

# Building a mission critical research ecosystem for Russia



"The Web of Science not only offers access to the highest quality data and metrics, but also provides instruments which greatly facilitate the research workflow..."

## Executive Summary

The Web of Science combination of world-class data, tools and expertise creates a mission critical research ecosystem closely aligned with the ambitious research productivity and efficiency growth goals set out in Russia's National Project "Science".

Russia has witnessed a rapid increase in its scientific research productivity and impact that is highlighted by three indicators:

- In 2017, Russia produced 56% more publications indexed in the Web of Science Core Collection than in 2012. The growth in research articles was even more impressive – 68%.
- The category normalized citation impact of Russia's publications (which measures publications' impact against their peers worldwide) has risen from 0.66 to 0.83.
- The number of Russia's best research journals represented in the Web of Science Core Collection has more than doubled to 356 since 2015.

These trends demonstrate the enormous potential of Russia's science. A special role in the global promotion of Russia's research is played by the Russian Science Citation Index (RSCI) developed by the Web of Science Group in 2015. RSCI, now comprising 775 best Russian-language journals, makes their content visible and respected worldwide. Accessible to millions of Web of Science users in different countries, RSCI has attracted significant attention in Europe, China, CIS countries and other regions.

Effective discovery of the most relevant and in-demand scholarly content has always been a hallmark of the Web of Science. With the rapidly growing numbers of Open Access sources, Web of Science has become a major conduit for free and legal access to full texts of publications. A newly developed technological tool, Kopernio, integrated in the Web of Science in 2018, allows the users to discover millions of such Open Access publications worldwide. In 2018, 41% of all full-text searches in the Web of Science by Russian users led to Open Access publications.

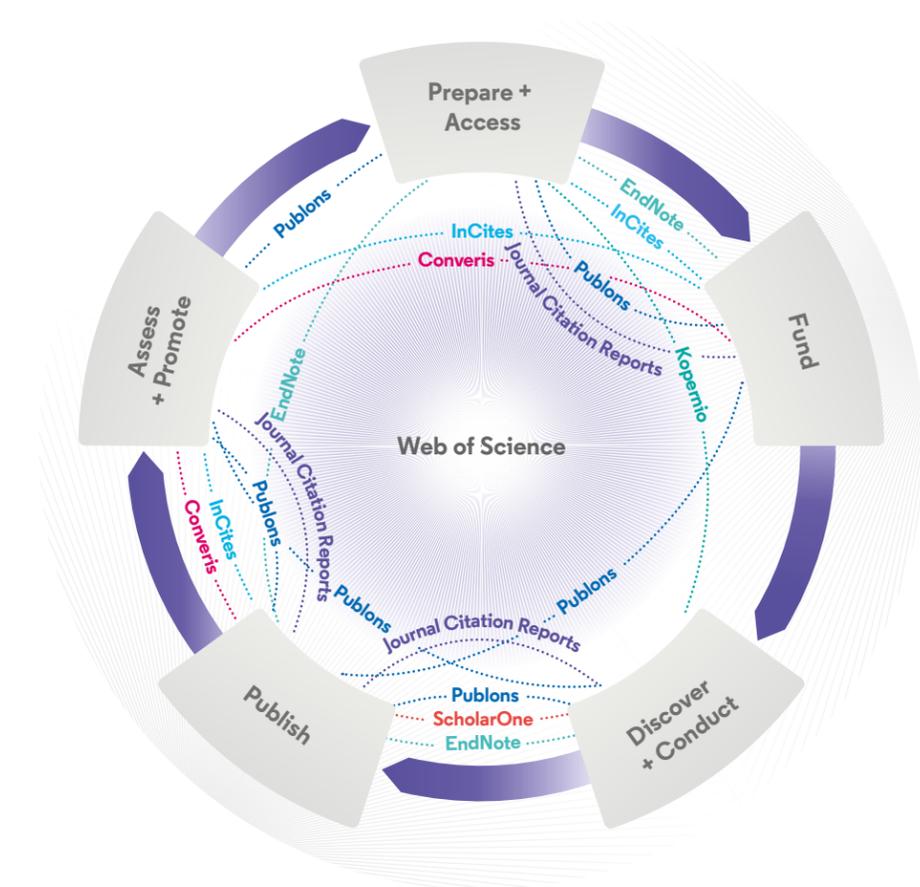
The Web of Science not only offers access to the highest quality data and metrics, but also provides instruments which greatly facilitate the research workflow at the level of organizations and individual researchers. Russia leads the world in the number of Web of Science ResearcherID profiles: over 130,000 such profiles have been created. The power of Web of Science ResearcherID has been enhanced by a merger with the Publons profiles, a unique tool for making visible peer reviews and journal editing contributions.

The Web of Science Group is firmly committed to fostering its long-standing partnership with the Russian scientific community, promoting quality research and helping to evaluate progress in attainment of the goals of the National Project "Science".

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## The research workflow supported by the Web of Science Group



### Web of Science

The world's largest and highest quality publisher-neutral citation index.

### InCites

Analyze institutional productivity and benchmark your output against peers worldwide.

### ScholarOne

Simplified submission workflows and peer review for scholarly publishers and societies.

### Essential Science Indicators

Reveals emerging science trends as well as influential individuals, institutions, papers, journals, and countries across 22 categories of research.

### Journal Citation Reports

The world's most influential and trusted resource for evaluating peer-reviewed publications.

### EndNote

A smarter way to streamline references and write collaboratively.

### Kopernio

Fast, one-click access to millions of high-quality research papers.

### Converis

One flow to let institutions collect, manage, and report on all research activity, working seamlessly with an institutions existing systems.

### Web of Science Author Connect

Reach leading researchers in the sciences, social sciences, and arts and humanities.

### Publons

Supporting researchers through documenting their peer-review and journal-editing contributions, providing guidance and best practice for the peer-review process, as well as increasing the overall visibility of their research and its impact.

# What powers the Web of Science Group?

The foundation of our Group is built upon the *Web of Science Core Collection*, the world's only true citation index.

## Data structure

### Meticulous Data Construction and Curation

- Complete unified affiliations data
- Complete author names data
- Accurate metrics
- Meaningful subject categories
- Cover to cover indexing
- Uniform document classification

## Editorial integrity

The *Web of Science Core Collection* is unique: our expert in-house editors have no affiliations to publishing houses or research institutions, free from any potential bias or conflict of interest. Each editor is focused on specific subject categories enabling them to gain a deep, nuanced knowledge of the journals in that field that cannot be replicated by purely algorithmic approaches and/or outsourcing aspects of editorial decision-making.

The basic principles of our selection process remain the constant: objectivity, selectivity and collection dynamics. We use a single set of 28 criteria to evaluate journals; these are divided into 24 'quality criteria' designed to select for editorial rigor and best practice at the journal level, and 4 'impact criteria' designed to select the most influential journals in their respective fields using citation activity as the primary indicator

of impact. Journals that meet the quality criteria enter **Emerging Sources Citation Index (ESCI)** in the *Web of Science Core Collection*. Journals that meet the additional impact criteria enter **Science Citation Index Expanded (SCIE)**, **Social Sciences Citation Index (SSCI)** or **Arts & Humanities Citation Index (AHCI)** depending on their subject area.

These are dynamic collections subject to continuous curation to ensure journals are in the appropriate collection. ESCI journals that gain impact move to SCIE, SSCI or AHCI. SCIE, SSCI and AHCI journals that decrease in impact move to ESCI. Any journal that decreases in quality will be removed from the *Web of Science Core Collection*.

Guided by the legacy of Dr Eugene Garfield and adapted to respond to technological advances and changes in the publishing landscape, our robust evaluation and curation makes the *Web of Science Core Collection* the most authoritative global citation database.

 **4,000+**  
publishing partners

 **12 Million**  
peer-reviewed full text  
Open Access versions

# Comprehensive content

**254**  
subject categories

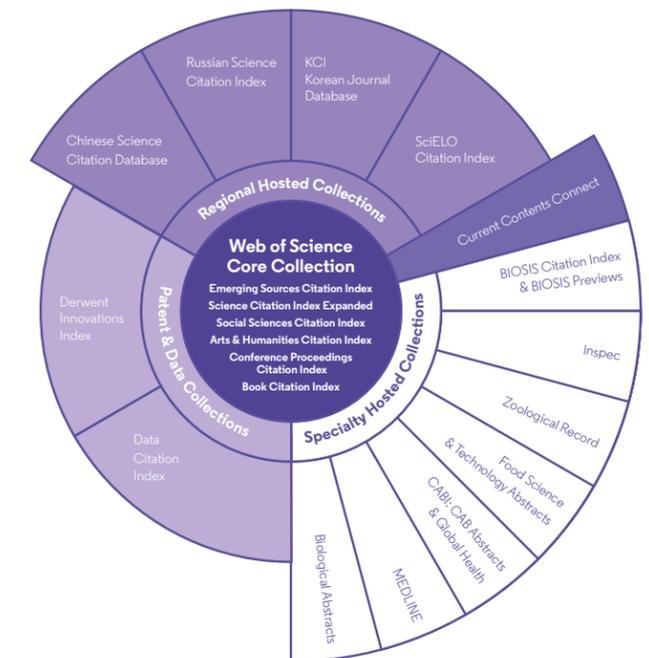
**34,200+**  
total journals across  
the full platform

**21,000**  
total journals in select  
*Core Collection*

**155 Million**  
records – patents, data sets,  
articles, and proceedings

**1.6 Billion**  
cited references

**Backfiles  
to 1900**  
with cover-to-cover indexing



**11.2 Million**  
records with funding data

**80 Million**  
patents for over 40 million inventions

**Web of Science platform is much more than just science. Providing a truly multidisciplinary research experience across science, social sciences, and arts and humanities, connecting...**

- Independent, regional indexes covering China, Korea, Russia, and Latin America
- Research data from the ground-breaking Data Citation Index
- World-class subject specialized indexes in biology, medicine, engineering, and zoology
- Patent indexes covering inventions from over 50 patent issuing authorities

...to the backbone of our editorially curated *Web of Science Core Collection*, the world's only true citation index.

**Without the depth, breadth and quality of content, research impact is at risk. World class research needs world class information.**



## Russia's place in the global research landscape

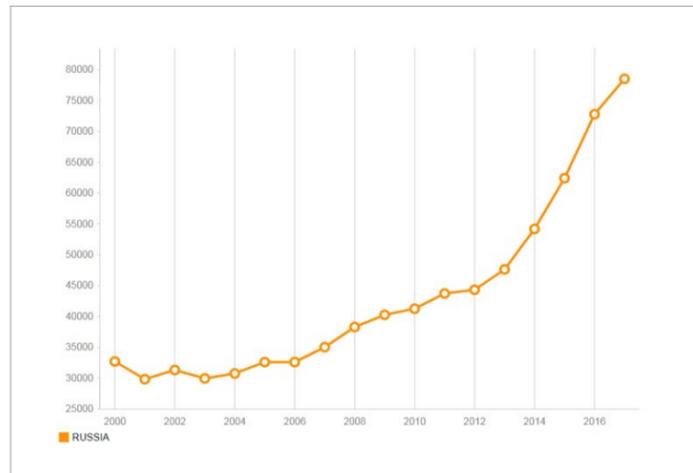
Monitor your changing position in the global research landscape

The Web of Science Group provides the tools you need to accurately evaluate the strength of your research portfolio, view reliable trends over time, and document successful achievement of goals.

### National Project "Science":

To ensure Russia's presence among the world's five leading countries by the percentage of articles, published in the priority areas for the scientific and technology development in journals indexed in international databases (Goal 2.1 of the National Project "Science")

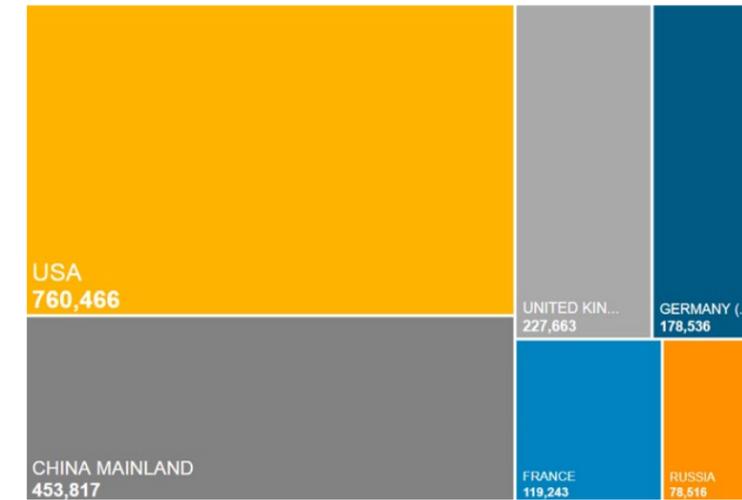
### Russia's research productivity is on the rise



Russia's overall research productivity, as measured by the publications indexed in the Web of Science Core Collection has raised impressively, particularly after 2012 onwards.

In 2017, Russia produced 56% more publications indexed in the Web of Science Core Collection than in 2012. The growth in the key publication type, research articles, in the same period of time was even more impressive – 68%.

### Russia and the world's five leading countries in research productivity



The number of publications indexed in the Web of Science Core Collection, 2017

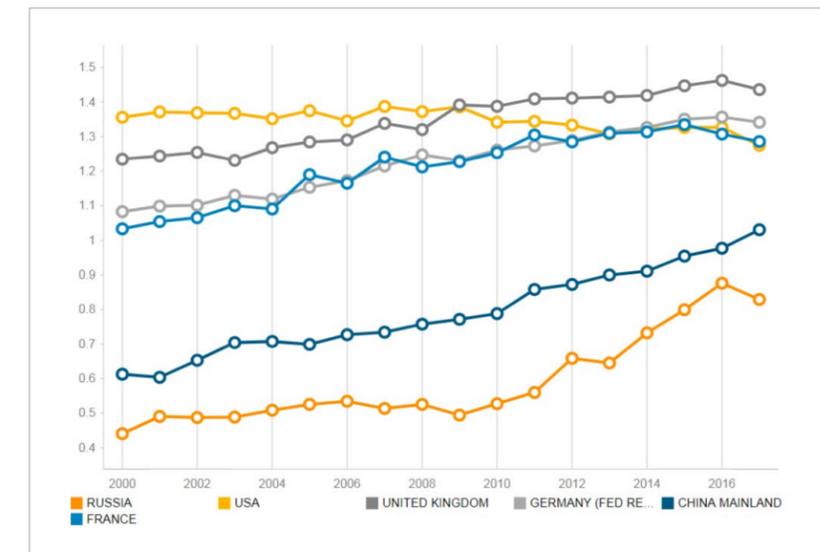
The gap between Russia and the leading 5 countries in total research productivity is narrowing, but is still significant.

The data from the Web of Science Core Collection are analyzed with Incites Benchmarking & Analytics, which allows you to monitor scholarly publication trends against any selected group of countries

### The global impact of Russia's research publications

The global citation impact of Russia's publications has also significantly risen. It is still lower than that of the top 5 most productive research countries, but this gap is narrowing as well.

In 2017 Russia's category normalized citation impact (CNCI), calculated in the InCites Benchmarking and Analytics equaled 0.83, which is slightly behind the world's average (which equals 1). It has also increased since 2012, when it was 0.66.





## Publishing in the top global research journals

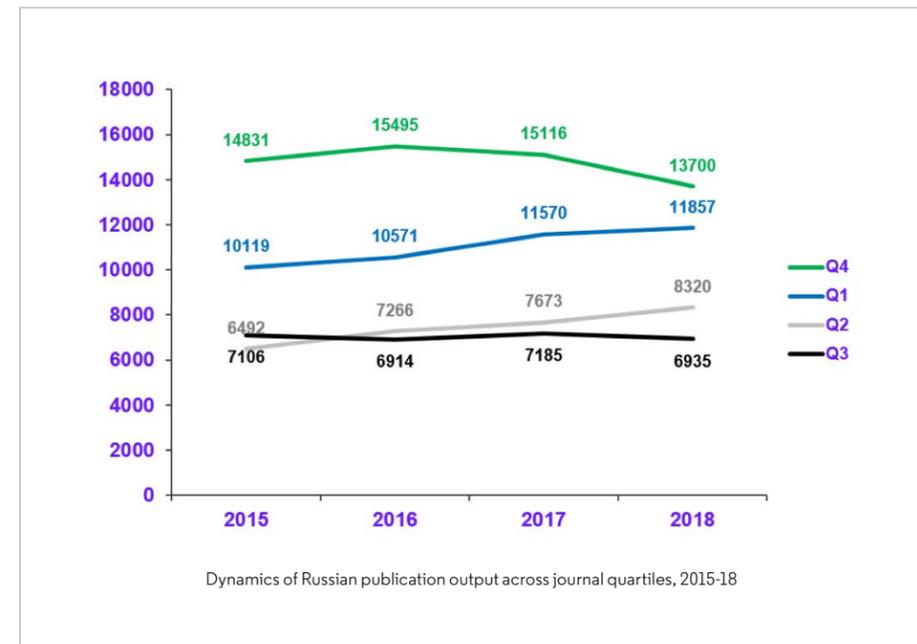
### Russia's publications in top quartile journals are on the rise

Global influence of Russian research will be higher if Russian scientists publish more in top quartile journals. In 2015-18 the number of Russian publications in the quartile 1 (Q1) and quartile 2 (Q2) journals was increasing, while the percentage of publications in the quartile 3 (Q3) and quartile 4 (Q4) journals was decreasing.

#### National Project "Science":

Increase in the number of Russian and foreign scholars, working in Russian organisations and having articles in scientific journals of the first and second quartiles indexed in international databases (Goal 2.1 of the National Project "Science")

#### Web of Science's Journal Citation Report – home of the Journal Impact Factor

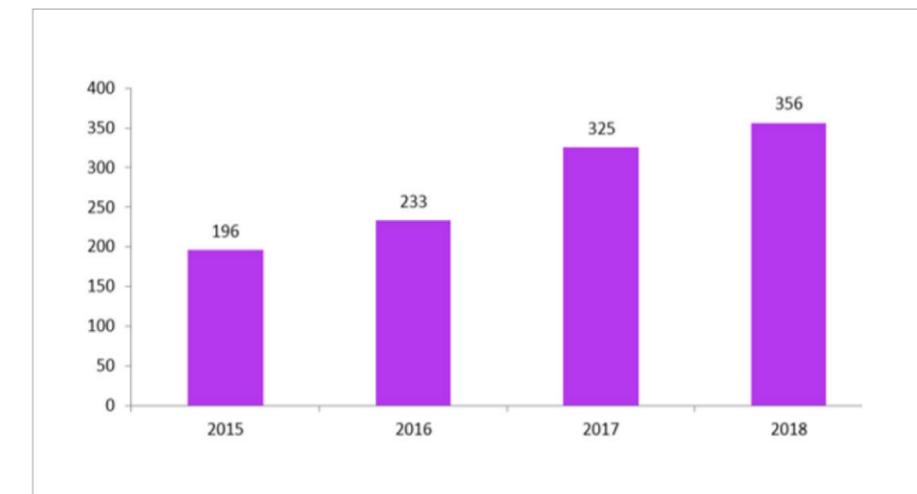


## The number of Russian journals indexed in the Web of Science platform is growing steadily

#### National Project "Science":

Inclusion of at least 500 scientific journals in the international databases (including the Web of Science) on the cumulative basis, including in the years of reporting (Task 2.14 of the Federal Project "Development of the Advanced Infrastructure for Research and Development in the Russian Federation" of the National Project "Science")

#### Russian journals indexed in Web of Science Core Collection for 2015–2018





## Discovery of Open Access papers gives immediate access to Full Text free of charge

The Web of Science supports Russia's goals of providing access to global scholarly literature across all research disciplines. Full text usage from the Web of Science platform significantly increased in 2018, and Russian researchers were connected to more full text from the top global scholarly journals-- Q1 and Q2 Journal Impact Factor journals. The Web of Science helps drive your researchers to the most influential and impactful content in their field.

### National Project "Science":

Provision of free access for scientific and educational organisations through annual subscriptions to demanded scientific journals, collections of journals, and international citation databases in the information and communication network Internet (Task 2.1 of the Federal Project "Development of the Advanced Infrastructure for Research and Development in the Russian Federation" of the National Project "Science")

## Open Access links help Russian scientists get access to the best global journals

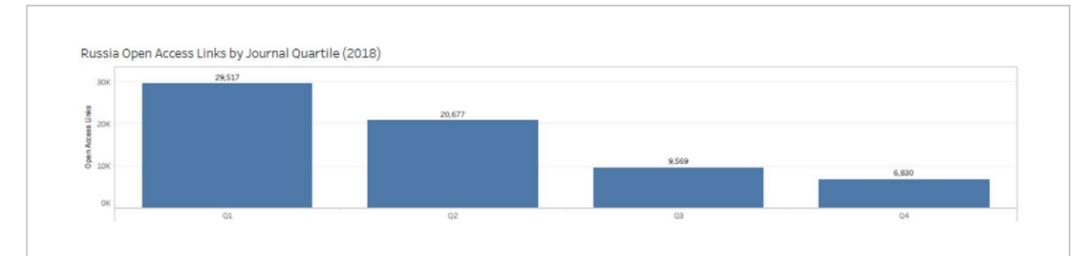
 Kopernio - powered by Web of Science

**41% of full text articles searched in the Web of Science by Russian scholars were open access in 2018.**

### Russian researchers are accessing more high quality content through the Web of Science platform.

The Web of Science platform is the first and only comprehensive, publisher-neutral discovery resource for trusted, peer-reviewed Open Access content

In 2018 Kopernio, an artificial intelligence innovative start-up, was acquired and its technology integrated with the Web of Science platform. Kopernio greatly increases Web of Science open access discovery capabilities, providing free and legal one-click access to millions of journal articles and academic research papers across the globe.



The addition of Open Access links in Web of Science helped increase use of Q1 and Q2 Journal Impact Factor journals



Journal categories for Open Access links accessed by Russian scientists



# Russian Science Citation Index (RSCI)

## Regional citation index on the Web of Science platform

The Web of Science Core Collection is the golden standard of global scholarly periodicals. However, there is a substantial body of important regional scholarly periodicals not covered by major global databases. Regional Collection on the Web of Science platform is a unique source of information on such sources of scholarly information. The Web of Science Regional Collection includes Chinese Science Citation Index, SciELO Citation Index (sources in

Spanish and Portuguese), Korean Journal Database, Russian Science Citation Index, and Arabic Citation Index (under development).

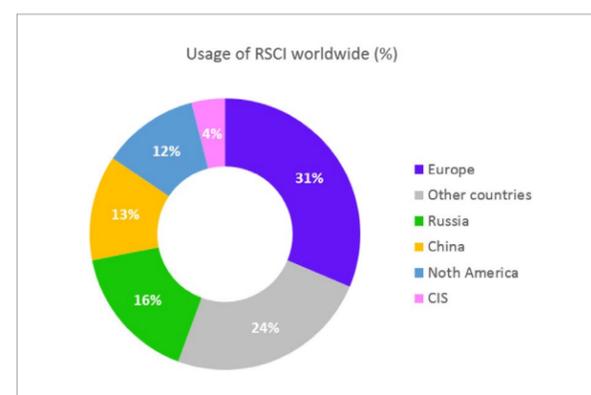
Russian Science Citation Index was launched in co-operation with Russia's Scientific Electronic Library (e-Library) in 2015. It currently covers 775 top scholarly journals from Russia and CIS countries, and has over 542 000 publication records.

## Advantages of RSCI for the Russian Science

### 1.

It identifies the best quality Russian-language scholarly periodicals. Of over 5000 periodicals indexed by e-Library, only the top were chosen after rigorous selection by Russian experts and bibliometric analysis.

Figure 1



### 2.

RSCI greatly increases visibility and influence of the Russian science on the global arena. RSCI is available to users of the Web of Science platform worldwide. Analysis of the global RSCI usage demonstrates that RSCI has attracted a great deal of interest in other world regions, particularly Europe and China (see figure 1).

### 3.

Indexation of a Russian publication in RSCI on the Web of Science platform can greatly increase its chances to be cited worldwide. These global citations can be tracked on the Web of Science platform. An example of such publication is illustrated here (see figure 2).

### 4.

RSCI covers many journals in engineering, agriculture, other applied and technical sciences, as well as in social sciences and humanities (which account for over 30% of all publications in RSCI). The table shows research areas with most indexed records in RSCI (see figure 3).

Figure 2

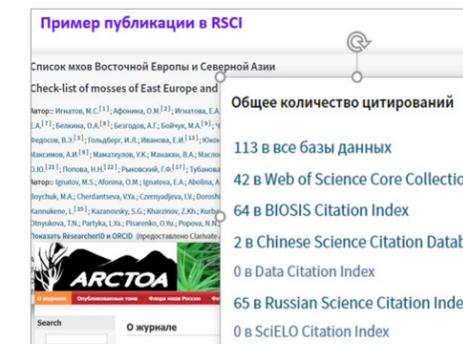
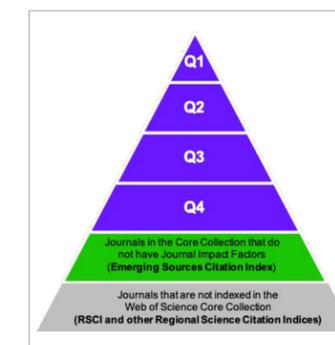


Figure 4



### 5.

Indexation in RSCI significantly increases a journal's chances to "move up" to the Web of Science Core Collection, and join the elite group of the world's scholarly periodicals. The figure demonstrates the overall ecosystem of scholarly journals on the Web of Science platform (see figure 4).

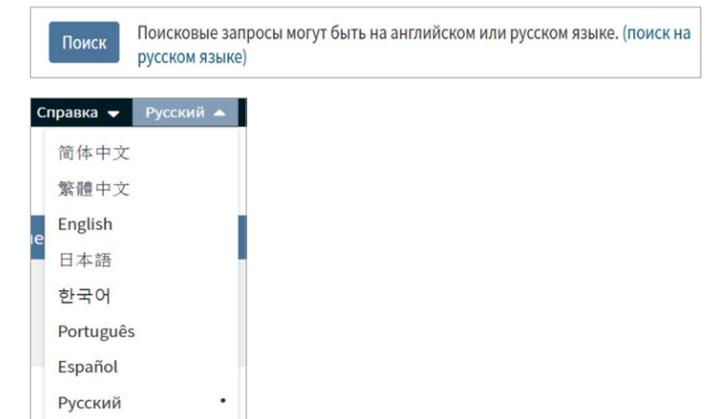
### 6.

With creation of RSCI, a Russian language interface was built for the whole Web of Science platform. RSCI is searchable in English and in Russian. Thus Russian has become one of the only eight global language for which user interfaces in the Web of Science are available (see figure 5).

Figure 3

Поле: Направления исследования	Число записей	% от 542,433
ENGINEERING	62,845	11.586 %
AGRICULTURE	38,383	7.076 %
BUSINESS ECONOMICS	35,666	6.575 %
MATHEMATICS	34,328	6.329 %
SCIENCE TECHNOLOGY OTHER TOPICS	33,812	6.233 %
SOCIAL SCIENCES OTHER TOPICS	26,956	4.969 %
COMPUTER SCIENCE	26,703	4.923 %
MATERIALS SCIENCE	26,241	4.838 %
ENVIRONMENTAL SCIENCES ECOLOGY	26,069	4.806 %
PHYSICS	24,602	4.535 %
ARTS HUMANITIES OTHER TOPICS	24,030	4.430 %

Figure 5





## Value for the institution

Identify collaborators to push research further

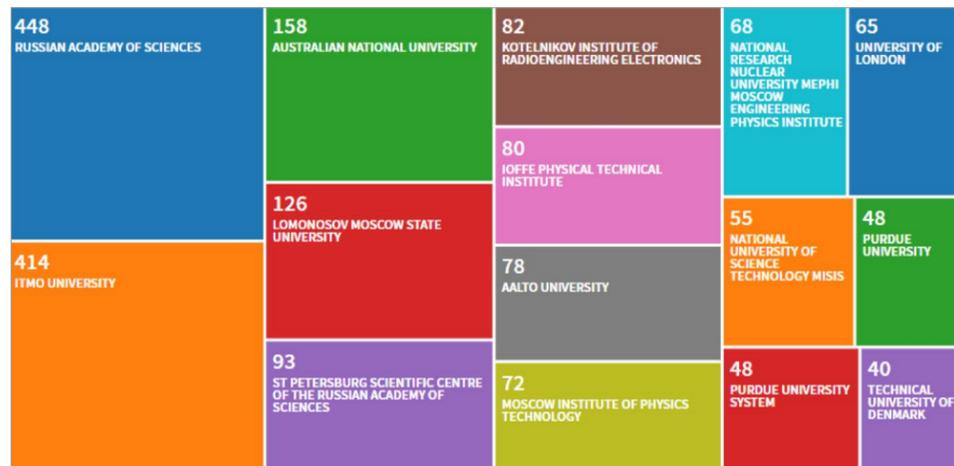
### Russia had 254% growth in use of the analyze results feature in one year

The analysis shows top Russian research organizations conducting research on metamaterials, and their foreign collaborators. Connect your researchers to experts within Russia and across the globe for potential collaboration.

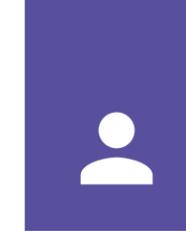
Please note that for Russian Academy of Sciences we are also providing information on individual research institutions within its structure.

### Analyze Results

- ✓ Find potential collaborators who have authored papers in your area
- ✓ See who is producing and funding the research you care about
- ✓ Discover journals that are publishing key papers in your field



Treemap from Web of Science Analyze Results feature



## Value for the researcher

Easily document and track an individual's contribution and impact across the research community

### Quickly pull citation statistics to prepare for tenure reviews and grant applications

### Create Citation Report

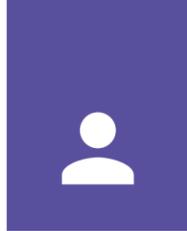
~470,000 Citation Reports created per year in Web of Science by Russian researchers, typically in support of promotion and grant applications.



The report shows citation performance statistics for papers authored by Nikolai Kuznetsov, Dr. of Sci., Professor, Acting Head of Applied Cybernetics Department, Faculty of Mathematics and Mechanics, Saint Petersburg State University.



Citation report from the Web of Science

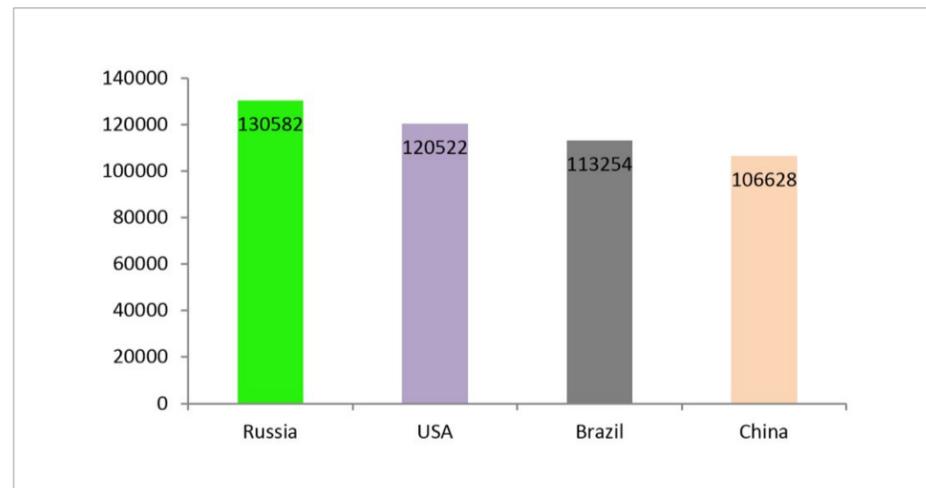


## Value for the researcher

### Russia leads the world in the number of Web of Science ResearcherID profiles

Over 130,000 researchers across Russia rely on Web of Science ResearcherID to track their publications and citations and to manage their presence across Web of Science collections.

Russia leads the world in the number of created Web of Science ResearcherID profiles, followed by the USA, Brazil, and China.



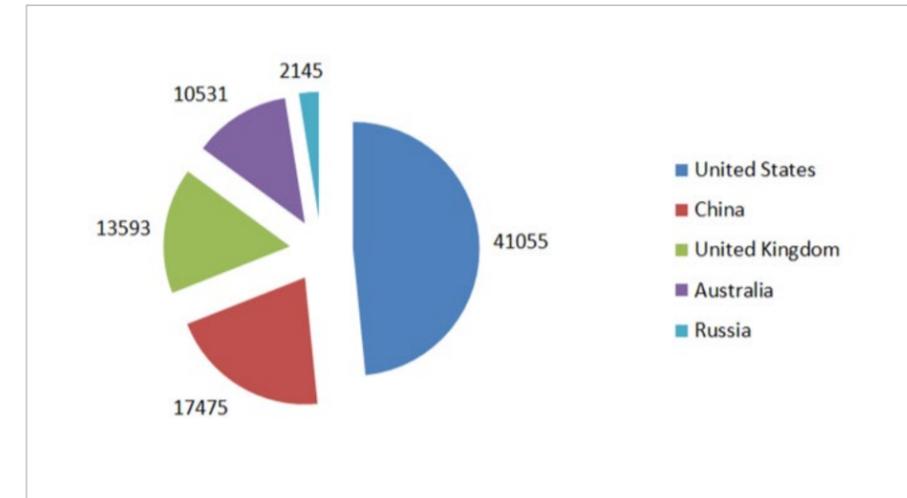
The number of Web of Science ResearcherID profiles created by researchers from Russia and several other leading countries

### Build your Web of Science Publons Profile

With Web of Science ResearcherIDs hosted on Publons, you can now build and showcase a more complete profile of your research impact, as well as effortlessly track verified records of your peer review history and journal editing work right alongside publications and citations.

The number of Publons profiles created by Russian researchers is increasing but there is a substantial room for further growth.

Here is an example of a Publons profile by Dr. Vladimir Babenko of Novosibirsk State University, one of Russia's top research universities.



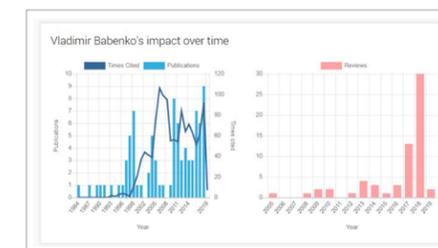
**INSTITUTION**  
 NU Novosibirsk State University

VISIT INSTITUTION WEBSITE VISIT INSTITUTION LEADERBOARD

Reviewers: 88 (3rd in Russia) | Reviews: 1,809 (1st in Russia) | Last 1 year: 729 (1st in Russia) | Openness: 1.6% (18th in Russia)

**JOURNAL EDITORS AT NOVOSIBIRSK STATE UNIVERSITY**

Maxim A. Yurkin | Vladimir Babenko | EB Elena Boldyreva



**publons** BROWSE COMMUNITY FAQ

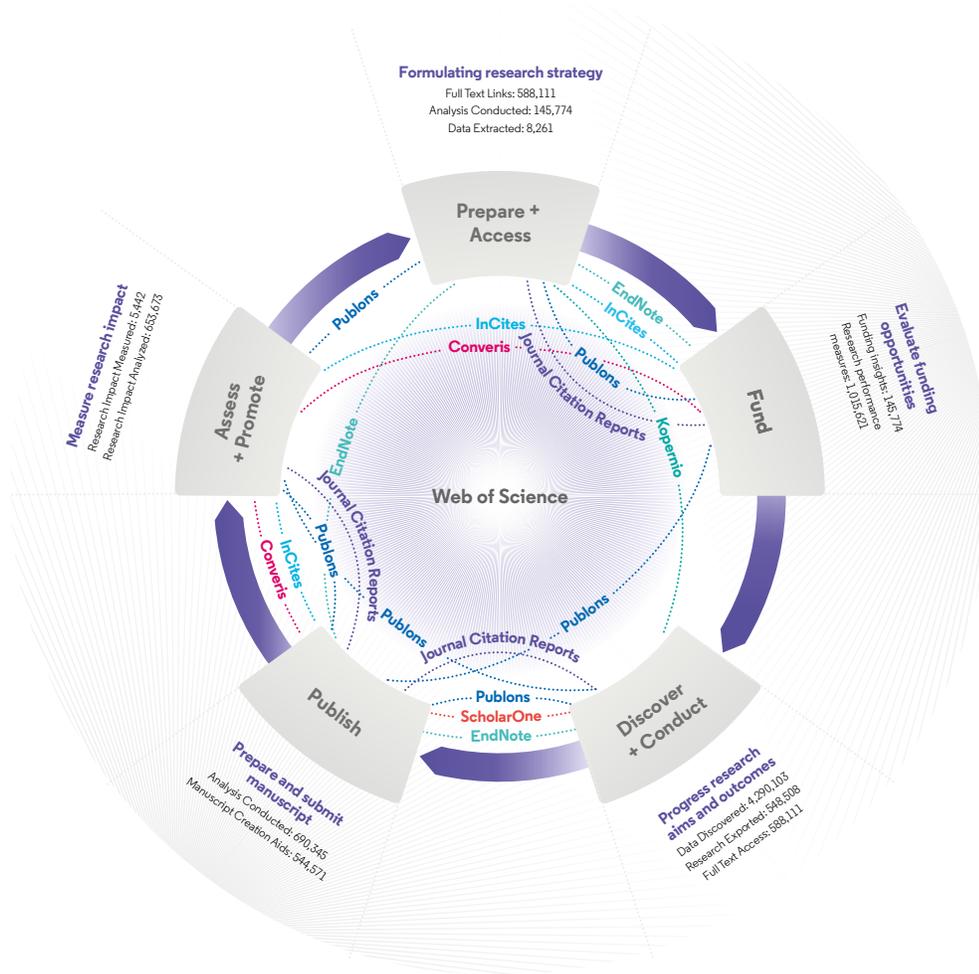
Vladimir Babenko  
 Top peer reviewer  
 senior staff scientist - human genetics laboratory, Institute of Cytology and Genetics SB RAS  
 ResearcherID: K-5609-2014

PUBLICATIONS	TOTAL TIMES CITED	H-INDEX	VERIFIED REVIEWS	VERIFIED EDITOR RECORDS
87	1,241	19 <sup>o</sup>	53	1

Web of Science Publons Profile page

# High value outcomes for the Russian scientific community

## within the Web of Science Group research ecosystem



### Use of Web of Science data and analytics functions by the Russian scientists in 2018:

Web of Science	4,290,103 search queries
Web of Science	588,111 full text requests from the platform
Open Access	241,599 links to open access full text
Web of Science	145,774 Analyze Results
WoS ResearcherID	130 587 profiles
EndNote	8,261 exports of 1-500 articles
API	536,342 queries
Web of Science	469,997 Citation Reports created
Journal Citation Reports	544,571 views of Journal Impact Factor

### The Web of Science Group. So much more than a search.

The data in this report are valid as of February 1, 2019