Optimizing chemical R&D for sustained growth

Dr. Klementyna Karlińska-Batres
Solutions Consultant

September 2021

Chemistry innovation, accelerated.

The race to accelerate the pace of innovation is on across the globe, and chemistry R&D professionals are experiencing more pressure than ever to spend less time reading and more time in the lab.

Chemical industry challenges

Sustainability

- Climate change
- Water shortage
- Reduction of CO_2 emissions
- Waste management and recycling
- Application of the circular economy

Geopolitical tensions

- Changes in demographics
- Increase in political instability
- Shift in relative wealth from West to East
- Diverging standards in supply chains

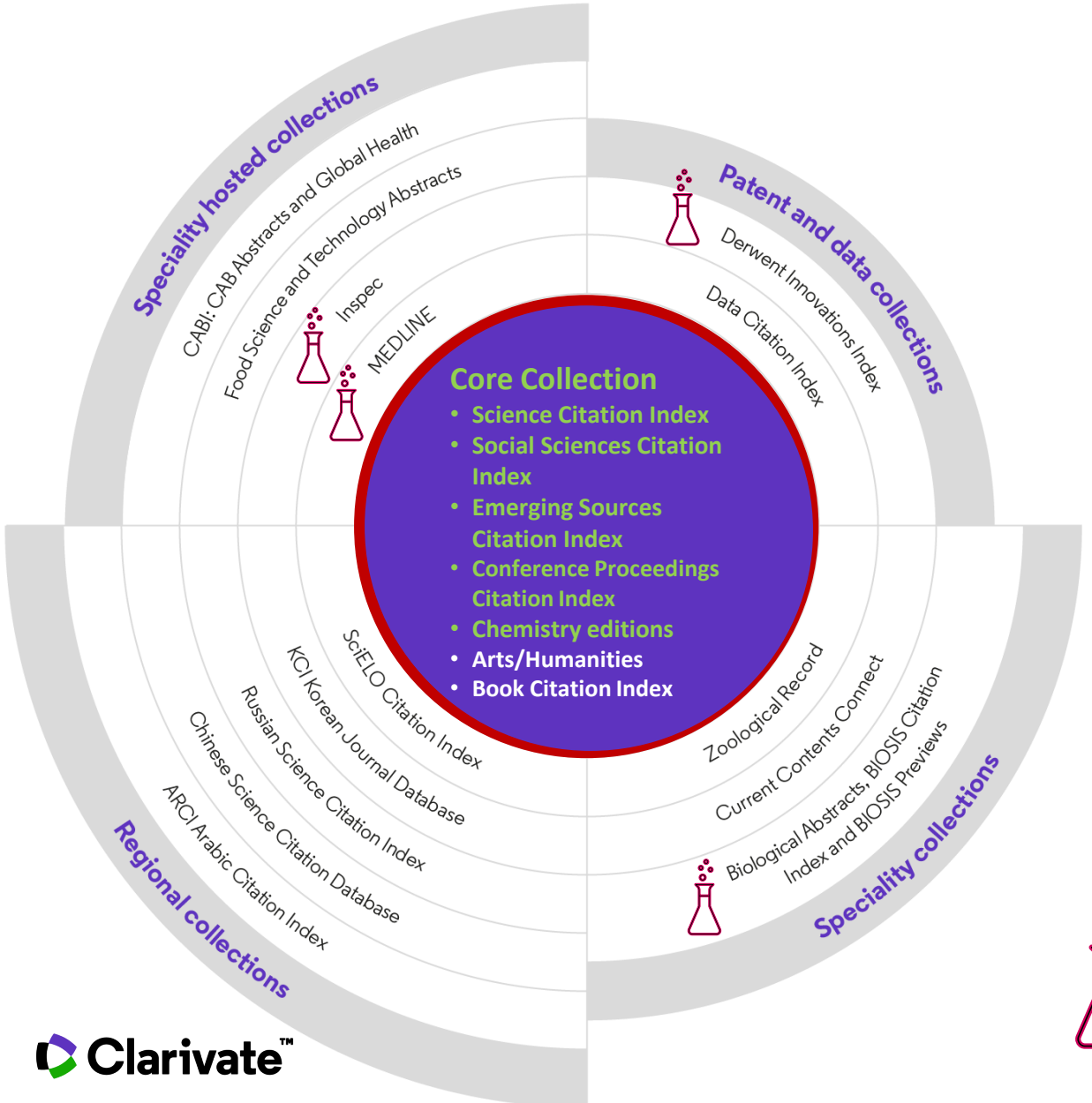
Technology

- New digital or analytics technologies
- Real-time information availability
- Process automation

Clarivate™

Web of Science All Databases – strengthening your Core

Extending your view of global chemical research across the Sciences and Social Sciences



35,450+

Journals across the platform

21,890+

Total journals in the *Core Collection*

2 billion+

Cited references

182 million+

Records

17 million+

Records with funding data

99.4 million

Patents for over 49 million invention families

12.6 million+

Data Sets and Data Studies and 441 repositories

Backfiles to 1900

With cover-to-cover indexing

226,400+

Conference proceedings

126,000+

Books

Databases with chemical research/patents content!

Statistics as of July 2021

The Web of Science Core Collection

Research with confidence using a multidisciplinary Citation Index

Science Citation Index Expanded
Social Sciences Citation Index
Emerging Sources Citation Index
Conference Proceedings Citation Index
Chemistry ***(Current Chemical Rxns/Index Chemicus)***
Arts and Humanities Citation Index
Book Citation Index

Unmatched coverage: broad, deep, cover-to-cover indexing of multidisciplinary content captures modern research

Powerful bibliographic and cited reference network – unique benefits for searching, linking and navigation; 1.7B Cited References!

Citations connect ideas – bridging terminologies, disciplines, languages, time periods, and source types

Unbiased editorial selection and curation: ensures comprehensive "publisher-independent" capture of the important and influential international literature

Clarivate™

Revised July 2021

Meticulous metadata construction - *Web of Science Core distinction*

View the complete research landscape on any topic, and conduct powerful analysis

Cited references for all papers back to 1900 help you discover the origins of today's scholarly research.

All author names and addresses captured for all papers, providing a complete picture of research collaborations and authorship.

Funding data from 2008-present enables you to understand the funding landscape, connecting grants to output.
(Newly enhanced)

Standardized Institution Names save you time compiling productivity statistics and exploring affiliations.
(Over 15.6K institutions)

Cover-to-cover indexing provides certainty that your discovery and analysis is free of any hidden gaps.

Daily updates equip you with information on the latest breakthroughs.

Using Web of Science

Research Landscape Analysis

Thought Leader Identification

Research Funding Analysis

Analyze the scientific literature to gain strategic research intelligence

- What's the newest chemical research coming out of academia, government, industry, not-for profit?
- How do corporate organizations collaborate with academia, government, and non-profits in this space?

- Who are the Key Opinion Leaders in my interest areas?
- What are the most highly-cited and hottest publications?

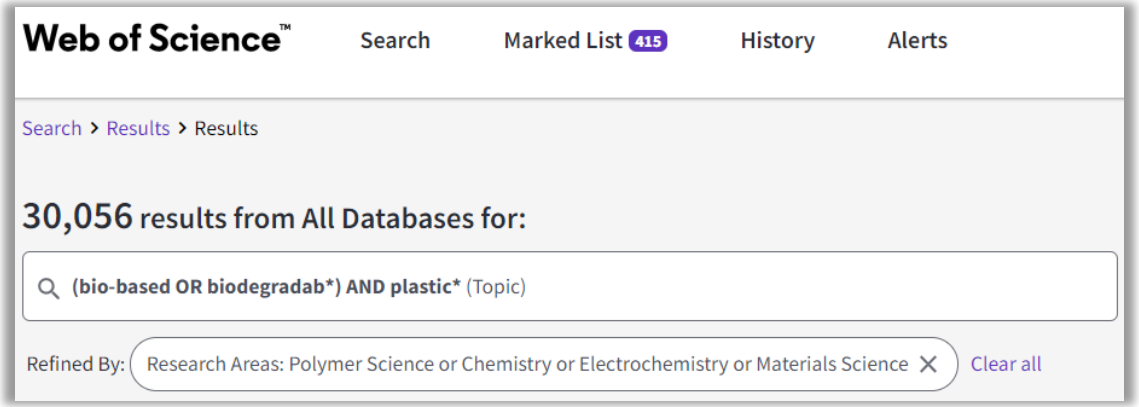
- Which funders sponsor research in our specialty areas?
- How do research corporations benefit from agency funding?
- Which institutions conduct research using competitive funding or benefit from our funding portfolio?

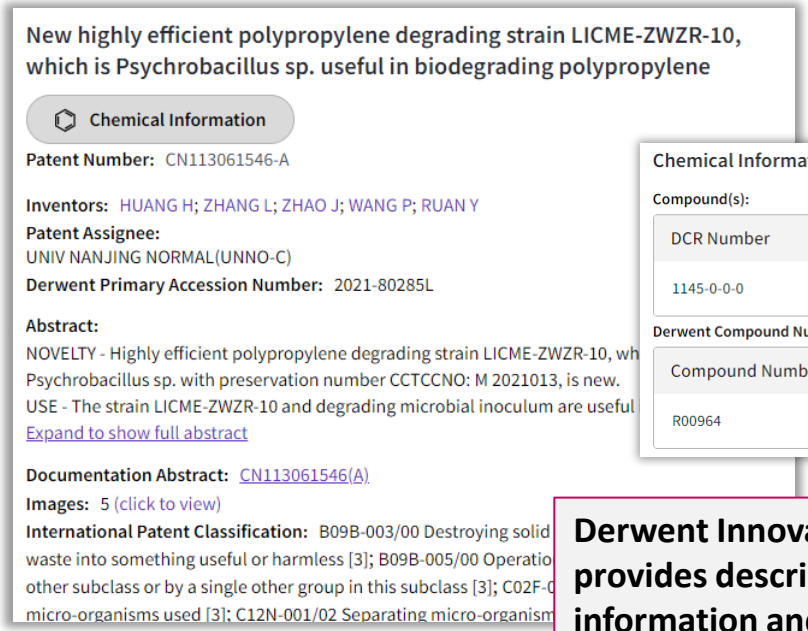
Clarivate™

Analyze the Research Landscape to drive discovery

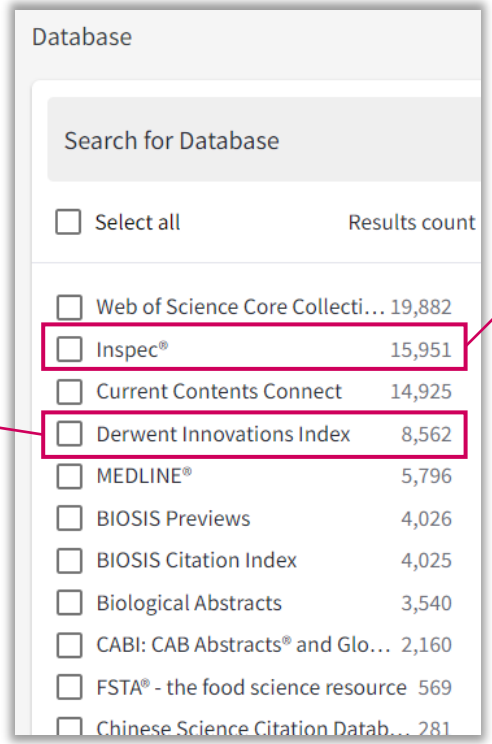
Expanding your search in the Web of Science - All Databases

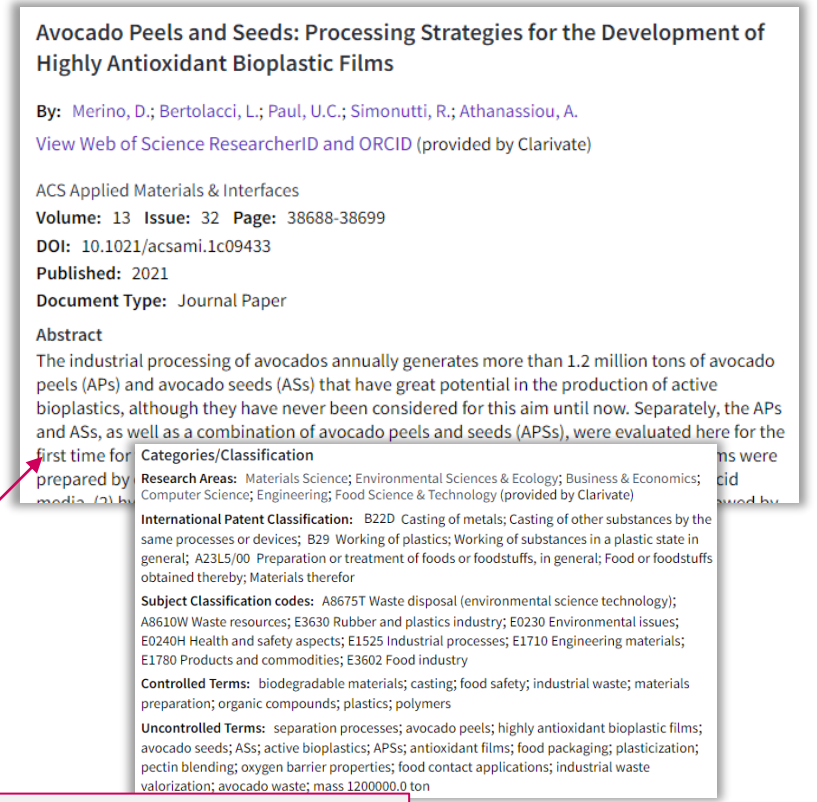
Example: (bio-based OR biodegrad*) AND plastic*





Derwent Innovations Index provides descriptive information and coding





Inspec provides classification codes and specialized indexing

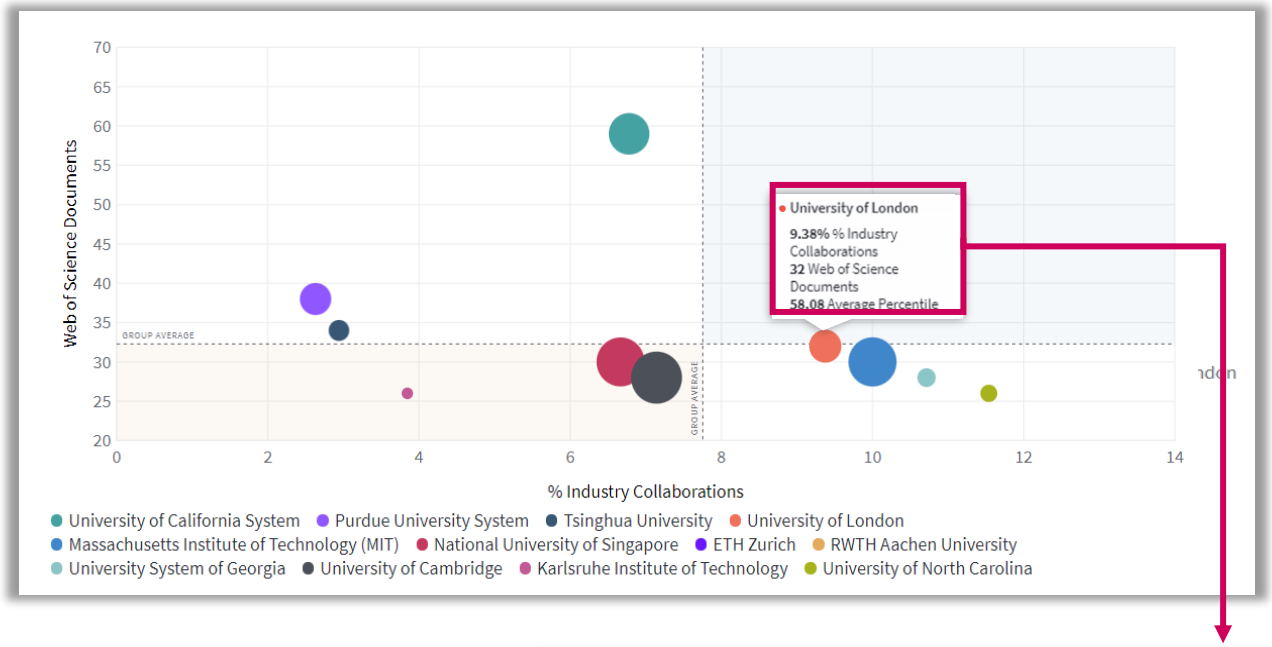
Research Landscape Analysis

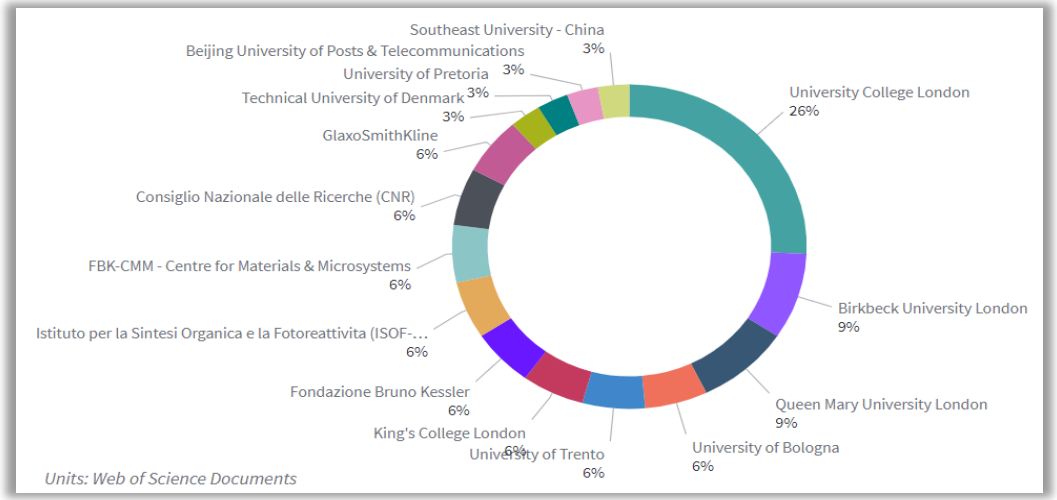
Example: Process automation in chemical sciences

Identify the top producing and most impactful organizations in a research area

How do corporate organizations collaborate with academia?

Top academic organizations in process automation with industry collaborators





Re-focus your analysis to identify which industry, government and non-profit organizations are collaborating on this research with University of London

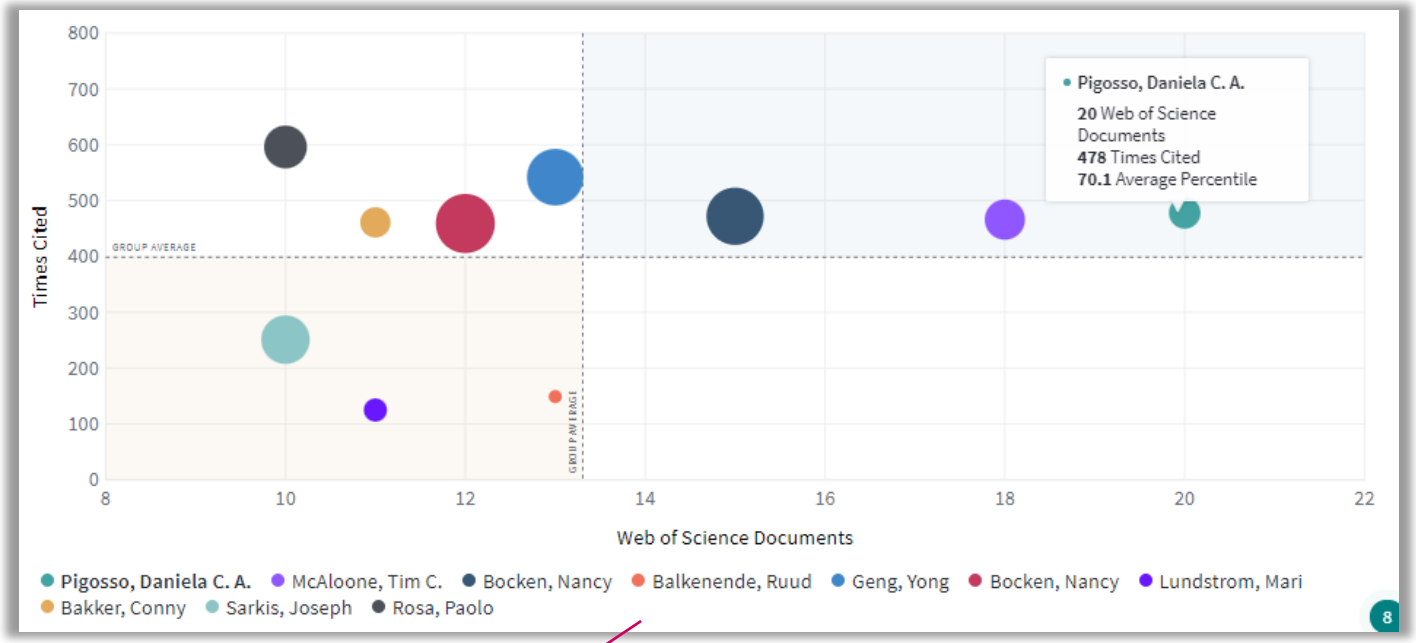
Identify research and thought leaders with impact and influence

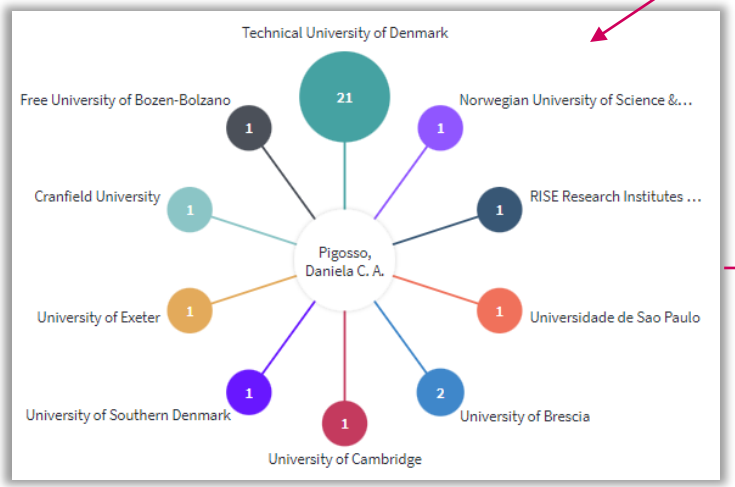
Thought Leader Identification

Example: Circular Economy

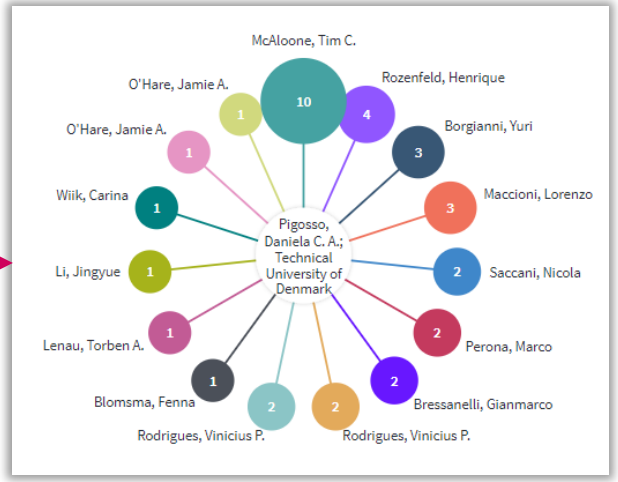
Identify the Key Opinion Leaders in your specialty areas for collaboration or potential hire

Publication leaders in Circular economy in chemical sciences





What organizations are collaborating with Daniela C. A. Pigosso on circular economy research?



With which researchers does Daniela C. A. Pigosso frequently collaborate?

Understand funding, collaboration, and competition on your road to success

Funding Analysis

Example: Polymer Sciences

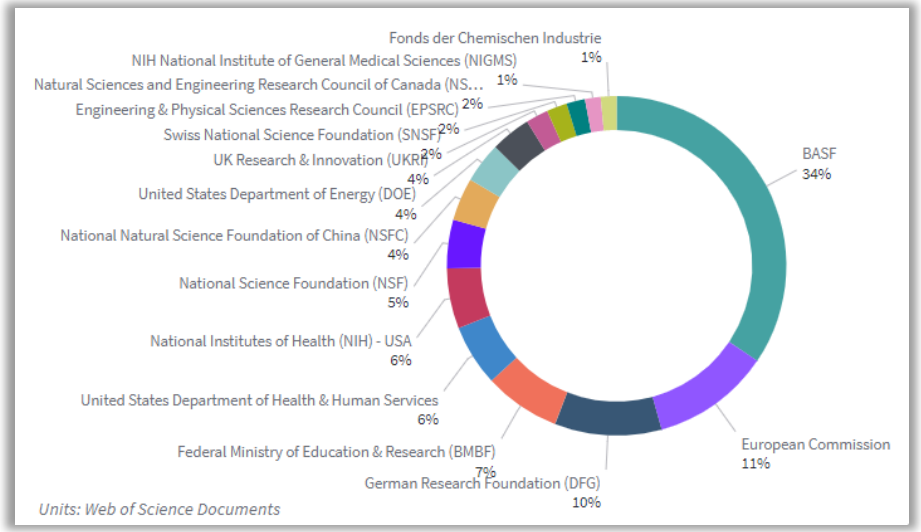
Which funders sponsor research in our specialty areas?

How do research corporations benefit from agency funding?

Which institutions conduct research using competitive funding or benefit from our funding portfolio?

Clarivate™

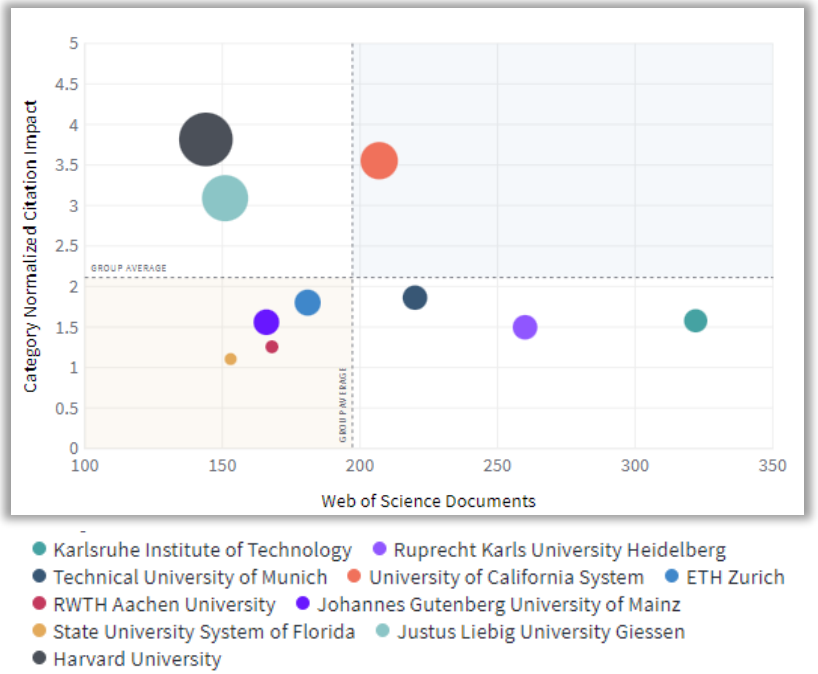
BASF's top funders (1980-2021)



Use the new document-level classification schema, Citation Topics, for InCites Benchmarking & Analytics to dive into granular research areas
Learn More: Citation Topics

Top academic institutions receiving funding from BASF

Isolate academic organizations benefiting from your funding and analyze how impactful this research is



Innovation and expertise chemical R&D

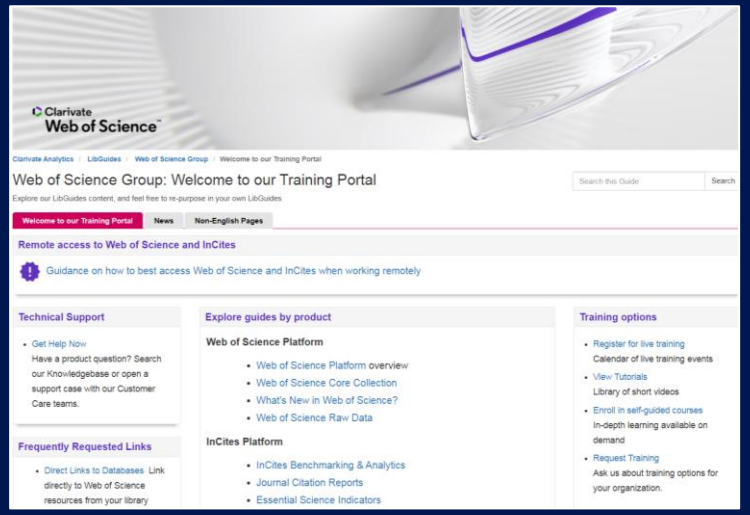
Recapping our session, we provided a taste of how Web of Science can help you…

- **Search the comprehensive collection** of the **influential global literature** in chemical sciences; **harvest the critical research** for supporting your future success
- **Add an additional level of analysis: refine/analyze collaborations, identify competitors, funding, thought leaders, and activities** impacting your products/technologies
- **Maximize your discovery efforts** with unique *Web of Science* ingredients: **true citation indexing** plus unrivaled **metadata capture and curation** connect silos of research across disciplines, languages, time periods, countries, sources.
- **Investigate emerging ideas** with **Hot and Highly Cited Papers;** navigate Citations/Cited References, *Related Records, "You Might Like…"*.
- **Work wisely, save time: Save search results and strategies**, **Create alerts; Export custom datasets** to InCites for benchmarking and comparisons of impact and output
- **Ensure research integrity:** sources are **evaluated for Quality and Impact** via unbiased, **publisher-independent** editorial selection processes; *Web of Science* focuses on including important and influential literature
- **Optimize "Research results"** by integrating the *Web of Science* **All Databases environment;** introduce unique content, specialized indexing and expertise from other research niches, geographic regions, and content partners *

* *Derwent Innovations Index, Inspec, Medline*

Support portal with training resources

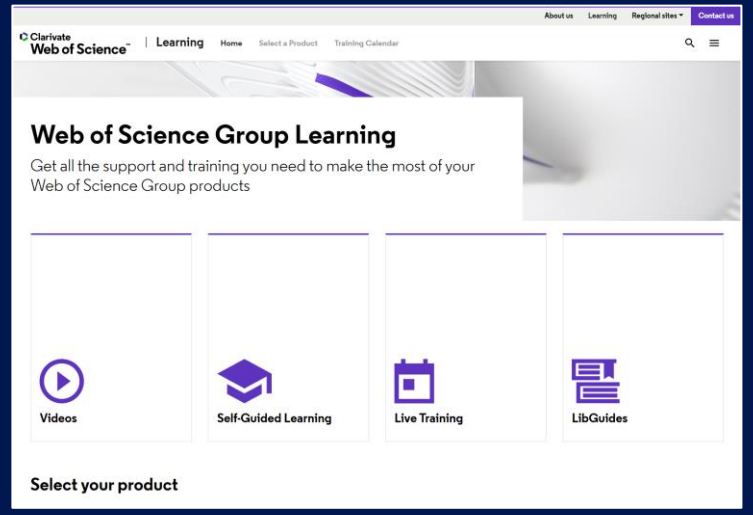
Copy our Guides



LibGuides

clarivate.libguides.com/home

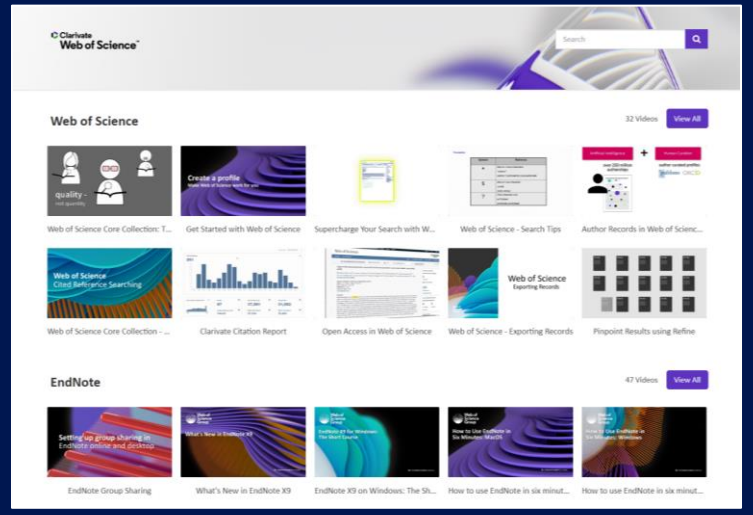
“How To” content available 24/7.



Web of Science Learning

Link here

Complete library of brief video tutorials on demand



Videos

https://videos.webofsciencegroup.com/

Questions?

Thank you for joining us today!

Dr. Klementyna Karlińska-Batres
Solution Consultants
Klementyna.Karlinska-Batres@Clarivate.com

Editorial and Research Integrity

The rapidly changing scholarly publishing landscape makes it challenging to know what content is trustworthy, and where to focus

3 million papers per year[1]

42,500 scholarly journals[1]

16,210 open access journals[2]

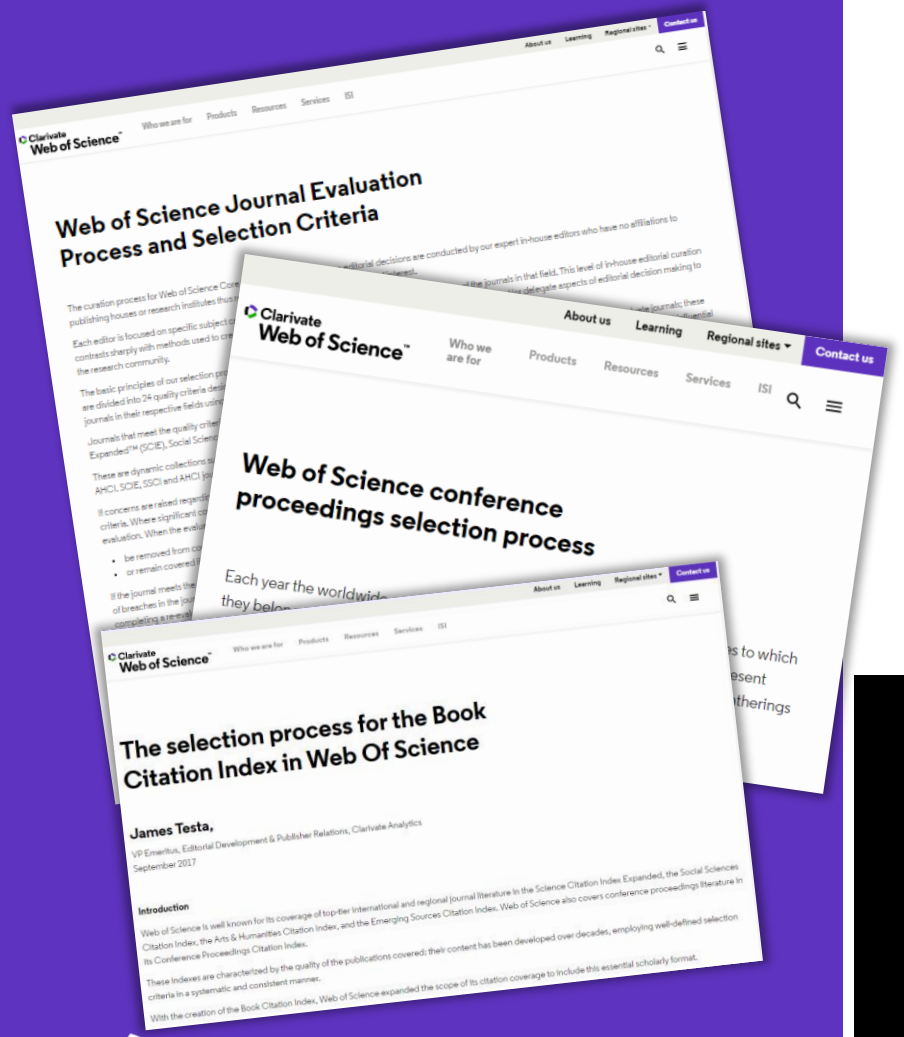
1,076 open access mandates[3]

[1]2018 STM Report
[2]Listed in DOAJ April 16, 2021
[3]Listed in ROARMAP April 16, 2021

Clarivate™

Selection

EDITORS AND CRITERIA



14 full-time Clarivate employees

Our editors do not publish

Our editors do not edit journals

12 Languages

Bi-weekly meetings

No conflict of interest

Clear, public selection criteria

Ongoing verification

Clarivate™

Editorial integrity

Research with confidence using a **publisher-neutral** citation index

Journals are curated by experts with:

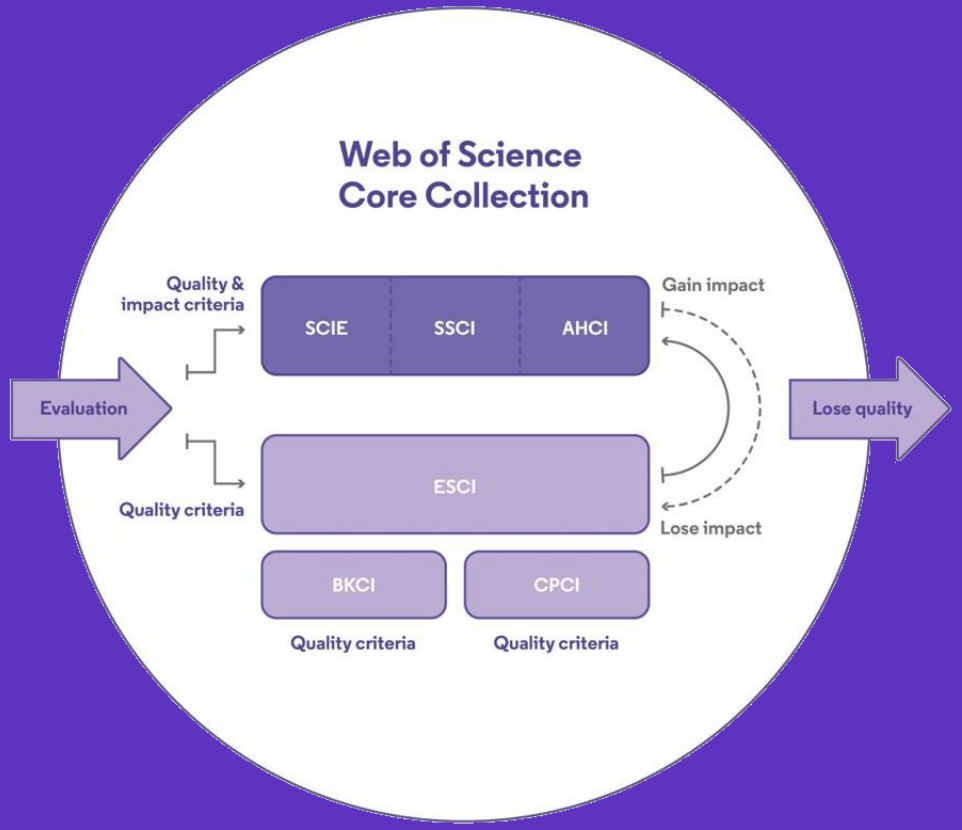
150 years of experience

Fluency in **12** languages

0 affiliations with any journals or publishers

Using:

28 criteria



- ✓ Find what you need more quickly
- ✓ Make high stakes decisions about research funding, resource allocation, and people with data that is independent of bias

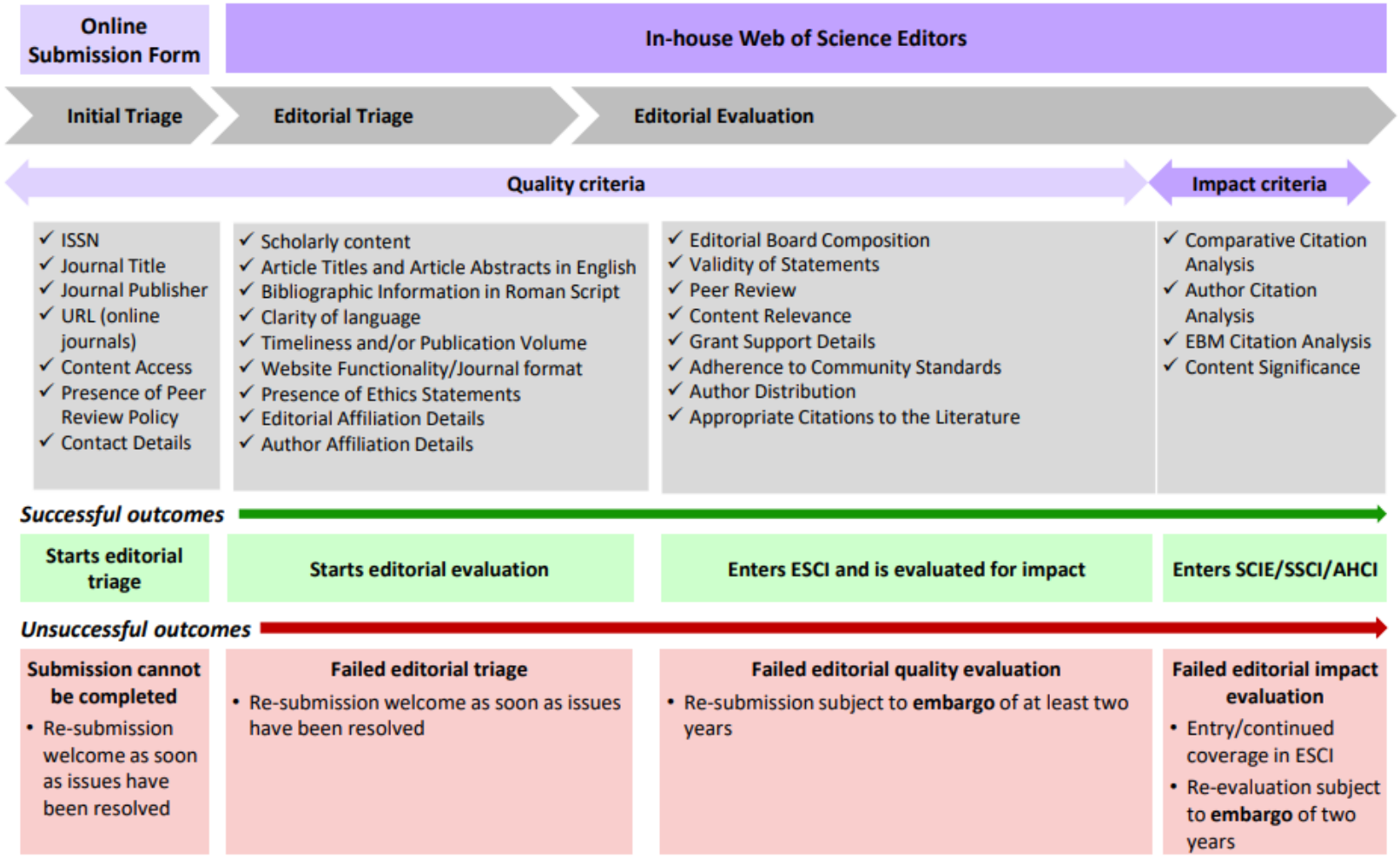
More information

Web of Science Core Collection

Editorial Integrity

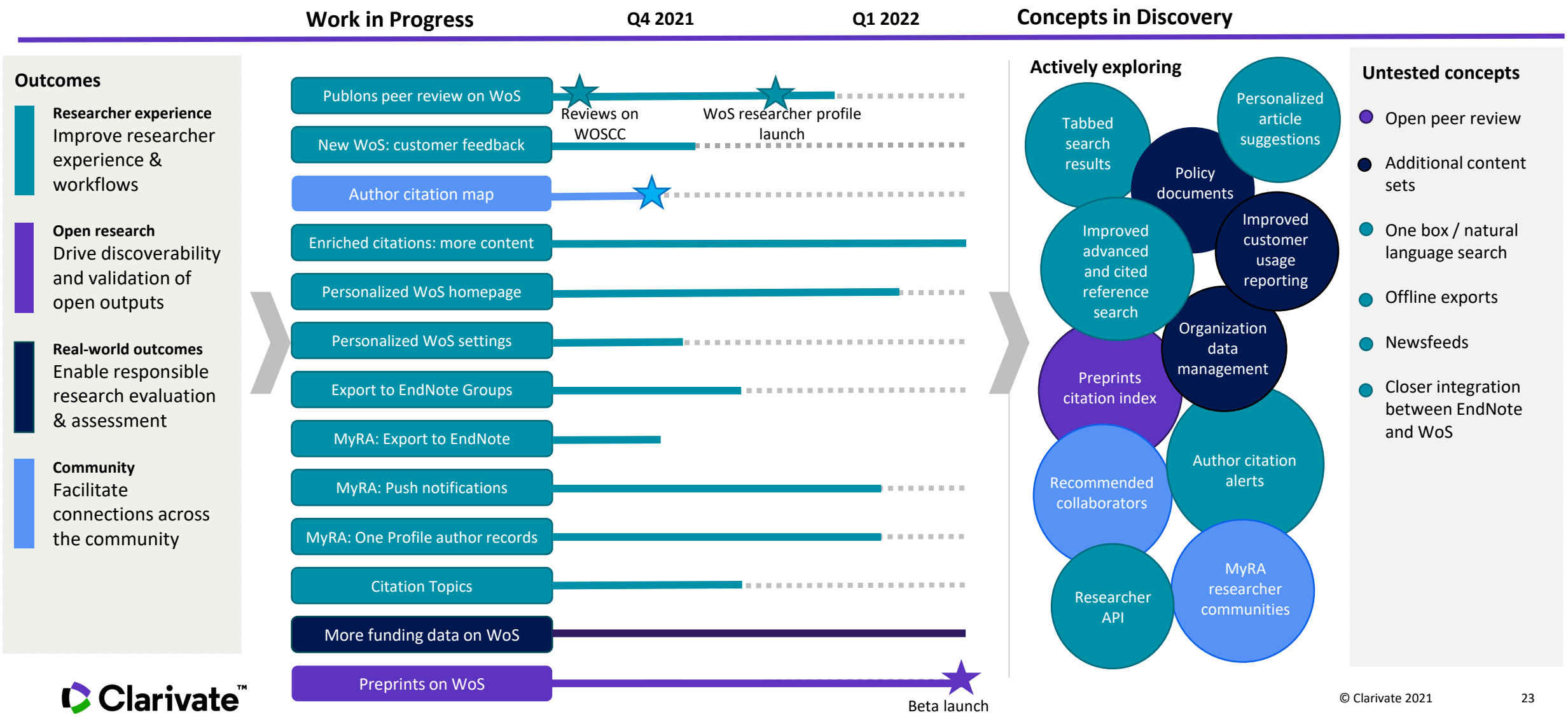
28

Journal selection criteria



More information

Web of Science and My Research Assistant 2021 product roadmap



InCites & JCR 2021 product roadmap

Work in Progress | **Q3 2021** | **Q4 2021** | **Concepts in Discovery**

Outcomes

Researcher experience
Improve researcher experience & workflows

Open research
Drive discoverability and validation of open outputs

Real-world outcomes
Enable responsible research evaluation & assessment

Community
Facilitate connections across the community

- Dynamic data scrolling
- Display parent-child relationships
- Grant number search
- Analysis with grant metadata
- One account & log in for all products
- Author position in all contexts
- Interactive trend charts
- Collections builder
- Compare Journals
- Browse Categories Module
- Browse Publishers & Countries

Actively exploring

- Grants Explorer Module
- InCites Rebranding
- Reports on SDGs
- Sharing Datasets
- Research Fronts Explorer
- Compare datasets
- JCR integration with Manuscript Matcher
- Build your own collection

Untested concepts

- Smart Reports
- Researcher self-citations
- Patent citations
- MyOrg link with Author Records

InCites Benchmarking and Analytics data construct

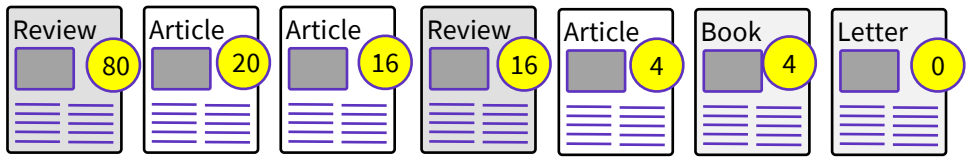
- All Authors/Addresses
- All Citations
- Cover-to-Cover Indexing
- International
- Multidisciplinary

WEB OF SCIENCE CORE COLLECTION

Science Citation Index-Expanded
Social Sciences Citation Index
Arts & Humanities Citation Index
Conference Proceedings Citation Index
Book Citation Index
Emerging Sources Citation Index

INCITES BENCHMARKING & ANALYTICS

- 71 Million publications
- 21,895 Journals
- 226K Conference Proceedings
- 126K Scholarly Books
- 223 Countries / Regions



- 15,680+ Unified Organizations
- 1,268 Unified Funders
- Coverage: 1980–Present
- 18,600+ Unified Publishers
- 21 Research Area Classifications

Clarivate™

InCites dataset updated July 30, 2021. Includes Web of Science content indexed through June 30, 2021

InCites Benchmarking and Analytics: A diversity of Indicators

Productivity and Impact

- Web of Science Documents
- Times Cited
- Citation Impact
- h-Index
- % Docs Cited
- Funding Agency
- % Docs by JIF Quartile
- Author Position (1st, Last, Corresp.)

Normalization

- Percentile and Average percentile
- Category Normalized Citation Impact
- Impact Relative to World
- Journal Normalized Citation Impact
- Impact Profile Visual

Top Performance

- Docs in Top 1% Top 10% (and now Top X%)
- Highly Cited Papers
- Hot Papers
- ESI Most Cited

Collaborations

- Counts and % Industry Collaborations
- Counts and % International OR Domestic Collaborations
- Country/Region/ Province/State
- Affiliation

Open Access

- Filters, Counts, % on any status
- Non-OA, Green only, etc. Filters for all statuses

…also many more Entity Attributes plus "Clickable Counts!"

Journal Intelligence

- Journal Impact Factor
- Journal Quartile
- Immediacy Index
- # Docs by Journal
- Eigenfactor
- Publishing Country
- 5-Year Journal Impact Factor
- Article Influence
- Cited Half Life

Learn more about indicators

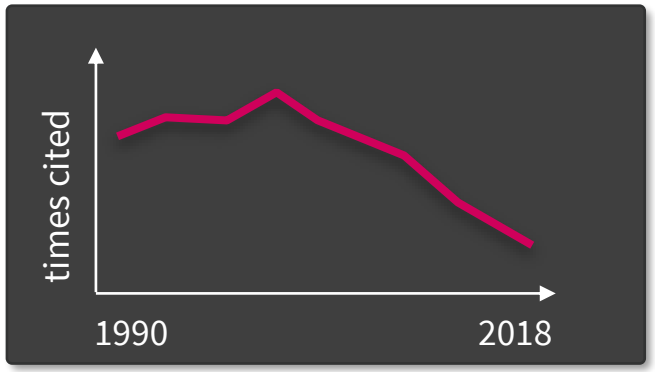
Clarivate™

InCites Benchmarking & Analytics – Numbers in Context

Category Normalization

Citation patterns vary significantly by discipline

Values > 1 indicate better than average performance.



Time Normalization

Citations are dynamic, increasing over time at different rates depending on article age and category

"Citation maturity rates" differ between fields

Document Type Normalization

Citations differ by document type within a journal

Reviews are generally more heavily cited than articles; editorials, book reviews etc. may go uncited

Normalization puts data into context – is an entity performing better or worse than expected for a journal or category?

Clarivate™