How SciVal can support Research intelligence information and research mgt needs

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Agenda

1. Recap Scopus and Introduction to SciVal

2. Research Metrics, responsible use of metrics

3. Review an Institution research output, performance and impact

4. Define a researcher, groups of Researchers, publication sets

5. Mapping relevant research landscape - identify collaborators, potential reviewers of grant proposals - including

   - Topics of Prominence

   - User defined Research Areas

6. Demonstrate secondary impact by analysing citing publications

7. Benchmarking entities

8. Supporting the research narrative with bibliometric analyses

United Kingdom market- SciVal presence

- 78 institutions have Scival subscription including academic, corporate, government, research institutes and medical entities

- 71 Academic & Government body organisations with SciVal subscriptions

- 19 of the Russell Group members have SciVal subscriptions

Rep of Ireland market- SciVal presence

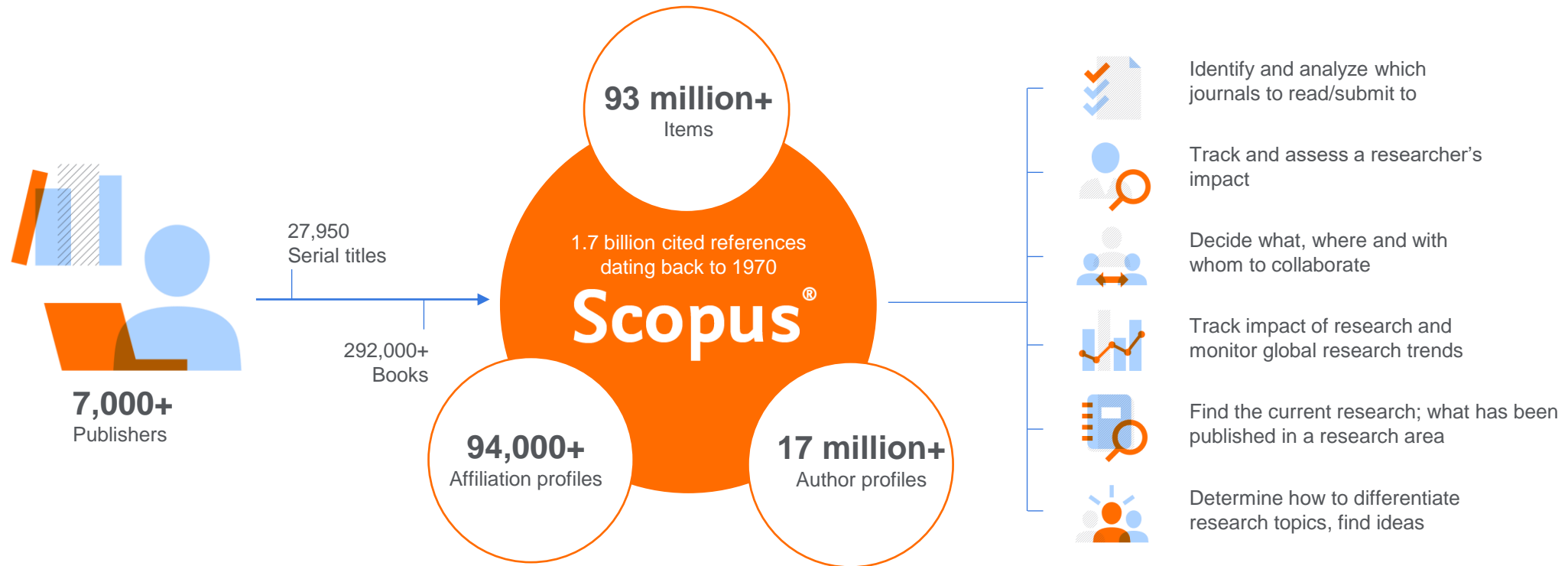- 16 Academic & Government body organisations with SciVal subscriptions

Recap Scopus content and coverage

Scopus uniquely combines a comprehensive, curated abstract and citation database with enriched data and linked scholarly content.

7,000+
Publishers

27,950
Serial titles

292,000+
Books

93 million+
Items

1.7 billion cited references dating back to 1970

Scopus®

94,000+
Affiliation profiles

17 million+
Author profiles

Identify and analyze which journals to read/submit to

Track and assess a researcher's impact

Decide what, where and with whom to collaborate

Track impact of research and monitor global research trends

Find the current research; what has been published in a research area

Determine how to differentiate research topics, find ideas

Quickly find relevant and trusted research, identify experts, and access reliable data, metrics and analytical tools to support confident decisions around research strategy – all from one database and one subscription.

Scopus Coverage Summary (September 2023)

Global representation means global discovery across all subjects and content types

93.2M records from **28.2K** serials, **152K** conferences and **323K** books

from more than **7,000** publishers in **105** countries

- Updated daily—**13,000+** new articles per day indexed
- **22.99M** open access documents
- "Articles in Press" from **>8,740** titles
- **1.91M** preprints from multiple preprint servers
- **6,618** active Gold Open Access journals indexed

Number of journals by subject area**

Physical sciences
14,558

Health sciences
15,167

Social sciences and humanities
14,553

Life sciences
7,818

Journals

28,153* active peer-reviewed journals

6,618 Gold OA Journals (DOAJ/ROAD)

20.7M fully-indexed funding acknowledgements

1.91M preprints

- Full metadata, abstracts and cited references (refs post-1970 only)
- Citations back to 1970

Conferences

152K conference events

11.9M conference papers

12.9% of database items

Mainly Engineering and Computer Sciences

Books

74.3K individual book series volumes

323K stand-alone books

2.80M total book items

Focus on Social Sciences and A&H

Patents

50.1M patents

5 major patent offices:

- WIPO
- EPO
- USPTO
- JPO
- UK IPO

*Journals may be classified in multiple subject areas: this count includes current actively indexed titles only
**These counts include both active and inactive titles; total number of Scopus journals in database including inactive titles is 43,400

SciVal analytics

SciVal aggregates publication, citation and usage Data (from Scopus), awarded grants, mass media mentions (from Newsflo) and patent-article citations.

We use big data technology to allow users to view and analyse big sets of data, fast, and generate graphs and tables on demand.

We calculate metrics and indicators for a variety of pre-defined and user defined entities.
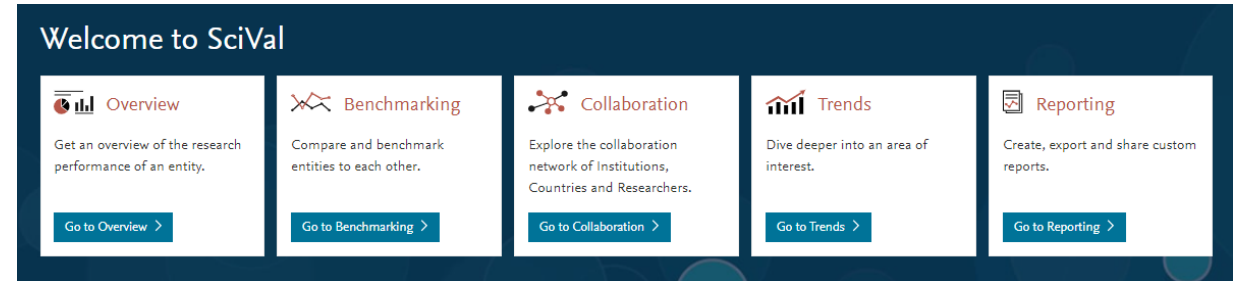
The necessary basics

- ❑ **The data source we are working with: Scopus citation and abstract database**
- ❑ **Your Scopus Author profile**
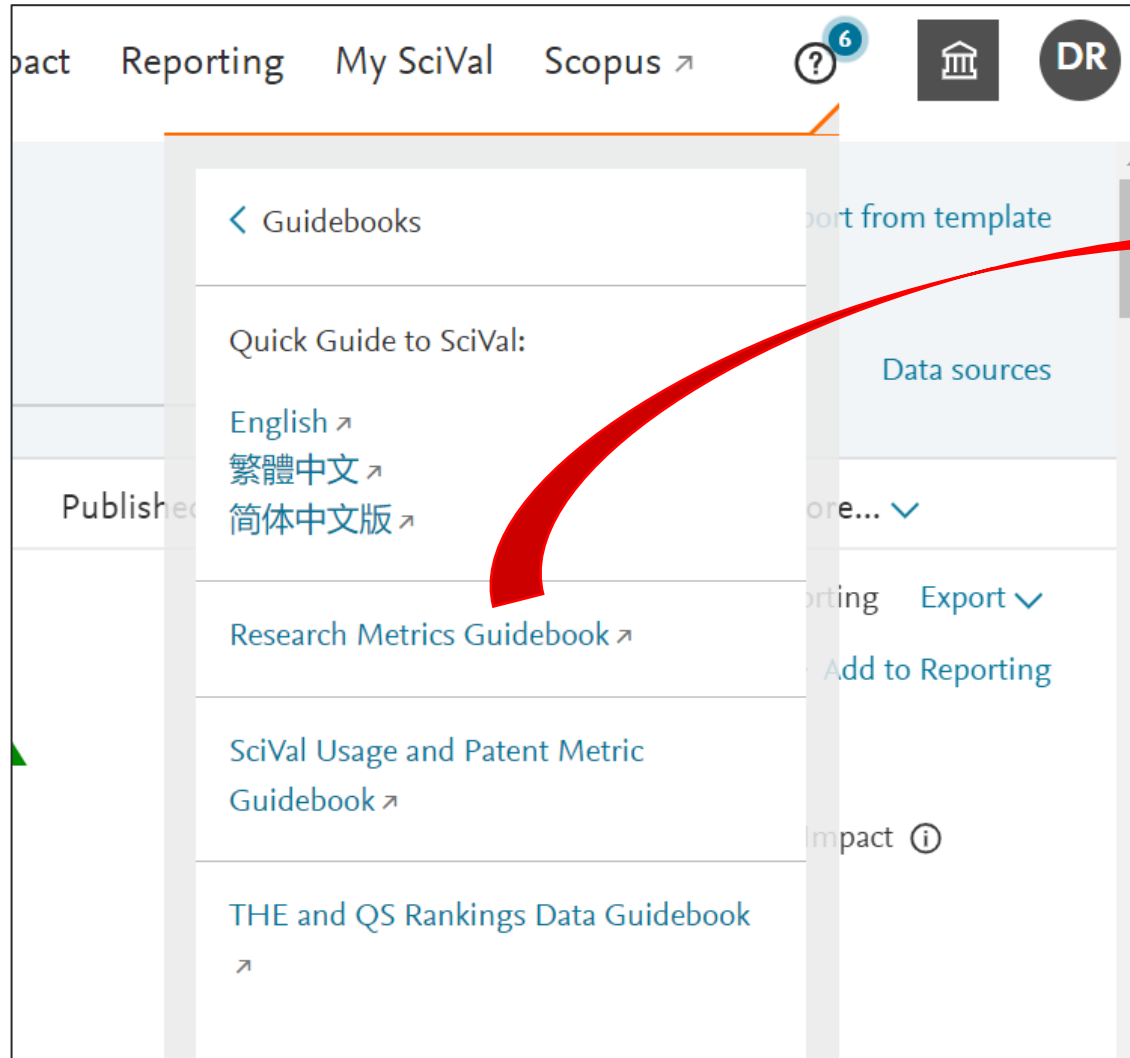- ❑ **SciVal log in**
- ❑ **SciVal basics – modules and entities**
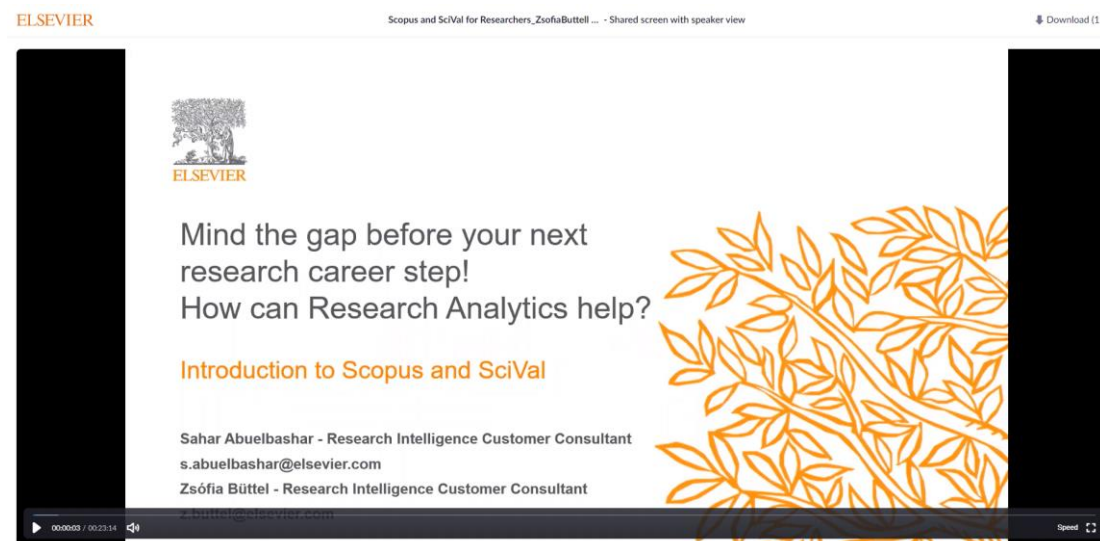
Introduction to Research metrics and responsible use of metrics

Research metrics guidebook

- **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 of using research metrics

Always use both _qualitative_ _and quantitative input_ into your decisions

Always use _more than one_ _research metric_ as the quantitative input

- Metrics should be used together with peer review and expert opinion
- When metrics and peer review or expert opinion give different answers, probe further
- "Metrics" does not only mean bibliometrics
- Multiple metrics used together give the richest perspective

The importance of triangulation

Elsevier Research Intelligence

Reliable data

A broad range of metrics is essential for you to be able to address your many questions,

No single metric is perfect. Always use **at least two metrics** to give insight into your question

Strategic Planning for Research

External Review

Expert opinion

No data set is perfect. Always reinforce your evidence-based conclusions with at least one of, and ideally both, **peer review** and **expert opinion**

Peer review

ELSEVIER

Getting Started in SciVal

Accessing SciVal at www.scival.com

Login

SciVal is a ready-to-use solution with unparalleled power and flexibility, which enables you to navigate the world of research and devise an optimal plan to drive and analyze your performance.

(*=required fields)

Login using your Elsevier credentials   If not, Register Now

Username: [_____] *

Password: [_____] *

☑ Remember me

[Login] Cancel

Forgotten your username or password?

New to SciVal? Find out what the new generation of SciVal can do for you.

Configure, visualize and export information according to your personal needs through SciVal's integrated modular platform:

Overview
Get a high-level overview of the research performance of your Institution, other Institutions, Countries and Groups of Researchers.

Benchmarking
Compare and benchmark your Institution to other Institutions, Researchers and Groups of Researchers using a variety of metrics.

Collaboration
Explore the collaboration network of both your Institution and other Institutions.

Trends
Get the current scientific trends to determine a new research strategy, find collaboration opportunities and rising stars.

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

SciVal in a nutshell

SciVal provides access to the research performance of ~23,000 research institutions and their associated researchers from more than 230 nations worldwide

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

The layers of SciVal

~23,000 institutions from over 230 nations

Research Areas

Around 96,000 Topics

+17m active authors

Create and select research entities

Select metrics

Supercomputing technology

Publication, citation and usage data from Scopus
Awarded grants, mass media mentions, patent-article citations

The layers of SciVal

Reports

Overview　　Benchmarking　　Collaboration　　Trends

Create and select research entities

Select metrics

Supercomputing technology

Publication, citation and usage data from Scopus
Awarded grants, mass media mentions, patent-article citations
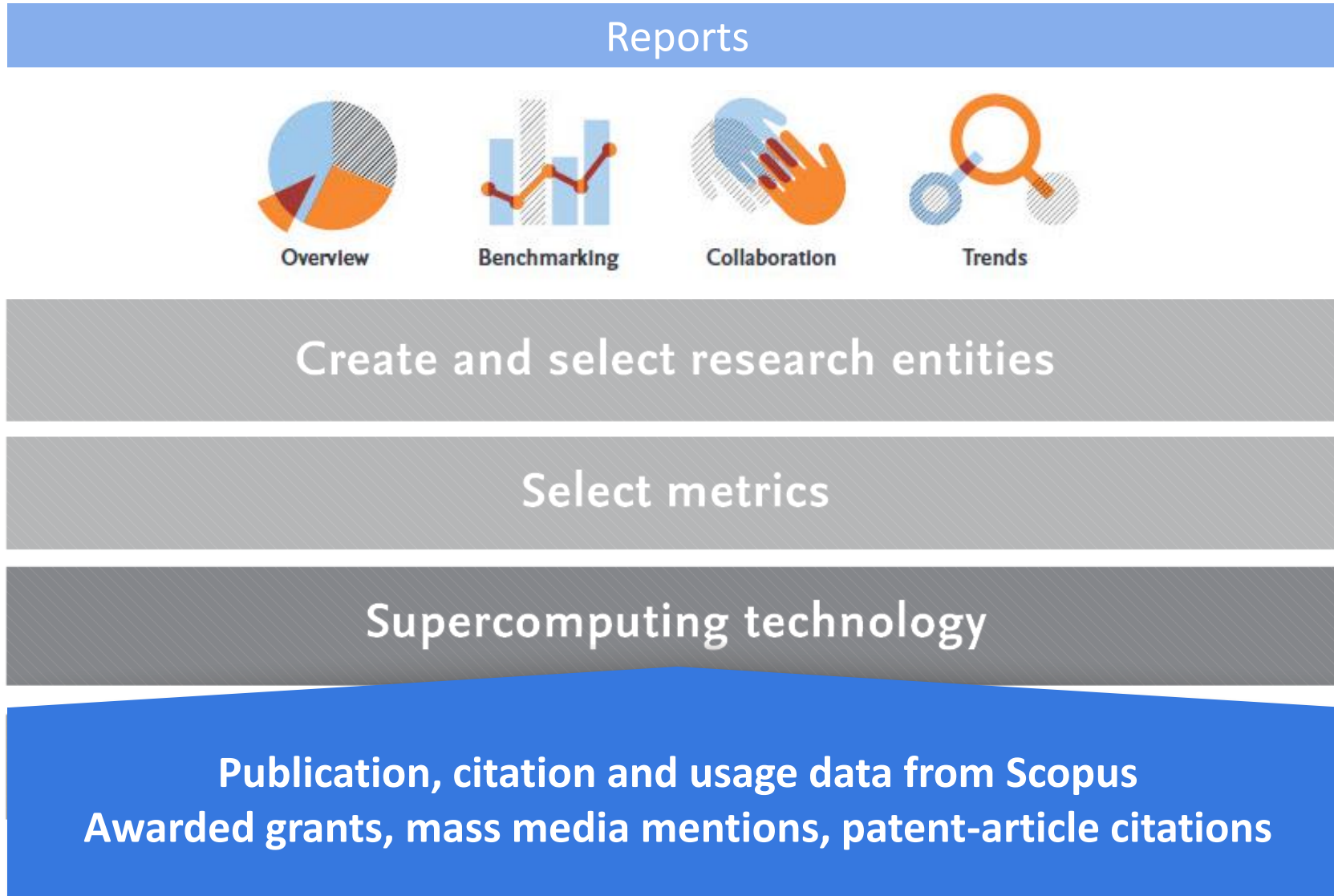
Entities

Institutions and Groups
- Includes all research outputs where an author is listed as affiliated to that particular institution

Researchers and Research Groups
- Includes all research outputs for a particular researcher, irrespective of affiliation

Publication Sets
- A customized set of publications from an authors or authors. Can also be imported using DOI, PMID or EID

Countries and Groups
- Includes all research outputs where an author is listed as affiliated to an institution within a particular country

Research Areas
- A publication set defined by keywords, Scopus journal categories, by a set of journals or by Topics

Scopus Sources
- All sources covered by Scopus
- Journals, Book series, Conference proceedings and Trade Journals

What is an entity?

- Anything you want!

- From **1 paper** to the **whole world** of content from Scopus (1996 to present)

- **Predefined**
  - i.e. Institutions (groups), researchers (groups), Topics etc

- **User defined**
  - i.e. Research Areas, groups of researchers, Publication Sets etc

- **Publication Sets** are a fixed list of documents (50k upload and 100k max)

- **Research Areas** are a live search (max 100k docs) – updated weekly

What are users trying to achieve?

1. **Visualize** and **benchmark** the quality and impact of their research activities

2. **Identify** and analyse new research Topics & trends

3. **Develop**, execute and **evaluate** strategies with reliable evidence

4. **Demonstrate** achievements to funding bodies and governments in a global context

5. **Recruit and retain** talented researchers

6. Identify **top performers and rising stars** in any research topic of interest

7. Evaluate **existing and identify potential collaboration partners** in both academia & industry

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 President for Research	• Comprehensive Performance Overview to inform strategic planning • Identify institution's strengths and short-comings
	Research Services	• Create management-level reports • Accelerate institutional and cross-institutional collaboration • Support and win large grants
	Heads of Department	• Evaluate researcher and team performance for partnership planning, recruitment and retention decisions • Scenario modelling through creating virtual teams
	Faculty and Researchers	• Raise visibility and highlight expertise and achievements • Expand networks • Locate and evaluate potential collaborators and mentors

SciVal Front Page

University of Galway currently has full access to the SciVal Overview, Benchmarking, Collaboration and Trends modules, as well as Reporting functionality.

Overview Module

Develop, advance and monitor your research programs and strategy
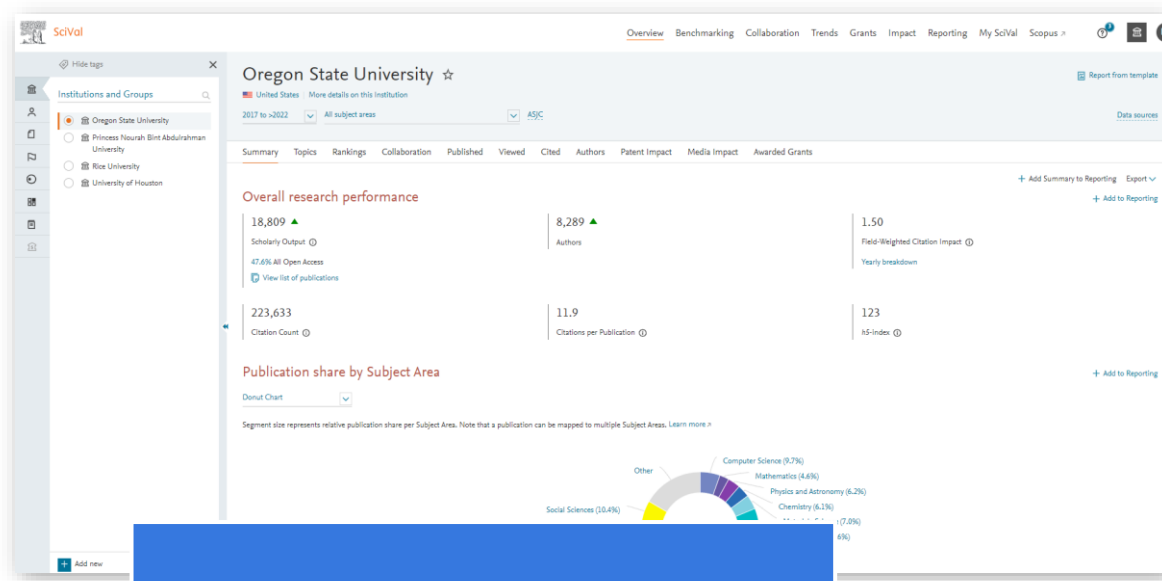
- Fixed year ranges
- Shows a high-level overview with the option to drill down for more detail

Understand and visualize research performance

The **Overview module** provides high-level overviews of research performance for you and your peers globally.

- Profile and evaluate the performance of institutions, researchers or research groups

- Understand performance and research strengths in specific Research Areas, Publications Sets or Topics

- Explore your collaborations and identify potential new partners

- Analyze and understand the actual bibliometrics used in the THE World University Rankings

Benchmarking Module
Benchmark your progress
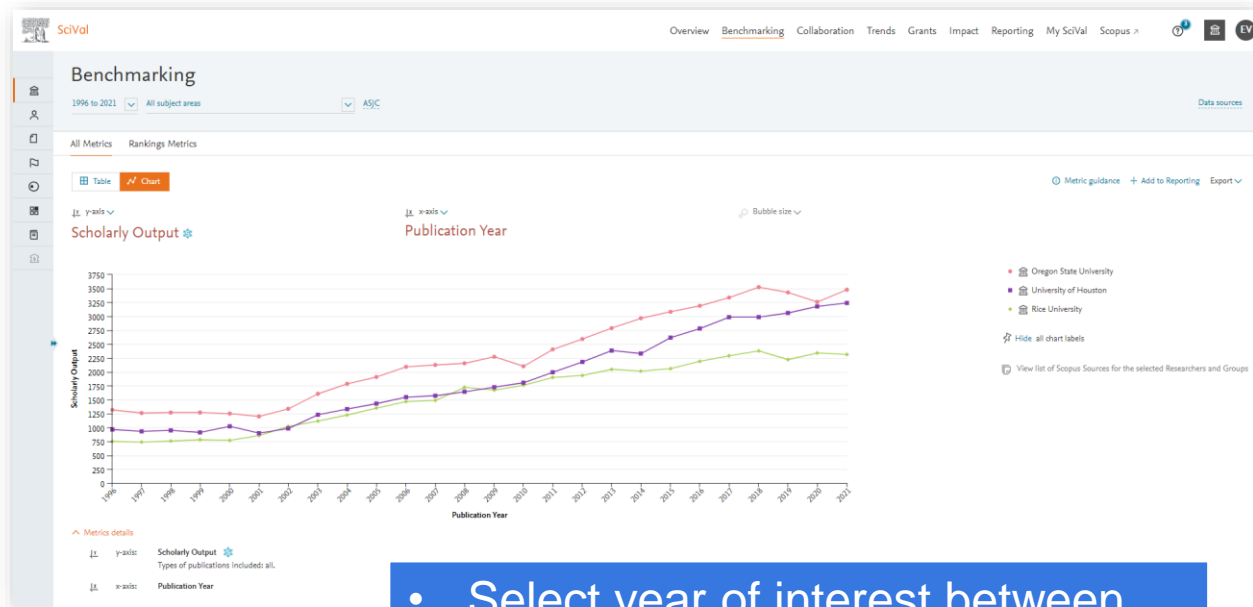
- Select year of interest between 1996 - present
- Table and chart view
- 3 metrics at a time in Chart, up to 25 in Table
- Compare any entity you want

Evaluate, benchmark and monitor progress

The **Benchmarking module** enables you to evaluate your research performance in comparison to others in your region, country and the world.

- Compare your research performance to peer groups and institutions over time

- Analyze and benchmark collaboration partners

- Profile developments in fields over time

- Choose from an array of research metrics, zoom in on a year range or subject area and build insightful reports.

Collaboration Module

Advance your research programs with insights into global expertise across sectors and fields
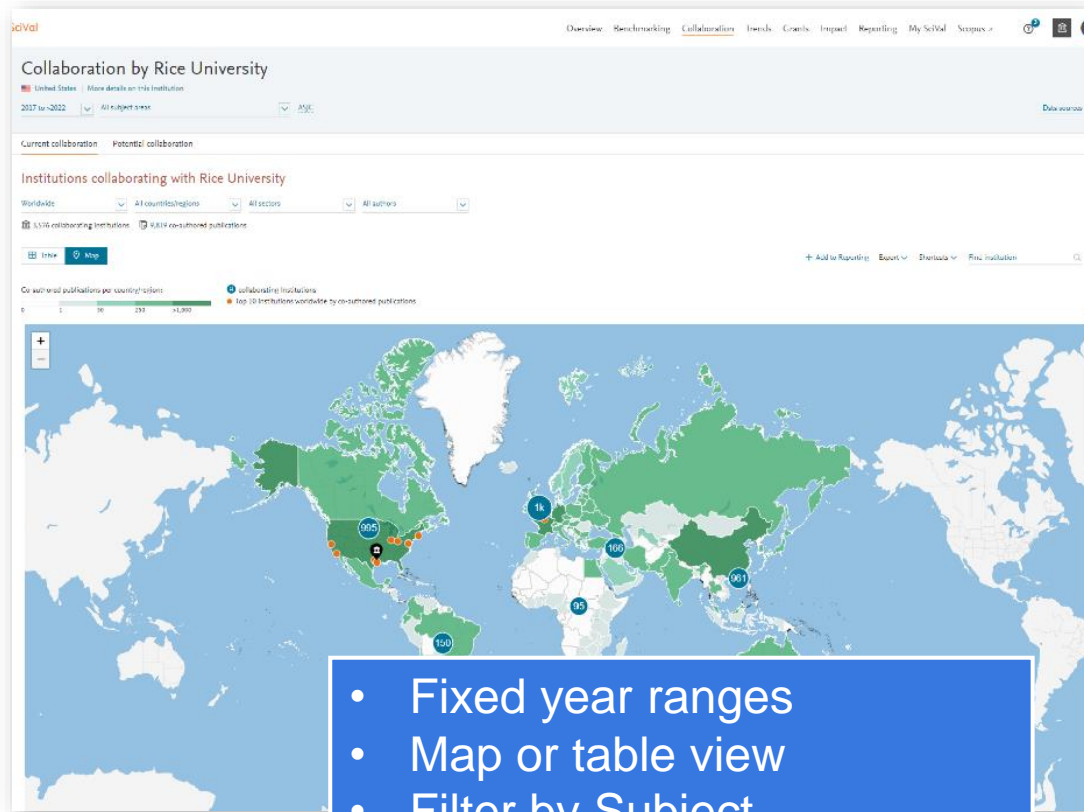
- Fixed year ranges
- Map or table view
- Filter by Subject Classification, Research Areas defined by you, sector and authors

Enhance team building and build strong collaborations

The **Collaboration module** helps you evaluate your existing research collaborations and identify potential new partners.

- Explore interactive maps and tables to evaluate existing partnerships

- Filter by subjects, Research Areas defined by you, sectors or authors

- Identify new opportunities for collaboration partnerships globally

- Enhance team building efforts by uncovering research expertise on and beyond campus

Trends Module

Gain a deep understanding of research fields and leading experts globally
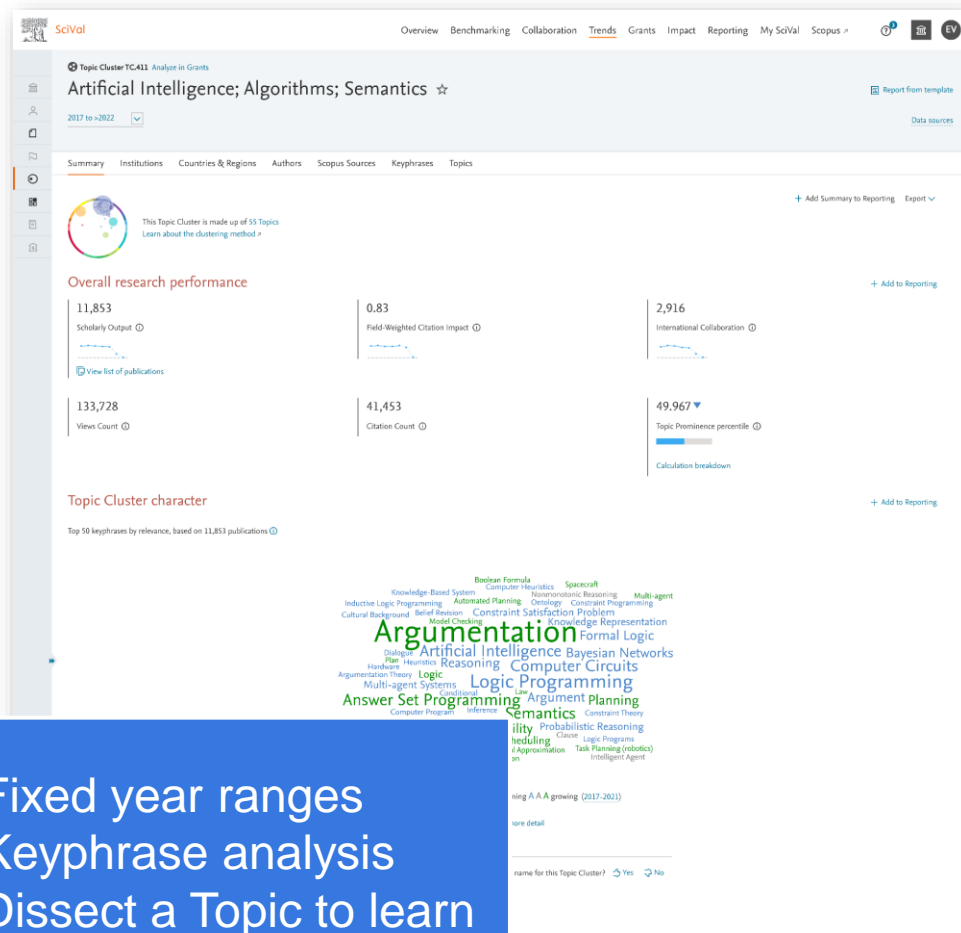
- Fixed year ranges
- Keyphrase analysis
- Dissect a Topic to learn more about it
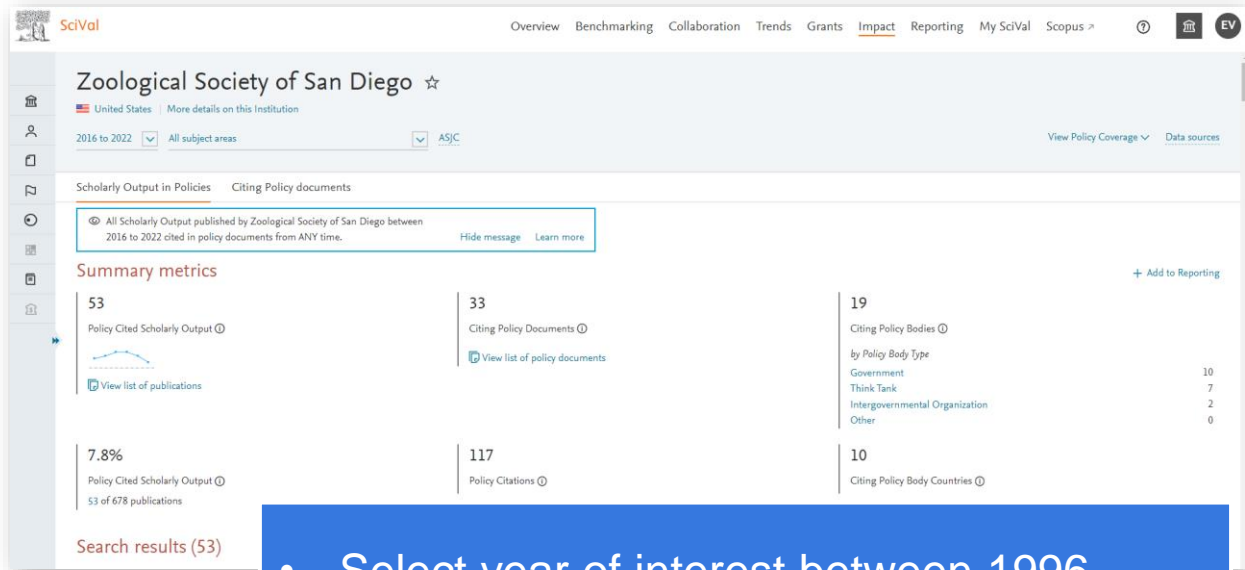
Monitor trends in research

Evaluate Topics, Research Areas and Publication Sets in detail

The **Trends module** enables you to gain a deep understanding of Research fields and leading experts globally.

- Analyze the developments in fields of interest through graphs, tables, charts and keyphrase analyses.

- Define your own topic / field of interest or use a pre-defined one from SciVal

- Identify the key institutions and researchers contributing to a research field globally

- Investigate individuals or groups contributions to fields through an array of metrics and analyses.

Impact Module

Demonstrate the broader impact of your research on society with impact data, metrics and insights

SciVal

Overview   Benchmarking   Collaboration   Trends   Grants   Impact   Reporting   My SciVal   Scopus ↗

Zoological Society of San Diego ☆

🇺🇸 United States | More details on this Institution

2016 to 2022 ▾   All subject areas ▾   ASJC

View Policy Coverage ∨   Data sources

Scholarly Output in Policies   Citing Policy documents

ⓘ All Scholarly Output published by Zoological Society of San Diego between 2016 to 2022 cited in policy documents from ANY time.   Hide message   Learn more

Summary metrics

+ Add to Reporting

53
Policy Cited Scholarly Output ⓘ

📄 View list of publications

33
Citing Policy Documents ⓘ

📄 View list of policy documents

19
Citing Policy Bodies ⓘ

by Policy Body Type
Government   10
Think Tank   7
Intergovernmental Organization   2
Other   0

7.8%
Policy Cited Scholarly Output ⓘ
53 of 678 publications

117
Policy Citations ⓘ

10
Citing Policy Body Countries ⓘ

Search results (53)

- Select year of interest between 1996 - present
- Identify policy mentions of your research
- Uncover Policy documents citing your outputs
- Benchmark your impact and policy influence

Demonstrate your broader research impact

The **Impact module** enables you to understand and demonstrate your research impact and identify individuals or outputs influencing policy.

- Identify policy mentions to support the development of clear impact narratives for funding bids and case studies

- Discover research outputs and researchers influencing policy making who could represent collaboration opportunities

- Strengthen promotion and tenure applications with quantitative evidence of your research impact beyond citations

- Showcase your broader impact to the public, potential donors, governments and funding bodies

SciVal Front Page

To conduct analysis combine entity type definition on left hand side with available SciVal modules and Reporting functionality on the top of the screen.

Topics of Prominence – predefined in SciVal

How are "Topics" identified

- All Scopus publications are clustered into topics using citation links
- ~35 million publications (1996-present) in ~100,000 topics

Cluster 1   Cluster 2   Cluster 3

"Topics" and their characteristics

- A topic is a collection of documents with a common intellectual interest

- Topics are an excellent reflection of reality, based on citation patterns and not journal categories, therefore truly multidisciplinary

- Topics can be large or small, new or old, growing or declining

- Topics are dynamic and can evolve

- Researchers have mobility and can contribute to multiple topics
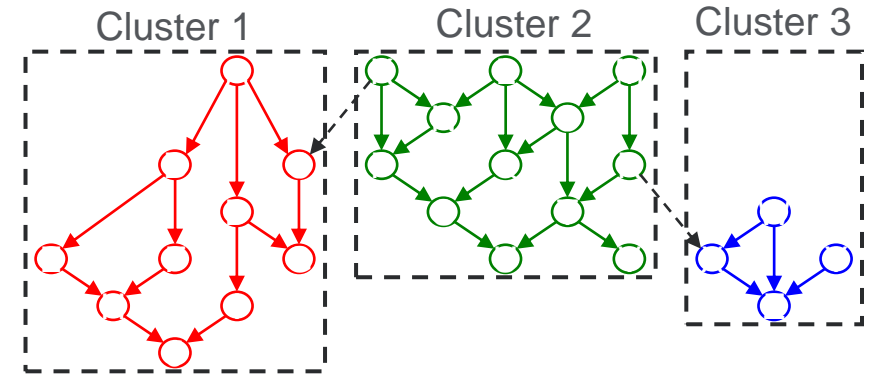
New indicator: Topic prominence

- Prominence combines 3 metrics to indicate the momentum of the topic
    - **Citation Count** in year n to papers published in n and n-1
    - Scopus **Views Count** in year n to papers published in n and n-1
    - Average **CiteScore** for year n

- Why call it "Prominence"
    - Prominence ≠ Importance (Topics can be important but not prominent)
    - Prominence ~ Visibility

Choose a pre-defined research area or create your own Research Area in SciVal