

# Scopus: a tool for scholarly output evaluation

Andrey Mikhailov, PhD  
Customer Consultant

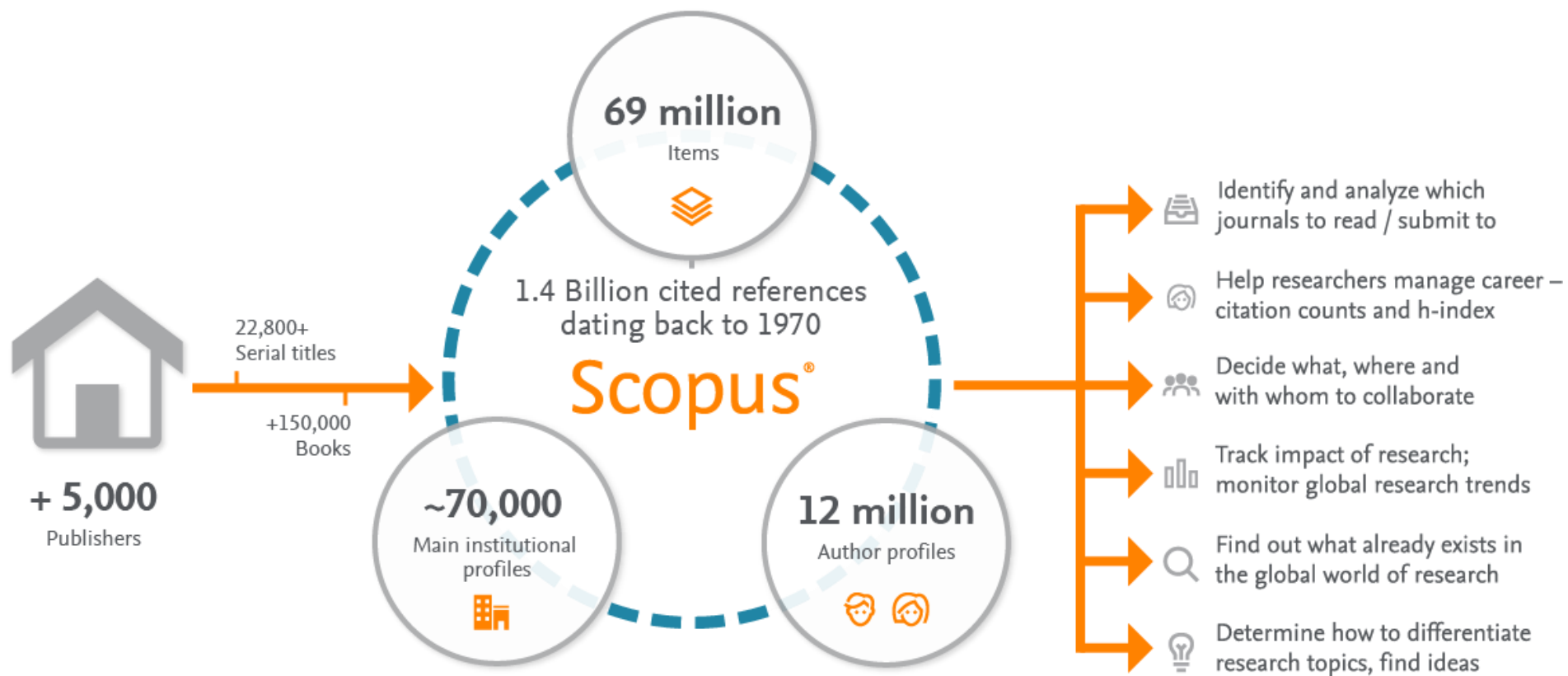
Elsevier B.V. / RELX Group PLC

+79052400526 | [a.mikhailov@elsevier.com](mailto:a.mikhailov@elsevier.com)

# Scopus coverage and selection criteria



**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.

# Different source types to ensure coverage in all subject fields

## JOURNALS

Physical  
Sciences  
7,450

**ca. 23k** peer-reviewed journals

**ca. 320** trade journals

Health  
Sciences  
6,800

- Full metadata, abstracts and cited references
- Citation data – back to 1970
- Records - back to 1823
- Funding data from acknowledgements

Social  
Sciences  
8,200

Life  
Sciences  
4,500



## CONFERENCES

**100k** events

**8M** records (12%)

Conf. expansion (2005 – 2013)

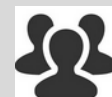
**1,017** conferences

**6,022** conf. events

**410K** conf. papers

**5M** citations

Mainly Engineering and Physical Sciences



## BOOKS

**>1k** book series

**- 34k** Volumes

**- 1.5M** items

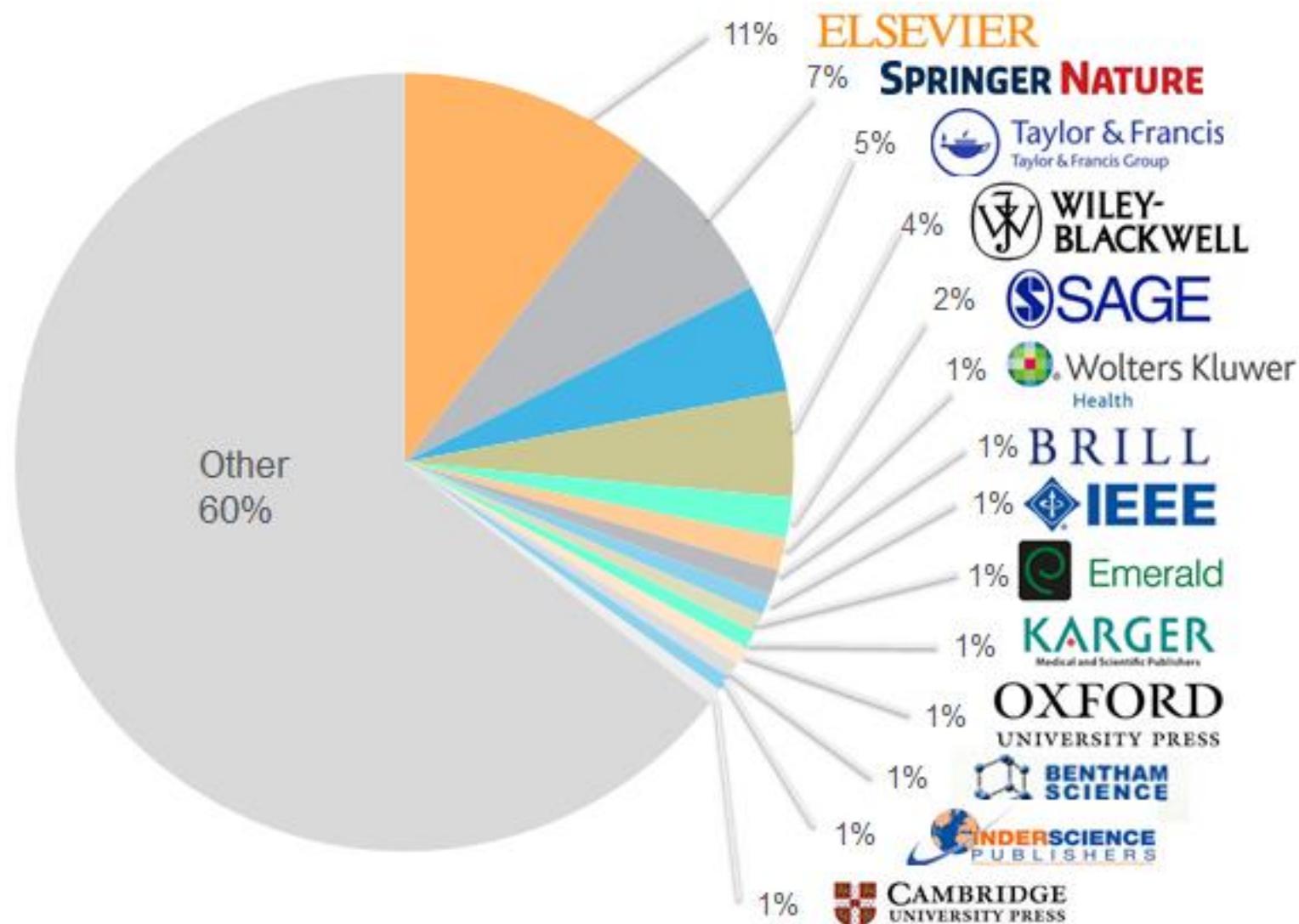
**150k** stand-alone books

Books expansion:  
120K books by 2015  
- Focus on Social Sciences and A&H



Different source types are added to ensure that coverage, discoverability, profiles and impact measurement for research in all subject fields is accounted for in Scopus.

## Unbiased, comprehensive journal coverage with titles from many reputable scholarly publishers



## Content Selection & Advisory Board (CSAB)



The CSAB is an independent board of subject experts from all over the world. Board members are chosen for their expertise in specific subject areas; many have (journal) Editor experience.

### Transparent Scopus selection criteria for serial content

All titles should meet all minimum criteria in order to be considered for Scopus review:

Peer-review

English  
abstracts

Regular  
publication

Roman script  
references

Pub. ethics  
statement

# What are the selection criteria?

**All titles should meet all minimum criteria:**

**Peer-review**

**Abstracts in  
English**

**Publication  
schedule**

**References in  
latin alphabet**

**Ethics  
declaration**

**Titles fulfilling the formal requirements are then analyzed by Content Selection & Advisory Board with respect to 14 qualitative and quantitative selection criteria:**

## Journal policy

- clear publishing policy and concept
- clear peer-review regulations
- geographical diversity: authors, reviewers and editors from various countries

## Content quality

- academic input into the given research areas
- clarity of abstracts
- content is in agreement with the declared policy
- good content quality
- readability of the articles

## Prestige of the journal

- cited by journals already indexed in Scopus
- publisher's reputation

## Publication schedule

- regularity of publishing
- no delays and all issues published as declared in the scheduled

## On-line access

- content is available on-line
- website in English
- good quality of the website

More information: <http://www.elsevier.com/online-tools/scopus/content-overview>



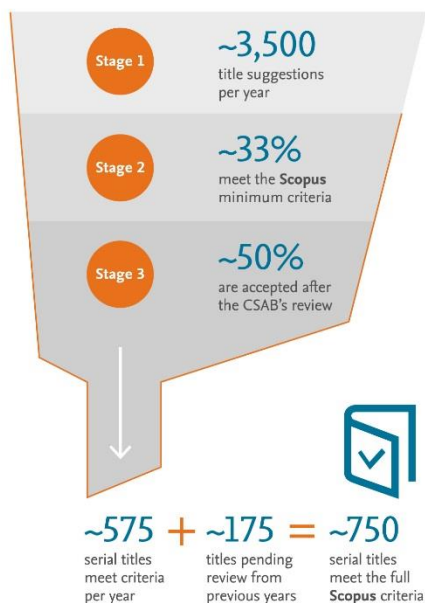
# Maintaining high-quality: Scopus rigorous re-evaluation process and criteria

- Less than half of the reviewed titles are selected for Scopus coverage
- The Content Selection Advisory Board is selective and strict on quality: in total **5,411 titles were reviewed** (2011 –2015) of which **2,587 (48%) accepted** for Scopus

## Strict Quality & Ethics Selection Criteria\*

The **Scopus** title selection criteria – our set of clear and transparent guidelines, in combination with reviews by our independent Content Selection & Advisory Board – ensure the quality of titles indexed meets consistently high standards.

\* 2016 as sample year



## Rigorous Re-evaluation Process

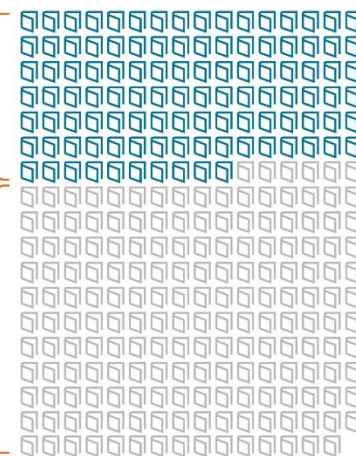
In the latest reevaluation exercise, **303** under-performing titles were re-evaluated by the Content Selection & Advisory Board



**106 (35%)** continue to meet **Scopus** criteria and coverage will continue



**197 (65%)** no longer meet **Scopus** selection criteria and coverage going forward will be discontinued





# Structural approach: Ongoing content curation to ensure continuous high quality content

Curation of the full journal base is essential and expected by our customers and users.



Direct feedback from users and stakeholders on poor performing journals

Identification of poor performing journals using metrics and benchmarks

“Radar” to predict journals with outlier performance

Review:

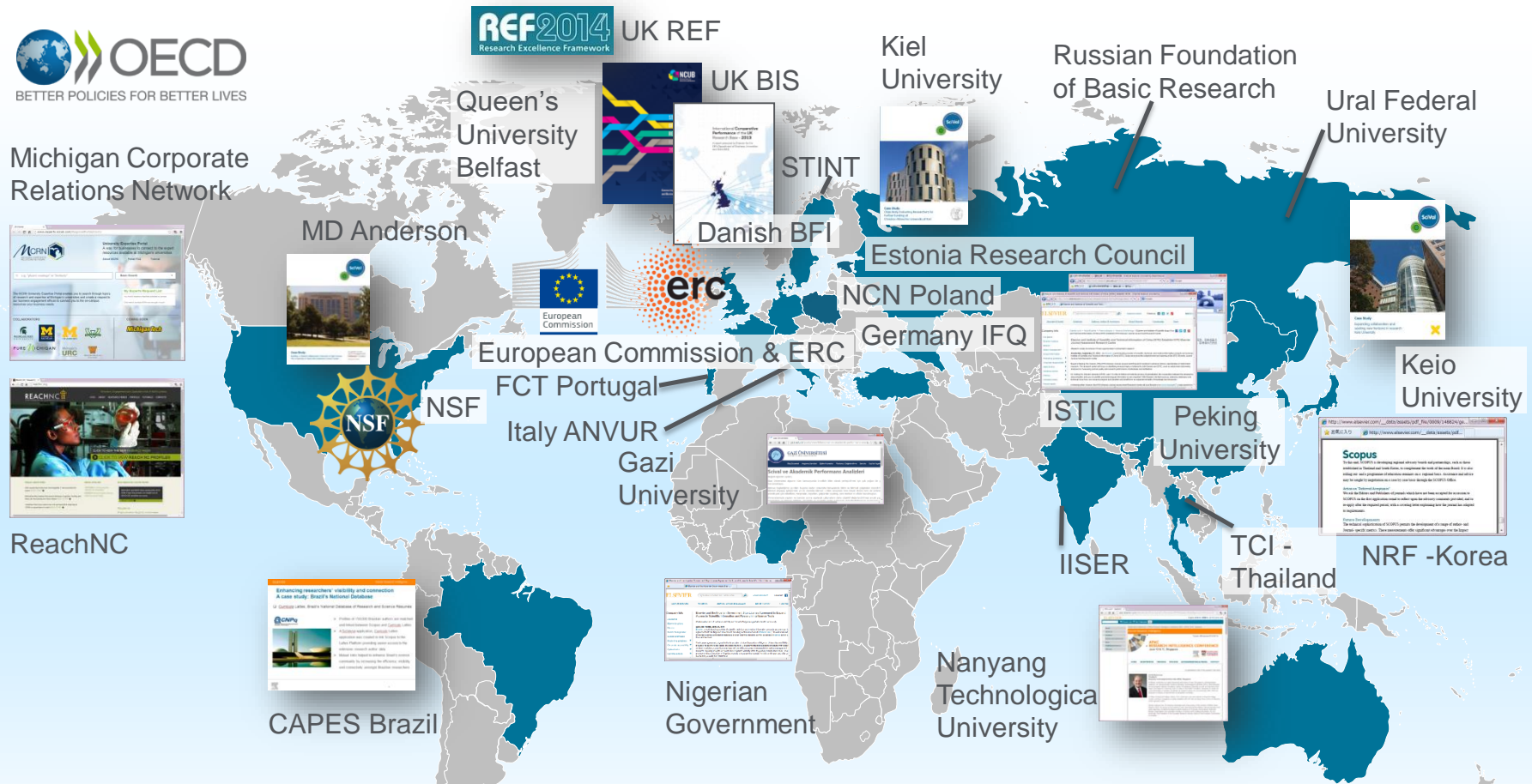
Re-evaluation by the Content Selection & Advisory Board (CSAB)

Curate:

Content Curation

# Scopus

# Scopus is the Gold standard: more than 150 leading research organizations rely on Scopus data



## Rankings:



# Journal quality assessment: bibliometric parameters

## Two Golden Rules for using research metrics

When used correctly, research metrics together with qualitative input give a balanced, multi-dimensional view for decision-making

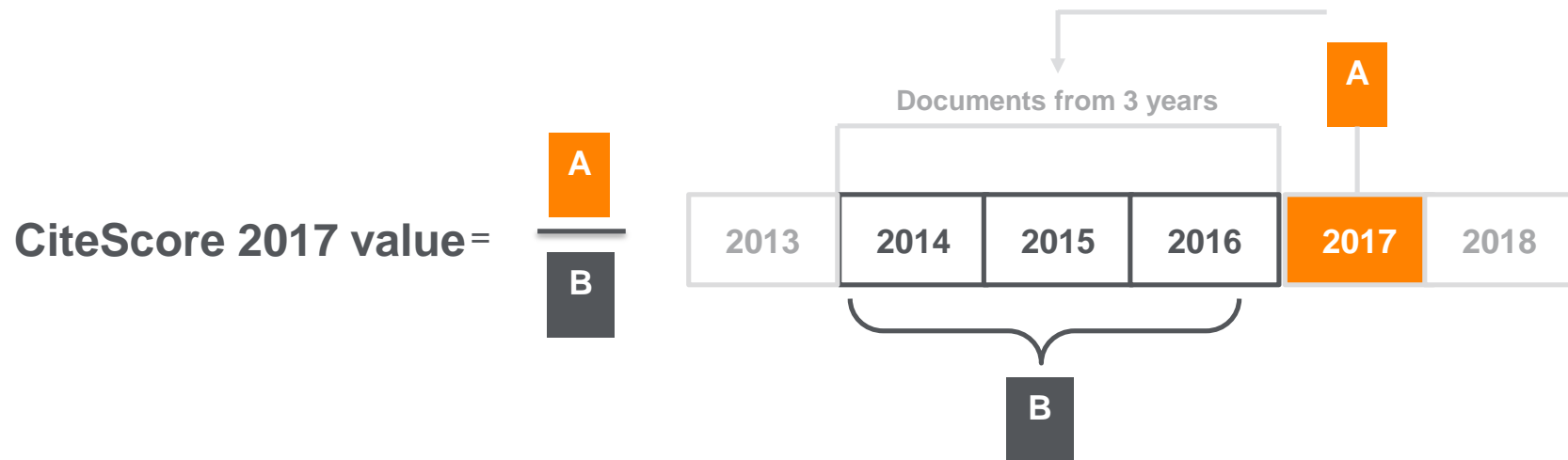
Always use **both qualitative** and **quantitative** input into your decisions

Always use **more than one** research metric as the **quantitative** input

# CiteScore

- Introduced in 2016 for the first time
- It measures the **citation count** in a **given year** to **documents** published in the **past three years**, **divided** by the **number** of these **documents**.
- It covers **all documents** published in a journal – not only articles and reviews.
- Inclusion of the same documents in the **numerator and denominator** of the metric calculations limits the risk of the metric to be intentionally manipulated.
- CiteScore is **not a normalized metric** – the highest value is ca. 89 (cancer research), while in other disciplines a value smaller by one order of magnitude may be considered very good.

## CiteScore is a simple metric for all Scopus journals



### CiteScore

A = citations to 3 years of documents

B = all documents indexed in Scopus, same as A

### Impact Factor

A = citations to 2 or 5 years of documents

B = only citable items (articles and reviews), different from A



# SNIP – Source Normalized Impact per Paper

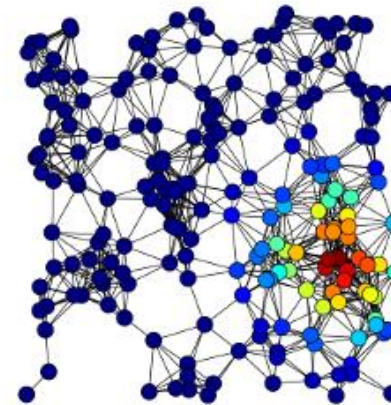


Universiteit Leiden

- Developed by CWTS, **University of Leiden** in The Netherlands.
- Measures **contextual citation impact** by weighting citations based on the **total number of citations in a subject field**.
- The **impact** of a single **citation** is given **higher value** in subject **areas** where citations are **less likely**, and vice versa.
- It's a **normalized parameter**, thus it allows to compare journals **across disciplines**.

# SJR – SCImago Journal Rank

SCIMAGO  
L A B



- Developed by SCImago, Spain.
- A **prestige metric** that can be applied to journals, book series and conference proceedings.
- It bases on the **eigenvector network theory** – nodes may have different „value” or „weight”.
- With SJR, the **subject field, quality and reputation** of the journal have a **direct effect** on the **value of a citation**.

# Analysis tools - journals

## Scopus

Scopus

SciVal

Katalog BG PK

Register

Login

Help

Brought to you by  
BPK / The Library of CUT

Search

Alerts

My list

Main Page Header

My Scopus

### Compare journals

Search for and choose up to 10 journals to analyze and compare.

[Export](#) | [Print](#) | [E-mail](#)

Search for...

*e.g. Cell, cancer*

Journal Title

Limit to: All Subject areas

Q

?

Show: ☒ SJR ☐ IPP ☐ SNIP ☐ ISSN
[About Compare journals calculations](#)

Journal

SJR

Chart

Table

SJR

IPP

SNIP

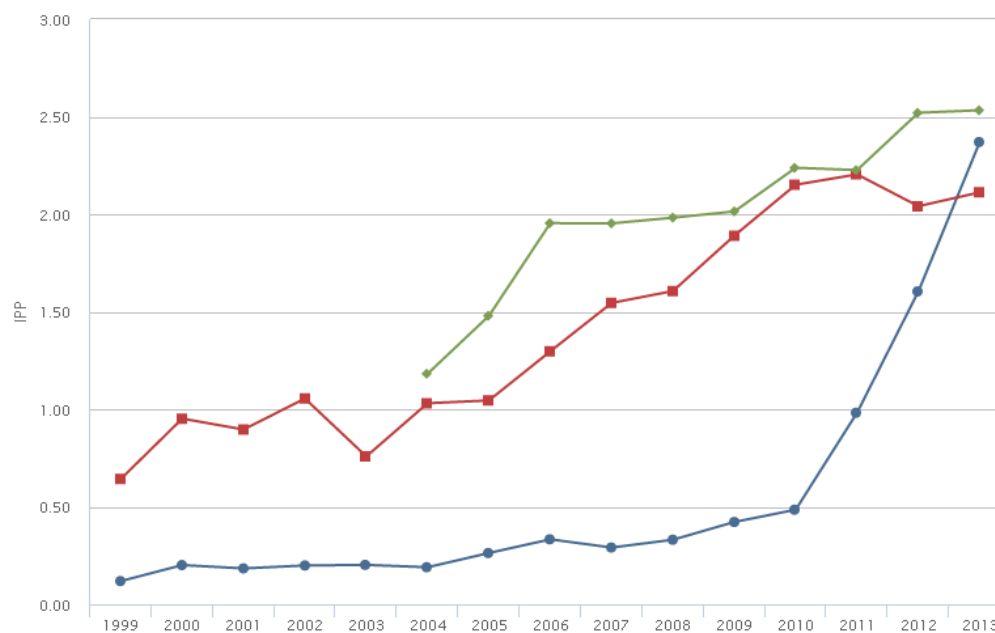
Citations

Documents

% Not cited

% Reviews

### Impact per Publication by year ?



International Journal of Polymeric Materials



Journal of Biomaterials Applications

To add more data points to this graph,  
please conduct a search and select  
items from the results list.

# Profiles in Scopus

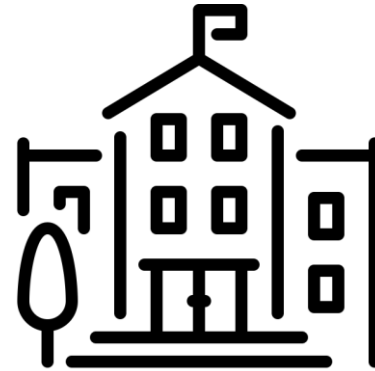
## Profiles in Scopus



**13 M**

**Author profiles**

- Created automatically for every author with 2 or more papers
- Unique number - Author ID
- Collecting data about documents, affiliations, names, citations, h-index, disciplines of interest etc.



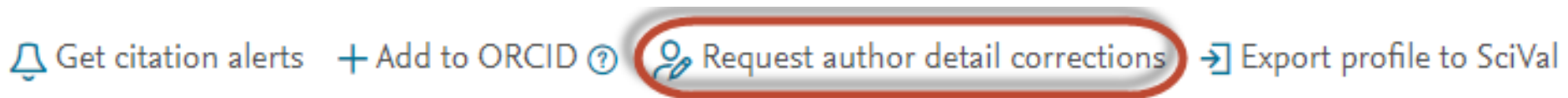
**+70k**

**Institutional profiles**

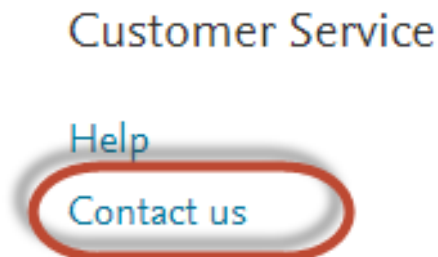
- Created automatically or upon request
- Unique number - Affiliation ID
- Collecting data about scholarly output, names, disciplines of interest, journals chosen by authors etc.

## Requesting changes to the profiles

- If you notice an error or missing information, let us know!
- Use Author Feedback Wizard – access *via* profile



- Use the „Contact us” for all enquires you are unable to report *via* AFW:





# ORCID - Open Researcher and Contributor ID



- Unique and free-of-charge individual researcher ID number;
- Allows to track academic and research career, achievements and resulting publications;
- Can be synchronized with Scopus.

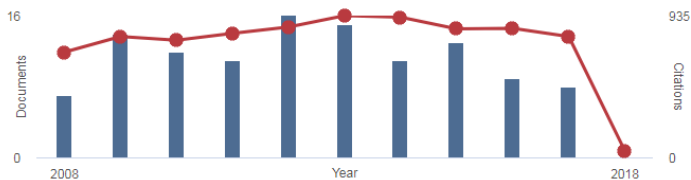
<http://orcid.org/>

# Indicators used in scholarly output evaluation

Total citations

11032 by 9171 documents

[View citation overview](#)



Total citation count for a given author: citations to papers indexed in Scopus, from sources in Scopus.

A quick overview of the most recent decade of scholarly activity: number of documents published and citations in each year.

Citations	<2014	2014	2015	2016	2017	2018	Subtotal	>2018	Total
Total	7568	924	848	851	797	44	3464	0	11032
2011	3		1	1	2		4		7
2011	10	10	10	4	5		29		39
2011	7	3		1	2		6		13
2010	12	3	5		2		10		22

Citation overview: a table allowing a comprehensive analysis of citations, with the option to exclude self-citations of author and/or co-authors.



[View co-author overview](#)

Co-authors	Co-authored documents
Sadler, Peter Sadler	39
Sadler, Ian Howard	19
Xiong, Xuejian	19

A list of co-authors allows to quickly assess and evaluate the size and diversity of co-operators' network.

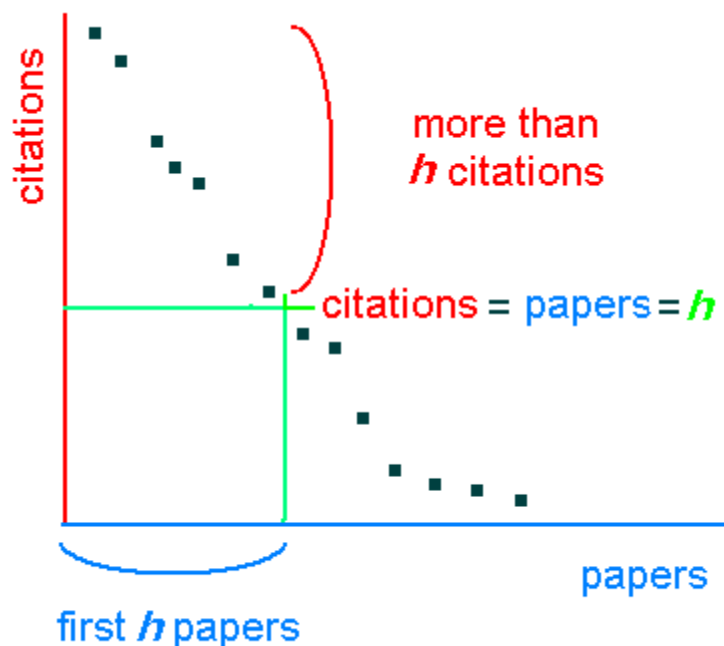
## $h$ -index

- Introduced in 2005 as a measure of weight and significance of all scholarly documents published by a given author.

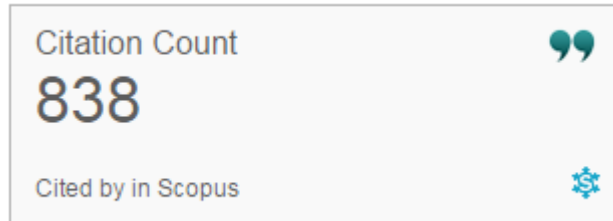
- Definition:

*A researcher has index  $h$ , if  $h$  from all his  $N$  documents has at least  $h$  citations each, while the others ( $N - h$ ) has no more than  $h$  citations each.*

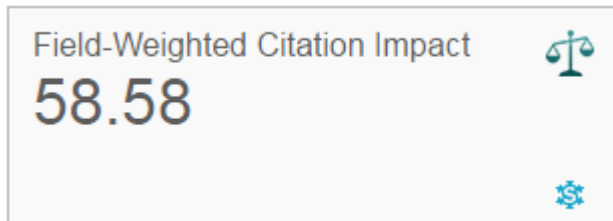
In other words: Prof. Smith has  $h$ -index equal to 5, if from his 11 papers, 5 have at least 5 citations each, and the other 6 – less than 5.



## Bibliometric indicators: article-level



Total citation count per article since its publication. May not be an objective measure.



Field-Weighted Citation Impact indicates how a given article compares to the global average in the discipline in terms of citations. FWCI above 1 is above average; below – below average. Data from SciVal.



Citation benchmarking compares citation count of the article to 2500 papers of the same type in the discipline. Citations are counted over 18 months.

# PlumX Metrics

**PlumX Metrics** are comprehensive, item-level metrics that provide insights into the ways people interact with individual pieces of research output:

- Visualizes scholarly engagement
- Includes 5 categories of metrics
- Designed to communicate engagement without a score

## PlumX in Scopus:



### USAGE

(clicks, views, downloads, library holdings, video plays)



### CAPTURES

(bookmarks, favorites, reference manager saves)



### MENTIONS

(blog posts, news mentions, comments, reviews, Wikipedia mentions)



### SOCIAL MEDIA

(tweets, +1s, likes, shares)



### CITATIONS

(citation indexes, patent citations, clinical citations, policy citations)

# Good practices in evaluating individual scholarly output





## Tips for evaluation of scholarly output

- Evaluation affects decisions regarding real people, not just names

### 1. Go over the basics

- Use reputable, good-quality databases
- How many papers published in recent years?
- Check the distribution of citations, not just the total number!
- H-index: include corrective factors into your analysis
- Remember most metrics are discipline-dependant!

### 2. Investigate further – go beyond metrics

- ? Ask for input from other academics – verify reputation
- ? Look at the content of the published papers
- ? Randomly check citations – are they positive? Where do they come from?
- ? Is the researcher in any editorial boards? What journals?

# Thank you for your attention!

**More information:**

**[www.elsevier.com/solutions/scopus](http://www.elsevier.com/solutions/scopus)**

**[www.journalmetrics.com/](http://www.journalmetrics.com/)**

Andrey Mikhailov, PhD  
a.mikhailov@elsevier.com  
Customer Consultant  
Elsevier

