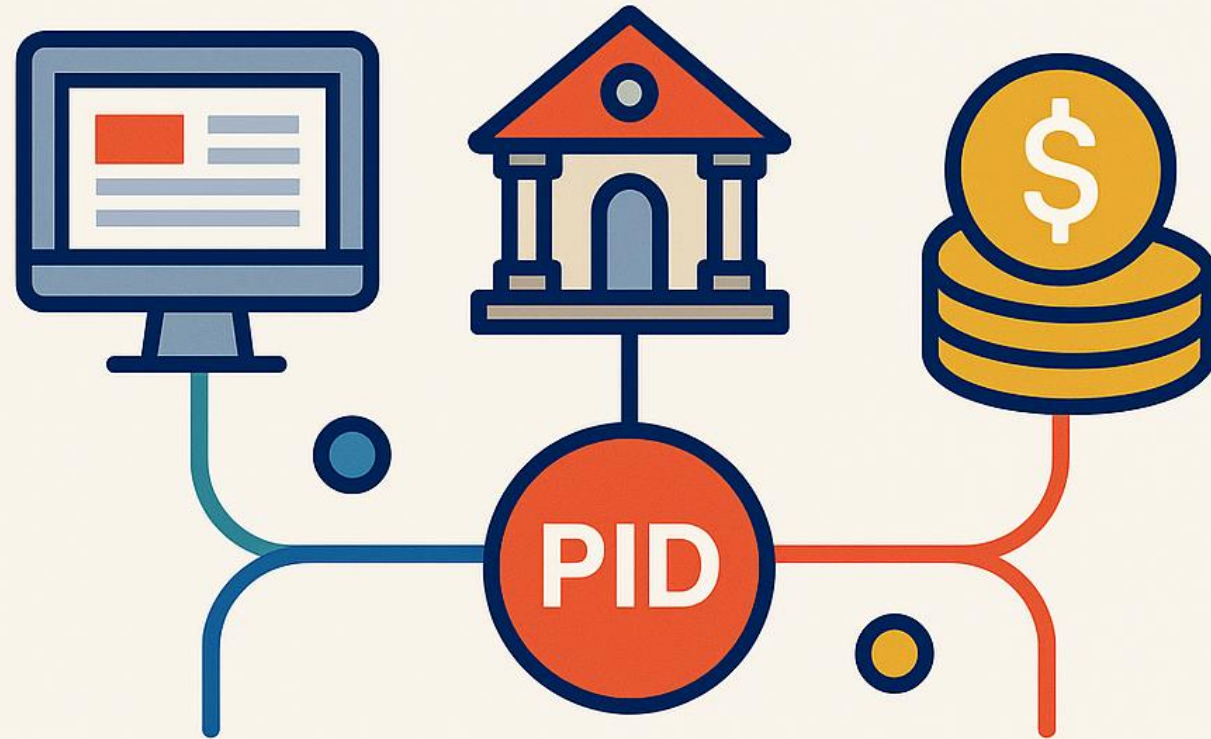


Persistent Identifiers as Research Infrastructure: Bridging Publishers, Institutions, and Funders



By Dr. Hailu Kendie Addis (PhD)

March 2026

Publishers, Institutions, and Funders

01 PUBLISHERS

Organizations that disseminate scholarly outputs (journals, books, platforms).



02 INSTITUTIONS

Universities, research institutes, and scholarly organizations that employ researchers and manage their outputs.



03 FUNDERS

Agencies or foundations that finance research projects and require accountability, reporting, and tracking.



Persistent Identifiers (PIDs) for you, your work, and your organization

Publishers, funders, and other organizations have implemented PIDs in their established research workflows to enable the creation of trusted digital connections between objects, contributors, and organizations.



Global Persistent Identifier (PID) organizations/repositories

Africa

AJOL, DataFirst, DOCiD, WACREN (West and Central African Research and Education Network), National Repositories, etc.

North America

ORCID, Crossref, Handle, etc.

Asia

JaLC, CSTR (China Science and Technology Report), J-STAGE, etc.

01



02



03



04



05



06



Europe

DataCite, OpenAIRE, Zenodo, CERN, etc.

South America

SciELO, Redalyc, LA Referencia, etc.

Oceania

Australian Research Data Commons (ARDC), Trove, Figshare, etc.

Some of Well Known Persistent Digital Identifier (PID)

ORCID

ORCID for researchers

DOI

DOI for researcher outputs

ISSN

Identifies: Journals and serial publications

ISBN

Identifies: Books and monographs

ROR

ROR for research organizations

ARK

ARK for cultural and scholarly digital objects

ISNI

ISNI connects identities to ISBN, ISSN, and music and performance databases

RAid

RAid identifies research projects and activities, not people or outputs.



3 Types of PIDs



Contributor Identifiers

- ✓ [Open Researcher and Contributor Identifier \(ORCID iD\)](#)
- ✓ [ResearcherID](#)
- ✓ [Scopus Author ID](#)



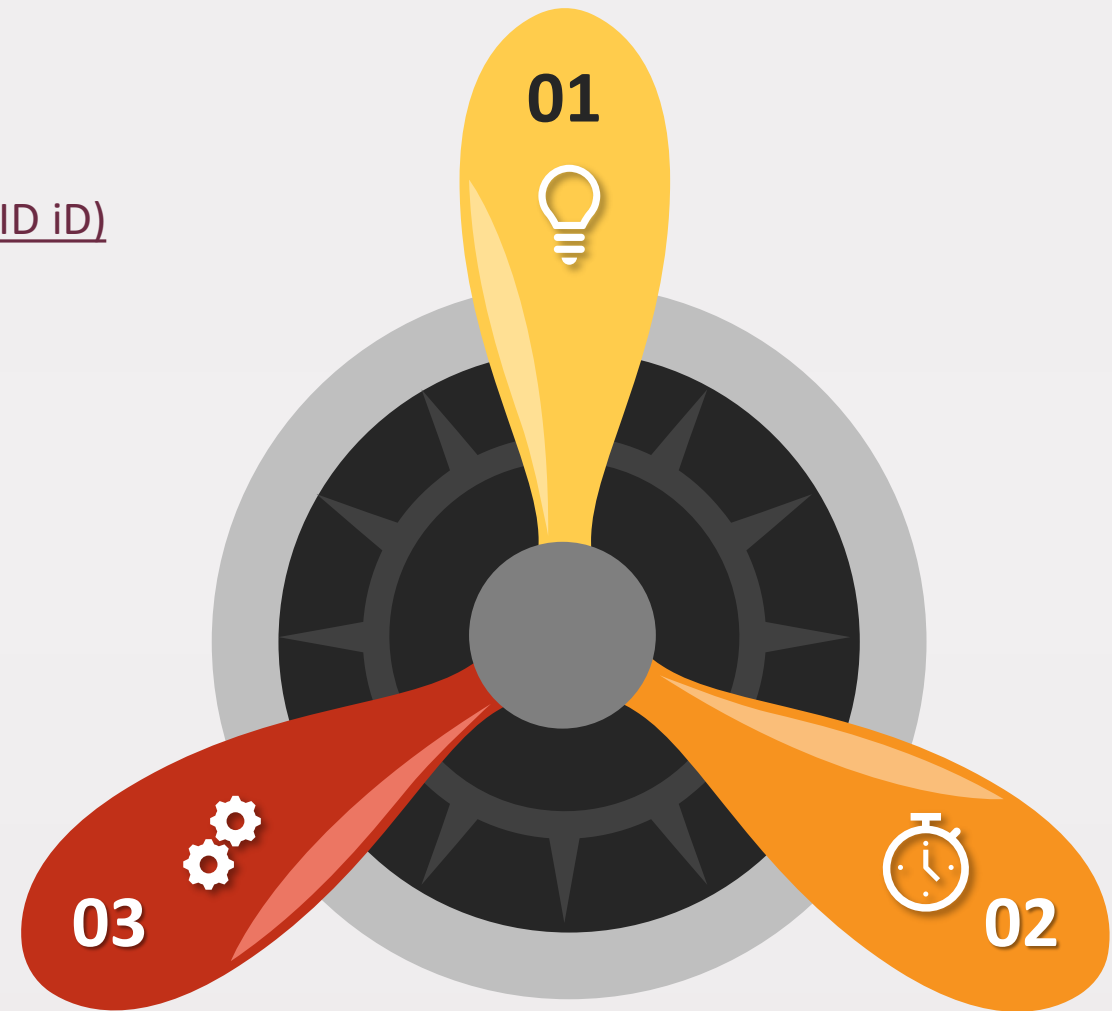
Object Identifiers

- ✓ [Digital Object Identifier \(DOI\)](#)
- ✓ [Archival Resources Key \(ARK\)](#)
- ✓ [Handle \(HNDL\)](#)
- ✓ [Persistent Uniform Resource Locator \(PURL\)](#)



Organization Identifiers

- ✓ [Research Organization Registry \(ROR\) ID](#)
- ✓ [Global Research Identifier Database \(GRID\) ID](#)
- ✓ [Funder ID](#)



Contributor Identifiers: ORCID, SCOPUS, and WoS

01

ORCID

As of 2024, over **20 million ORCID iDs** have been issued globally. ORCID is the most widely adopted persistent identifier (PID) and is increasingly required by publishers.



02

SCOPUS

There are over 19.5 million+ author profiles searchable on Scopus. Scopus automatically generates profiles for researchers with publications in their database, resulting in a large, mostly automated, dataset of authors.



03

WOS

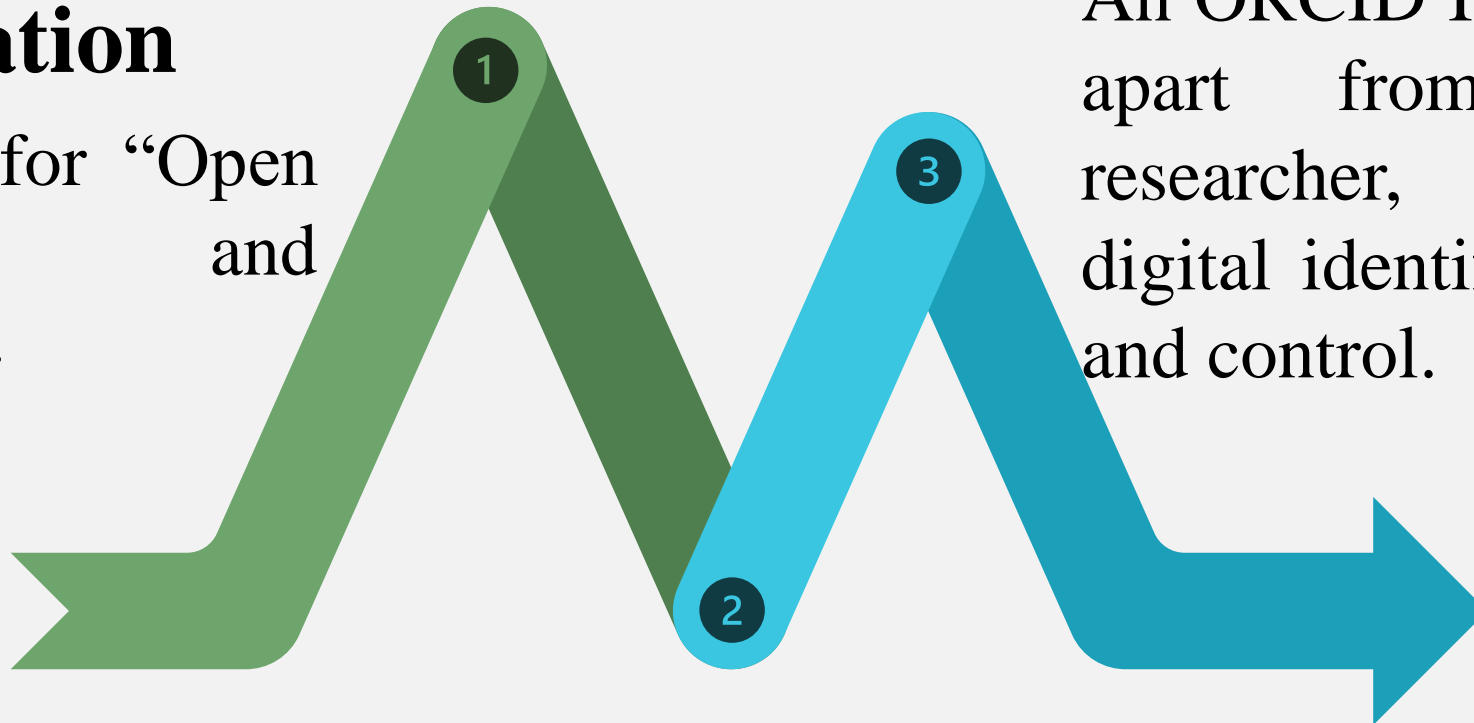
The modern "Web of Science Researcher Profile" system now covers 33+ million disambiguated researcher profiles. WoS has shifted from a manual ResearcherID system to a broader, automated "Researcher Profile" system.



What is ORCID?

Abbreviation

ORCID stands for “Open Researcher and Contributor ID”.



An ORCID ID, which sets you apart from every other researcher, is a persistent digital identifier that you own and control.

Your ORCID ID can be linked to information about your professional background, including affiliations, grants, publications, peer reviews, and more.



ORCID provides three main services



The ORCID iD

A unique, persistent identifier free of charge to researchers

<https://orcid.org/0000-0003-0265-0261>



ORCID record/profile

Connected to the ORCID iD, that can include employment, education and research output metadata

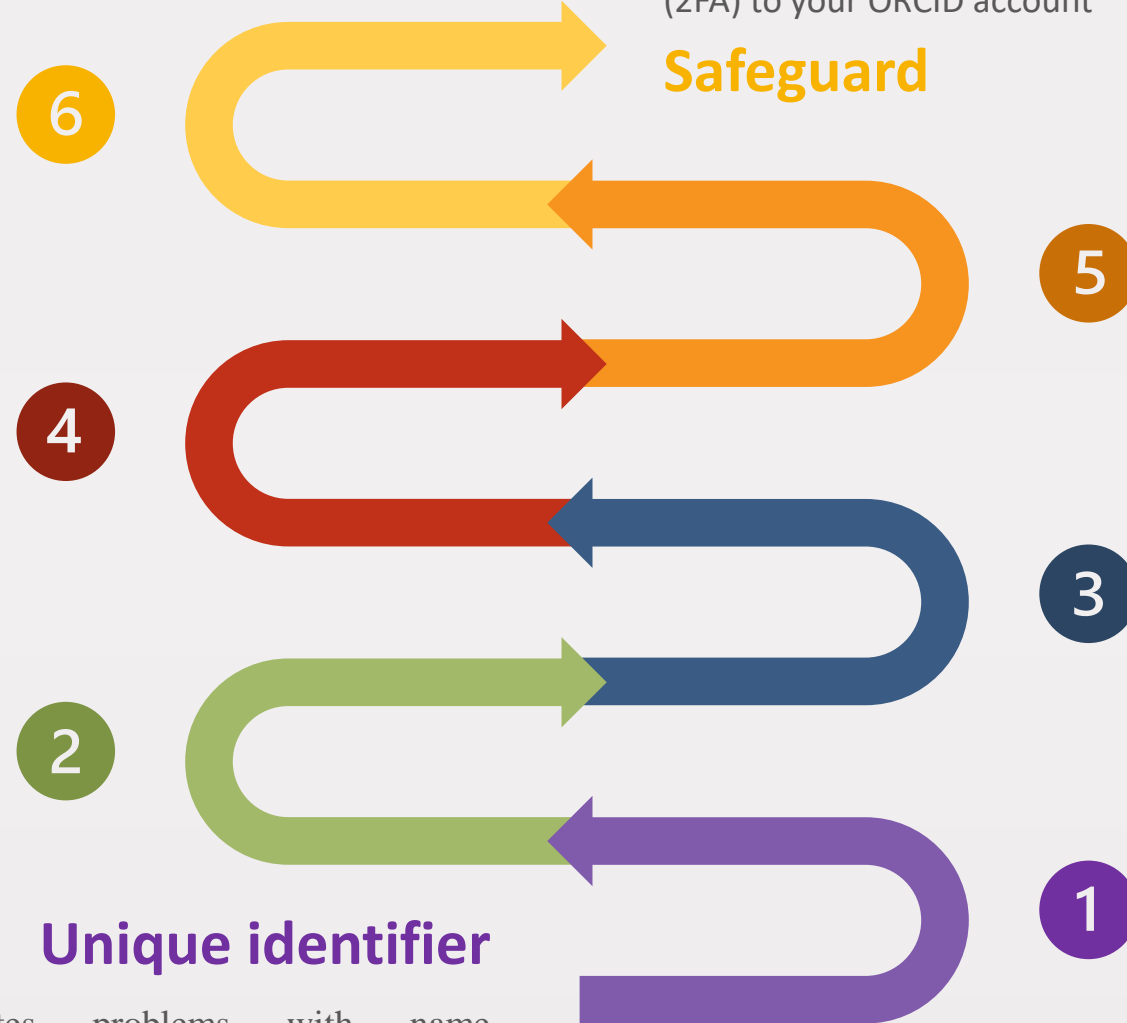


APIs

To enable the data exchange between ORCID records and member organizations

What benefits does an ORCID iD provide for you as a researcher?

You can add Two-Factor Authentication (2FA) to your ORCID account



Safeguard

Control

Make items on your record visible to and/or editable by nobody, only trusted organizations, or others as appropriate

Automate

Connect

Use your ORCID to authenticate or add it to your record with research sponsors, publishers, and others. Interoperability with major research databases

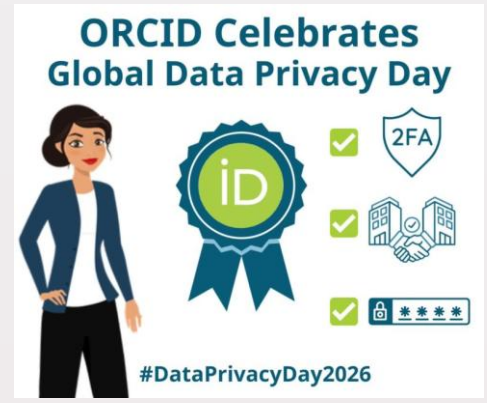
Saves time

Unique identifier

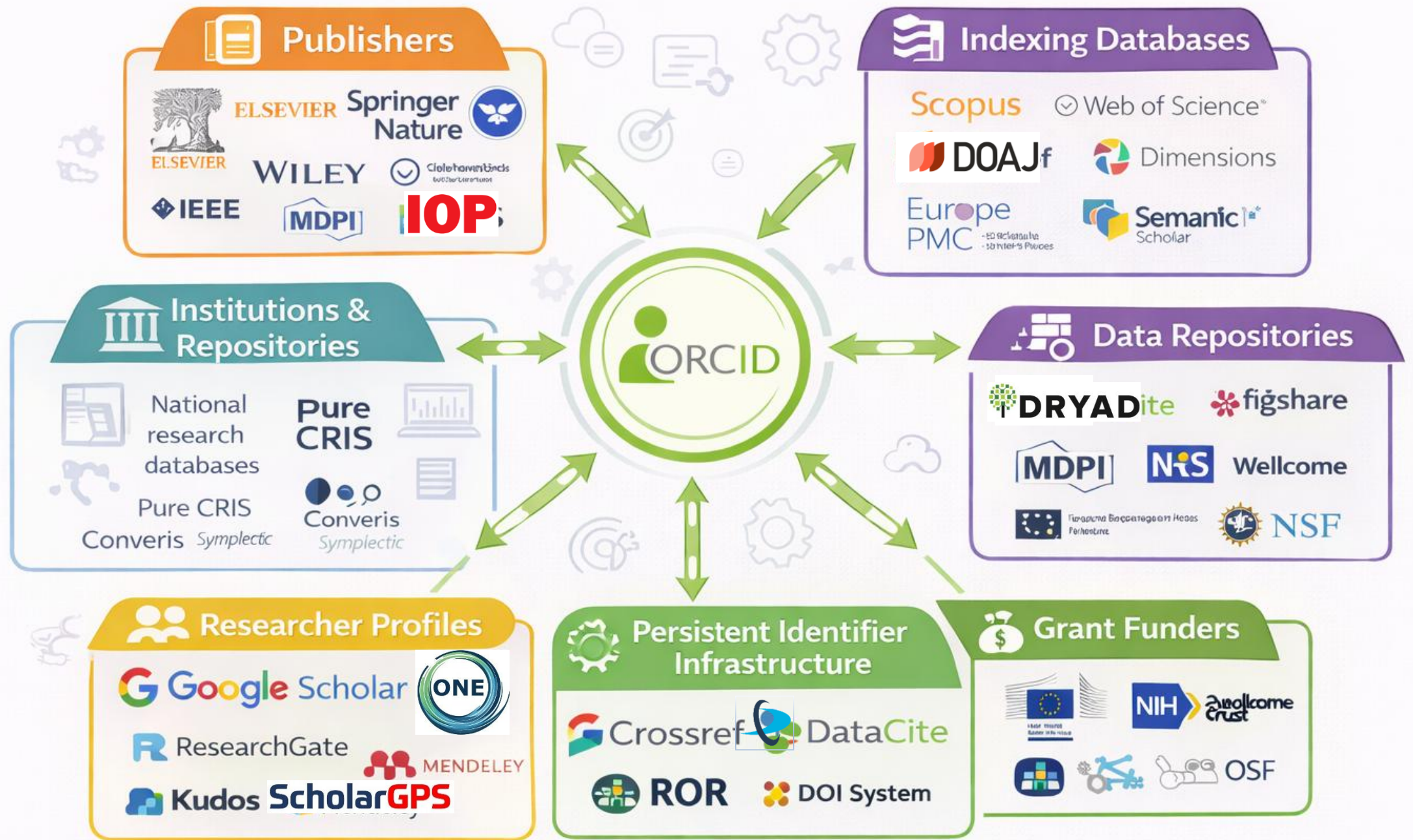
Eliminates problems with name similarities, name changes, etc.

Allow trusted organizations such as publishers, Datacite and Crossref, funders, and your home institution to automatically update your profile with new information as you publish or get funding

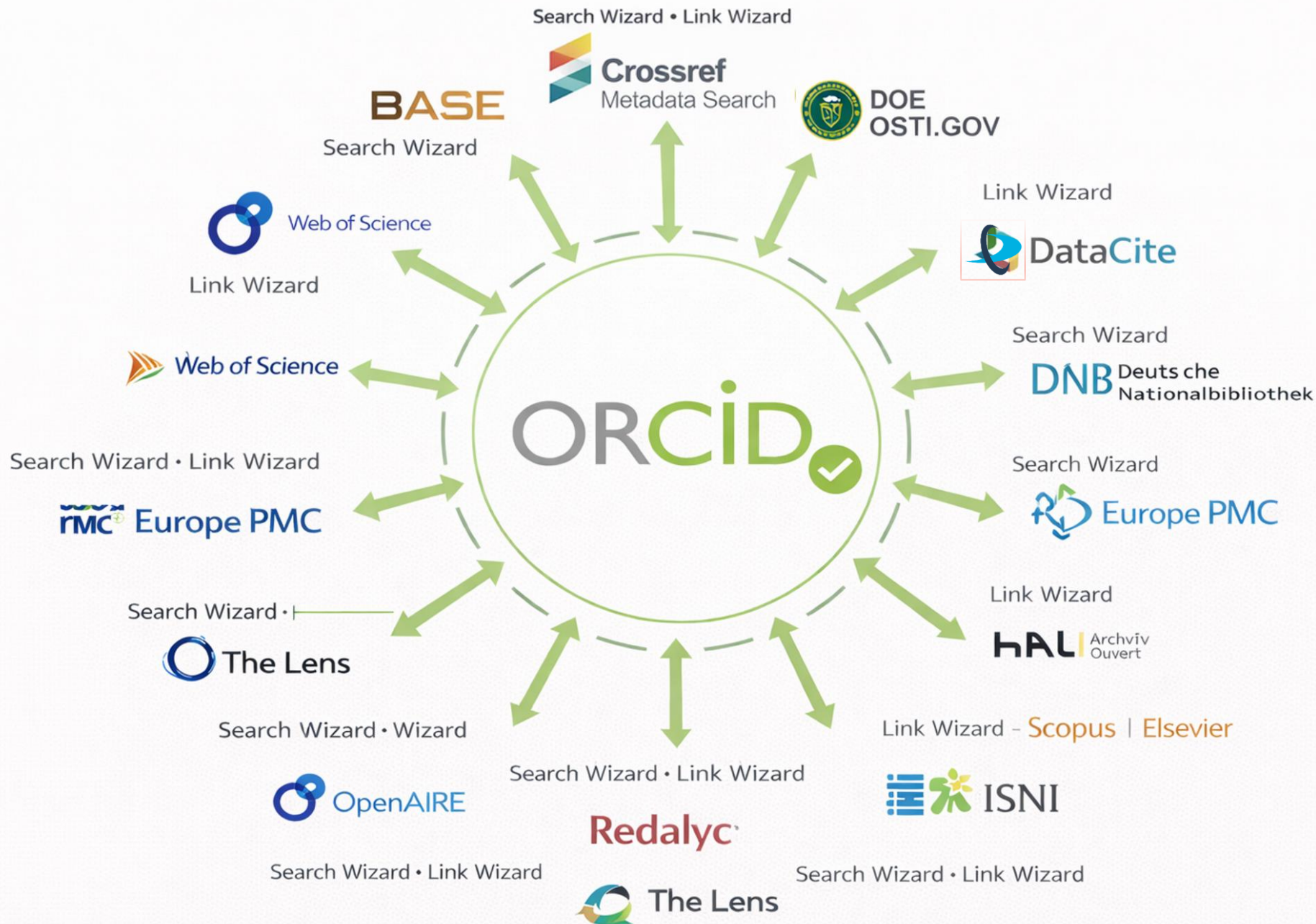
Lorem ipsum dolor sit amet, nibh est. A magna maecenas, quam magna nec quis, lorem nunc.



Structured overview of where ORCID iDs are integrated

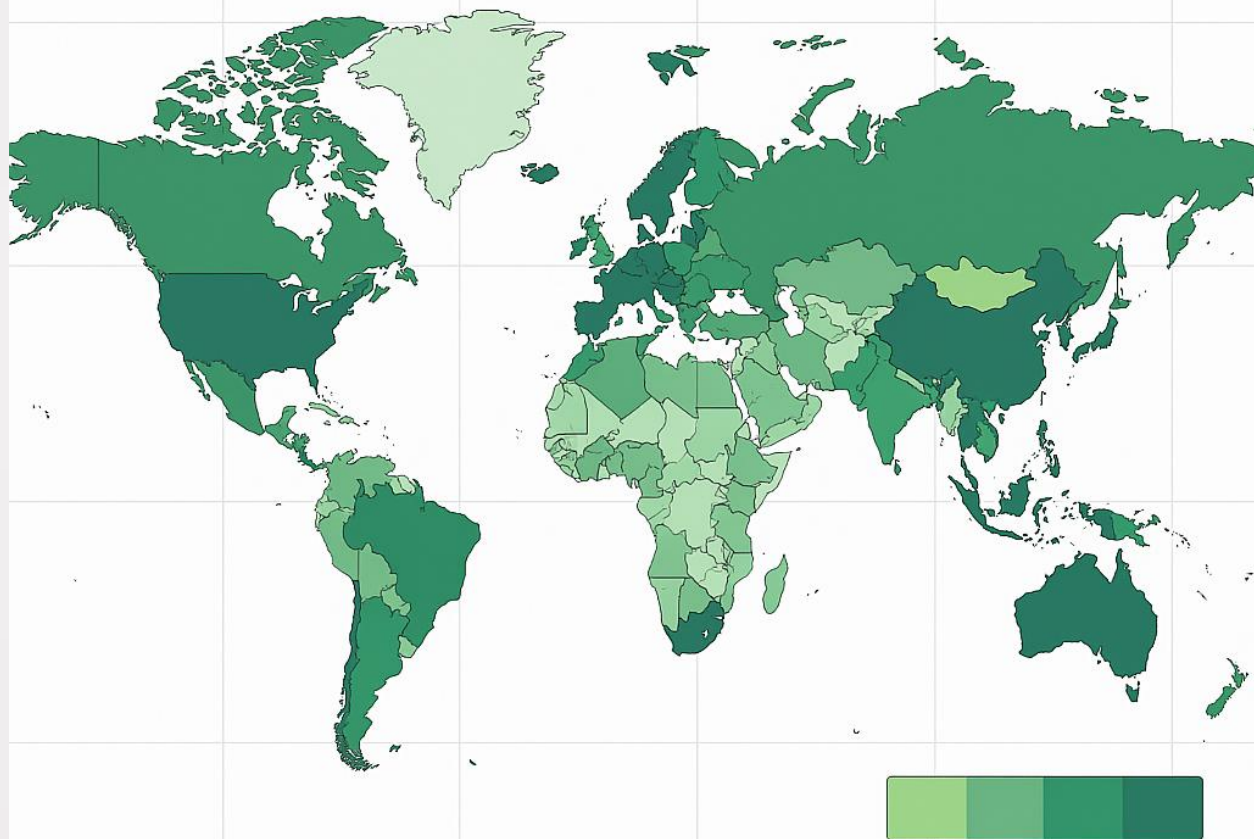


ORCID Available Search & Link Wizards



Countries with member organizations and researcher adoption worldwide

ORCID Adoption



ORCID Adoption



ORCID 2030

Strategic Themes



ORCID Certified Service Providers List

01 - PURPOSE

Certified systems integrate with ORCID to:

- ✓ Read researcher data (name, works, affiliation)
- ✓ Write updates (publications, funding, peer review)
- ✓ Synchronize records across platforms

03 - CORE FUNCTIONALITIES

- ✓ Authentication of researchers via ORCID iD
- ✓ Automated data exchange between systems
- ✓ Improved research visibility and interoperability

<https://info.orcid.org/vendors-and-service-providers/orcid-certified-service-providers-list/>

02 - MAIN CATEGORIES

- 1. Manuscript Submission Systems**
 - ✓ Journal submission & peer review platforms
 - ✓ Examples: Editorial Manager, OJS, etc
- 2. Research Information Systems**
 - ✓ Manage research outputs, profiles, and institutional data
 - ✓ Examples: DSpace-CRIS, Esploro, Pure
- 3. Grant / Application Management Systems**
 - ✓ Handle funding applications & grant workflows
 - ✓ Examples: ProposalCentral, SmartSimple
- 4. Discovery Systems**
 - ✓ Discover publications, patents, and research outputs
 - ✓ Examples: The Lens, Web of Science
- 5. Repository Systems**



How to Create an ORCID iD

1. Visit ORCID.org

Open the official ORCID website.



2. Click "Register"

Select the "Register" option to begin.



3. Fill in Your Information

Enter your name, email address, and password.



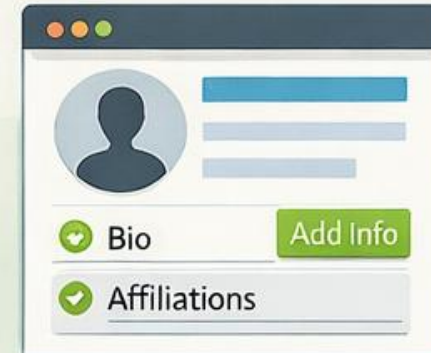
4. Verify Your Email

Confirm your email using the link sent by ORCID.



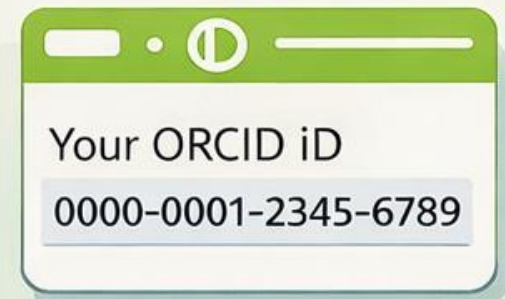
5. Set Up Your Profile

Add your biography and institutional affiliations.



6. Get Your ORCID iD

Your unique ORCID iD is created and ready to use.



- ✓ Finally, you can use your iD for submitting manuscripts, applying for funding, and accessing other opportunities.
- ✓ To increase your visibility, complete your employment, education, qualifications, and research contributions.

Sample of staff with an active ORCID account

- <https://orcid.org/my-orcid?orcid=0000-0003-0265-0261>



The image shows a screenshot of an ORCID iD profile for Dr. Hailu Kendie Addis. The profile is verified and includes a circular profile picture, a QR code, and a link to the profile. The main sections are: Biography, Research Focus, What is ORCID?, Employment, Education & Qualifications, Professional Activities, Funding, Works, and Peer Reviews. A footer banner states: 'ORCID iD CONNECTS ALL YOUR RESEARCH OUTPUTS – PUBLICATIONS, DATASETS, FUNDING & MORE!'.

ORCID **ORCID** VERIFIED USER

Dr. Hailu Kendie Addis

ORCID iD: 0000-0003-0265-0261

<https://orcid.org/0000-0003-0265-0261>

BIOGRAPHY

Ethiopian researcher and scholar specializing in **Agriculture & Natural Resources** and **Research Management**. Currently serving at the Amhara Agricultural Research Institute (ARARI).

Passionate about *Open Science*, *Scholarly Communication*, and *Researcher Identity*. Advocate for ORCID adoption and researcher visibility in Africa.

Country: Ethiopia

Affiliation: Amhara Agricultural Research Institute (ARARI)

RESEARCH FOCUS

- Agriculture & Natural Resources
- Research Management
- Open Science & ORCID Advocacy

WHAT IS ORCID?

A persistent digital identifier that distinguishes you from every other researcher and connects all your scholarly outputs across systems.

Unique • Persistent • Trusted

ACTIVITIES

EMPLOYMENT

Amhara Agricultural Research Institute (ARARI) 2010 – Present
Researcher · Ethiopia

Research on agriculture, natural resources, and research management.

EDUCATION & QUALIFICATIONS

PhD in Agriculture / Natural Resources PhD
Ethiopian Institution (Year)

MSc in Agriculture MSc
Ethiopian Institution (Year)

BSc in Agriculture BSc
Ethiopian Institution (Year)

PROFESSIONAL ACTIVITIES

- ORCID Advocate – Promoting researcher ID adoption in Ethiopia & Africa
- Peer Reviewer – Journals in Agriculture & Research Management

FUNDING

Various Research Grants & Projects 2015 – Present
Agriculture & Natural Resources · Ethiopia

Funded by national & international organizations supporting agricultural research.

WORKS

- Peer-Reviewed Publications** 15+
Articles in agriculture & natural resources journals
- Research Datasets** 5+
Available in repositories
- Conference Papers & Reports** 10+
National & international conferences

PEER REVIEWS

- Reviewed for journals in *Agriculture, Environmental Science & Research Policy*

ORCID iD CONNECTS ALL YOUR RESEARCH OUTPUTS – PUBLICATIONS, DATASETS, FUNDING & MORE!

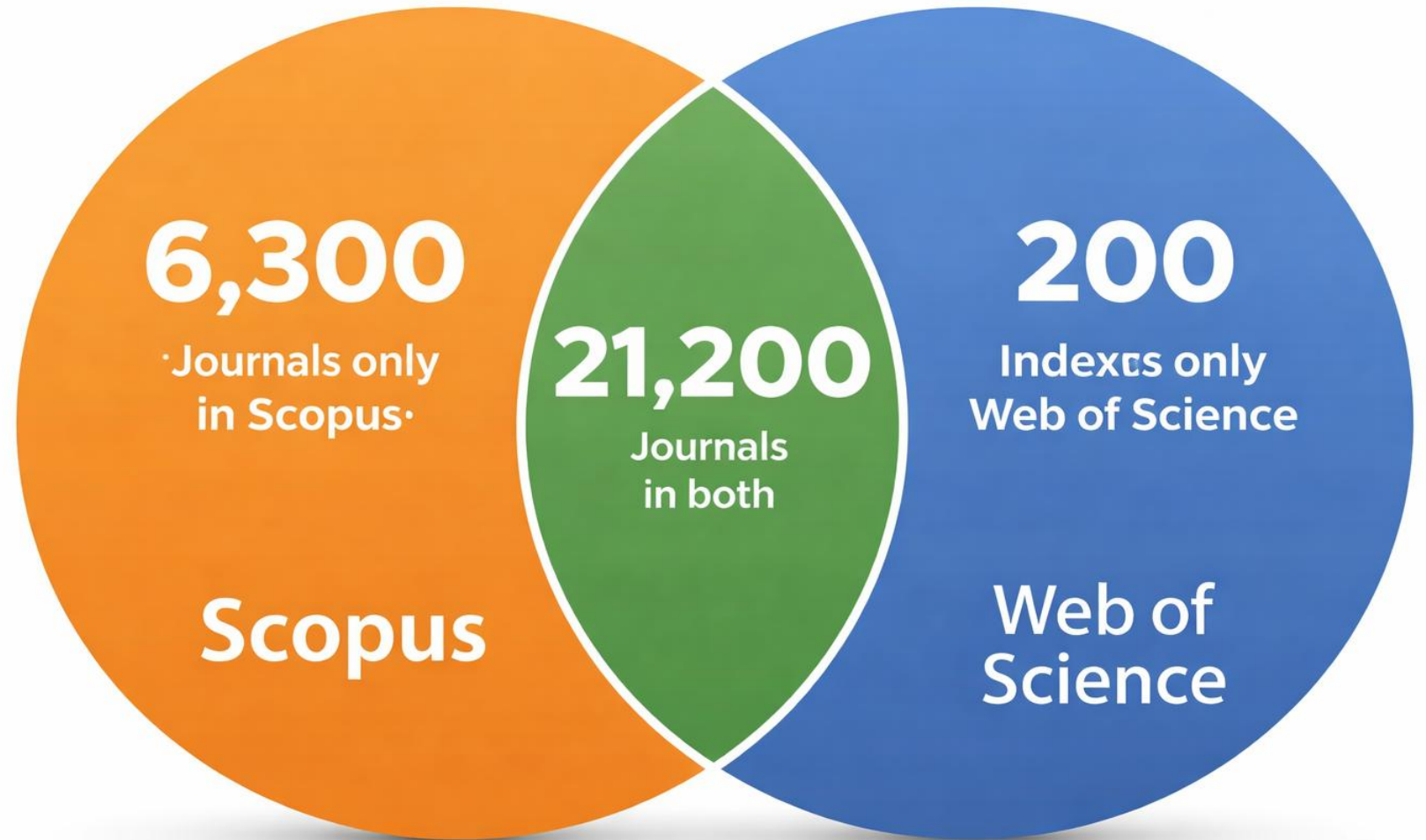
Generated for Dr. Hailu Kendie Addis • Last updated: April 2025

Step-by-step registration and account setup

Practical Exercise

Scopus and Web of Science (WoS)

How many are in both,
and how many indexed
by Scopus are *not*
indexed by WoS



SCOPUS



7+ thousand
publishers



25.3+ million
open access items: *gold, hybrid gold, bronze & green*



426+ thousand
books (stand alone titles)



29.1+ thousand
active journals



2.8+ million
preprints



Scopus

2.6+ billion
cited references dating
back to 1970



102.6+ million
records

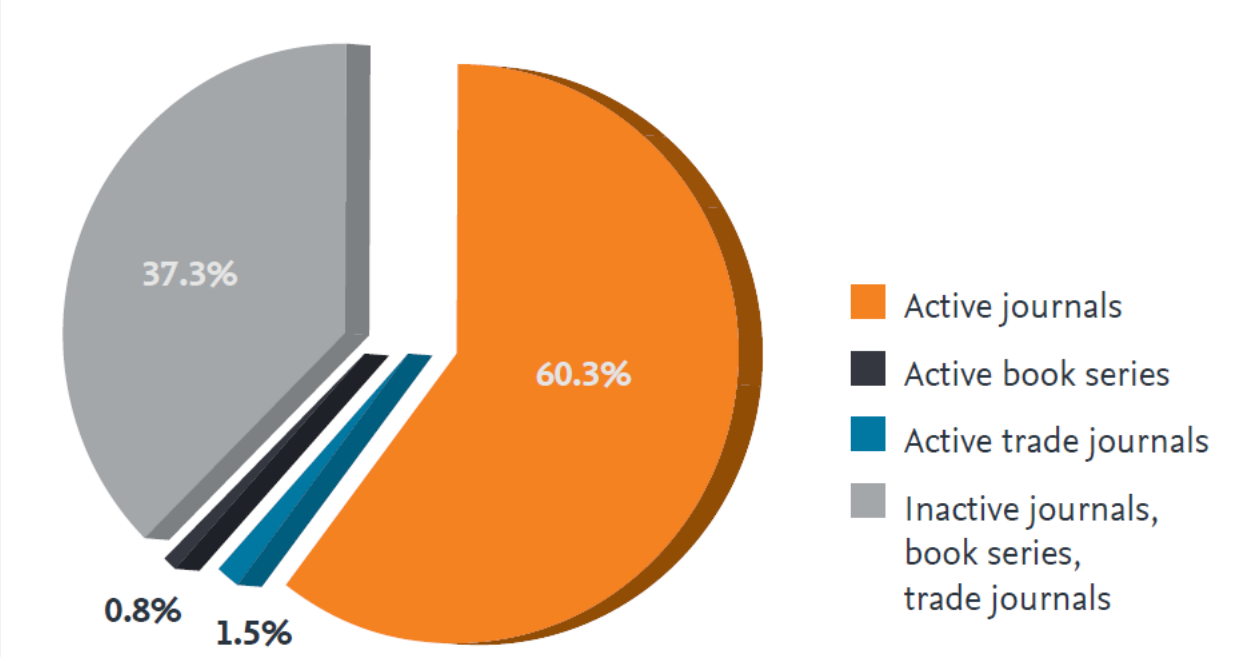


21.9+ million
active author profiles



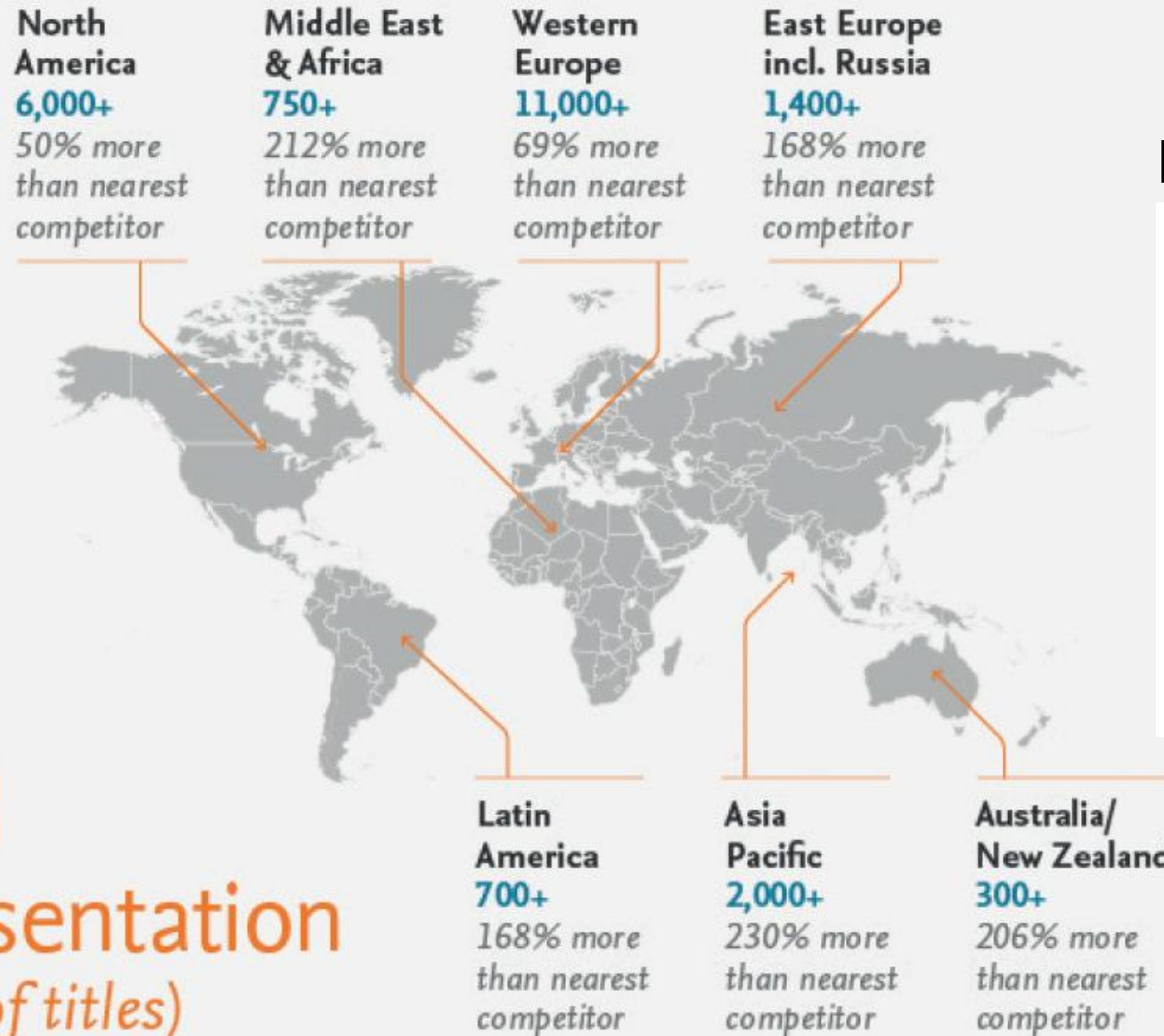
94+ thousand
affiliation profiles

Scopus serial publications %



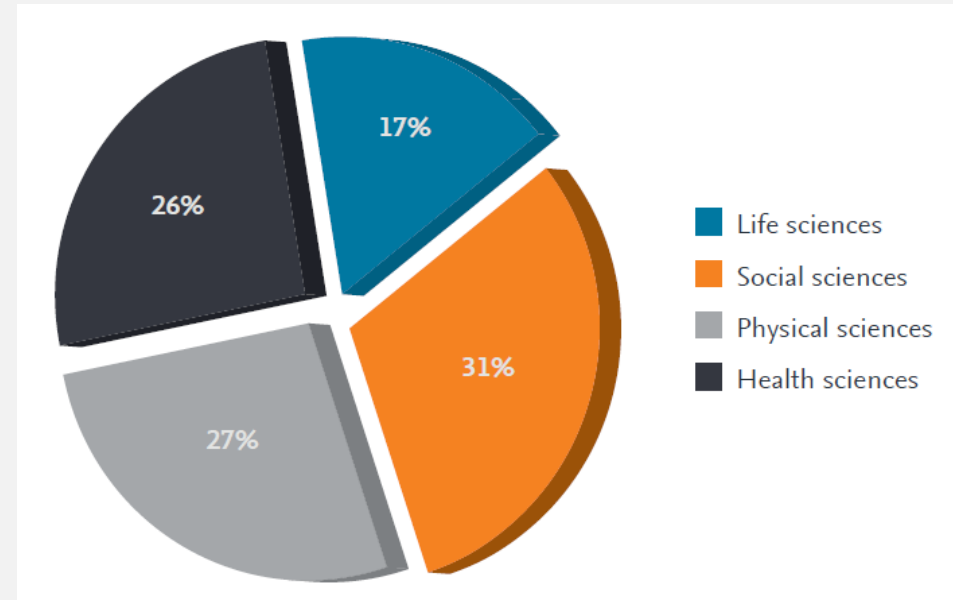
- Elsevier 9%
- Springer Nature 9%
- Taylor & Francis 7%
- Wiley-Blackwell 5%
- SAGE 2%
- Wolters Kluwer Health 1%
- Walter de Gruyter 1%
- Emerald 1%
- Brill 1%
- Oxford University Press 1%
- Cambridge University Press 1%
- IEEE 1%
- Other 60%

Number of active titles indexed by Scopus vs. the nearest competitor



Global Representation
(number of titles)

Publications per subject area



Lists of Important Scopus Research Tools

MENDELEY

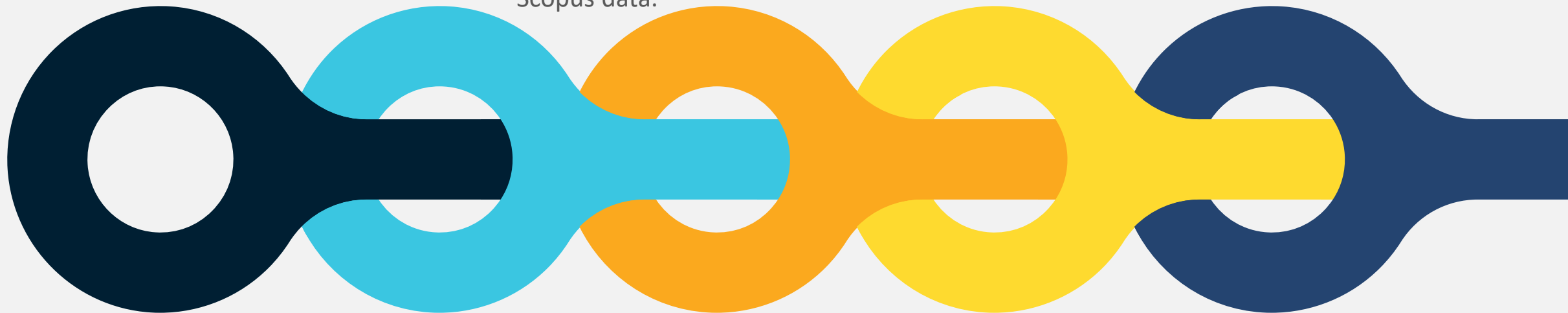
Mendeley for referencing, citation management, and research workflow

SCIVAL

A tool used to visualize research performance, benchmark against peers, and analyze citation impact using Scopus data.

REAXYS

A specialized chemical database that combines, with AI, data for chemistry research.



SCIENCEDIRECT

Elsevier's database for full-text scientific literature, often used to find content to add to a Mendeley library

RESEARCHER ACADEMY

A platform for free e-learning to help researchers manage their research journey.



Scopus Author Search

Documents **Authors** Researcher Discovery Organizations

[Search tips](#)

Search authors using: Author name ORCID Keyword

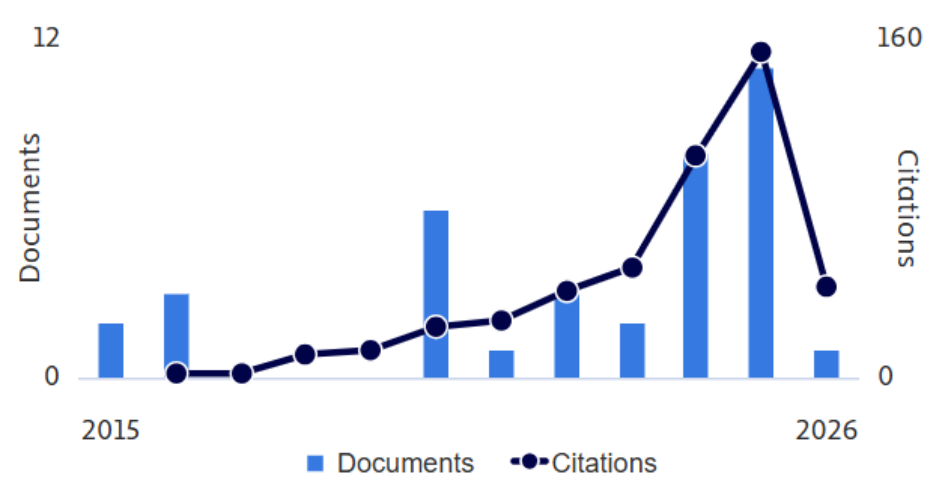
Enter last name *

Enter first name

Search

All [Show documents](#) [Citation overview](#) [Edit author profile](#) [Save to author list](#)

	Author	Documents	Affiliation	City	Country/Territory
<input checked="" type="checkbox"/> 1	Addis, Hailu Kendie Addis, Hailu Adiss, Hailu Kindie Kindie, Hailu View last title	37	Amhara Agricultural Research Institute	Bahir Dar	Ethiopia
<input type="checkbox"/> 2	Addis, Addisu Hailu Addis, Addisu H. View last title	5	University of Gondar	Gondar	Ethiopia



Scopus Profile Summary

Addis, Hailu Kendie

Article • *Open access*

Predicting the spatial distribution of soil erodibility factor using USLE nomograph in an agricultural watershed, Ethiopia 85 Citations

[Addis, H.K.](#), [Klik, A.](#)

[International Soil and Water Conservation Research](#), 2015, 3(4), pp. 282–290

[Show abstract](#) ▾ [Full text](#) ▾ [Related documents](#)

Article • *Open access*

Soil loss estimation and severity mapping using the RUSLE model and GIS in Megech watershed, Ethiopia 63 Citations

[Getu, L.A.](#), [Nagy, A.](#), [Addis, H.K.](#)

[Environmental Challenges](#), 2022, 8, 100560

[Show abstract](#) ▾ [Full text](#) ▾ [Related documents](#)

Article

Modeling streamflow and sediment using SWAT in ethiopian highlands 54 Citations

[Addis, H.K.](#), [Strohmeier, S.](#), [Ziadat, F.](#), [Melaku, N.D.](#), [Klik, A.](#)

[International Journal of Agricultural and Biological Engineering](#), 2016, 9(5), pp. 51–66

[Show abstract](#) ▾ [Full text](#) ▾ [Related documents](#)

Author Position for 2015 - 2024

First author 29% [^](#)

7	28	0.637
Documents	Average citations	FWCI

Last author 46% [^](#)

11	15	0.952
Documents	Average citations	FWCI

Co-author 25% [^](#)

6	8	0.515
Documents	Average citations	FWCI

Single author 0%

The author is the only one in the document

0	0	0
Documents	Average citations	FWCI



ClarivateTM

- ✓ The Institute for Scientific Information (ISI) was founded in 1960.
- ✓ It was acquired by Thomson Scientific & Healthcare in 1992 and became known as Thomson ISI.
- ✓ Following the formation of Thomson Reuters in 2008.
- ✓ In 2016, rebranded as Clarivate Analytics, which later shortened its name to Clarivate.



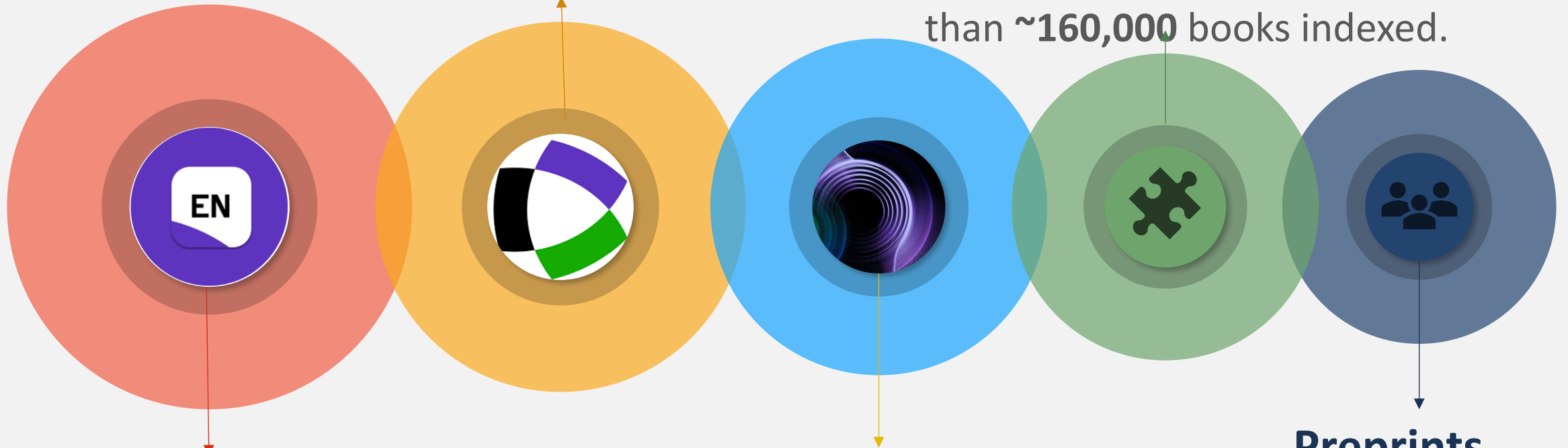
Clarivate / Web of Science Data

Records in the database

The *Web of Science* platform includes **97 million+** records

Books (stand-alone titles & coverage)

The database covers more than **~160,000** books indexed.



Active journals

Web of Science Core Collection indexes over **~22,000+** active peer-reviewed journals.

Cited references

Over 2.4 billion cited references in the Core Collection.

Preprints

Clarivate's Preprint Citation Index initially included nearly **~2 million** preprints from major servers like arXiv and bioRxiv.

WoS Author Search

DOCUMENTS

RESEARCHERS

Name Search ▼

Last Name*

First Name

+ Add name variant

✕ Clear Search

[Author Profile](#) Author Profile

59 results from Web of Science Researchers for:

9 [Addis, Hailu Kendie](#) ✓

Amhara Agr Res Inst

POB 527

BAHIR DAR, ETHIOPIA

Web of Science ResearcherID: R-1595-2019

Published names: Kendie, Hailu Adiss, Hailu Kindie [more..](#)

Top Journals: SCIENTIFIC REPORTS, JOURNAL OF AGRICULTURE AND ENVIRONMENT FOR INTERNATIONAL DEVELOPMENT, APPLIED AND ENVIRONMENTAL SOIL SCIENCE

[Recent publications](#) ▼

2015-2025

Years

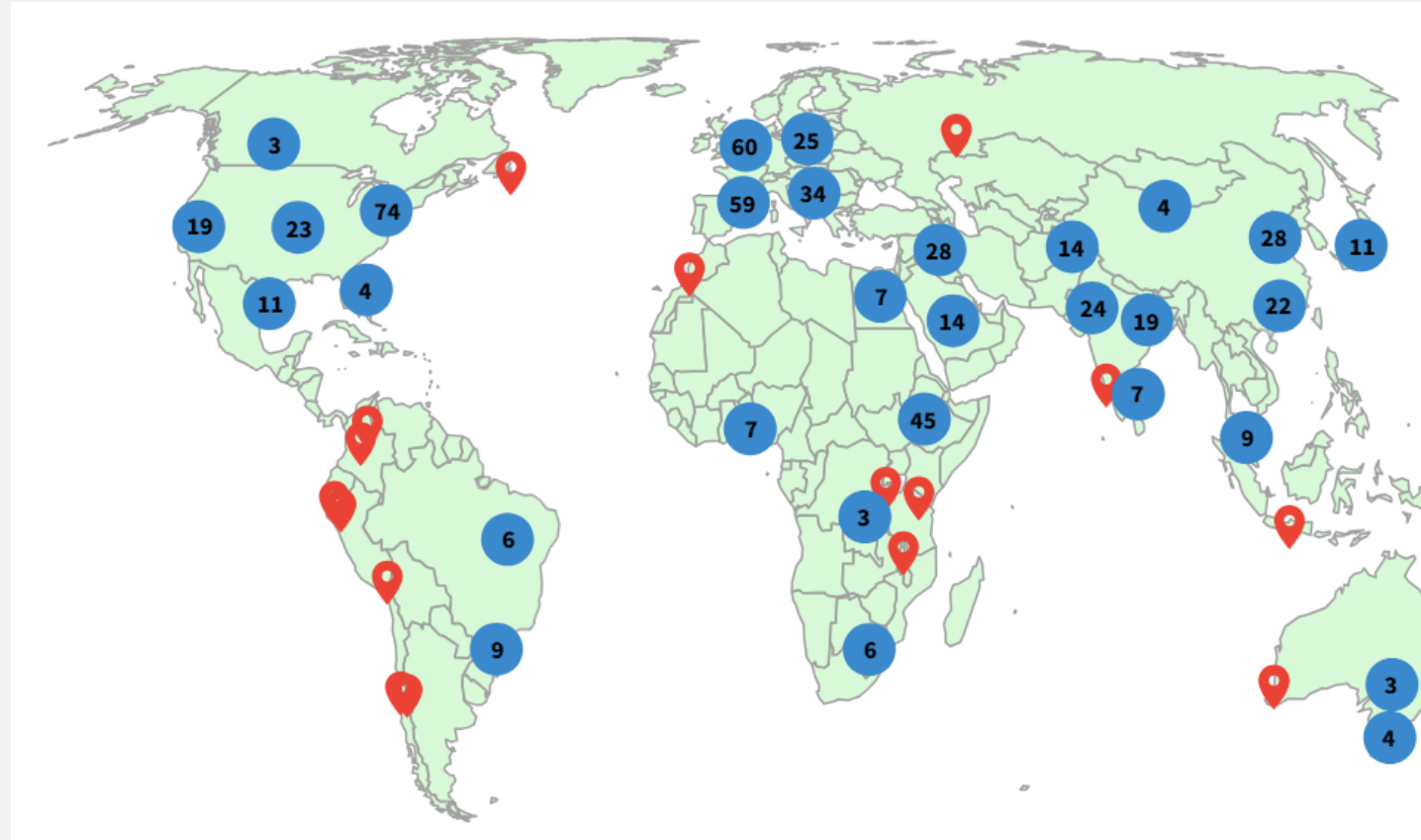
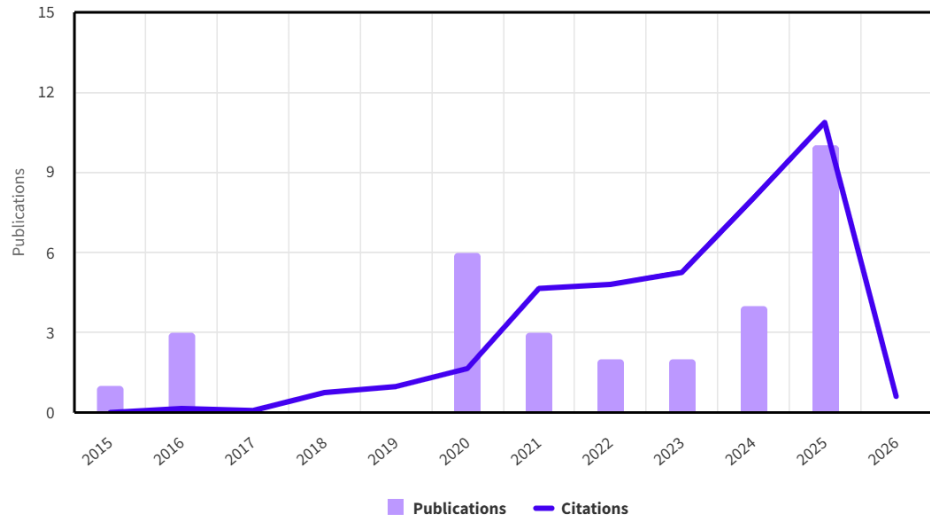
Documents : 30

Peer Reviews: 52

WoS Profile Summary & Geographic Citation Map

44	Total documents
35	Publications indexed in Web of Science
31	Web of Science Core Collection publications
0	Preprints
0	Dissertations or Theses
9	Non-indexed publications
58	Verified peer reviews

Times Cited and Publications Over Time



Object Identifiers (DOI, ARK, HNDL, PURL): Which to Choose?

Digital Object Identifier

DOI

For academic and formal publications:

Use DOI (via Crossref or DataCite).

/month

Archival Resources Key

ARK

For libraries, archives, and museums:

ARK is an excellent, purpose-built choice.

/month

Handle

HNDL

To build a custom, large-scale ID system:

Consider implementing the Handle protocol.

/month

Persistent Uniform Resource Locator

PURL

For simple, stable links to definitions or small projects:

PURL is a straightforward tool.

/month

Organization Identifiers

01

ROR / GRID



ROR vs. GRID: ROR is the current, active registry that replaced GRID. ROR ID is for where research is done (affiliations).



<https://is.gd/b1kRVD>

02

Funder ID



Funder ID is for the funder who paid for the research (funding acknowledgments).



03

PIC



Participant Identification Code (PIC) is a unique 9-digit number used to identify organizations (legal entities) participating in European Union funding programs, such as Horizon Europe and Erasmus+.

<https://is.gd/KJeuAO>

An Organization Can Have Both IDs: Many major entities are both a research performer *and* a funder.

Types of Journal Publishers

Commercial

These entities operate on a for-profit, high-margin model, with revenues often distributed to shareholders.



01

University/Society

Often have a lower risk tolerance, slower adoption of technological changes, but high trust and brand reputation.



02

Library/Non-Profit

These include library publishing programs, academic-led, or specialized, non-profit entities.



03

Well-known Academic Journal Publishers



ELSEVIER



emerald
PUBLISHING



IOP Publishing



PeerJ

WILEY



CAMBRIDGE
UNIVERSITY PRESS & ASSESSMENT



OXFORD
UNIVERSITY PRESS



Researcher Metrics

Measuring Productivity & Impact



Papers Published

Number of research articles published.



Impact Factor

Quality of journals published in.



Citations

Times cited by other researchers.



Collaborations

Research partnerships & co-authorships



H-Index

Impact & productivity score.



Grants & Funding

Research grants & funding secured.



Citations per Paper

Average citations per article.



Patents & Innovations

New inventions & patents filed.



Academic Influence



Scientific Impact



Funding Success



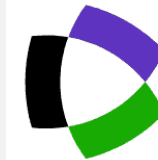
Innovation

Key Indicators of Research Performance

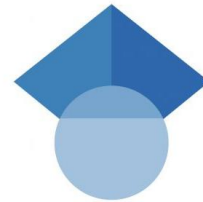
Well-accepted Research Metrics Providers



Scopus



Clarivate™



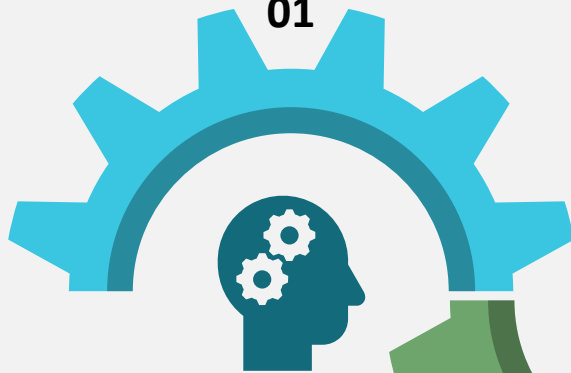
Google Scholar

Who Uses the h-index?

Researchers

Track career progress or prepare for promotion

01



Funding Agencies

Helps in deciding grant allocations or fellowships.

03



Countries

Aggregated h-index values help rank countries

05



02

Institutions

To benchmark departments or an institute.



04

Publishers

To assess journal influence in the field

H-index providers



Addis, Hailu Kendie

Amhara Agricultural Research Institute, Bahir Dar, Ethiopia • Scopus ID: 57094159100

[Show all information](#)

474 Citations by 430 documents 37 Documents 12 h-index

11

H-Index

31

Publications

324

Sum of Times Cited

297

Citing Articles

297

Sum of Times Cited without self-citations

283

Citing Articles without self-citations

0

Sum of Times Cited by Patents

0

Citing Patents

0

Sum of Times Cited by Policy

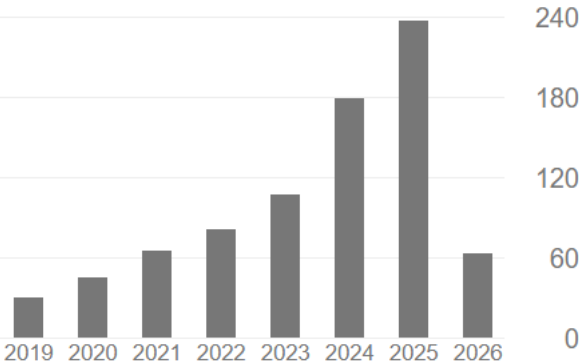
0

Citing Policy Documents

Cited by

[VIEW ALL](#)

	All	Since 2021
Citations	883	735
h-index	17	16
i10-index	20	19



Alternative providers for tracking the H-index

 **Bohrium**

<https://www.bohrium.com/>

01

 **Publish or Perish**

app

Lorem ipsum dolor sit amet, nibh est. A magna maecenas, quam magna nec quis, lorem nunc. Suspendisse viverra sodales mauris, cras pharetra proin egestas.

02

ScholarGPS

<https://scholargps.com/>

03

 **OpenAlex**

<https://openalex.org/>

04



Lens.org

<https://lens.org/>

05

Journal quality indicators

01 SCOPUS

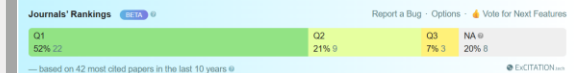
CiteScore, SCImago Journal Rank (SJR), and Source Normalized Impact per Paper (SNIP)

02 CLARIVATE

Journal Citation Reports (JCR) by Clarivate is an annual, objective evaluation tool for academic journals, providing metrics to rank journals in WoS categories.

The 2025 release features 22,249 journals across 254 disciplines.

03 GOOGLE SCHOLAR



<https://is.gd/eSlCj1>

Ethiopian Journals Indexed in WoS, Scopus, PubMed, DOAJ, AJOL



WoS

- ✓ Ethiopian Journal of Health Sciences
- ✓ Ethiopian Journal of Health Development



Scopus

- ✓ Ethiopian Journal of Health Sciences
- ✓ Ethiopian Journal of Health Development
- ✓ Ethiopian Medical Journal
- ✓ Ethiopian Journal of Pediatrics and Child Health
- ✓ Ethiopian Journal of Reproductive Health



PubMed

PubMed

- ✓ Ethiopian Journal of Health Sciences



AJOL

67

DOAJ

Blue Nile Journal of Agricultural Research
BNJAR

STATUS
Under review by an editor
Last updated 15 Jan 2026



DOAJ

17

Research funding applications & collaboration platforms



ProposalCentral

It is an online grants management platform designed to streamline the submission, review, and administration of research funding applications.

<https://proposalcentral.com>



CrowdHelix

Its main purpose is to facilitate research collaboration and innovation partnerships across Europe and beyond.

<https://crowdhelix.com/>



ResearchNet

It is an online platform designed to manage research grant applications and funding processes

<https://is.gd/t hhKLO>



EU funding & tendering portal

It is the platform of the EU to facilitate access to EU funding opportunities and manage the entire grant lifecycle.

<https://is.gd/v cxvam>

International Training Program
Ministry of Science and Technology
People's Republic of China

https://mostip.cistc.gov.cn/student_login.aspx

Future Focus: Use Object Identifiers for Preprints and Joining an ORCID Consortium



<https://www.biorxiv.org/>

bioRxiv

- ❖ bioRxiv (pronounced “bio-archive”) is a free online archive where scientists can post preprints of research manuscripts in life science fields before they have been peer reviewed and formally published in a journal.



ORCID CONSORTIUM

- ❖ Using a consortium model, the institute can register and manage all researchers centrally, ensuring consistency.

<https://arxiv.org/>

arXiv

- ❖ arXiv (pronounced “archive”) is a free online preprint repository where researchers share scientific papers before formal peer review and journal publication.

Thank You For Your Attention

Time for Questions