Clarivate
Web of Science™

O imagine de ansamblu pentru normalizarea datelor

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Noiembrie 2020

At the heart of our solutions: the Web of Science Core Collection

- Science Citation Index Expanded
- Social Sciences Citation Index
- Arts & Humanities Citation Index

- Emerging Sources Citation Index

- Conference Proceedings Citation Index
- Book Citation Index

21,000+ journals indexed cover-to-cover
- Multidisciplinary
- International
- Influential

Powerful citation network with complete cited reference search, cited reference linking and navigation
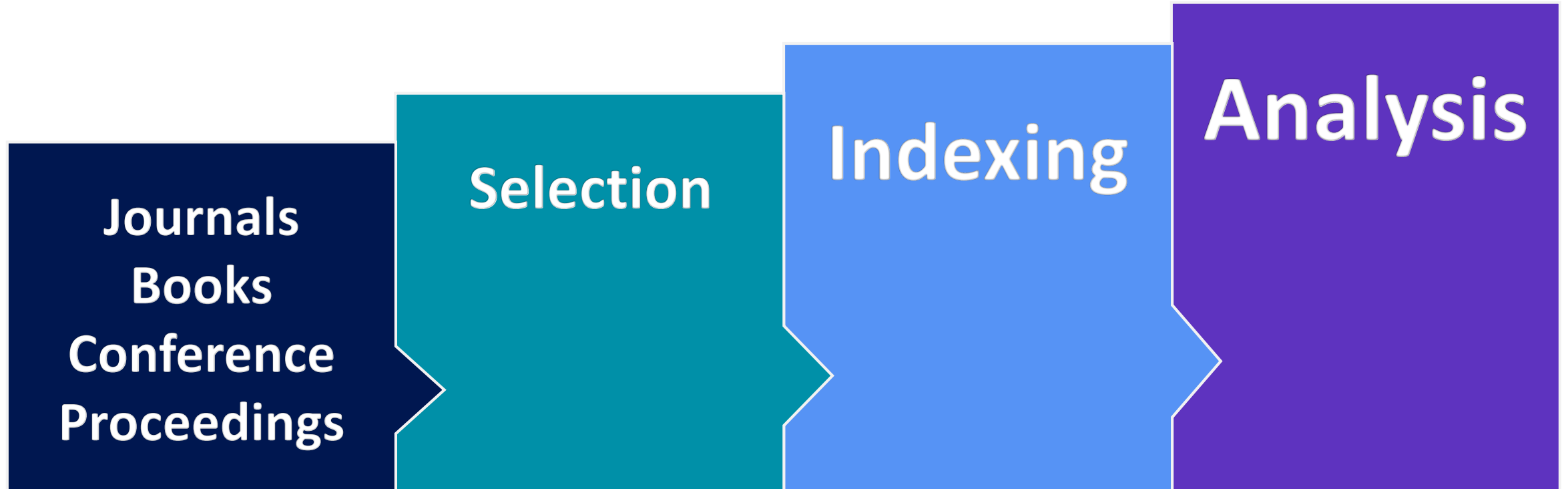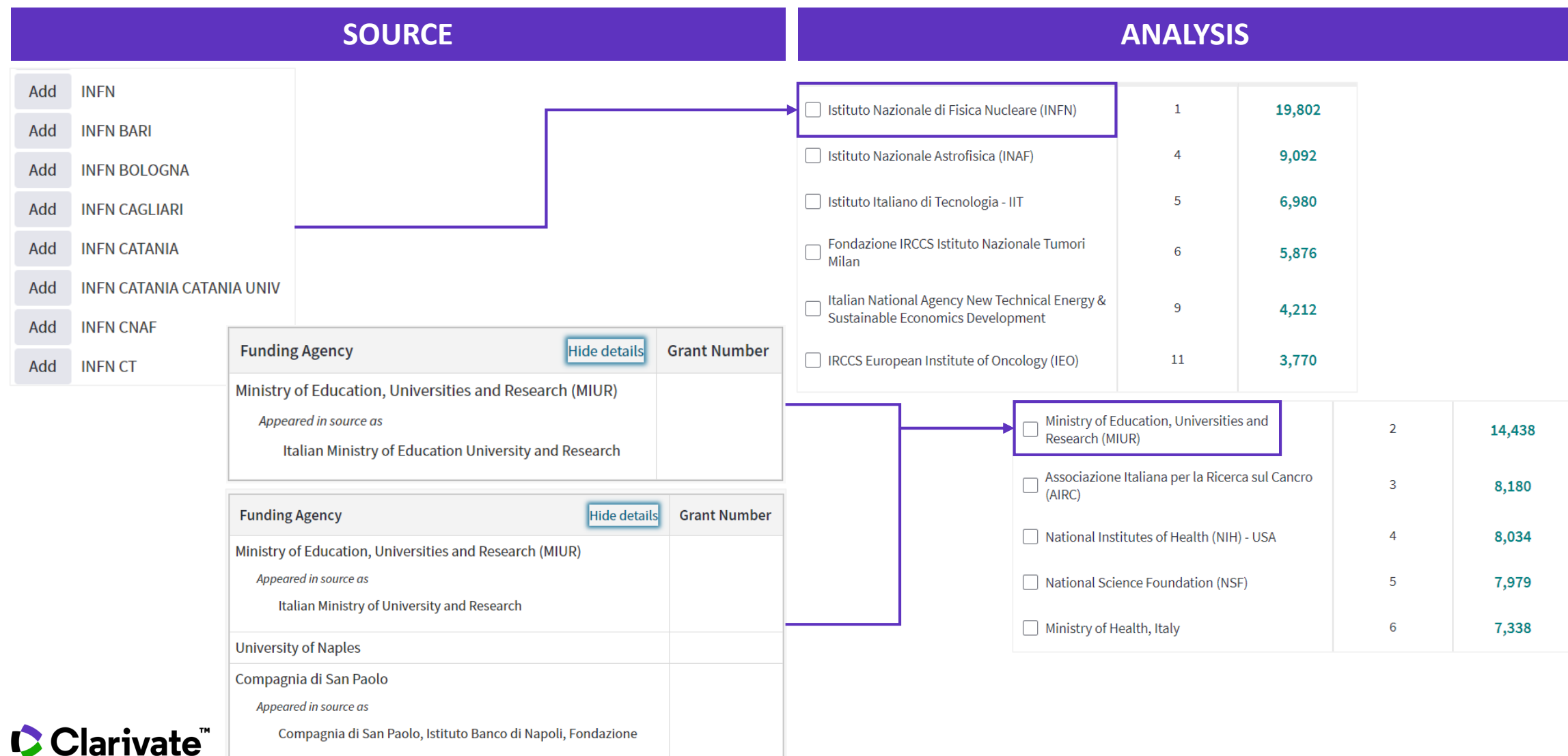
Unbiased journal selection and curation
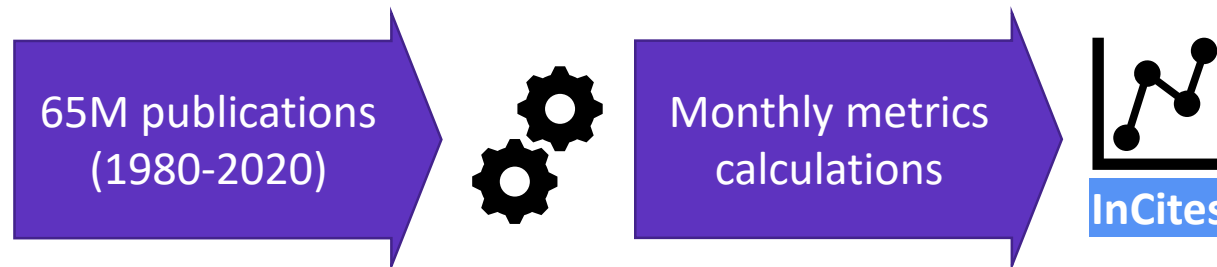
Source data for Journal Impact Factor

Data can be analyzed through different angles

Journals Books Conference Proceedings

Selection

Indexing

Analysis

Continuous disambiguation effort

From Web of Science Core Collection to InCites

REGIONAL AFFILIATIONS

ORGANIZATION TYPE

COLLABORATION NETWORK

ORGANIZATION AFFILIATIONS

ARTICLE IDENTIFIERS

AUTHOR IDENTIFIERS

NUMBER OF DOCUMENTS

WOS USAGE COUNT

CATEGORIES / CLASSIFICATION

DOCUMENT TYPE

FUNDING AGENCY

KEYWORDS PLUS

All article authors

Document

PUBLICATION NAME

PUBLICATION DATE

VOLUME, ISSUE & PAGES

TIMES CITED

CITED REFERENCES

OPEN ACCESS

PUBLISHER

65M publications
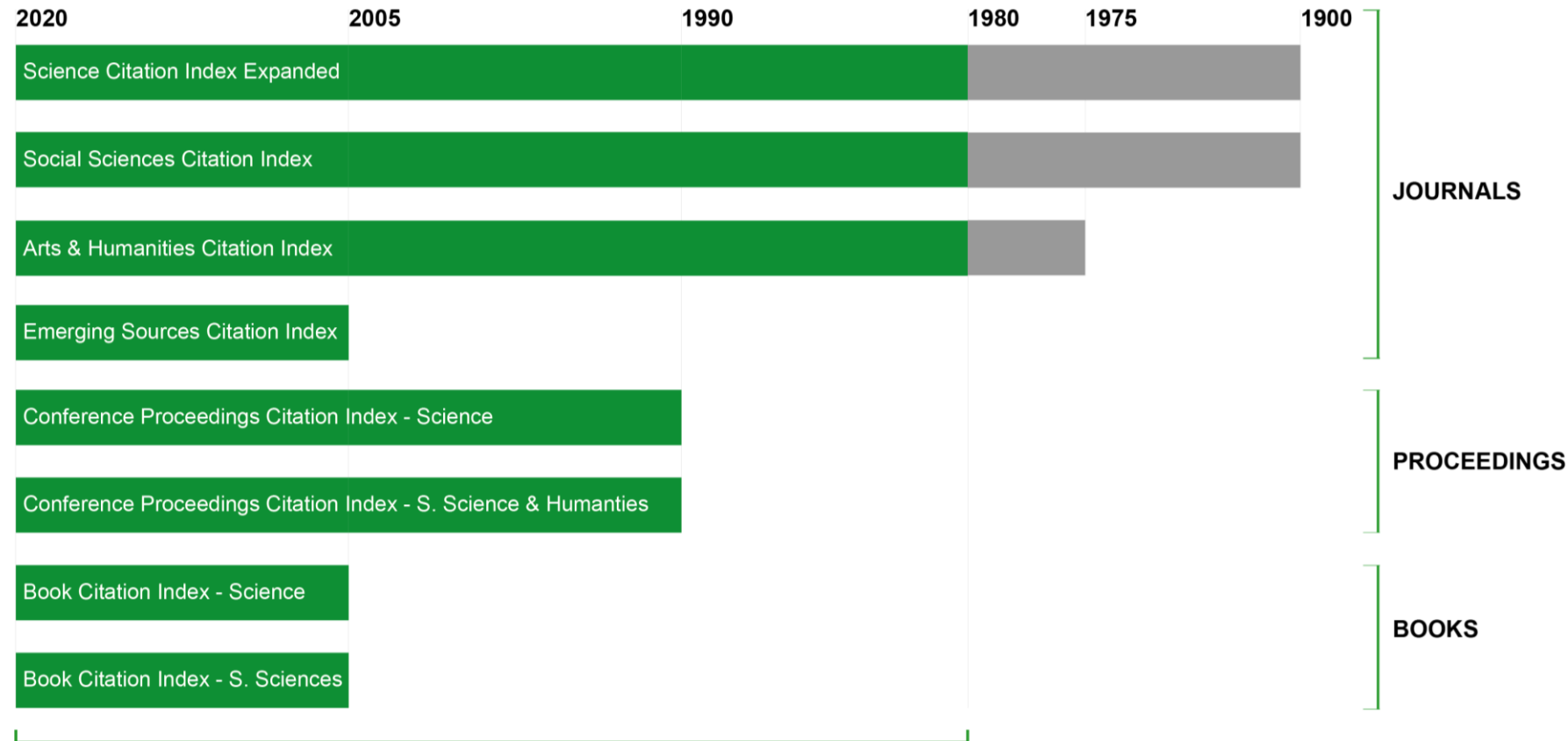(1980-2020)

Monthly metrics
calculations

InCites

Import of custom group of publications
- Export a thematic search from Web of Science
- Import a list of publications for a research team (from WoS or Excel)

From Web of Science Core Collection to InCites

WEB OF SCIENCE CORE COLLECTION

2020	2005	1990	1980	1975	1900	
Science Citation Index Expanded						JOURNALS
Social Sciences Citation Index						
Arts & Humanities Citation Index						
Emerging Sources Citation Index						
Conference Proceedings Citation Index - Science						PROCEEDINGS
Conference Proceedings Citation Index - S. Science & Humanties						
Book Citation Index - Science						BOOKS
Book Citation Index - S. Sciences						

Web of Science Core Collection content analysed in Incites
(data and metrics updated every month)

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Why use InCites Benchmarking & Analytics?

Analyze the global research panorama

Compare global peers and exploring the reasons of their performance

Evaluate existing collaborations and prospecting possible future ones

Identify experts globally

Follow emerging topics and trends in the scientific community

Easily adapt reports to meet each individual need

Filters

Scope of analysis

Filters Indicators Baselines

Narrow the results in the table.

Dataset

InCites Dataset ▼
InCites Dataset
electronic cigarette
Telethon
FISM
BELSPO
jet contributors
Cergy
Renewable Energy (2)
Renewable Energy
My Organization Dataset

Publication Date

Last 5 complete years (2015-2019) ▼
Last 5 complete years (2015-2019)
All years (1980-2020)
Year to date (2020)
Custom year range

Organization Name 〉
Organization Type 〉
Location 〉
Association 〉

Characteristics

Collaborations with People 〉
Collaborations with Organizations 〉
Collaborations with Locations 〉

Collaborations

Document Type 〉

Open Access 〉

Open Access

Web of Science Documents 〉
Times Cited 〉
Authors per Document 〉
JIF Quartile 〉

Thresholds

Author Position (2008-2020) 〉

Author Position

Rank 〉

Research Area 〉
Journal 〉
Publisher 〉
Funding Agency 〉

Types of output

Indicators

Productivity	Impact	Open Access	Collaboration
Web of Science Documents ● ›	Times Cited ● ›	All Open Access Documents ›	International Collaborations ›
% Documents in Top 1% ›	% Documents Cited ● ›	DOAJ Gold Documents ›	% International Collaborations ›
% Documents in Top 10% ›	Category Normalized Citation Im... ● ›	Other Gold Documents ›	% Industry Collaborations ›
% Highly Cited Papers ›	Citation Impact ›	Green Accepted Documents ›	Industry Collaborations ›
Highly Cited Papers ›	Average Percentile ›	Green Published Documents ›	
% Hot Papers ›	Journal Normalized Citation Impact ›	Bronze Documents ›	**Author Position**
Documents in JIF Journals ›	Impact Relative to World ›	% All Open Access Documents ›	% First Author (2008-2020) ›
Documents in Q1 Journals ›	H-Index ›	% DOAJ Gold Documents ›	% Last Author (2008-2020) ›
Documents in Q2 Journals ›	Documents Cited ›	% Other Gold Documents ›	% Corresponding Author (2008-2020) ›
Documents in Q3 Journals ›	1 Year Citing All Prior Years Cumulat... ›	% Green Accepted Documents ›	First Author (2008-2020) ›
Documents in Q4 Journals ›		% Green Published Documents ›	Last Author (2008-2020) ›
% Documents in Q1 Journals ›		% Bronze Documents ›	Corresponding Author (2008-2020) ›
% Documents in Q2 Journals ›			
% Documents in Q3 Journals ›			**Other**
% Documents in Q4 Journals ›			Region Name ● ›
Documents in Top 1% ›			Rank ● ›
Documents in Top 10% ›			Location Type ›
Hot Papers ›			

Data normalization

Effects of microplastics on trophic parameters, abundance and metabolic activities of seawater and fish gut bacteria in mesocosm conditions

By: Caruso, G (Caruso, Gabriella)[1]; Peda, C (Peda, Cristina)[2]; Cappello, S (Cappello, Simone)[1]; Leonardi, M (Leonardi, Marcella)[1]; La Ferla, R (La Ferla, Rosabruna)[1]; Lo Giudice, A (Lo Giudice, Angelina)[1,3]; Maricchiolo, G (Maricchiolo, Giulia)[1]; Rizzo, C (Rizzo, Carmen)[3]; Maimone, G (Maimone, Giovanna)[1]; Rappazzo, AC (Rappazzo, Alessandro Ciro)[1]; Genovese, L (Genovese, Lucrezia)[1]; Romeo, T (Romeo, Teresa)[2] ...Less

View Web of Science ResearcherID and ORCID

Citation Network

In Web of Science Core Collection

6

Times Cited

🔔 Create Citation Alert

Times Cited = 6

- ? Year of publication
- ? Category
- ? Type of document

Citation Network ℹ️

H-index

23

Sum of Times Cited

1,654

Citing Articles

1,189

📊 View full Citation Report

H-index = 23

- ? Research Area
- ? Long career
- ? Highly Cited Papers

ENVIRONMENTAL MANAGEMENT

ISSN: 0364-152X
eISSN: 1432-1009
SPRINGER
ONE NEW YORK PLAZA, SUITE 4600 , NEW YORK, NY 10004, UNITED STATES
USA

Go to Journal Table of Contents   Go to Ulrich's   Printable Version

Current Year   2018   2017   All Years

The data in the two graphs below and in the Journal Impact Factor calculation use two years. They detail the components of the Journal Impact Factor. Use years for this journal.

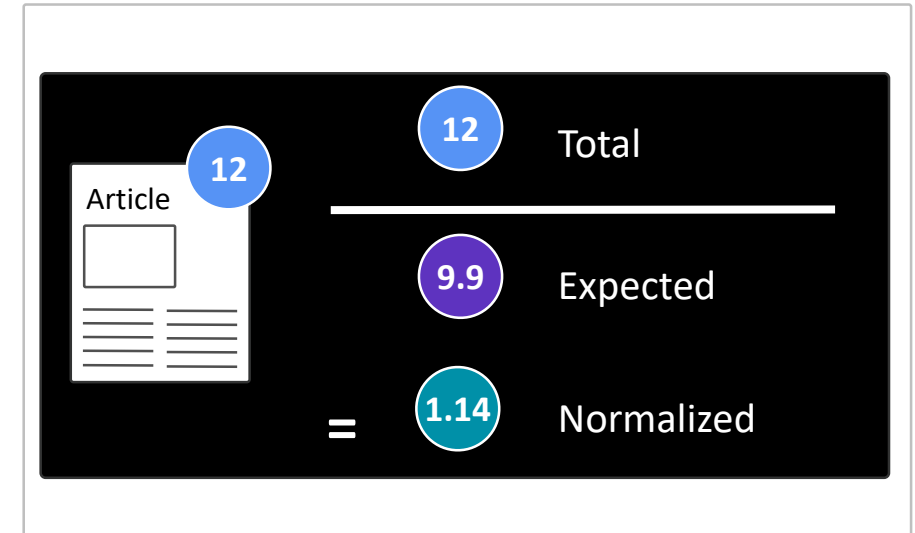**Journal Impact Factor Trend 2019**   Printable Version ⤢

2.561
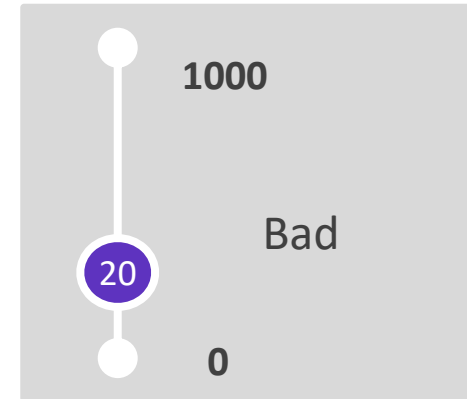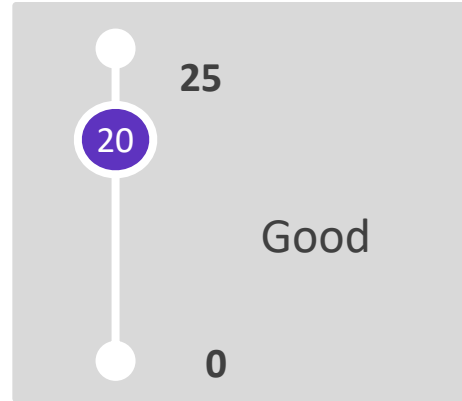2019 Journal Impact Factor

JIF= 2,561

- ? Research Area
- ? Year

What are bibliometric indicators?

EXPECTED NUMBER OF CITATIONS FOR ARTICLE SET*

AVERAGE CALCULATED FROM SUM OF ALL DOCUMENTS IN THE SELECTED GROUP

89 Total Cites in group

89 Total

9 Documents in group

= **9.9** Expected cites

12 Total

9.9 Expected
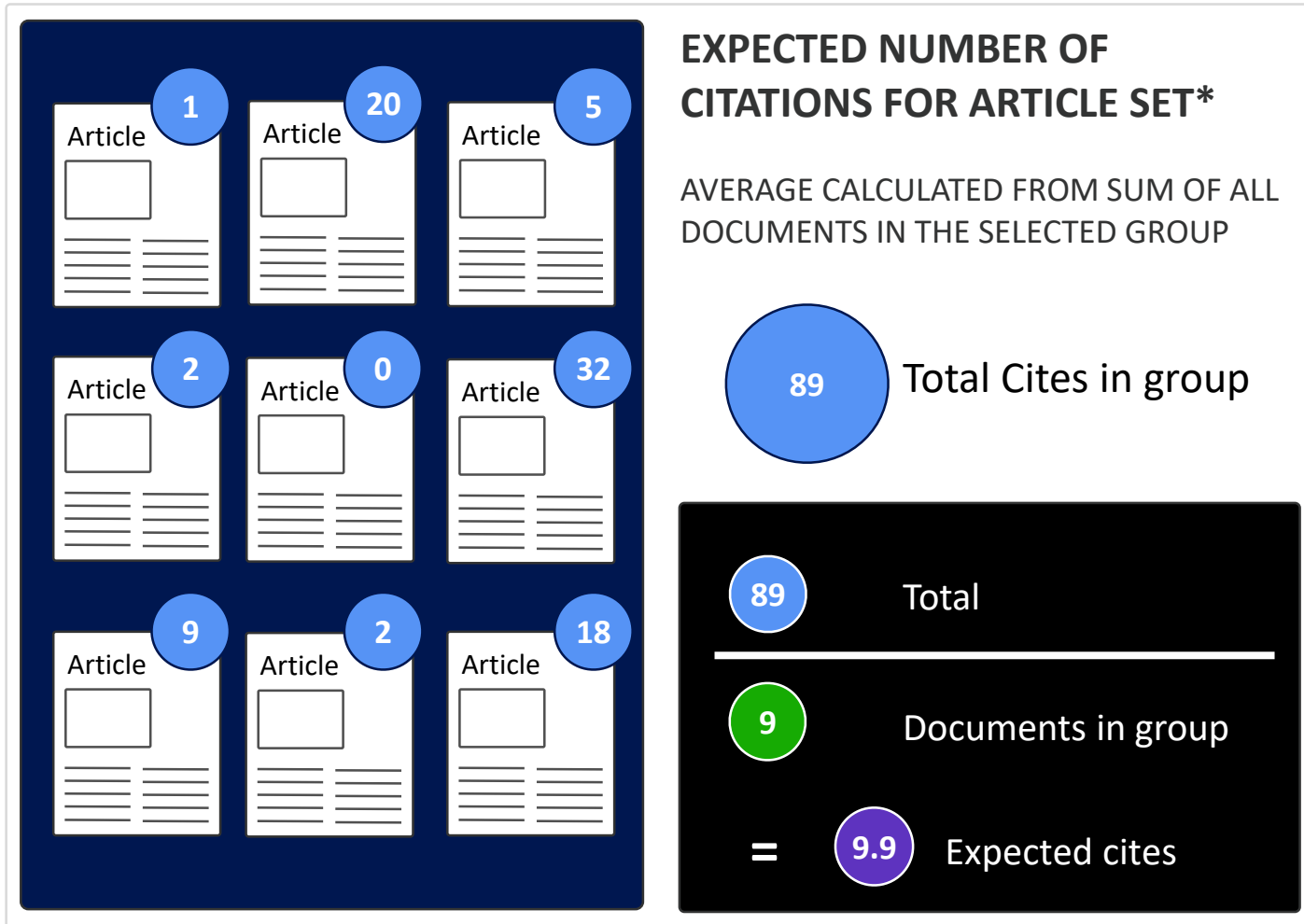
= **1.14** Normalized

Normalization

20

good or bad?

25	
20	Good
0	

1000	
	Bad
20	
0	

CONTEXT IS EVERYTHING

INDICTORS MUST BE PUT INTO CONTEXT TO BE USEFUL: CATEGORY, JOURNAL, PEERS, GLOBAL

- **NORMALIZED INDICATORS** — for relative performance comparisons
- **PERCENTILES** — where does it fall in the range of values?
- **BENCHMARKS** — how does it compare with a group or globally?

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Responsible use of Bibliometric Indicators

Basket of Indicators → no magic recipe fits all

| PRODUCTIVITY AND IMPACT	NORMALIZATION	TOP PERFORMANCE	SCIENTIFIC COLLABORATIONS	JOURNAL RANKING INDICATORS
Web of Science Documents	Category Normalized Citation Impact	% Documents in Top 1%	% Industry Collaborations	Journal Impact Factor
Times Cited	Category Expected Citations	% Documents in Top 10%	% International Collaborations	Impact Factor w/o Self Cites
Citation Impact	Journal Normalized Citation Impact	Average percentile	Collaborations with Organizations	5 year Impact Factor
% of documents cited	Journal Expected Citations	Highly Cited Papers	Collaborations with Countries	Immediacy Index
H Index		Hot Papers		Eigenfactor
			Collaborations with Authors	

Normalization
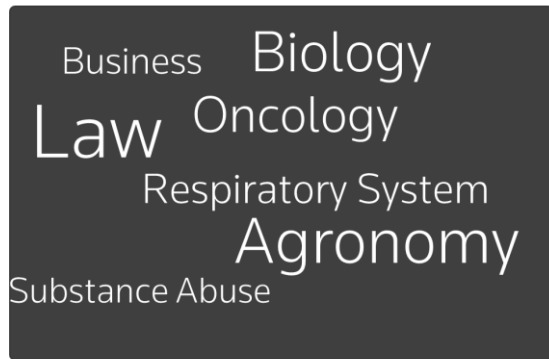
CATEGORY

citation patterns differ by subject category

e.g. nanotechnology vs law
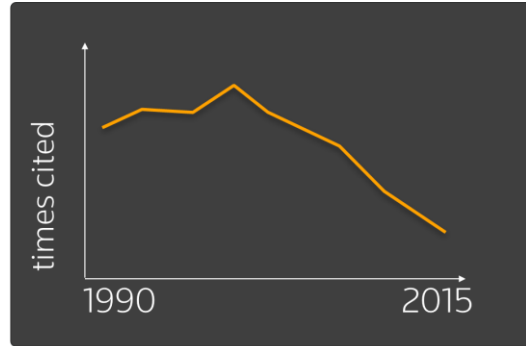
TIME

citations accumulate over time and at different rates depending on article age and category

e.g. new articles may accumulate citations quickly, older ones more slowly or not at all

DOCUMENT TYPE

citations differ by document type within a journal

e.g. reviews are generally more heavily cited than articles, and editorials, book reviews etc. may go uncited

NORMALIZATION PUTS DATA INTO CONTEXT
IS AN ENTITY DOING BETTER OR WORSE THAN WOULD BE EXPECTED IN A CATEGORY?

Normalization at Paper Level

Category

How many citations should I expect from my papers?
How do my papers perform in my field?
How do other researchers perform in my field?

Average of citations received by an *Article* published in *2018* in the *Physics, Particles & Fields* category.

Indicator of performance in the *Physics, Particles & Fields* category for this *Article* published in 2018:
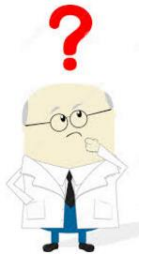If>1, performs higher than average
If<1, performs lower than average.

Article Title	Authors	Source	Research Area	Document Type	Volume	Issue	Pages	Publication Date	Times Cited	Journal Expected Citations	Category Expected Citations	Journal Normalized Citation Impact	Category Normalized Citation Impact
pi(0) and eta meson production in proton-proton collisions at root s=8 TeV	Acharya, S.; Adam, J.; Adamova, D.; Adolfsson, J.; Aggarwal, M. M.	EUROPEAN PHYSICAL JOURNAL C	PHYSICS, PARTICLES & FIELDS	Article	78	3	n/a	2018	10	4.42	4.1	2.26	2.44

Times Cited/Category Expected Citations = 10/4.1 = 2.44

Normalization at Paper Level

Journal

How do my papers perform in the journals I publish?
How is my research perceived by the journals I publish in?
Is there a journal article level metric to help me go beyond the Journal Impact Factor ?

Average of citations received by an Article published in 2018 in the *European Physical Journal C* journal.

Indicator of performance of this Article in the *European Physical Journal C* journal:
If>1, performs higher than average
If<1, performs lower than average.

Article Title	Authors	Source	Research Area	Document Type	Volume	Issue	Pages	Publication Date	Times Cited	Journal Expected Citations	Category Expected Citations	Journal Normalized Citation Impact	Category Normalized Citation Impact
pi(0) and eta meson production in proton-proton collisions at root s=8 TeV	Acharya, S.; Adam, J.; Adamova, D.; Adolfsson, J.; Aggarwal, M. M.	EUROPEAN PHYSICAL JOURNAL C	PHYSICS, PARTICLES & FIELDS	Article	78	3	n/a	2018	10	4.42	4.1	2.26	2.44

Times Cited/Journal Expected Citations = 10/4.42 = 2.26

Normalization at Paper Level

Percentiles: Documents in Top 1% & 10%
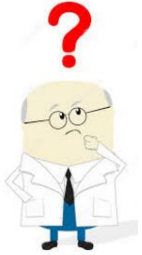
Knowing I am better than average is not enough.
Where do my research papers stand in competition to other papers?
Do I have highly cited papers amongst my publications?

- Percentile is a value above which a certain proportion of the observations fall.
- Percentiles allow the classification of publications into meaningful citation impact classes.
- The smaller the percentile number, the higher the number of citations (in a scale of 0-100).

Article Title	Authors	Source	Research Area	Document Type	Volume	Issue	Pages	Publication Date	Times Cited	Journal Expected Citations	Category Expected Citations	Percentile in Subject Area	Journal Impact Factor
pi(0) and eta meson production in proton-proton collisions at root s=8 TeV	Acharya, S.; Adam, J.; Adamova, D.; Adolfsson, J.; Aggarwal, M. M.	EUROPEAN PHYSICAL JOURNAL C	PHYSICS, PARTICLES & FIELDS	Article	78	3	n/a	2018	10	4.42	4.1	11.38	4.84

Data normalization in practice
research evaluation

What can I answer using bibliometrics?

Attract highly respected scholars

- Who are the most impactful researchers?
- Who are the rising stars?
- Who are the established researchers?

Increase visibility and reputation

- Which journals make you more visible?
- Which papers from your institution are part of research fronts?
- Is publishing in Open Access being of value for you? Can you optimise it?
- What is the impact of international collaborations in your research area?
- Who is publishing the trends in your research area?

Obtain funding in a ever more competitive landscape

- Analysing funding agencies
- What is the contribution of main funders in percentage of publications in your region?
- What is the contribution of main funders in percentage of publications of your institution?

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Research Evaluation

Person Name	...	Rank	Affiliation	...	% Documents Cited	Web of Science Documents	Times Cited
Razzano, M.		1	Istituto Nazionale di Fisica Nucleare (INFN)		95.45%	154	25,740
Logroscino, Giancarlo		2	Universita degli Studi di Bari Aldo Moro		87.28%	173	25,461
Remuzzi, Giuseppe		3	IRCCS Mario Negri				
Aielli, G.		4	University of Rome Tor Vergata				
Monasta, Lorenzo		5	IRCCS Burlo Garofolo				
Di Fiore, L.		6	Istituto Nazionale di Fisica Nucleare (INFN)				
Garufi, F.		7	Istituto Nazionale di Fisica Nucleare				

Organization Name	...	Rank	Web of Science Documents	...	Times Cited	% Documents Cited	CNCI
Consiglio Nazionale delle Ricerche (CNR)		1	54,739		5...		
Sapienza University Rome		2	45,040		4...		
University of Padua		3	37,707		4...		
University of Bologna		4	35,530		3...		
University of Milan		5	35,520		3...		
University of Naples Federico II		6	30,604		3...		
University of Turin		7	25,478		2...		
Istituto Nazionale di Fisica Nucleare (INFN)		8	19,802		259,364	78.01%	1.54
University of Pisa		9	23,142		256,715	72.58%	1.56
University of Florence		10	26,629		251,056	69.85%	1.48
University of Genoa		11	21,070		225,079	69.04%	1.51
University of Rome Tor Vergata		12	18,633		221,395	72.95%	1.48

Funding Agency	...	Rank	Web of Science Documents	Times Cited	...	% Documents Cited	Category Normalized Citation Impact
European Union (EU)		1	14,595	257,420		88.76%	1.96
Ministry of Education, Universities and Research (MIUR)		2	14,438	197,968		91.07%	1.33
Associazione Italiana per la Ricerca sul Cancro (AIRC)		3	8,180	161,496		93.73%	1.61
National Institutes of Health (NIH) - USA		4	8,034	223,910		93.98%	2.93
National Science Foundation (NSF)		5	7,979	197,525		92.12%	2.55
Ministry of Health, Italy		6	7,338	108,606		89.28%	1.5
European Research Council (ERC)		7	7,109	179,886		93.08%	2.57
German Research Foundation (DFG)		8	6,282	145,540		93.54%	2.37
National Natural Science Foundation of China (NSFC)		9	6,009	129,223		90.06%	2.52
United States Department of Energy (DOE)		10	3,902	120,406		92.62%	2.79
Swiss National Science Foundation		11	3,682	104,543		93.05%	2.99

Evaluate each paper

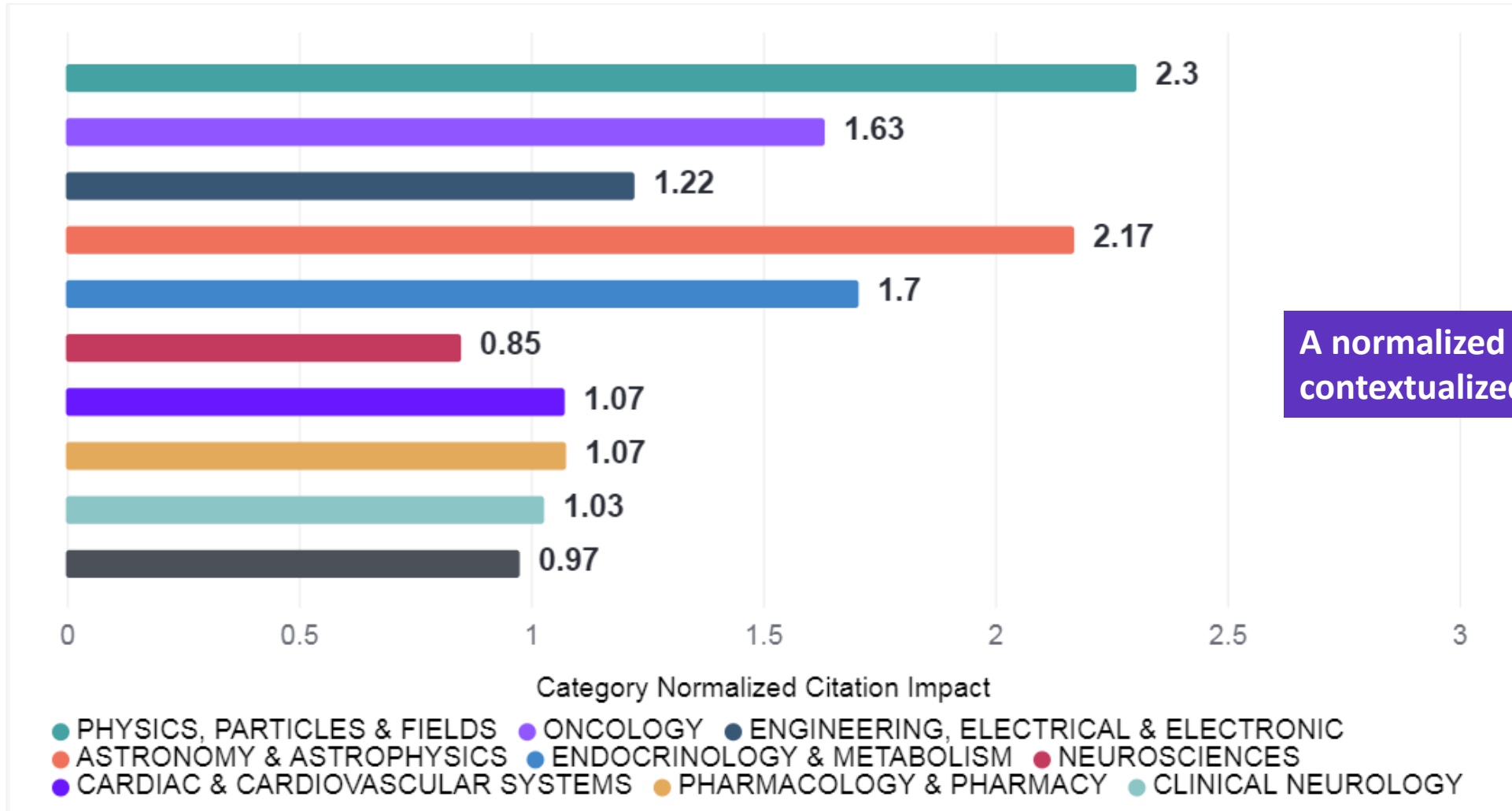## Ministry of Education, Universities and Research (MIUR)

Web of Science Documents (View in Web of Science)

Documents Per Page [10 ▼]   14438 total documents   ‹ ◂ 1 - 10 ▸ ›   ⬇ Download table ▼

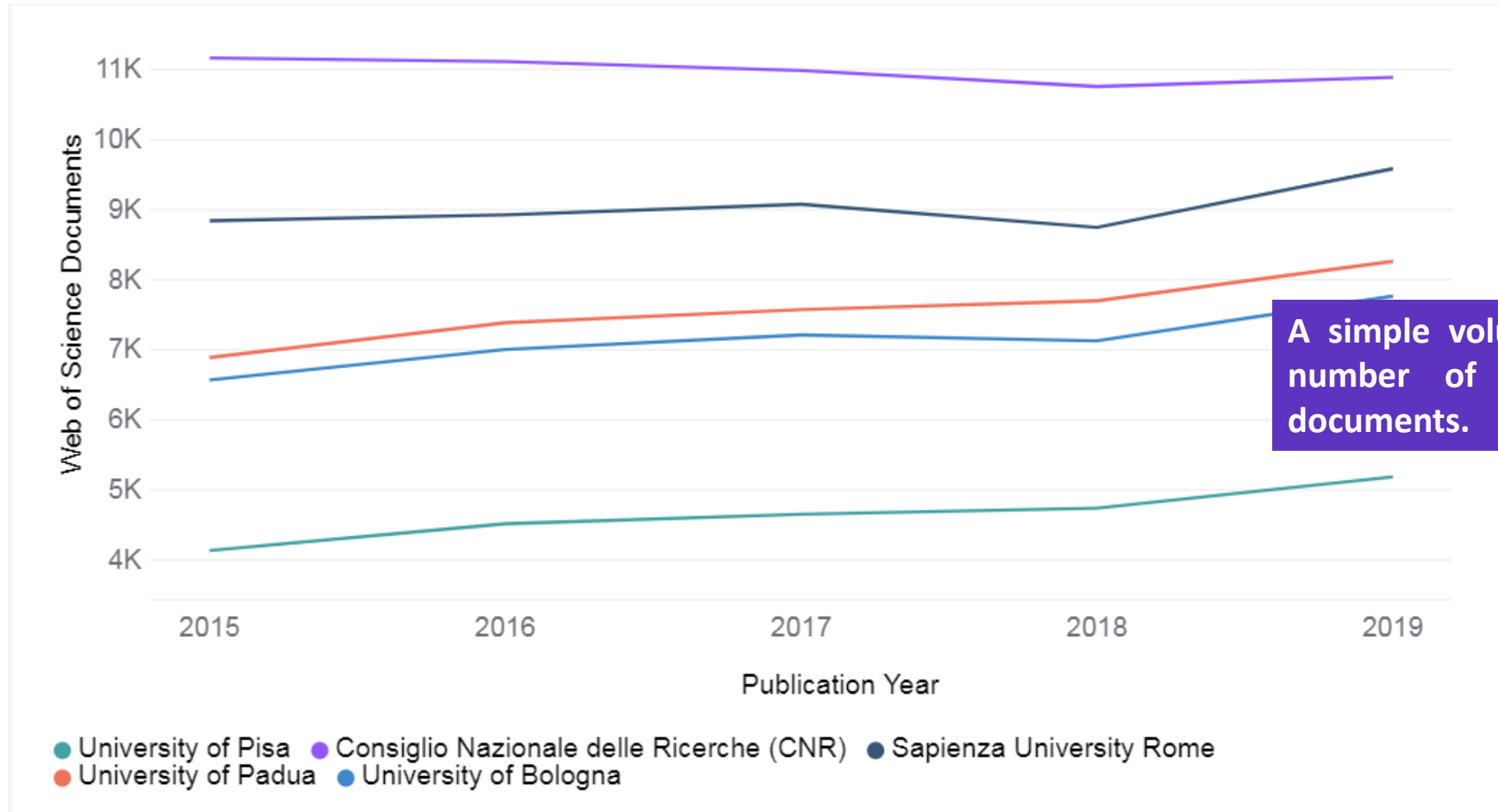| Article Title	Authors	Source	Research Area	Document Type	Volume	Issue	
Parton distributions for the LHC run II	Ball, Richard D.; Bertone, Valerio; Carrazza, Stefano; Deans, Christopher S.; Del Debbio, Luigi; et al.	JOURNAL OF HIGH ENERGY PHYSICS	PHYSICS, PARTICLES & FIELDS	Article	n/a	4	n/a
Integration of Cloud computing and Internet of Things: A survey	Botta, Alessio; de Donato, Walter; Persico, Valerio; Pescape, Antonio	FUTURE GENERATION COMPUTER SYSTEMS-THE INTERNATIONAL JOURNAL OF	COMPUTER SCIENCE, THEORY & METHODS	Article	56		

Drill down to document list and to article level metrics from all entities and all levels during any point of the analysis.

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Strengths and weaknesses

A normalized indicator allows for contextualized impact analysis.

Category Normalized Citation Impact

- PHYSICS, PARTICLES & FIELDS
- ONCOLOGY
- ENGINEERING, ELECTRICAL & ELECTRONIC
- ASTRONOMY & ASTROPHYSICS
- ENDOCRINOLOGY & METABOLISM
- NEUROSCIENCES
- CARDIAC & CARDIOVASCULAR SYSTEMS
- PHARMACOLOGY & PHARMACY
- CLINICAL NEUROLOGY

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Publication production

A simple volume indicator: the number of Web of Science documents.

International collaborations
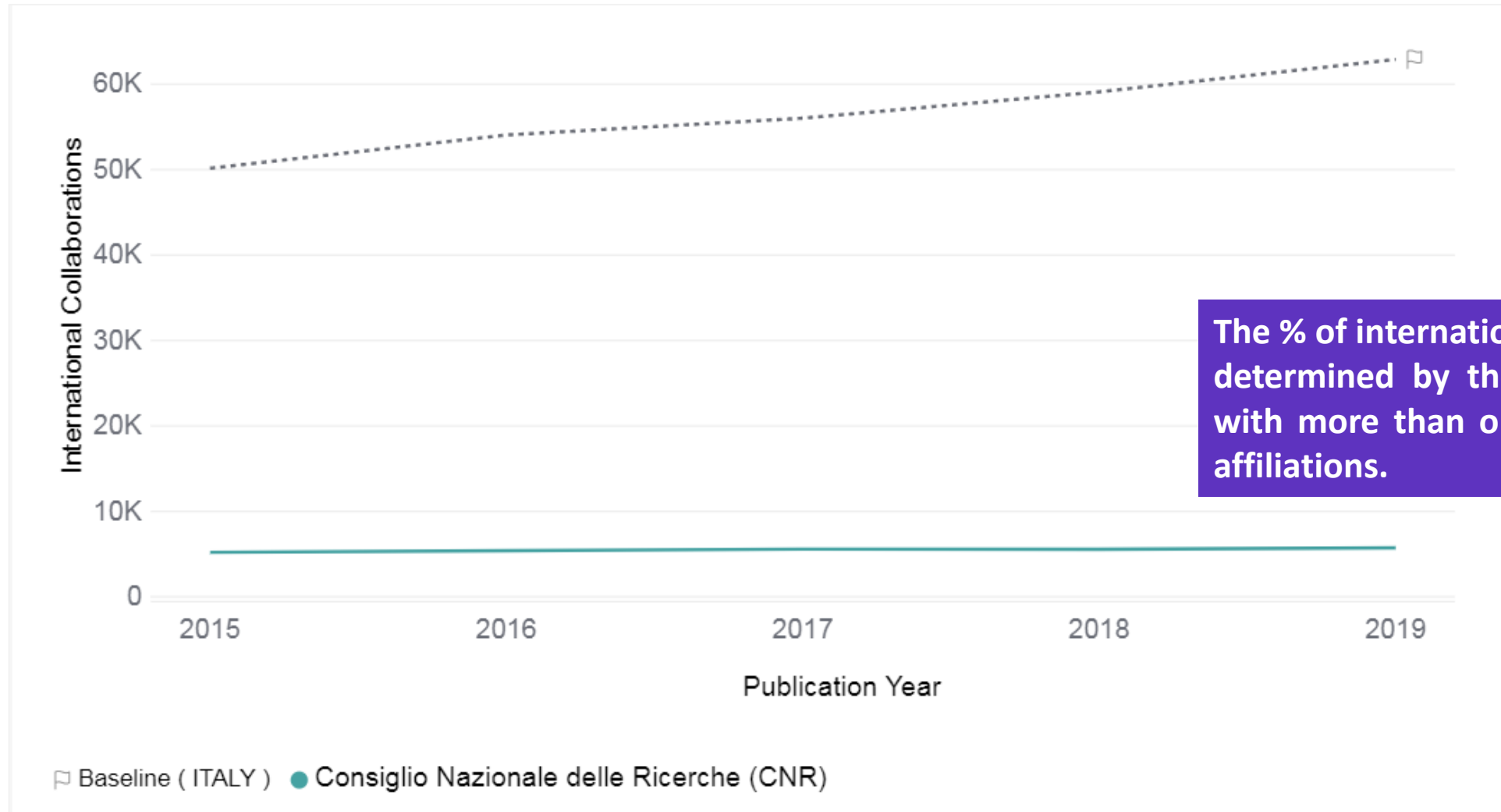
The % of international collaboration is determined by the % of documents with more than one country in their affiliations.
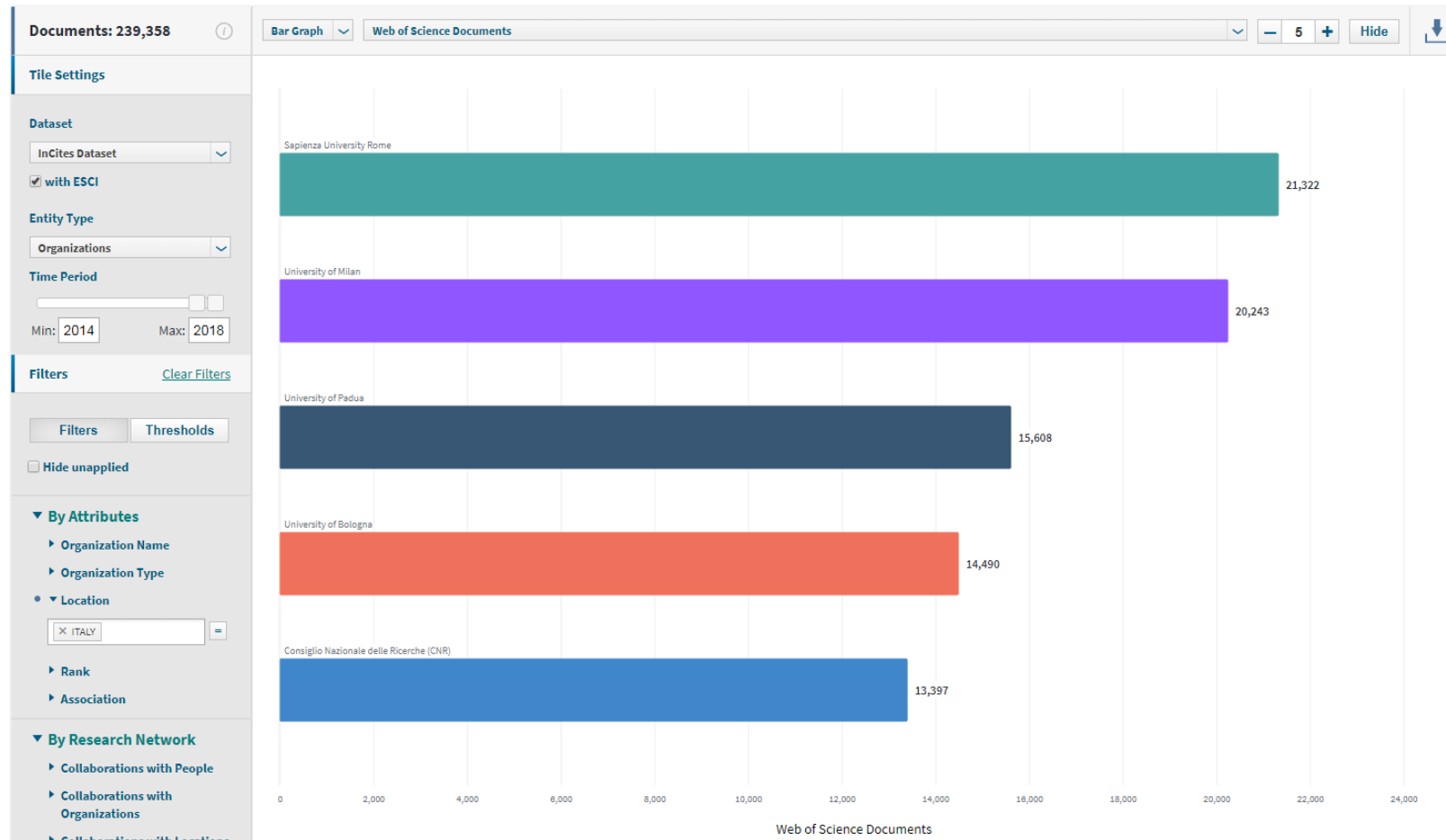
Baseline (ITALY)   ● Consiglio Nazionale delle Ricerche (CNR)

Analyse collaborations

COLLABORATION ANALYSIS OF ALL ENTITIES

Identify the most impactful collaborations, track new potential collaboration opportunities and develop strategic partnerships.
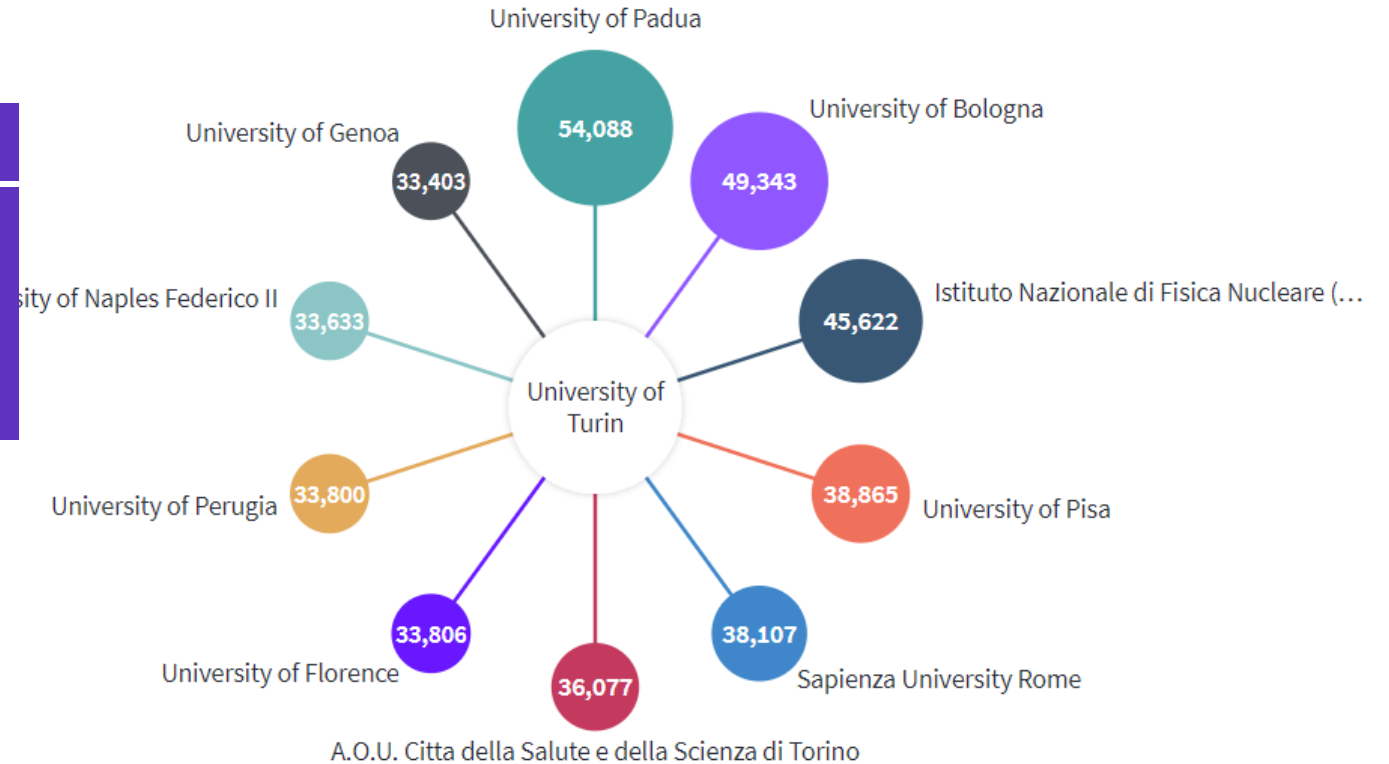
Benchmark with other organizations

Compare performance

Who is funding what?

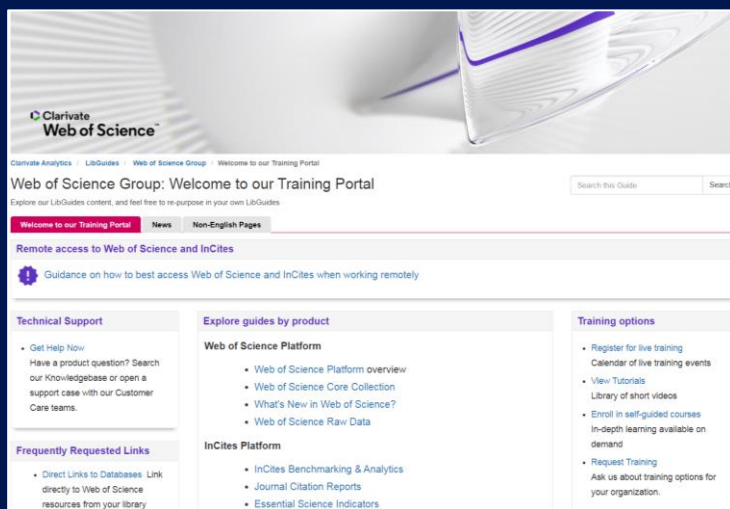| Funding Agency	Rank	Web of Science Documents	Times Cited	% Documents Cited	Category Normalized Citation Impact
European Union (EU)	1	14,595	257,420	88.76%	1.96
Ministry of Education, Universities and Research (MIUR)	2	14,438	197,968	91.07%	1.33
Associazione Italiana per la Ricerca sul Cancro (AIRC)	3	8,180	161,496	93.7%	
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National Science Foundation (NSF)	5	7,979	197,525	92.1%	
Ministry of Health, Italy	6	7,338	108,606	89.2%	
European Research Council (ERC)	7	7,109	179,886	93.0%	
German Research Foundation (DFG)	8	6,282	145,540	93.5%	
National Natural Science Foundation of China (NSFC)	9	6,009	129,223	90.06%	2.52
United States Department of Energy (DOE)	10	3,902	120,406	92.62%	2.79
Swiss National Science Foundation	11	3,682	104,543	93.05%	2.99

FUNDING ANALYSIS

Identify and rank authors, institutions or countries funded by a particular institution or rank journals and research areas in which funded output was published. Filters derive from funders appearing in the funding acknowledgements section of Web of Science documents. Currently there are more than 1,100 unified funders in InCites.
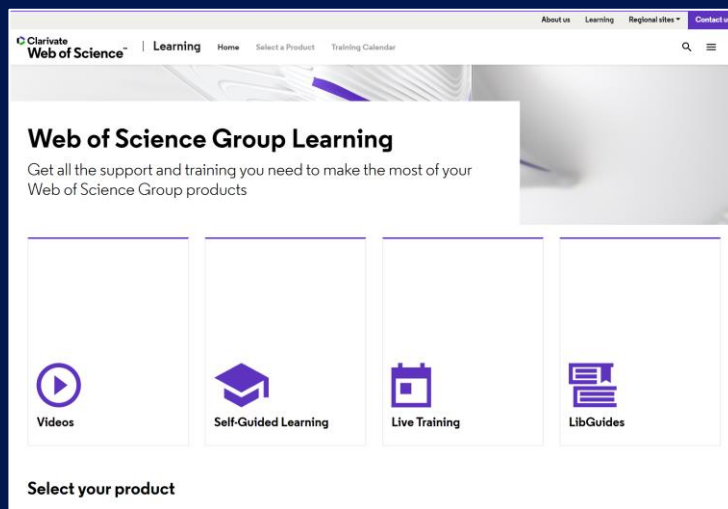
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Journal analysis
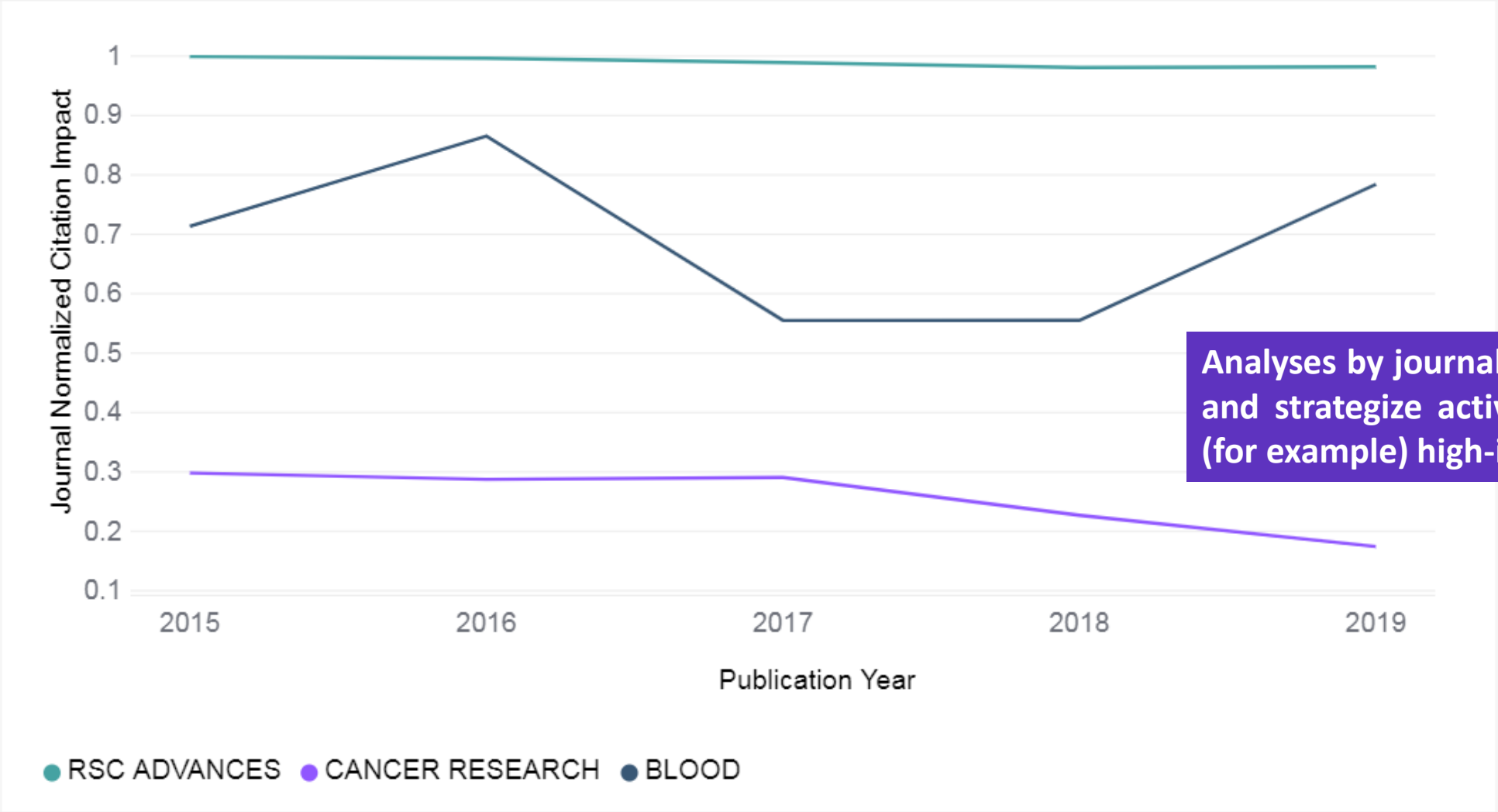
Analyses by journals help understand and strategize activities by targeting (for example) high-impact journals.
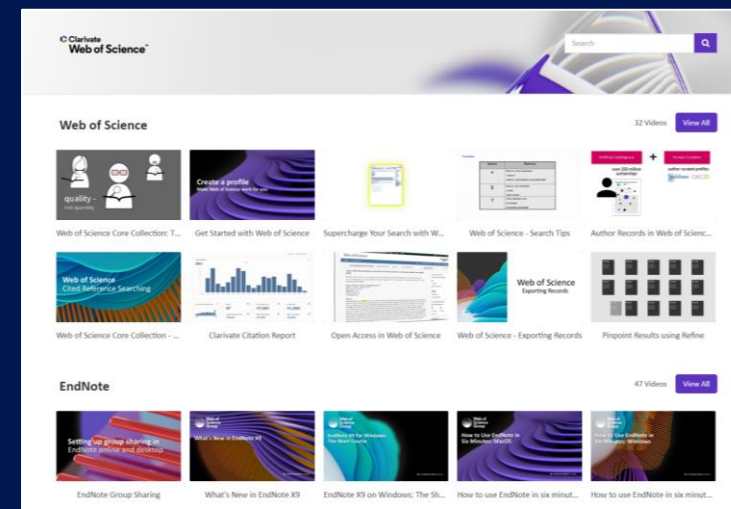
● RSC ADVANCES ● CANCER RESEARCH ● BLOOD

Training resources

LibGuides

clarivate.libguides.com/home

Web of Science Learning

https://clarivate.com/webofsciencegroup/support/

Videos

https://videos.webofsciencegroup.com/

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![Clarivate™ logo]

Vă mulțumesc!

Adriana FILIP

Solutions Consultant

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www.clarivate.com