SciVal in a nutshell

For research managers

Belgrade, 24th May 2019.
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
Short release cycles – iterative design

**Previous 2018 releases**

- **Topic Prominence in Science**: Representative publications and Topics for Researcher
- **Reporting enhancements**: one library instead of two for easier navigation

**Pascal**

- **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**

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

**Ride**

- **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.

**Sagan**

- **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.

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We are here
## Roadmap 2019

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

- Overview
- Benchmarking
- Collaboration
- Trends

Create and select research entities

Select metrics

Big Data technology

Publication, citation and Scopus usage data awarded grants, mass media mentions, patent-article citations
The foundation of SciVal
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.

<table>
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<th>Role</th>
<th>Benefits</th>
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<tr>
<td>Vice chancellors of research</td>
<td>• 360 degree Performance Overview to inform strategic planning</td>
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<td>• Identify institution’s strengths and short-comings</td>
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<td>Research administrators</td>
<td>• Create management-level reports</td>
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<td></td>
<td>• Accelerate institutional and cross-institutional collaboration</td>
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<td>• Support and win large grants</td>
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<td>Department heads</td>
<td>• Evaluate researcher and team performance for recruitment and retention decisions</td>
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<td>• Model-test scenarios by creating virtual teams</td>
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<td>Researchers</td>
<td>• Raise visibility and highlight achievements</td>
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<td></td>
<td>• Expand networks</td>
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<td>• Locate collaborators and mentors</td>
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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?”
Look through different metrics to identify ones that demonstrates your institution’s research excellence.

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

- 2017: 7.1% in top 1% most cited
- 39.6% in top 10% most cited
Look through different metrics to identify ones that demonstrate 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
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
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
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
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
Two Golden Rules for using research metrics

- Always use both qualitative and quantitative input into your decisions
- Always use more than one research metric as the quantitative input

**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

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

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

### How to choose a metric

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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

Snowball Metric: [www.snowballmetrics.com/metrics](http://www.snowballmetrics.com/metrics)
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.
Scopus powers Research Intelligence Solutions

Evaluate, Plan & Benchmark

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

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.
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).

Tracks over 55,000 English speaking global media sources

Matched with 8,500 institutions in SciVal
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