indices (*h*, *g*, *m*)
- Field-Weighted Citation Impact

Citing-Patent Count
Patent-Cited Scholarly Output
Patent-Citations Count
Patent-Citations per Scholarly Output

Collaboration metrics
- Collaboration (geographical)
- Collaboration Impact (geographical)
- Academic-Corporate Collaboration
- Academic-Corporate Collaboration Impact

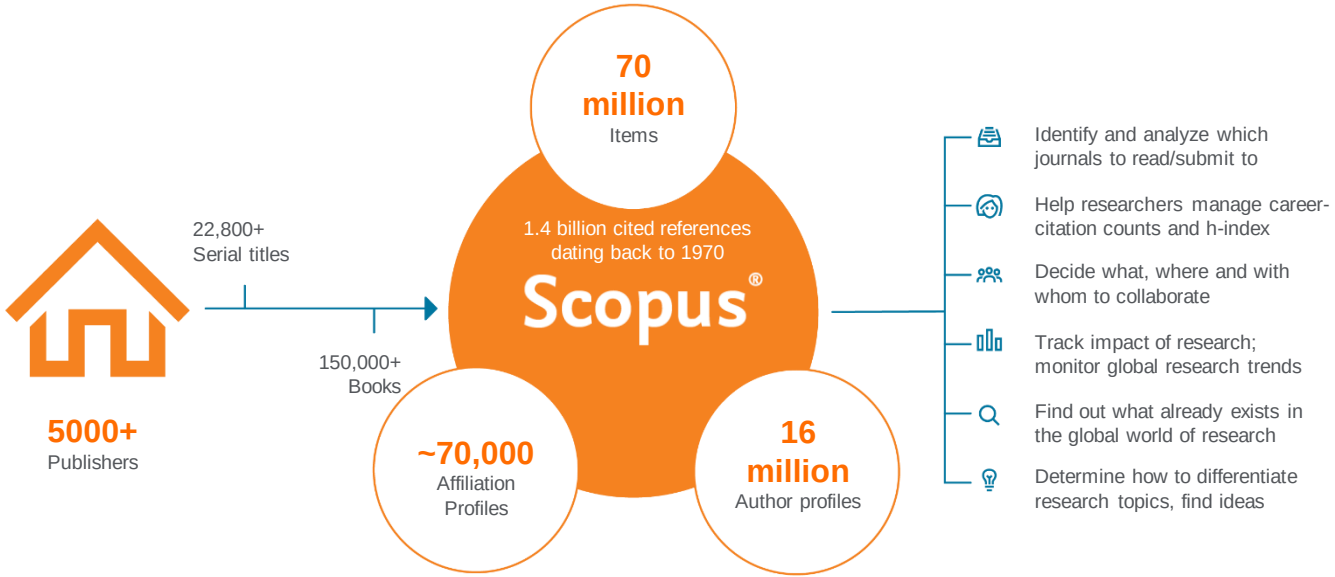
Disciplinarity metrics
Journal count
Journal category count

Usage metrics (Trends module)
Views Count
Views per Publication
Field-Weighted Views Impact

Societal Impact Metrics
Mass Media
Media Exposure

What is Scopus?

Scopus is the largest abstract and citation database of peer-reviewed literature, and features smart tools that allow you to track, analyze and visualize scholarly research.



Scopus delivers a comprehensive view on the world of research.
No packages, no add-ons. One all-inclusive subscription.

Power of
Scopus

Scopus powers Research Intelligence Solutions

Scopus Data

- 3.7 TB data
- 1.4 billion cited references
- 70,000 Institutional Profiles
- 16 million Author Profiles

Research Metrics

- Journal metrics (e.g. CiteScore, SNIP, SJR)
- Article-level metrics (e.g. Field-Weight Citation Impact)
- Author metrics (e.g. *h*-index)

Evaluate, Plan & Benchmark

Analytical Services

Analytical Services combines high quality data from Scopus to provide accurate, unbiased analyses on research performance.

Scopus Custom Data allows the acquiring of specified datasets from Scopus in a rich and structured XML format.

SciVal

SciVal is powered by Scopus to analyze, visualize and evaluate research performance via:

- Scopus publications
- Citation data

Manage & Showcase

Pure

Pure receives data from Scopus to compile a complete view of your research, awards and activity:

- Publication metrics
- Scopus publication ID's
- Scopus author ID's, journal information

Profile Refinement Service (PRS)
Elsevier's Profile Refinement Service produces disambiguated Scopus author profiles. When used with Pure, PRS speeds up implementation process.

Scientific Insights

RESEARCH INTELLIGENCE PORTFOLIO

DISCOVER, ANALYZE & NETWORK

Scopus
The broadest source of global scientific research.

Mendeley
Reference manager
Free reference manager and academic social network

Mendeley
Funding
Free discovery tool that catalogs grant information from over 2,000 funders across the globe.

MANAGE & SHOWCASE

Pure
Research information management system and research networking tool

bepress
Digital Commons, EGS
Institutional repository & publishing platform for networks of full-text scholarship

Mendeley *Data*
A modular, cloud-based platform designed for research institutions to manage the entire lifecycle of research data

EVALUATE, PLAN & BENCHMARK

SciVal
Visualize research performance, benchmark, develop partnerships and analyze research trends

Research Metrics
Comprehensive suite of metrics helps to assess research impact

Scopus Custom Data Analytical Services
Meeting needs from specified datasets to consultative analysis, reports & services

SECURE & ADMINISTER FUNDING

Funding Institutional
Discovery and analysis tool to help increase grant success.

Expert Lookup
Find researchers with expertise who meet your funding priorities and locate the right reviewers

Enabling Features
Fingerprinting Solutions
Pure Award Management

WHO WE SUPPORT

- **Research institutions** *Administration*
- **Research institutions** *Libraries & patrons*
- **Funders**
- **Policy Makers**
- **Industry**
- **Ranking organisations**

What needs does research intelligence serve?

Discover, analyze & network

- Search, discover, read & review
- Do research: experiment, analyze, synthesize
- Collaborate & network
- Identify the next source of research funding

Manage & showcase

- Manage institutional research outputs
- Manage research data, facilities & equipment
- Showcase & disseminate work by ensuring publication
- Commercialize & promote expertise to gain visibility

Evaluate, plan & benchmark

- Develop & refine institutional research strategy
- Identify, recruit & retain research staff
- Increase institutional impact in research & rankings
- Establish strategic partnerships

Secure & administer funding

- Find the next sources of institutional funding
- Manage awards & ensure proper investment
- Administer funding & ensuring grant review by top experts

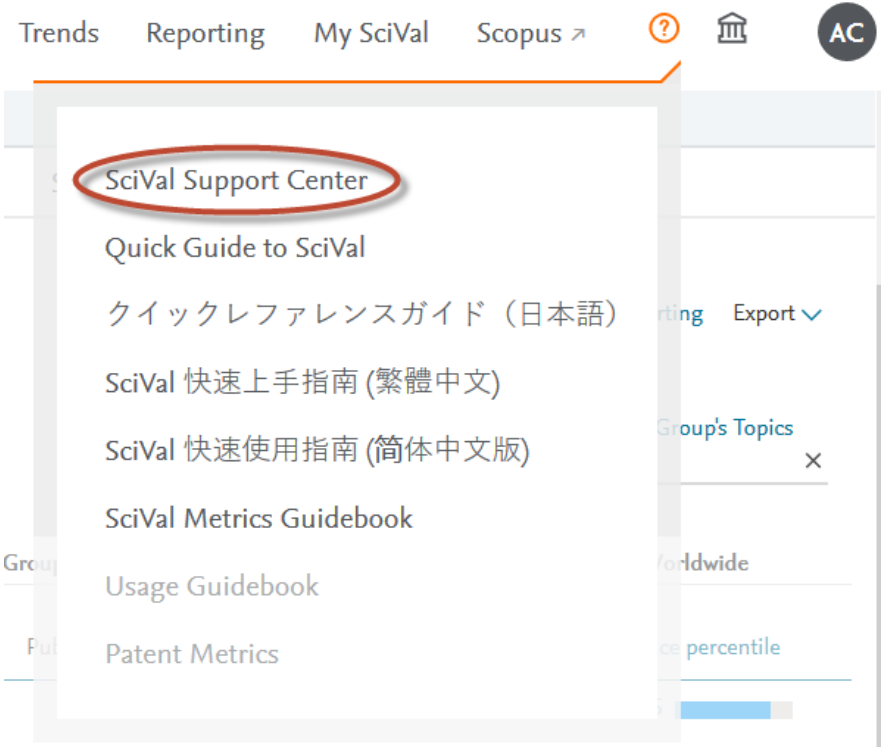
Getting help

Getting help

The spine menu will provide a line to help documentation

https://service.elsevier.com/app/home/supporthub/scival/

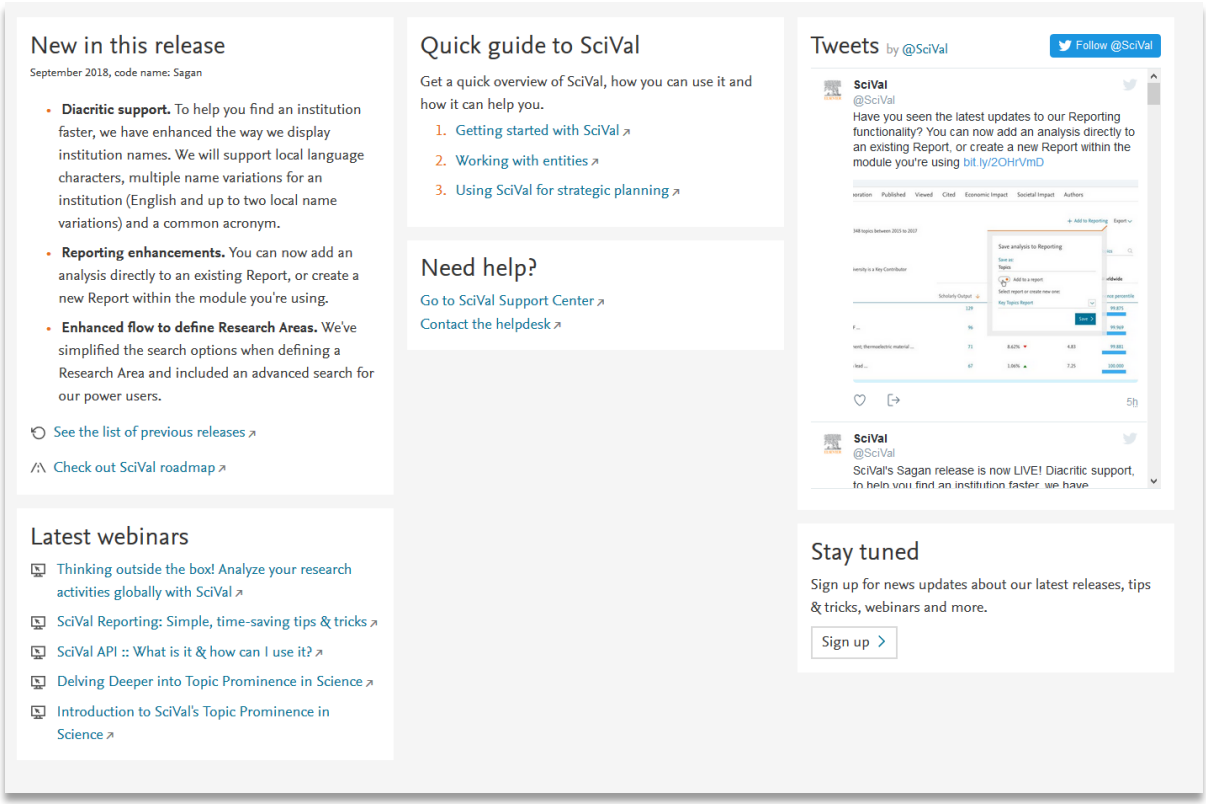
- Contact me if you have any problems and I will answer the question or find someone who can. name@Elsevier.com or <phone number>.



What's new in SciVal?

Stay up-to-date on our latest releases and improvements via scival.com

- Read and share our exciting Twitter updates
- "New in this Release" news section >> see the latest release elements
- SciVal Development Roadmap >> see what's coming up for SciVal in 2018 and beyond
- Access the latest SciVal Webinars
- Learn exciting new Tips & Tricks via our virtual tour guide in SciVal

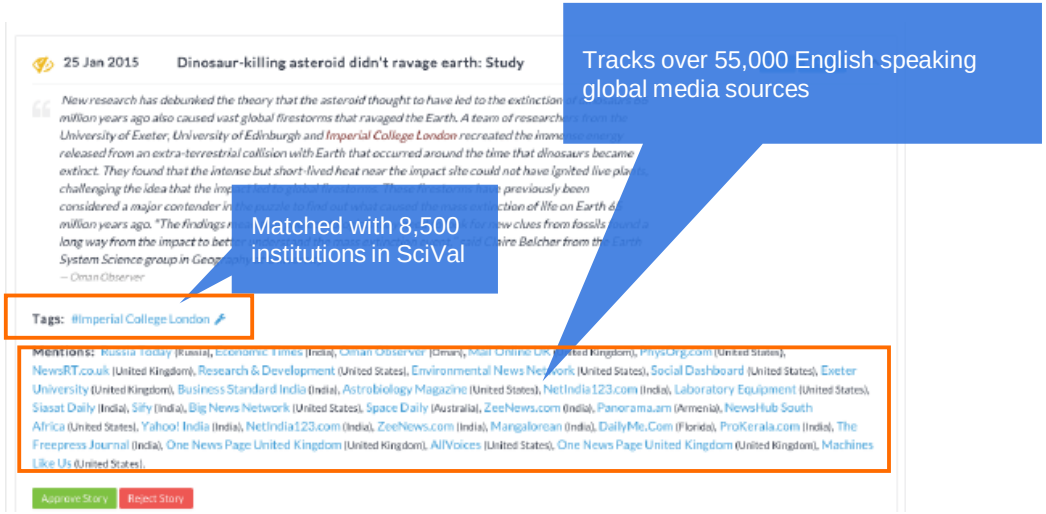


Find out more

Scopus https://www.brighttalk.com/channel/13703/scopus
SciVal https://www.brighttalk.com/channel/13819/elseviers-research-intelligence

Societal-economic Impact – Mass Media Mentions

- Acquired by Elsevier in January 2015, **Newsflo** helps researchers and academic institutions to measure the wider impact of their work by tracking and analyzing media coverage of their publications and findings
- Counts mentions of media outlets to research related news (mostly initiated by press releases from research institutions)



Societal-economic Impact – Mass Media Mentions

Step 1: Newsflo creates clusters of articles
…by clustering press releases and news articles based on text matching.

Step 2: Newsflo identifies clusters with name and affiliation combinations
…and matches against Scopus Author and Affiliation Profiles

Step 3: **Tag Author Profiles, Affiliation Profiles and Scopus journal categories to clusters.**
Subject area assignment is based on the article fingerprints of the articles in the clusters.

Step 4: **Count the number of media mentions**
…inside the clusters and assign the counts to:

- Researchers (by their Scopus Author Profiles),
- Institutions (by their Scopus Affiliations)

*We consider all name variants and entire affiliation history stored in the Scopus Author Profile