

Local action Global effect

HAL is the French national open archive designed to host, preserve and promote the dissemination of scientific work.

Created by the CCSD and the HAL ambassadors, this poster highlights the advantages and impact of the platform at various levels. By increasing the visibility of submitted work, encouraging collaboration, and ensuring the long-term preservation of knowledge, HAL actively promotes open and accessible research as a common good, for the benefit of society.

RESEARCHER

Visibility & citation

Consensus shows that open access (OA) deposit has a positive effect on **the visibility and citation** of a scientific article compared to a closed article^[6]. Furthermore, articles deposited in open archives (green OA), including HAL, have a **higher average relative citation rate** than articles published under any other OA model (Fig. 1).

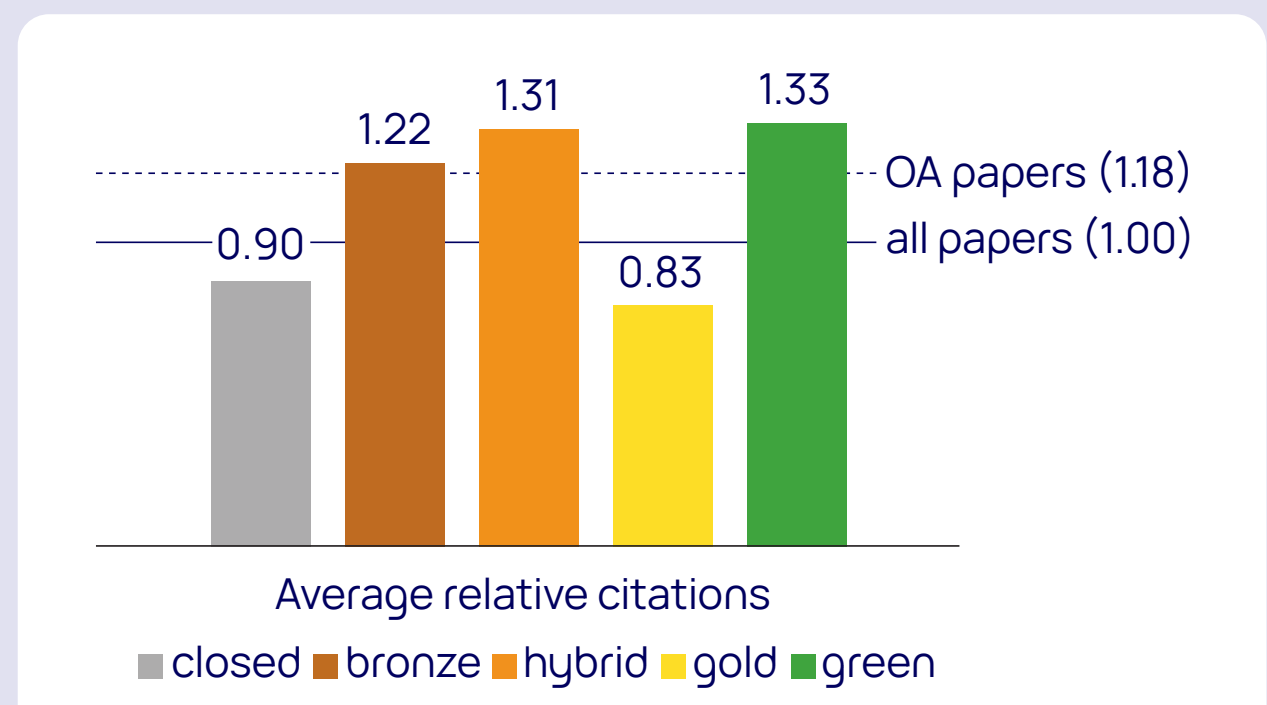


Fig 1. Average relative citations for different types of access, based on a random sample of Web of Science (WoS) articles and journals with a Digital Object Identifier (DOI) published between 2009 and 2015. Piwowar et al., 2018.

Indeed, articles using green OA receive up to **106% more citations** on average than gold OA articles (provided by the publisher) or closed articles^[6].

The same applies to data accessibility. On average, articles with statements on data availability have a **citation impact that is up to 25% higher** on average^[2].

Personal archive

Through the publication of an exhaustive academic CV, HAL can also be seen as a form of **personal digital library**. HAL adheres to several of these principles^[3].

- Self-archiving
- Personalised information management
- Long term access
- une réduction du temps de recherche
- une diminution des risques de liens brisés ou de documents indisponibles

Intellectual property

Contrary to popular belief, depositing works in an open access (OA) repository **does not increase the risk of plagiarism**.

Although they cannot eliminate plagiarism, open archives greatly enhance academics' ability to evaluate, compare and refer to freely available scientific works. So **they help to prevent plagiarism and promote integrity** in scientific research^[5].

On HAL, timestamping guarantees the legal authorship of the deposit^[1]. The idHAL author identifier reinforces this mechanism. Applying a **free licence** to a deposit facilitates its reuse while ensuring that the author(s) are credited.

LABORATORY

Centralisation by collection

It is crucial that researchers have easy access to **the work of their peers, both past and present**^[3].

How can we recount the history of a scientific collective through its publications without requiring subscriptions?

A HAL collection **showcases the work of a group belonging to the same laboratory, event, or field of research** (Fig. 2). It centralises publications, facilitates their dissemination, and enhances the laboratory's visibility by telling its story^[4].

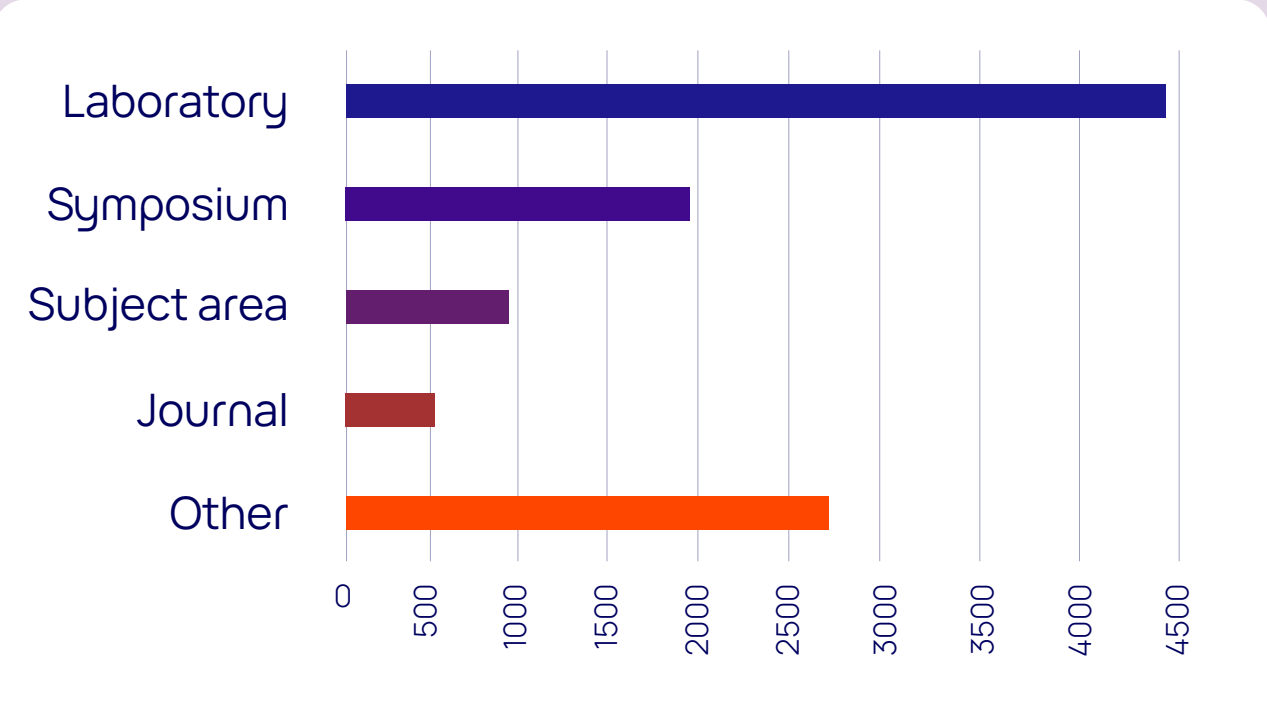


Fig 2. Distribution of HAL collections by category. CCSD, 2024

Thanks to information on authors and co-authors, collections on HAL promote and **contribute to scientometric analyses** of scientific networks within and around laboratories^[4].

Mapping of a laboratory

Large international databases such as Web of Science and Scopus remain **unrepresentative of the diversity and comprehensiveness of the scientific output of French laboratories**. Furthermore, search tools such as Google Scholar and Dimensions **lack transparency and reliability** (Fig. 3)^[4].

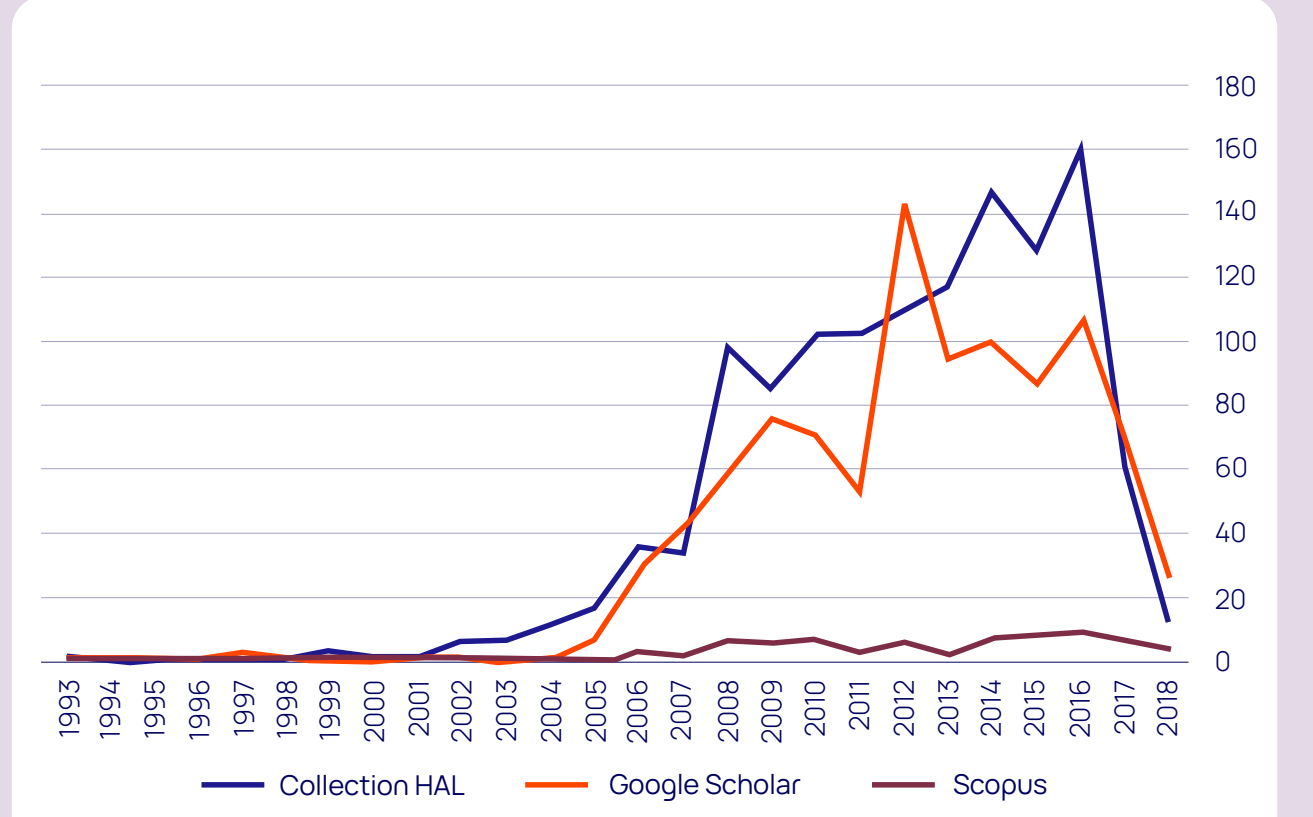


Fig 3. A comparison of the number of records per year for the GERICO laboratory, as present in the laboratory's HAL collection and on Google Scholar and Scopus (University of Lille). Schöpfel et al., 2018

The collections in HAL play a vital role in providing a **comprehensive showcase for laboratories**. They facilitate the aggregation, preservation and utilisation of metadata related to research activities^[1].

In fact, HAL has established itself in France — and across Europe, as evidenced by its involvement in ERC projects —, as **an essential tool** for generating research knowledge and assisting scientific organisations in monitoring projects and providing the information required for reviews, activity reports, and evaluation campaigns^[2].

[1] Achard A.L. et al. (2018). Idée reçue #4 «l'Open Access facilite le plagiat». Matinée Open Access Week Lyon oawlyon2018 «Bibliothèques et chercheurs : la science ouverte en com mun», Lyon, France, 2018. hal-01898055
[2] Colavizza G. et al. (2020). The citation advantage of linking publications to research data. *PLoS ONE* 15(4): e0230416. 0.1371/journal.pone.0230416
[3] Karamikolas, N. N., & Skourlas, C. (2014). Personal digital libraries: A self-archiving approach. *Library Review*, 63(6/7), 436-451. https://doi.org/10.1108/LR-06-2014-0073
[4] Piwowar H. et al. (2018). The state of OA: a large-scale analysis of the prevalence and impact of Open Access articles. *PeerJ*, 6:e4375. 10.7717/peerj.4375
[5] Puspita, D. et al. (2024). Open Access Institutional Repository in the Digital Era: Preventing or Increasing Plagiarism? *Yustisia*, [S.l.], v. 13, n. 2, p. 168-188, aug. 2024. ISSN 2549-0907. 10.20961/yustisia.v13i2.85096
[6] Young, J. S., Brandes P.M. (2020). Green and gold open access citation and interdisciplinary advantage: A bibliometric study of two science journals. *The Journal of Academic Librarianship*, Volume 46, Issue 2, 102105. ISSN 0099-1333

[1] Bryant, R. et al. (2017). Research Information Management: Defining RIM and the Library's Role. OCLC, Dublin, OH. https://www.oclc.org/research/publications/2017/oclrsearch-defining-rim.html
[2] De Castro, P. (2018). Mapping the European CRIS infrastructure and its potential applications. Communication présentée à Antwerp ECOM Workshop "Working with National Bibliographic Databases for Research Output", Antwerp. https://dspacecris.eurocris.org/handle/11366/705
[3] Levin, N. et al. (2016). How Do Scientists Define Openness? Exploring the Relationship Between Open Science Policies and Research Practice. *Bulletin of Science, Technology & Society*, 36(2), 128-141. 10.1177/0270467616688760
[4] Schöpfel, J. et al. (2018). Valoriser les publications d'un laboratoire universitaire dans l'environnement de la science ouverte. ECOM 2018 3e colloque international sur le libre accès. E31 Rabat, Rabat, Maroc. hal-01940352

SOCIETY

Permanent archiving

The preservation of human knowledge is based on the fundamental principle of **ensuring the sustainability of constantly evolving research products**. This is necessary so that researchers and students, both now and in the future, can consult, draw inspiration from, and make use of these products^[4].

174 open access journals covering all major research topics disappeared from the web between 2000 and 2019 due to a **lack of comprehensive and open archiving**^[2].

28% of publications with a DOI are **not properly preserved** in a major digital archive^[3].

Articles that are not archived in a permanent archive are more **vulnerable** to economic, technical or political uncertainties affecting the various players involved in publishing, which threaten commercial journals and platforms.

HAL is **an international solution that guarantees free and continuous access to research**, helping to combat the loss of scientific knowledge.

Common good and free access

In order to promote the development of knowledge, society must have access to high-quality, peer-reviewed scientific literature. **However, knowledge remains invisible without dissemination**^[6].

Research that is freely accessible **circulates more quickly and reaches a wider audience**. This contributes to the democratisation of science and accelerates scientific discoveries and innovation^[1].

Open access enables **individuals and institutions without subscriptions or financial resources** to access scientific research. This includes students, independent researchers, non-governmental organisations (NGOs), journalists, and policymakers^[7].

«Scientific research is a public resource that should be shared as widely as possible. Public authorities should restore science to its original function of contributing to collective enrichment.»

French first national plan for open science (2018-2021)

Scientific research, particularly when funded by the public, **belongs to everyone** and is a common good. Privatising this knowledge through expensive subscriptions or paywalls **limits its potential benefit to society**^[7].

COMMUNITY

Collaboration

Open archives influence the collection development strategies of university libraries by **shifting the focus from ownership to access**. They facilitate broader access to academic work, supporting collaboration and innovation within the scientific community^[4].

Actually, open practices encourage collaboration among researchers by making their work more visible and accessible. They also enable quick access to new data and software resources, and pave the way for **collaboration on ongoing joint projects**^[3].

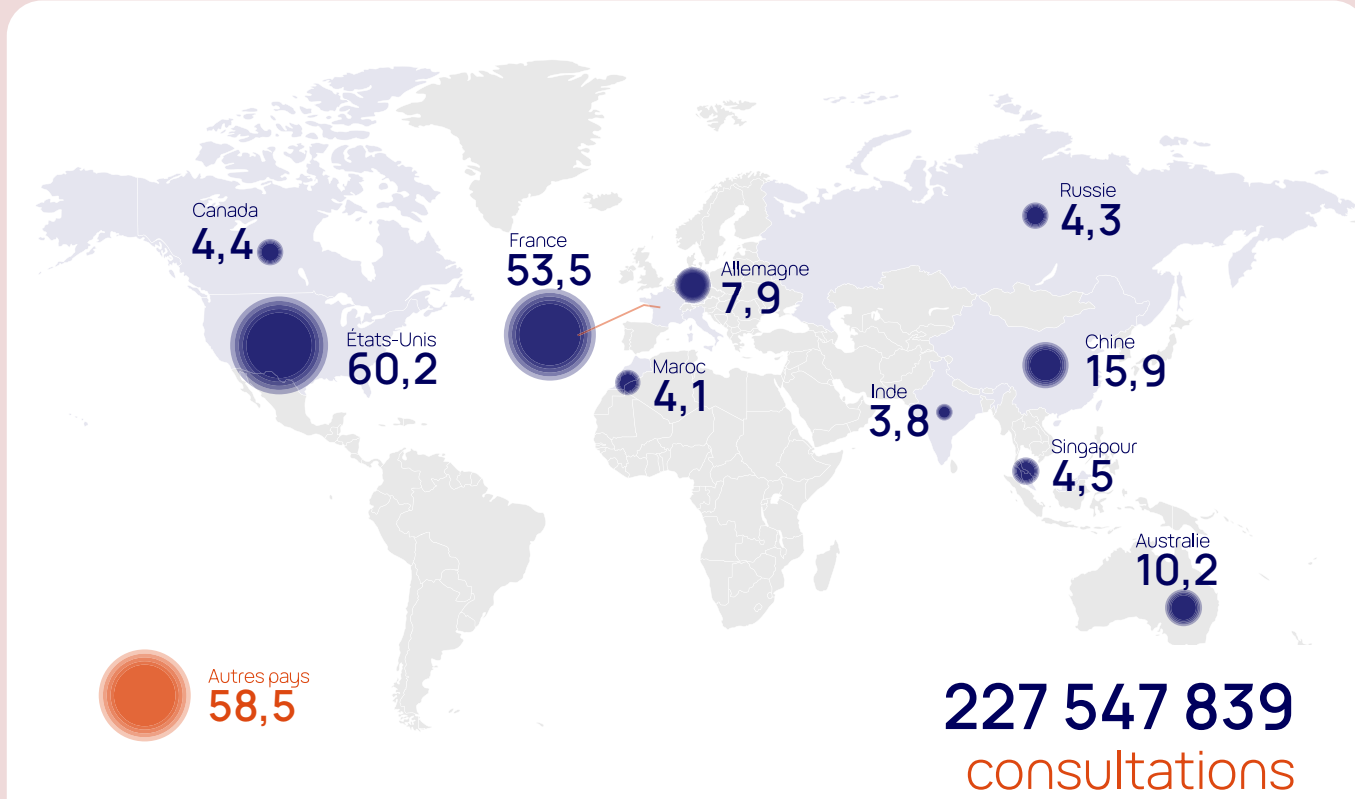


Fig 4. Map of visits to the hal.science website worldwide in 2024. CCSD, 2025

This mode of operation goes beyond traditional approaches to collaboration. It is a fairer and more effective method of producing rigorous science with a global impact (see Fig. 4)^[2].

Harvesting

Submitting to HAL means benefiting from widespread dissemination. Indeed, the archive is harvested extremely well by:

- Databases (PubMed, Software Heritage...)
- search engine (Google Scholar, Semantic Scholar...)
- content aggregator (CORE, OpenAlex, Unpaywall...)

Projects

HAL **increases the visibility of funded projects** (ANR, ERC, ADEME, ANSES, etc.) by centralising and disseminating publications and associated data.

HAL relies on **repositories dedicated to nationally funded projects**. When submitting a publication, researchers can link their work to the relevant project by selecting it from the repository. This grouping of publications related to the same project **facilitates the monitoring and visibility of research results**.

HAL also allows for the submission and dissemination of conference proceedings, presentations, posters and other contributions from scientific events^[1], **providing a more comprehensive overview of research activity**.

[1] Abela, C. (2009). L'archive ouverte HAL-SHS : Comment ça marche, pourquoi s'en servir ? e-Migrinter, 3, Article 3. https://doi.org/10.4000/1266
[2] Belli, S. et al. (2019). Open Science and Open Access, a Scientific Practice for Sharing Knowledge. *ICAI Workshops*. https://www.semanticscholar.org/paper/Open-Science-and-Open-Access%2C-a-Scientific-Practice-Belli-Cardenas/6955264099177a1e766b2086d3de2bd1c8d570
[3] Medfem, E. C., et al. (2016). Point of View: How open science helps researchers succeed. *elife* 5:e16800. https://doi.org/10.1101/068000
[4] Oladokun, B. et al. (2024). The Open Access Effect: Transforming Collection Development Using Open Repositories. *International Journal of Librarianship*, 34(4), 36-51. 10.23974/ijol.2024.vol8.4.395