HAL
science ouverte

L'intégrité scientifique au sein de l'archive ouverte HAL

Enjeux, mécanisme de régulation et perspectives d'évolution

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Open Access Week 2024, Université Clermont Auvergne

MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE
Liberté
Égalité
Fraternité

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Inria

INRAE

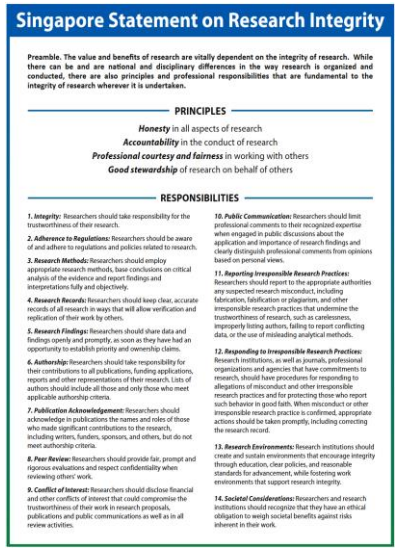
Fondements de l'intégrité scientifique

Définiton

- Ensemble de **règles** qui doit régir les activités de recherche
- Tout au long du **processus de recherche**
- Assurant la **fiabilité**

Principes clés

- **Fiabilité** dans la conception, la méthodologie, l'analyse et l'utilisation des ressources.
- **Honnêteté** dans le développement, la réalisation, la révision, et la diffusion de la recherche, d'une manière transparente, juste, complète et objective.
- **Respect** des collègues, des participants à la recherche, de la société, des écosystèmes, du patrimoine culturel et de l'environnement.
- **Responsabilité** pour les activités de recherche, de l'idée à la publication, de leur gestion et organisation, pour la formation, la supervision et le mentorat, ainsi que pour des impacts plus larges.


Singapore Statement on Research Integrity

Preamble. The value and benefits of research are vitally dependent on the integrity of research. While there can be and are national and disciplinary differences in the way research is organized and conducted, there are also principles and professional responsibilities that are fundamental to the integrity of research wherever it is undertaken.

PRINCIPLES

Honesty in all aspects of research
Accountability in the conduct of research
Professional courtesy and fairness in working with others
Good stewardship of research on behalf of others

RESPONSIBILITIES

1. *Integrity:* Researchers should take responsibility for the trustworthiness of their research.
2. *Adherence to Regulations:* Researchers should be aware of and adhere to regulations and policies related to research.
3. *Research Methods:* Researchers should employ appropriate research methods, base conclusions on critical analysis of the evidence and report findings and interpretations fully and objectively.
4. *Research Records:* Researchers should keep clear, accurate records of all research in ways that will allow verification and replication of their work by others.
5. *Research Findings:* Researchers should share data and findings openly and promptly, as soon as they have had an opportunity to establish priority and ownership claims.
6. *Authorship:* Researchers should take responsibility for their contributions to all publications, funding applications, reports and other representations of their research. Lists of authors should include all those and only those who meet applicable authorship criteria.
7. *Publication Acknowledgement:* Researchers should acknowledge in publications the names and roles of those who made significant contributions to the research, including writers, funders, sponsors, and others, but do not meet authorship criteria.
8. *Peer Review:* Researchers should provide fair, prompt and rigorous evaluations and respect confidentiality when reviewing others' work.
9. *Conflict of Interest:* Researchers should disclose financial and other conflicts of interest that could compromise the trustworthiness of their work in research proposals, publications and public communications as well as in all review activities.
10. *Public Communication:* Researchers should limit professional comments to their recognized expertise when engaged in public discussions about the application and importance of research findings and clearly distinguish professional comments from opinions based on personal views.
11. *Reporting Irresponsible Research Practices:* Researchers should report to the appropriate authorities any suspected research misconduct, including fabrication, falsification or plagiarism, and other irresponsible research practices that undermine the trustworthiness of research, such as carelessness, improperly listing authors, failing to report conflicting data, or the use of misleading analytical methods.
12. *Responding to Irresponsible Research Practices:* Research institutions, as well as journals, professional organizations and agencies that have commitments to research, should have procedures for responding to allegations of misconduct and other irresponsible research practices and for protecting those who report such behavior in good faith. When misconduct or other irresponsible research practice is confirmed, appropriate actions should be taken promptly, including correcting the research record.
13. *Research Environments:* Research institutions should create and sustain environments that encourage integrity through education, clear policies, and reasonable standards for advancement, while fostering work environments that support research integrity.
14. *Societal Considerations:* Researchers and research institutions should recognize that they have an ethical obligation to weigh societal benefits against risks inherent in their work.


Statement of Principles and Practices for Research Ethics, Integrity, and Culture in the Context of Rapid-Results Research

GLOBAL RESEARCH COUNCIL

Preamble

The successful generation and dissemination of knowledge in science is predicated on the responsible and ethical conduct of research with attention to integrity. Ethical, responsible, and transparent research activity benefits funding agencies, researchers, governments, the global community, and the public trust in science. Principles, practices, and frameworks for ethical and responsible research conduct form the cornerstone of funding agency work and have been articulated by agencies, nations, and the Global Research Council[1].

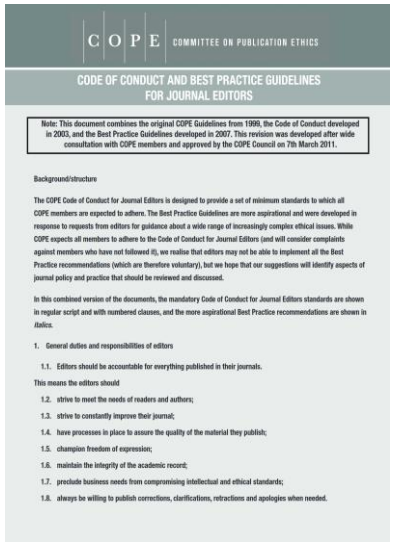
However, as the scientific research community moves increasingly swiftly to address urgent and emergent global crises, there is a growing need to describe the ways in which these principles and practices operate in the context of rapid-results research. This Statement outlines eight principles and practices that frame the collective responsibility of funding agencies; researchers; public and private research organizations (both for- and non-profit); and national governments in ensuring the integrity of rapid-results research. This statement addresses all aspects of national and international research enterprises, from ideation to dissemination and commercialization, and has the potential to strengthen research outcomes. Two notions are fundamental across all eight principles. First, the need for rapid-results research must not lead to disregarding or eliminating any of the principles or practices. While rapid-results procedures may accelerate timelines, these practices and principles must remain at the core of the work. Second, considerations of equity and fairness must be paramount in operationalizing the principles and practices.

Principles and Practices

Norms and Cultures

Research agencies, researchers, and institutions must collaboratively establish norms and cultures that support individual and collective ethical research practice. This includes describing expectations for ethical individual conduct, promoting cultures and norms for ethical conduct within institutions, and contextualizing these norms and cultures across all types and facets of scientific research. Policies should incentivize and promote the adoption of positive norms and cultures as well as describing practices that reside outside the boundaries of such norms and the procedures for addressing actions inconsistent with them.

[1] GRC statement of principles on peer/merit review (2018): https://www.globalresearchcouncil.org/fileadmin/documents/GRC_Publications/Statement_of_Principles_on_Peer_Merit_Review_2018.pdf
GRC statement of principles on research integrity (2013): https://www.globalresearchcouncil.org/fileadmin/documents/GRC_Publications/grc_statement_principles_research_integrity_FINAL.pdf



Note: This document combines the original COPE Guidelines from 1999, the Code of Conduct developed in 2003, and the Best Practice Guidelines developed in 2007. This revision was developed after wide consultation with COPE members and approved by the COPE Council on 7th March 2011.

Background/structure

The COPE Code of Conduct for Journal Editors is designed to provide a set of minimum standards to which all COPE members are expected to adhere. The Best Practice Guidelines are more aspirational and were developed in response to requests from editors for guidance about a wide range of increasingly complex ethical issues. While COPE expects all members to adhere to the Code of Conduct for Journal Editors (and will consider complaints against members who have not followed it), we realise that editors may not be able to implement all the Best Practice recommendations (which are therefore voluntary), but we hope that our suggestions will identify aspects of journal policy and practice that should be reviewed and discussed.

In this combined version of the documents, the mandatory Code of Conduct for Journal Editors standards are shown in regular script and with numbered clauses, and the more aspirational Best Practice recommendations are shown in *italics*.

1. General duties and responsibilities of editors

1.1. Editors should be accountable for everything published in their journals.

This means the editors should

1.2. strive to meet the needs of readers and authors;
1.3. strive to constantly improve their journal;
1.4. have processes in place to assure the quality of the material they publish;
1.5. champion freedom of expression;
1.6. maintain the integrity of the academic record;
1.7. preclude business needs from compromising intellectual and ethical standards;
1.8. always be willing to publish corrections, clarifications, retractions and apologies when needed.

Manquements à l'intégrité scientifique

Fraude: la trilogie FFP	La « zone grise » des pratiques questionnables de recherche	Manque de méthodologie
- Fabrication - Falsification - Plagiat	- Publications (signature abusive ; références manquantes ou incorrectes ; oubli de certains contributeurs ; 'salami slicing'; etc.) - Choix sélectif des données rapportées	- Erreurs statistiques - Méthodes inappropriées - Ignorance
Intentionnel		Non intentionnel

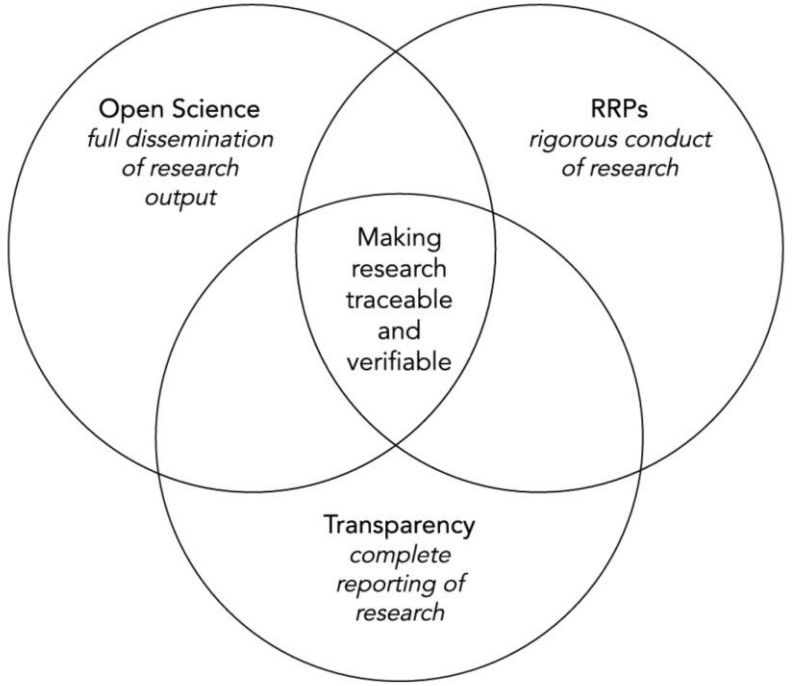
Adapté depuis Raphaèle Seror, Philippe Ravaud, Embellissement des données : fraude a minima, incompétence ou un mélange des deux, La Presse Médicale, Volume 41, Issue 9, Part 1, 2012, https://doi.org/10.1016/j.lpm.2012.05.004

Science ouverte, transparence et conduite rigoureuse de la recherche

- Pratique de recherche > manière dont la recherche est réalisée
- Transparence > documentation, description du processus de recherche
- Open science > diffusion des résultats de la recherche
- Complémentarité et convergence

Fig. 1

From: Promoting trust in research and researchers: How open science and research integrity are intertwined



Intertwined concepts of responsible research practices, transparency, open science and their foci. This Venn diagram illustrates how the different concepts interrelate to make research more traceable and verifiable, with the aim to increase trust in research and researchers

Haven, T., Gopalakrishna, G., Tijdink, J. *et al*. Promoting trust in research and researchers: How open science and research integrity are intertwined. *BMC Res Notes* **15**, 302 (2022). https://doi.org/10.1186/s13104-022-06169-y

Intégrité scientifiques et archives ouvertes de publications

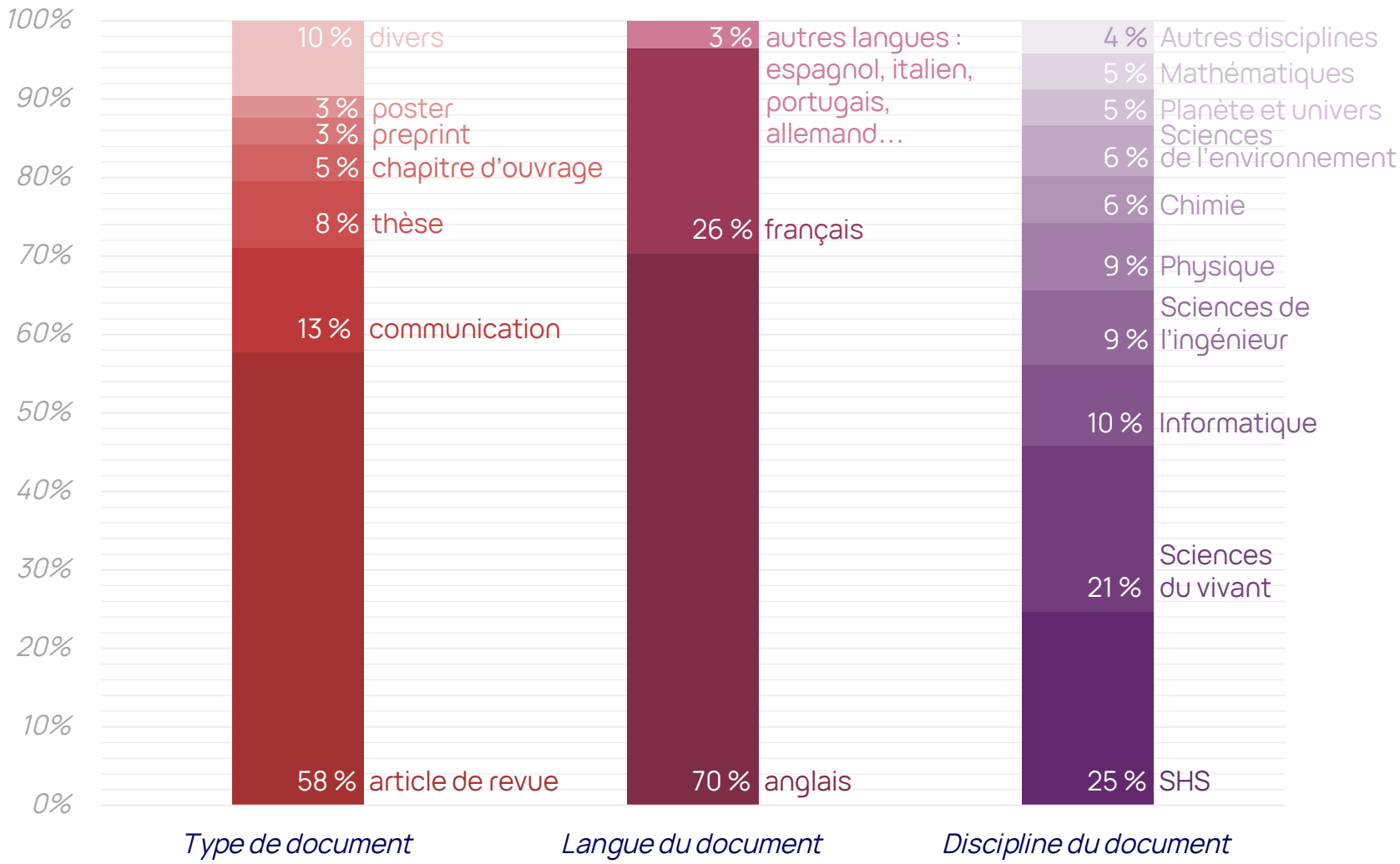
- Le dépôt en AO permettent l'examen par les pairs des publications sans aucune barrière
- Les AO fournissent des métadonnées transparentes et de qualité
- Les AO peuvent faciliter la détection de la fraude, des erreurs et du plagiat

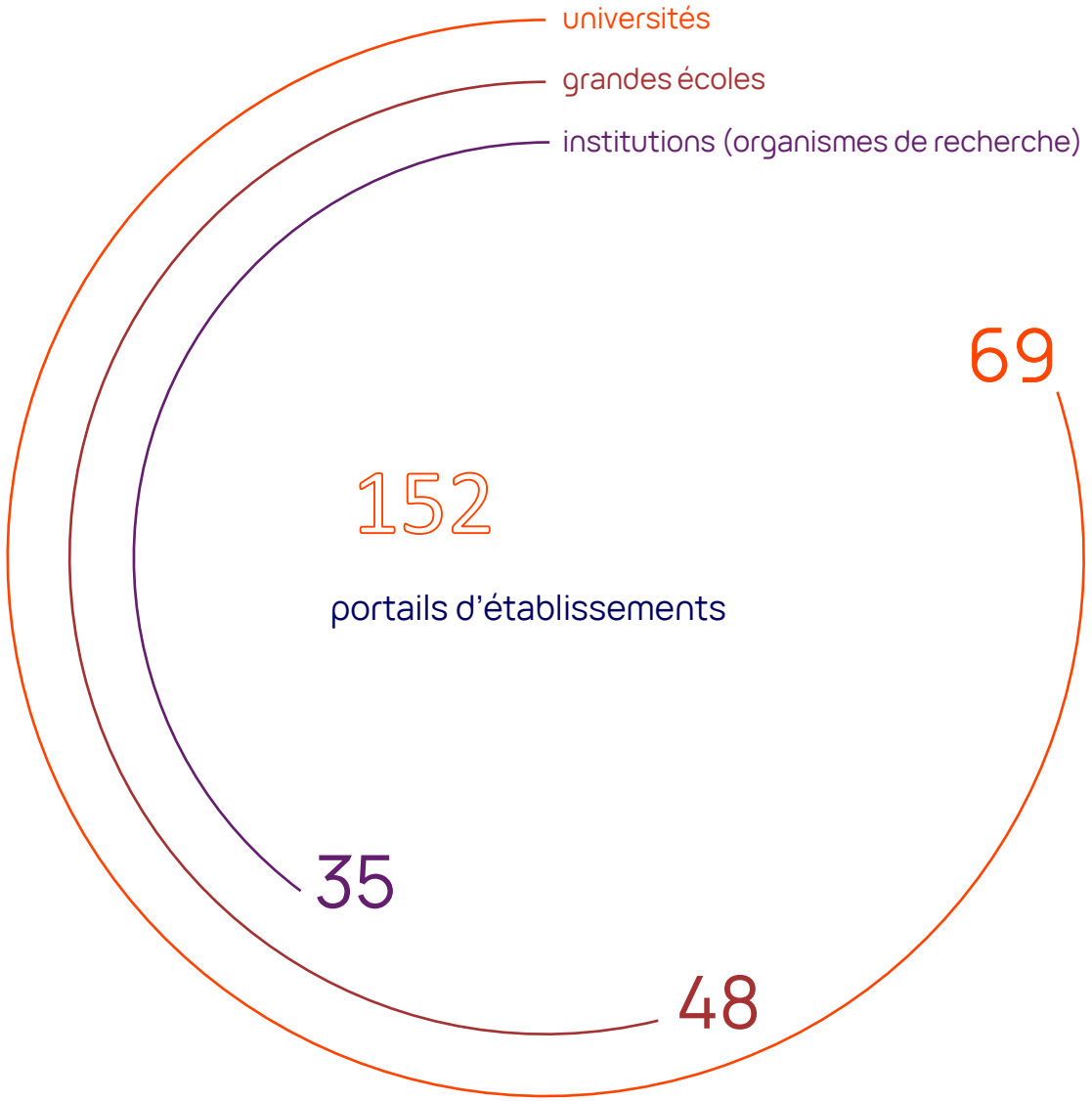
+138 659

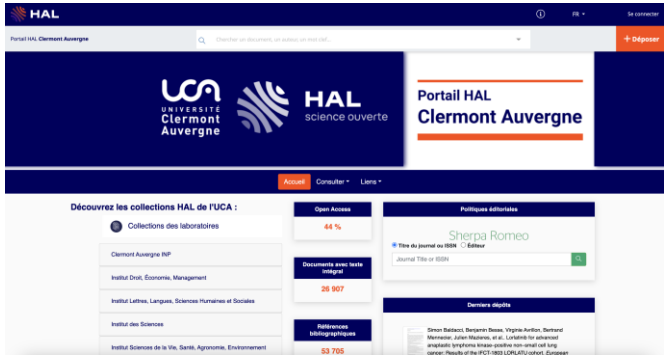
documents en texte intégral
déposés entre janvier
et novembre 2024

1 409 947

documents
en texte intégral dans HAL
au 12 novembre2024




universités
grandes écoles
institutions (organismes de recherche)
69
152
portails d'établissements
35
48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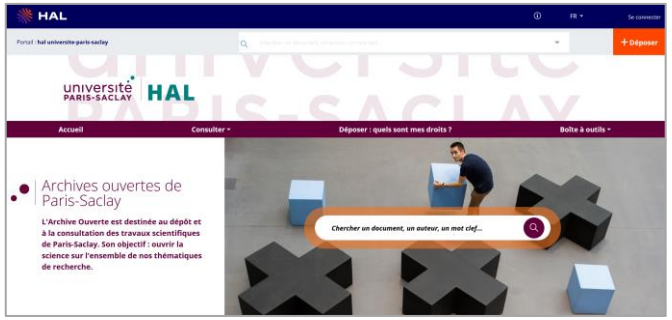
Portail HAL
Clermont Auvergne
HAL
science ouverte
Découvrez les collections HAL de l'UCA :


HAL
Le portail HAL-CNRS accueille l'ensemble de la production scientifique du CNRS
HAL cnrs
BIENVENUE SUR LE PORTAIL INSTITUTIONNEL DU CNRS
DÉPOSEZ VOS PUBLICATIONS CNRS


HAL
université PARIS-SACLAY
HAL
Archives ouvertes de Paris-Saclay
L'Archive Ouverte est destinée au dépôt et à la consultation des travaux scientifiques de Paris-Saclay. Son objectif : ouvrir la science sur l'ensemble de nos thématiques de recherche.
Chercher un document, un auteur, un mot clef...

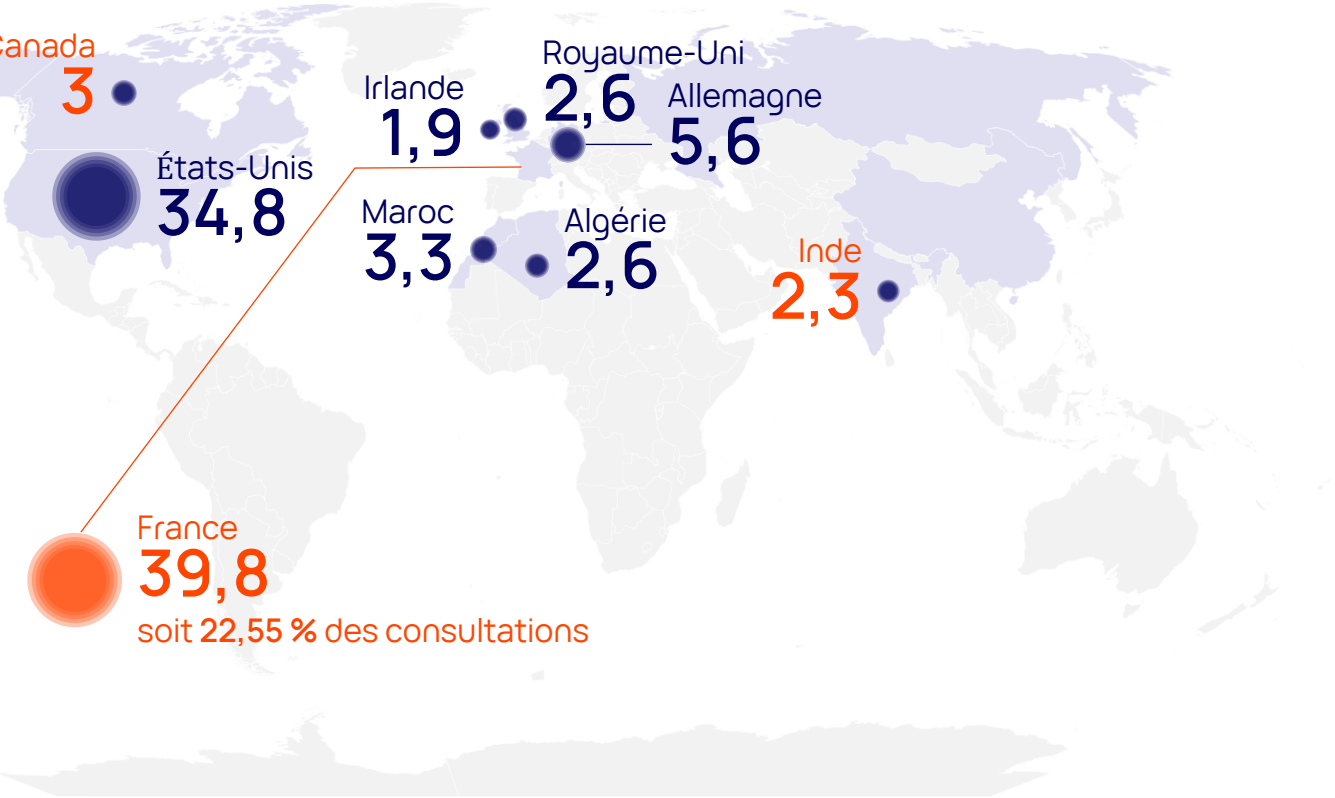
+ de **86 millions**

de téléchargements de PDF

+ de **67 millions**

de consultations de notices

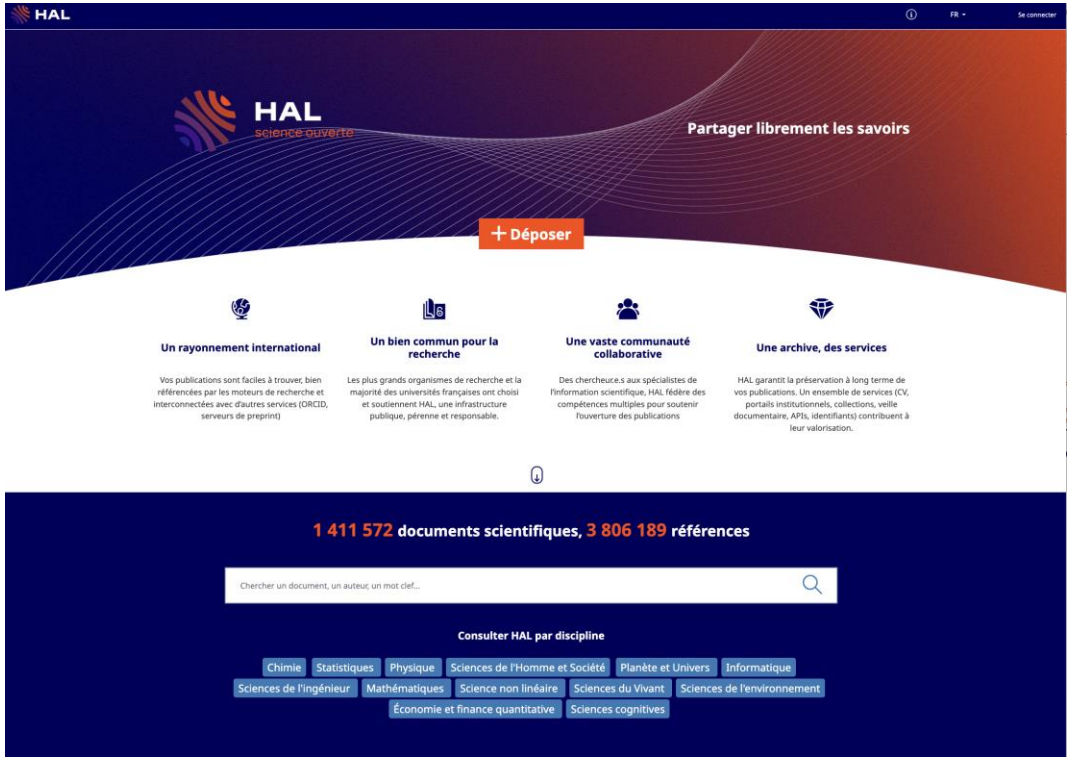
Principaux pays d'origine des consultations de documents en 2024 (au 12/11/2024; volume en millions)



Principaux défis pour HAL

Mettre en place un **cadre opérationnel**

- pour une archive ouverte nationale
- gérée de manière collaborative
- en croissance constante
- multidisciplinaire
- accueillant des documents publiés et non publiés



+1,4M fichiers
152 portails institutionnels
+ 9 000 collections
+35 000 CV

EPI sciences
overlay journals

sciencesCONF
conference management

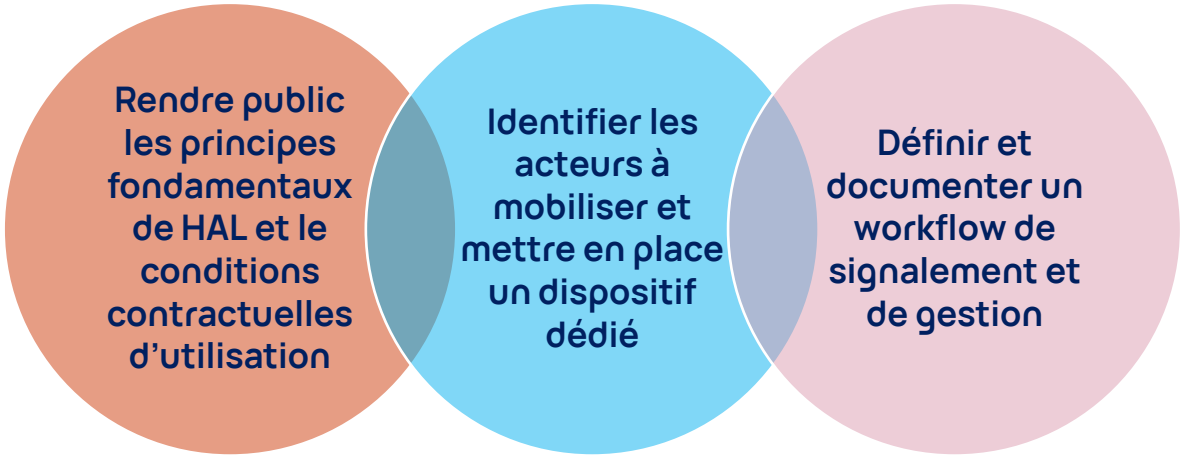
Mettre en place un dispositif de signalement et de traitement

Outiller le CCSD

Objectifs

- traiter de manière plus efficiente, sereine et sécurisée les cas qui se présentent au CCSD
- s'aligner sur les bonnes pratiques des infrastructures de la science ouverte
- préserver l'image de HAL et la nécessaire confiance que les communautés scientifiques et la société doivent avoir dans l'archive nationale.

Trois axes d'intervention



Mettre en place un dispositif de signalement et de traitement

S'insérer dans le cadre règlementaire et opérationnel existant

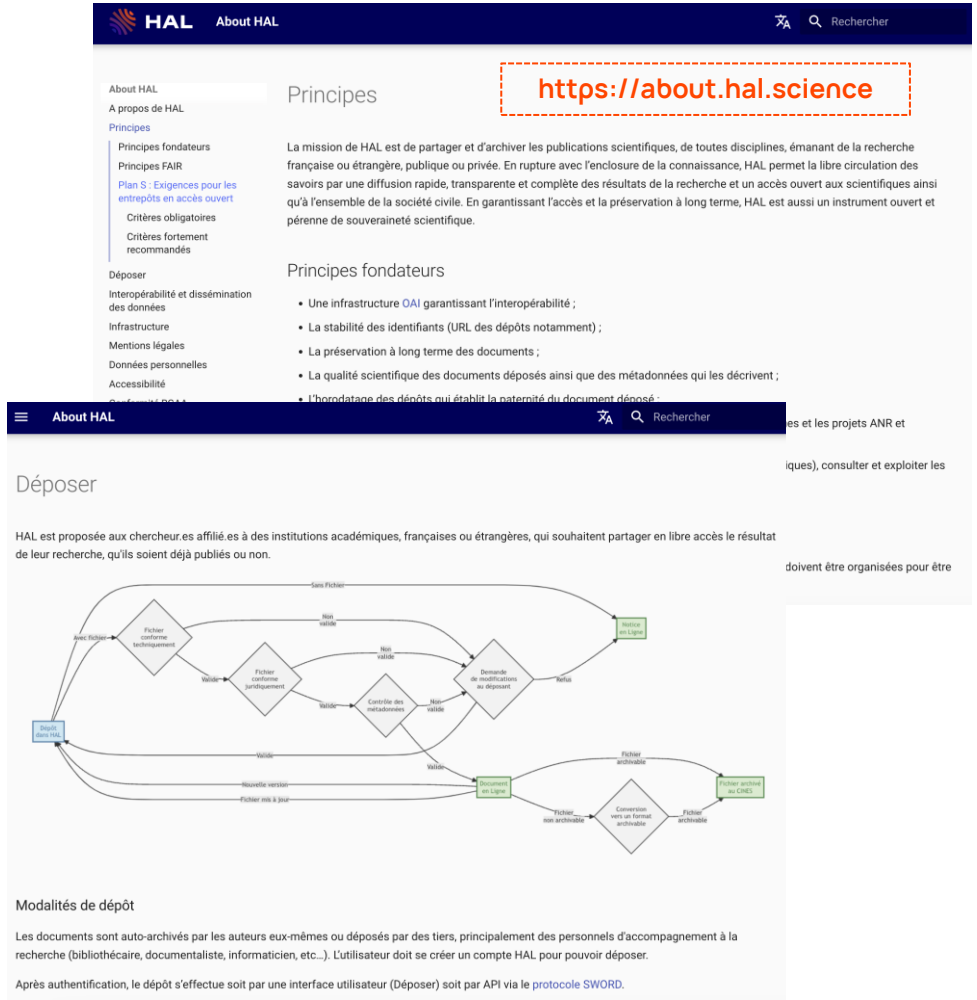
- **Décret du 3 décembre 2021** relatif au respect des exigences de l'intégrité scientifique par les établissements publics contribuant au service public de la recherche et les fondations reconnues d'utilité publique ayant pour activité principale la recherche publique
- Mise en place de **Référent Intégrité Scientifique** au sein des établissements
- RESeau INTégrité Scientifique (**RESINT**)

Publier les principes fondamentaux de HAL

Cadre politique et juridique

- **Formalisation & Communication**
  - Fonctionnement de HAL (dépôt, validation technique a priori)
  - Principes d'une archive ouverte
  - Cadre de l'ESR et soutien institutionnel

- **Cadre juridique**
  - Rédaction de CGU *(en cours)*
  - Droits et obligations de l'auteur lors de la création de compte et du dépôt
  - Droits du CCSD de retirer, rétracter, fermer un compte Utilisateur dans des cas exceptionnel



Cellule Intégrité Scientifique

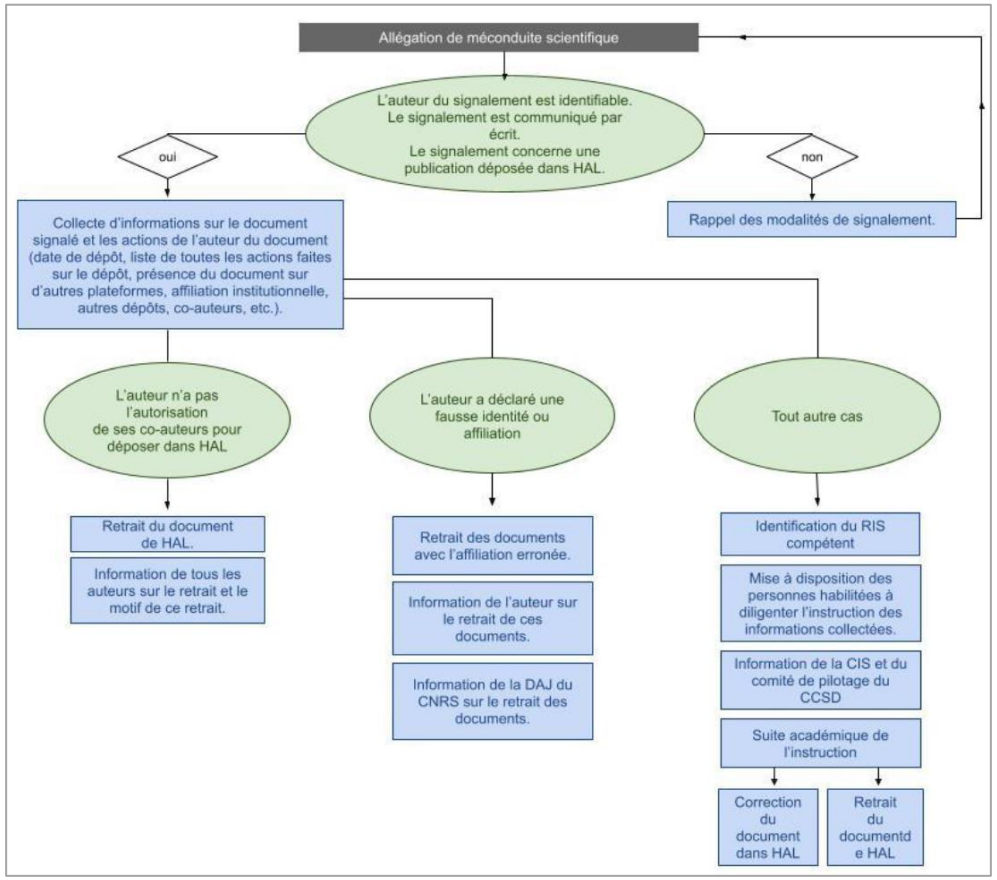
Mise en place d'un dispositif dédié

- **Composition**
  - RIS des établissements tutelles du CCSD
- **Rôle**
  - Conseil à la direction du CCSD
  - Recommandations pour améliorer la transparence et la gestion des manquements à l'intégrité scientifique en lien avec les publications HAL
  - Connaissance de tous les manquements présumés à l'intégrité scientifique qui sont signalés auprès du CCSD
  - Sollicitation au fil de l'eau (en fonction des cas signalés auprès CCSD)

Procédures de traitement

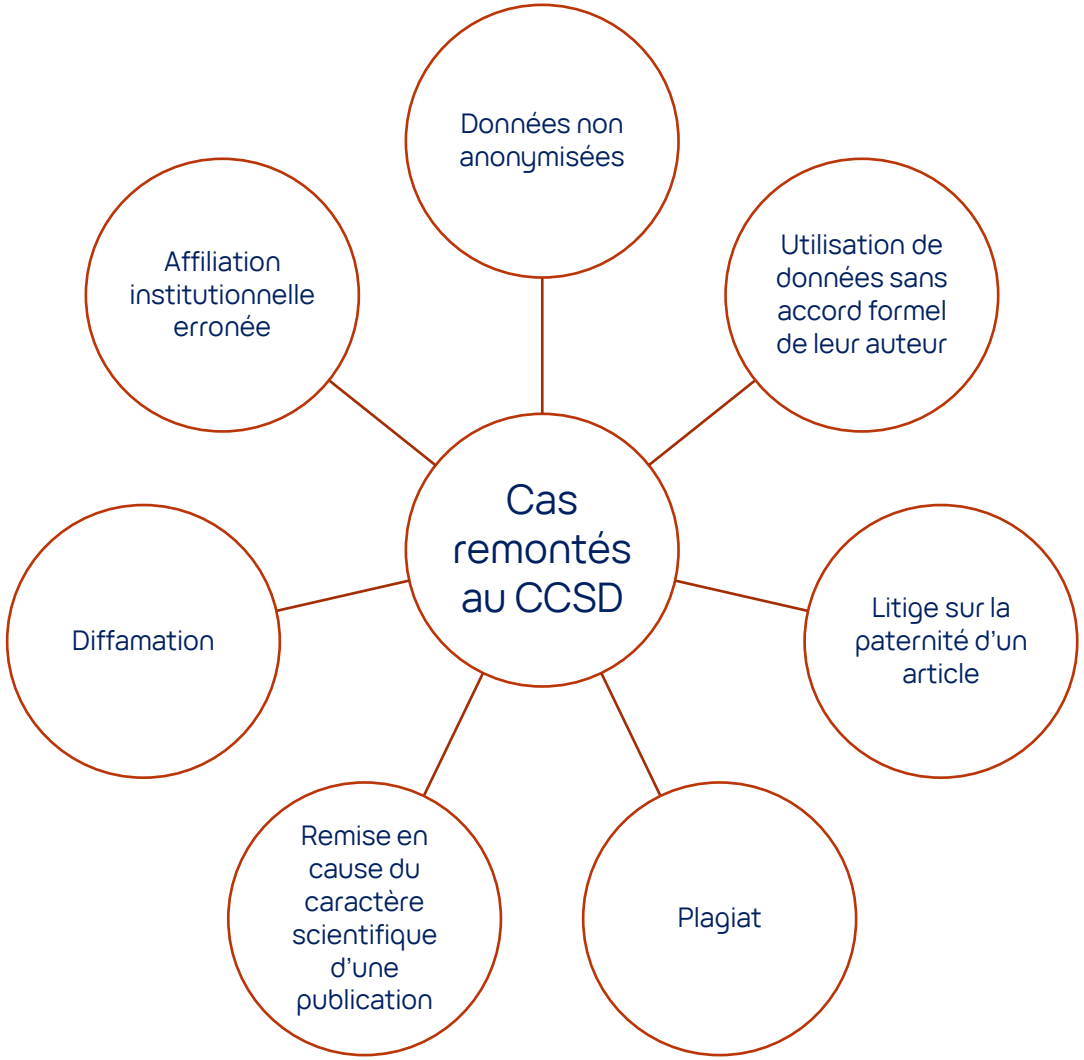
Diagramme décisionnel

- Conditions de recevabilité du signalement
- Identification de cas d'usage les plus fréquents
- Définition de procédures adaptées
- Identification des acteurs à informer / mobiliser



Cas de méconduites scientifiques

- Une vingtaine de cas remontés au CCSD
- Diversité des motifs de signalement
  - FFP
  - « zone grise »
- Cas souvent complexes et délicats



Quelles suites ?

Suites de l'instruction concernant une publication dans HAL

- Fermeture d'un compte Utilisateur
- Ajout d'une nouvelle version au document
- Ajout de la mention « rétracté-retracted » dans le champ « Titre » des métadonnées
- Déclaration d'un nouveau statut pour le document « rétracté-retracted »
- Retrait du texte intégral de HAL
- Maintien de la diffusion des versions précédentes du document

Perspectives

Améliorer la gestion des métadonnées

- Documentation de la provenance et de la traçabilité des métadonnées
- Régulation des mises à jour
- Implementation dans le cadre du projet Equipex+ HALiance (2022-2027)

Ajout d'un nouveau type de document

- Protocole de recherche

Intelligence artificielle

- Impact de l'usage de l'IA sur la publication scientifique
- Thème de la journée d'études de l'AP HAL 2024

Amélioration des signalements

- Automatisation des signalements de méconduite entre SI (éditeurs, AO)

HAL
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Merci !

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