

March 2021

## Promoting and protecting a shared culture of research integrity



In the summer of 2019, amidst a number of particularly high-profile cases of "scientific misconduct", the Senate's Culture, Education and Communication Committee referred the matter to the OPECST to inform national representatives of "the public policy choices to be made in this area so that France can ensure a high level of integrity for its research and researchers".

What makes a researcher stray from the principles of research integrity and engage in bad practices? It soon became clear that the issue goes far beyond individual inappropriate behaviour - which must of course be sanctioned by a rigorous procedure respecting

the rights of the defence - and that it is in fact an issue that calls for the whole research system to be examined.

In order to promote and protect a shared culture of research integrity, the rapporteurs call for a major collective effort to apply the principles set out in the many international and national reference texts concerning integrity, but also, and most importantly, to develop and maintain an environment conducive to this core value of research. The Office's findings were published in a report.<sup>(1)</sup>

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In France, the issue of research integrity has received increasing attention since the publication of a high-profile report by Professor Pierre Corvol in 2016, which was commissioned by the Secretary of State for Research and Higher Education, Thierry Mandon. This report followed fieldwork carried out by researchers since the late 1990s and led to the creation of the French Office for Research integrity (Office français de l'intégrité scientifique - OFIS) to promote and coordinate research integrity throughout France, as well as Research Integrity Officers (référénts d'intégrité scientifique - RIS), who are responsible for ensuring that research integrity, which is the foundation of trust between the State, the research community and society in general, is disseminated and upheld in educational and research establishments and institutions.

The referral to the Senate's Culture, Education and Communication Committee came in 2019,

amidst high-profile cases of "scientific misconduct". The argument was that scientific misconduct is detrimental to the research community as a whole and that such behaviour must be dealt with appropriately. In many cases, this type of misconduct is dealt with internally, with inconsistent methods, sanctions and transparency criteria.

The rapporteurs have chosen not to focus solely on bad practices, which are merely a simplistic way of illustrating research integrity by its opposite, when the vast majority of French researchers do in fact adhere to professional values and practices. In order to respond to this confusion and help characterise research integrity in a positive way, the rapporteurs focused on two objectives: promoting a shared culture of research integrity and highlighting the systemic problem that is inherent in the world of research and tends to encourage scientific misconduct. The criteria for evaluating research, the

(1) Report n° 3944 (XV<sup>th</sup> Term) National Assembly - n° 428 (2020-2021) Senate, 4 March 2021.

race to publish scientific findings or the pressure to produce positive results are all factors that can lead to certain behaviour with little integrity.

The rapporteurs also suggest that effective levers should be used to renew evaluation criteria and create a research environment conducive to research integrity.

With this in mind, the report has been structured into four parts.

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### **The general framework of research integrity: principles, texts and actors**

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**The first part, *Research integrity in France, a form of self-regulation by research actors***, presents the different sources that have enabled the construction and development of the notion of research integrity. They are issued by the research community and are the result of national, European and international discussions and consultations. By analysing this corpus, we are able to highlight certain cardinal concepts such as "reliability", "respect", "honesty" and "responsibility", which are also included in the European Code of Conduct for Research Integrity. The first part also aims to identify the institutional and non-institutional actors that play an important role in defining and promoting research integrity.

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### **Dealing with integrity violations: a robust framework with room for improvement**

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**The second part, *Understanding scientific misconduct***, identifies a typology of observed misconducts and how they are treated. The hearings revealed that the criteria currently in use are indeed effective, and that the procedure for investigating misconduct is well established and constantly being improved. The majority of research actors do not believe that it would be appropriate for all cases of misconduct to be brought before the courts. But there is a need for harmonisation. It is also important to ensure that the adversarial process is respected when investigating a case of misconduct. This raises the question of whether the researcher in question should be assisted or even represented. It also seems appropriate to question the relevance of a form of appeal against sanctions imposed by disciplinary bodies and to consider the possibility of reinstating the researcher concerned.

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### **A shared culture of research integrity as a sustainable basis for building a new relationship of trust with society**

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**The third part, *Developing a "culture of research integrity"***, reports on the various local and national initiatives, which ensure that the principles of research integrity are spread more widely and across generations. However, the report stresses that this common culture cannot flourish without

developing a research environment that is conducive to its implementation. This means that research institutions, companies and their supervisory authorities will have to review certain unfair practices, which are recognised as the main cause of scientific failures.

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### **Ten recommendations to strengthen existing efforts**

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The rapporteurs have prepared ten recommendations that reinforce the guidelines set out in the various European guides and propose measures that reflect the commitment to take the lead in terms of research integrity. The proposed actions will help restore confidence in the scientific world and strengthen the legitimacy of French research at an international level.

These recommendations concern the definition of research integrity (1), strengthening the role of institutional and non-institutional actors (3 & 5), better coordination between the Hcéres, CoFIS and OFIS (2, 4 & 9), the consolidation of certain aspects relating to the investigation of scientific misconduct (6), increasing training in research integrity (7), and the development of a common and positive culture of research integrity through open science, as well as the need to review how research is evaluated in order to remove the pressures associated with the race to publish (8 & 10).

While some of these recommendations concern specific local or national improvements, such as the independence of the OFIS, the status of the Research Integrity Officer or the need to extend research integrity training beyond doctoral students, the rapporteurs would like to emphasise two key points. Firstly, to highlight that *self-regulation via several working groups, guides and charters has made it possible to develop an effective and recognised framework for guaranteeing research integrity in just a few years*. While significant improvements can still be made by archiving the data collected by the Research Integrity Officer or reinstating a wrongly suspected researcher, recommendations should not replace the active reflection carried out by the CoFIS working groups, by the ResInt or by certain leading universities, and the avenues explored by epistemology. Secondly, the report highlights *the need to change the way we think about research integrity, to stop seeing researchers as the only weak links, and to assess the entire research community*, including institutions, funding bodies, publishers and evaluators, and in particular their supervisory body, the Ministry for Higher Education, Research and Innovation (MESRI), in order to encourage them to work together to create an environment conducive to enhancing research integrity. Such an environment calls for a re-examination of the current system for evaluating research, as well as consolidating the open science policy, which was initiated in 2018 as part of the National Plan for Open Science.

For instance, one of the principles governing the practice of research integrity in France is that of sharing. The “soft law” governing research integrity in France and Europe follows this beneficial model of sharing good practices with a view to encouraging a common understanding of what works, not only in theory, but also in practice. In view of this principle, the rapporteurs wanted to hear from actors in research integrity, who contribute to promoting a common culture of research integrity, and to familiarise themselves with the reports, guides and national and international codes that provide a partial framework for research integrity in France.

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### **First steps in the Research Programming Law for the years 2021 to 2030**

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The hearings revealed a need, as well as an expectation on the part of the research community, for certain principles of research integrity to be established by law. The rapporteurs succeeded in having some important provisions incorporated into the Research Programming Law for the years 2021-2030 (LPR) as a direct result of their investigation and hearings. They are included in the **fourth part of the report, *Progress on research integrity in the LPR:***

- The definition of research integrity in Article L. 211-2 of the Research Code specifies that this value guarantees the honest and scientifically

rigorous nature of research activities and strengthens the bond of trust between public research and society (Article 16 of the LPR).

- The promotion, harmonisation and consideration of research integrity have been reaffirmed as part of the evaluations carried out by the High Council for Evaluation of Research and Higher Education (Hcéres) (Article 16 of the LPR).
- Graduate researchers must take an oath of research integrity after defending their thesis (Article 18 of the LPR). This was introduced to make sure that they remain committed to this value throughout their career.
- The declaration of conflicts of interest, which is a requirement for providing expertise to the public authorities and Parliament (Article 23 of the LPR), has been extended to guarantee a high level of requirement and transparency within the broader framework of researchers' missions.

Finally, the rapporteurs make an important point about the role and the importance of the OFIS in the field of research integrity. Their work has raised questions about the independence of the OFIS within the Hcéres, as well as operational difficulties in its relationship with its Advisory Board, the CoFIS.

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## Recommendations

1. Incorporate a legal definition of research integrity into the Research Code and propose general rules to ensure that researchers and research institutions respect it. This objective has been largely achieved by the Research Programming Law.
2. Reassess the conditions for the missions of the OFIS and the CoFIS, as well as their institutional roles.
3. Encourage all research institutions to appoint a Research Integrity Officer, specify their role and the conditions under which they are to carry out their duties, and formalise the monitoring of their work, i.e. by submitting annual or multi-annual reports on their activities.
4. Ensure that the work and observations of the OFIS, CoFIS, ResInt and Conference of Signatories are well coordinated.
5. Recognise the value of the actions carried out by those who promote and maintain research integrity and support their actions, while respecting their independence.
6. Further harmonise the rules for investigating research misconduct, ensure that the rules of democratic debate are respected during investigation procedures, encourage cross-disciplinary interaction between the Research Integrity Officers and the legal departments of the institutions, encourage collective decision-making that does not rely exclusively on the head of institutions, and finalise the database of misconduct cases in order to establish a repository.
7. Make research integrity training mandatory throughout a researcher's career, especially for supervisors and other mentoring positions (postgraduate research supervisors, lecturers, etc.), as is already in place in a number of institutions.
8. Ensure that the signatories of the San Francisco Declaration (DORA) and the Leiden Manifesto apply the principles advocated by these texts, and following the Bonn Declaration, promote legal and legislative deliberations within the European Union in order to provide the Union with regulations to promote research integrity and academic freedom.
9. Establish promoting and ensuring research integrity as one of the missions of the High Council for Evaluation of Research and Higher Education (Hcéres).
10. Better identify the processes by which open science policy objectives can support the respect and promotion of research integrity, and define standards for archiving and making research data available to allow for a peer review of scientific work and publications. The rapporteurs believe that it is both appropriate and necessary to launch a report on open science as a follow-up to this report.

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To view the report, please visit:

[www.senat.fr/opepst](http://www.senat.fr/opepst)

[www.assemblee-nationale.fr/commissions/opepst-index.asp](http://www.assemblee-nationale.fr/commissions/opepst-index.asp)