



Research Integrity Practices in Science Europe Member Organisations

SURVEY REPORT



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July 2016

'Research Integrity Practices in Science Europe Member Organisations': D/2016/13.324/6

Authors: Olivier Boehme (Research Foundation Flanders, Belgium), Nicole Föger (Austrian Science Fund, Austria), Maura Hiney (Health Research Board, Ireland), Tony Peatfield (Medical Research Council/Research Councils UK, United Kingdom), Francien Petiet (Netherlands Organisation for Scientific Research, the Netherlands) – Members of the Science Europe Working Group on Research Integrity

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office@scienceeurope.org

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Executive Summary and Recommendations

The Science Europe (SE) Roadmap identifies research integrity as an important policy area for its Member Organisations (MOs). The Roadmap describes how enhanced research integrity policies can contribute to supporting borderless science, facilitating science, communicating science and improving the scientific environment. The Working Group on Research Integrity was established by SE in order to facilitate the implementation of these research integrity policies by enhancing the understanding of this area, and developing recommendations for how SE MOs can advance these policies and processes in their own organisations.

Aims

This report presents the results of a survey of SE MOs, undertaken in 2014 by the Working Group on Research Integrity. The aim of the survey was to map existing policies, procedures and practices for promoting research integrity and preventing and sanctioning misconduct, in the context of MOs' activities. The survey elicited 27 responses, encompassing 33 different organisations (RCUK responding on behalf of the seven UK Research Councils, each of which is an MO): 26 from the 33 responding organisations were Research Funding Organisations (RFOs), five were returned by Research Performing Organisations (RPOs) and two responses were from organisations combining both functions.

Recommendations

A number of recommendations on processes and policies, awareness raising, training and collaboration emerged from the findings of the survey. The recommendations should be viewed and interpreted in accordance with the specific organisational and national setting applicable to each MO.

Policies and Procedures

1. As a basis for research integrity policies and procedures, **RFOs** and **RPOs** should clearly describe what they mean by research integrity.
2. Both **RFOs** and **RPOs** should develop a policy on research integrity which includes promotion of good research practice, clear procedures for

dealing with allegations of research misconduct and a description of the possible sanctions that can be employed in proven cases of misconduct.

3. **RFOs** and **RPOs** should have a published policy that protects employees from disciplinary action where they raise concerns about alleged misconduct. The types of misconduct covered should be described within the policy.
4. **RPOs** and/or **Regulators** should aim to make public the outcomes of all proven cases of research misconduct; ideally this should include the names of the researchers involved, but this will need to be considered on a case-by-case basis.
5. **RFOs** and **RPOs** should also support the central collection of data on research integrity, including data on cases – either under investigation or proven.

Raising Awareness

6. **RFOs** and **RPOs** should make a clear statement on their public websites describing the organisation's policy on research integrity and making it possible to download relevant documents. The information should be available in English and include the name and contact information of the person responsible for the policy within the organisation.
7. **RFOs** should provide a clause on research integrity in application forms. In each of their calls, they should also provide information about how research integrity is dealt with during the assessment procedure, including what is expected of peer reviewers and committee members.
8. **RFOs** should provide general information and/or guidelines about good research practice in the terms and conditions of grants and contracts; in some cases researchers may be required to sign a formal agreement.

Training

9. **RFOs** and **RPOs** should actively support training in research integrity within their remits.
10. **RPOs** should ensure that all people working on research projects are trained in good research practice.

- 11. RFOs and RPOs** should encourage responsible bodies to ensure that training in research integrity is mandatory and that it starts at the undergraduate/PhD level and continues throughout a researcher's career.
- 12. RFOs and RPOs** should encourage responsible bodies to establish train-the-trainer courses to introduce knowledge sharing and harmonisation and to maintain training standards.

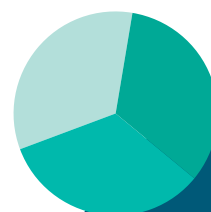
Collaboration and Mobility

- 13. RFOs and Regulators** should make explicit in their policies and guidance on research integrity that allegations of misconduct will be pursued even if a person moves from one institution to another (either within a country or between countries), and that the initial employer/host institution will be involved in pursuing these allegations.
- 14. RFOs** should make clear in their policies and guidance that it is a requirement of the initial employer/host institution to pursue any allegations of misconduct, even if a person moves from one institution to another, either within a country or between countries.
- 15. RPOs** should consider, when making appointments to research positions, requiring applicants to state in their application that they have not had an allegation of research misconduct against them upheld (within a previous specified period), and that they are not subject to an ongoing investigation.

- 16. RFOs and RPOs** should ensure that all formal agreements for research collaboration include a section on expectations concerning research integrity and an agreement on the process that would be used if an allegation of research misconduct were made against someone working on the research programme.

The above recommendations should be considered in the context of the remits of MOs (both **RPOs** and **RFOs**), acknowledging that existing national law and that the statutes of SE MOs may differ considerably. The following are two further recommendations that might require legislation, but which might also be achieved by mutual agreement between **RFOs** and **RPOs**:

- 17. RPOs and RFOs** should encourage the development of collaborative agreements that explicitly allow host institutions to share information at national and international level regarding cases of research misconduct which are under investigation, or regarding proven cases – whether or not sanctions have been imposed.
- 18. RPOs and RFOs** should ensure that the mechanisms set out in their research integrity policies for investigating allegations of misconduct include a means of investigating the allegation after the person has left the host institution where the alleged misconduct took place.



1 Introduction

Research integrity is at the core of the research endeavour. It is the basis for researchers' trust in each other and in the research record and, equally importantly, society's trust in research. There are many reasons why Science Europe (SE) Member Organisations (MOs) should take research integrity and its associated policies and procedures seriously, which are set out in a 2015 publication from the SE Working Group on Research Integrity: 'Seven Reasons to Care about Research Integrity'.^[1] These include: assuring research excellence and an unsullied research record; continuing societal support for public investment in research; avoiding harmful impacts and research waste; and enhancing economic advancement. Addressing research integrity requires a holistic approach, given the linkages with other aspects of the research system, such as access to publications and data, research careers, evaluation, peer review, and research collaboration.

When the integrity of research fails, that is termed research misconduct. Individual or collective research misconduct can cover a broad spectrum of acts. Its most detrimental forms are fabrication or falsification of data, including under-reporting of data (which can have potential effects beyond the sphere of research itself) and plagiarism (which can distort the internal system of research evaluation). Beyond these, other, and perhaps more frequent, deviations from the principles of research integrity and standards of good research practice include questionable research practices, the misuse of research data, authorship-related misconduct, and inadequate personal or leadership behaviour.

Whilst the ultimate responsibility for good research practice lies with the individual researcher, it will only flourish in an environment that embraces research integrity and where there is an understanding that safeguarding research integrity is a shared task. Therefore, the research community as a whole, its institutions, the journals that publish its outputs and the research funding providers, share the responsibility for raising awareness of good research practice and promoting and supporting adherence to this, as well as dealing with infringements.

The Singapore Statement on Research Integrity^[2] issued in 2010 provided, for the first time, a foundation for research integrity on a global scale and this has been endorsed by the Global Research Council in its Statement of Principles on Research Integrity^[3] in 2013.

At a European level, the development and dissemination of the European Code of Conduct for Research Integrity of March 2011,^[4] issued by the European Science Foundation (ESF) and All European Academies (ALLEA), was an important step in creating a European framework that could be used by a wide range of actors involved in the research endeavour.

At a national level, many institutions around Europe, including Research Performing Organisations (RPOs) and Research Funding Organisations (RFOs), academies, universities and ministries, have put in place policies and structures to promote research integrity and to prevent and manage research misconduct. A number of European countries have also developed legislation to address issues of research integrity.

“Safeguarding research integrity is a shared task”

1.1 Science Europe's Objectives Regarding Research Integrity

The SE Roadmap^[5] identifies a number of policy areas of importance to its MOs, one of which is research integrity. The Roadmap outlines how enhanced research integrity policies and processes can contribute to:

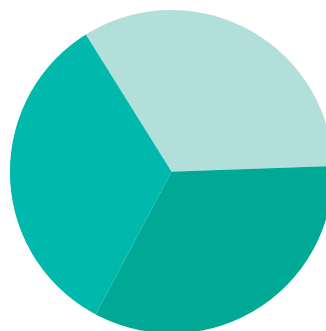
- ▶ **Supporting borderless science** – by fostering the harmonisation of procedures related to research integrity across disciplines, institutions and borders;
- ▶ **Facilitating science** – by increasing the efficiency of the R&D system through increased trust between scientists and in scientific results, and by reducing the likelihood that funding is misused;
- ▶ **Communicating science** – by helping to build and maintain public support for science, and by reducing the risk of misinformation based on misguided research; and
- ▶ **Improving the scientific environment** – by reducing the risk of unfair career advancements based on fraudulent results, by cultivating good research practices and embedding them in an improved research culture, and by strengthening the global normative framework around research integrity.

To support this policy area, SE established the Working Group on Research Integrity in 2013. The remit of this Working Group was to develop and enhance the understanding of this area and, where possible, to develop recommendations for the implementation of research integrity policies by SE MOs. The membership of this SE Working Group is listed in Annex 1.

This report presents, and then builds on, the results of a survey conducted by the Working Group. The purpose of the survey was to map and analyse the current arrangements in SE MOs, regarding research integrity policies and processes. The survey covered:

- ▶ definitions of research integrity;
- ▶ research integrity policies and instruments;
- ▶ awareness-raising practices and initiatives;
- ▶ support for training in research integrity;
- ▶ processes and initiatives to strengthen collaboration; and
- ▶ sanctions for research misconduct.

The results of the survey were analysed in greater detail as they related to awareness raising, training, collaboration and mobility, and sanctions, including follow-up questions to some MOs, where they reported particularly promising practice. The learning from this deeper analysis is presented in separate sections of this report.



2 The Survey: Rationale and Methodology

2.1 Rationale

Improving the understanding of what currently exists across Europe in terms of policies, procedures and practices for promotion, protection of research integrity, and prevention and prosecution of misconduct, facilitates comparative analysis and identification of commonalities and core principles. Such a comprehensive mapping was found to be lacking, although a survey of selected countries by Mathias Willumsen (WG Member, DFF, Denmark)^[6] and work done by Simon Godecharle (KU Leuven, Belgium)^[7] in this area, could be built upon.

2.2 Methodology

The Working Group on Research Integrity developed a survey to map the current situation in terms of research integrity policies and processes at an organisational level. The survey focused on SE MOs; however, some additional information on the national and/or regional context of each MO was also collected.

The survey was adapted from one developed by the Danish Agency for Science, Technology and Innovation in 2012, which was used for a survey among members of the European Network of Research Integrity Offices (ENRIO) and selected other countries (USA, Australia and Canada). The overlap in membership between the SE Working Group and ENRIO made the link between the two surveys obvious as well as feasible.

Survey questions were modified to reflect the objectives of the Working Group and its membership. A blank version of the Survey Template is presented in Annex 2.

The survey ran for six weeks in the spring of 2014. By the deadline, 27 responses had been submitted. These 27 responses encompassed 33 different MOs, as the seven UK research councils made a joint submission via RCUK. Twenty-six from the 33 responding organisations were Research Funding Organisations (RFOs), five were returned by Research Performing Organisations (RPOs) and two responses were from organisations combining both functions.

10 In the summary of the survey presented in Section 3, all numbers refer to the number of respondents and not the number of organisations, unless otherwise stated. The survey's quantitative results for each question are presented with some explanation and reflections. Only aggregated results are presented as respondents were assured that their individual

responses would be confidential to the Working Group. For four specific aspects, that is raising awareness, training, strengthening collaboration (mobility, collaboration) and sanctions, deeper inquiries are respectively presented in Section 4, Section 5, Section 6 and Section 7 of this report.

Organisations that responded to the survey

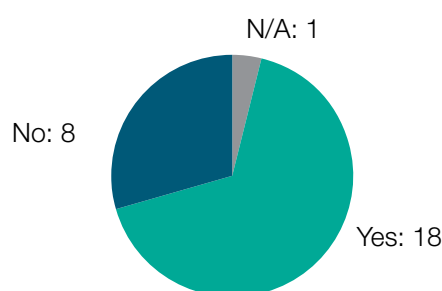
Country	Organisation	Acronym
Austria	Austrian Science Fund	FWF
Belgium	Research Foundation Flanders	FWO
Belgium	National Fund For Scientific Research	F.R.S.-FNRS
Denmark	The Danish National Research Foundation	DG
Denmark	Danish Council for Independent Research	DFF
Estonia	Estonian Research Council	ETAg
Finland	The Academy of Finland	AKA
France	French National Institute of Health and Medical Research	Inserm
France	French National Research Agency	ANR
France	French National Institute for Agricultural Research	INRA
Germany	Max Planck Society	MPG
Germany	German Research Foundation	DFG
Germany	Leibniz Association	—
Hungary	Hungarian Scientific Research Fund	OTKA ^[8]
Hungary	Hungarian Academy of Sciences	MTA
Ireland	Health Research Board	HRB
Lithuania	Research Council of Lithuania	LMT
Luxembourg	National Research Fund	FNR
Netherlands	Netherlands Organisation for Scientific Research	NWO
Norway	Research Council of Norway	RCN
Poland	National Science Centre Poland	NCN
Portugal	Portuguese National Foundation for Science and Technology	FCT
Slovenia	Slovenian Research Agency	ARRS
Spain	Spanish National Research Council	CSIC
Sweden	Swedish Research Council	VR
Switzerland	Swiss National Science Foundation	SNSF
UK	Research Councils UK	RCUK ^[9]



3 Summary of the Survey Results

3.1 Definition of Research Integrity

Since having a clear concept of the meaning of research integrity is the basis for developing policy and regulation, respondents were asked whether their organisation has a definition of research integrity. Eighteen respondents answered positively, while eight answered negatively (see Figure 1).



N/A meaning 'not applicable'

Figure 1 Definition of research integrity

It is perhaps not surprising that one third of respondents have no definition of research integrity, given that no clear definition has yet been universally developed. Only four respondents explicitly mentioned 'FFP' (Falsification, Fabrication and Plagiarism), the now 'classical' triad of violations against research integrity, and those deemed most damaging to the integrity of the research record.

Moreover, it was noted that the borderline between the concept of research integrity and that of research ethics remains unclear in many SE MOs, and that having research ethics policies and processes does not necessarily provide coverage of specific research integrity issues.

3.2 Research Integrity Policy and Instruments

The lack of a specific definition of research integrity does not appear to preclude some kind of action on research integrity, be it within the organisation or beyond its walls. When respondents were asked about whether they and/or any other organisations or authority in their country, state or region has a policy or similar instrument (e.g. a Code of Conduct) on research integrity, the vast majority (24) reported that they and/or other organisations or authority in

the respondent's country, state or region had a policy on research integrity (see Figure 2).

In the two cases where a respondent indicated that they do not currently have a specific research integrity policy in their organisation, they were asked whether the development of such a policy was planned; one of the two respondents concerned affirmed this.

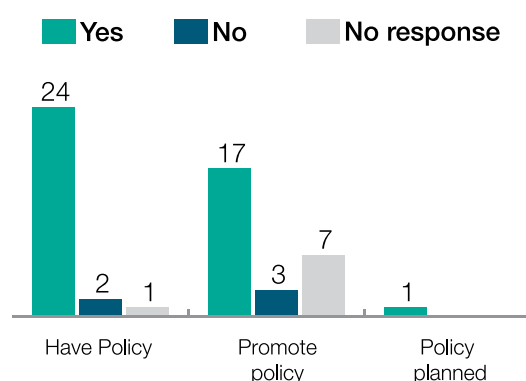
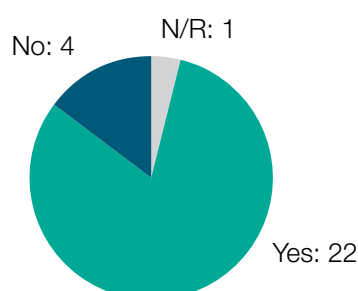


Figure 2 Research integrity policy – presence and promotion

Respondents were also asked about the promotion of their policy or similar instrument where appropriate. The majority of respondents indicated that they did undertake promotional activities (17), with only three indicating that they did not. Information about research integrity policies and/or processes is offered in most cases on the organisation's website (see Figure 3).



N/R meaning 'no response'

Figure 3 Information about research integrity on organisational websites

3.3 Raising Awareness of, and Commitments to, Research Integrity

Commitments to Research Integrity

When participants were asked about any requirement they had for a formal commitment to research integrity by their staff (which included administrative staff), only a small number of respondents (4) indicated that they did (see Figure 4). There are, of course, a number of different interpretations of the response to this question, since organisations may have many different types of staff (e.g. administrators and researchers).

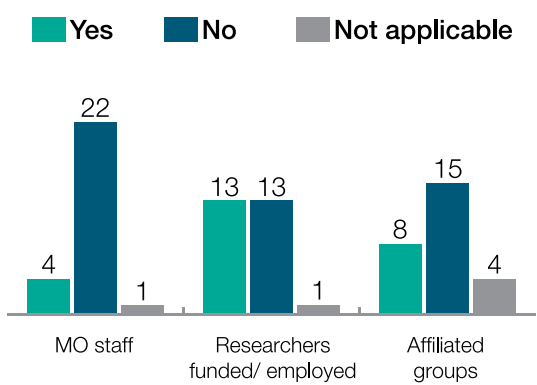


Figure 4 Requirement for formal commitment on research integrity

Therefore, question 2c inquired more specifically about whether researchers being funded or employed by the MO were asked to make a commitment to research integrity. There were an equal number of positive and negative answers to this question.

Commentaries provided by respondents show that the lack of an explicit commitment by their staff does not mean that the issue of research integrity is not covered, but that it is simply more implicit. For example, when a contract of employment contains a clause on antifraud provisions, this could be taken as applying also to research integrity violations.

Asked whether other groups affiliated with their organisation were required to make this kind of commitment, the majority of respondents indicated that they were not (15), although a sizable minority of respondents (8) do require a commitment

(either explicit or implicit) from affiliated groups. These groups included researchers, host institutions and administrative staff.

It is clear there is still work to be done in this area. The explicit mention of research integrity in contracts of employment and the like could in fact avoid misunderstanding and vagueness about the responsibilities of the respective parties involved, and serve to raise awareness of this important issue.

Promotional Activities

The survey explored how MOs promote research integrity among their staff and funded researchers. Figure 5 shows that 20 respondents to the survey indicated that they promote awareness of research integrity generally, whereas six do not and one did not consider this issue applicable to them.

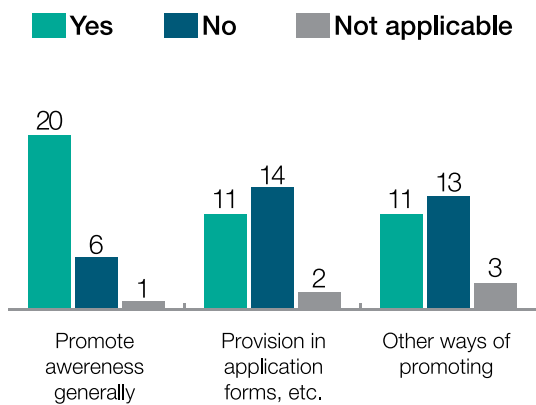


Figure 5 Promotion of research integrity by member organisations

In order to explore further the possible mechanisms for promoting research integrity within their own processes (question 2e) respondents were asked whether they have provisions on research integrity in their application forms, progress reporting templates and so on. A majority of respondents indicated that they do not have such provisions.

Where documents do contain provisions on research integrity, these can range from guidelines and codes of conduct to clauses in Terms and Conditions, application forms and peer-review documents.

14 Eleven respondents reported other concrete approaches to promotion, such as raising awareness within the organisation itself, communicating about the importance of research integrity through presentations, publishing articles in the general press, or organising courses and workshops. In some instances, participating in training by researchers is mandatory in order to be funded.

A more detailed examination of issues relating to awareness-raising activities and some good practice examples, and recommendations for future action by research organisations are provided in Section 4 of this report.

3.4 Training

To explore the involvement of SE MOs in training on research integrity, survey participants were asked whether, and at what level, their organisation supported such training, either for employees of their organisation or for recipients of their funding awards. This support could take the form of recommending training (but not providing this training), or organising, funding or in some other way supporting training (see Figure 6).

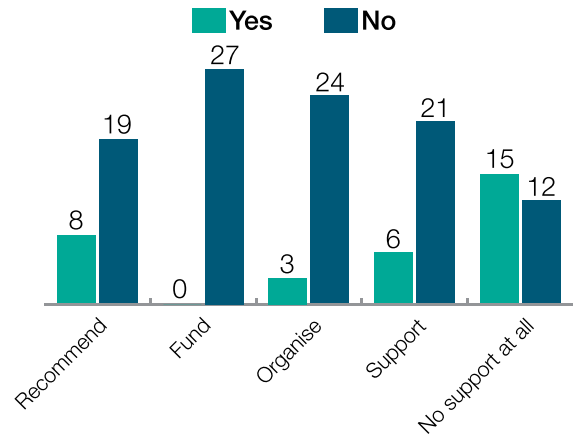


Figure 6 Support for training on research integrity

Only eight respondents indicated that they recommend training for their employees or grant-holders. An even smaller number of respondents indicated that their organisation organises training for either their employees or grant holders. No respondent reported that they fund training.

Six organisations reported that they support training on research integrity in ways other than funding or organising it (for more on this, see Section 5 on training).

Respondents were also asked how training on research integrity is generally carried out in their country and which (types of) organisations are involved in/responsible for this training (see Figure 7).

Most respondents indicated that in their country or region there is no dedicated agency involved in, or responsible for, research integrity training, with only five respondents reporting such an arrangement.

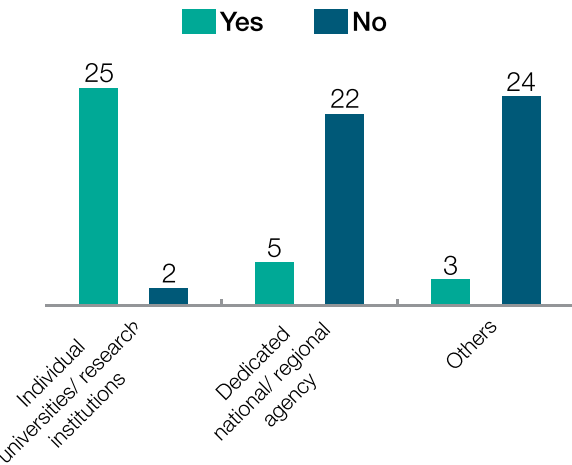


Figure 7 Organisation of training nationally

In most countries and regions within which MOs are located, the provision of training is a task for individual universities and research institutions, although three respondents indicated that other parties were responsible for research integrity training in their country.

A more detailed examination of issues related to training activities, and some good practice examples and recommendations for future action by research organisations are provided in Section 5 of this report.

3.5 Legal Instruments

The survey explored the legal instruments, investigative procedures or investigatory bodies available to MOs to help deal with cases of research misconduct (see Figure 8).

Just over half of the respondents reported being impacted by one or more legal instruments (such as consolidated acts or statutes, executive or governmental orders, contracts and other legally binding instruments).

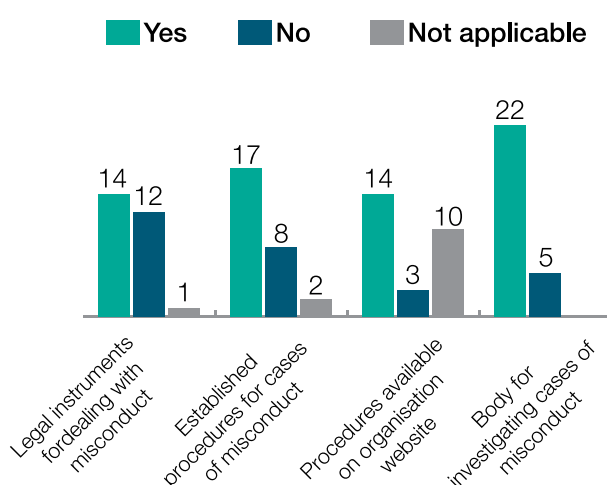


Figure 8 Legal or other instruments regarding research misconduct available to organisations

Seventeen respondents have in place established procedures for dealing with allegations of research misconduct that target any possible stage of the research process.

Furthermore, from the moment a case of research misconduct occurs, 22 organisations have some type of institution in their country, state or region that can deal with it. Not all organisations make information on the procedures available on their website or through other means, although over half do.

The survey also explored the nature of the bodies responsible for dealing with allegations of research misconduct in MOs or their countries, states or regions. The responses to these questions are shown in Figures 9, 10 and 11.

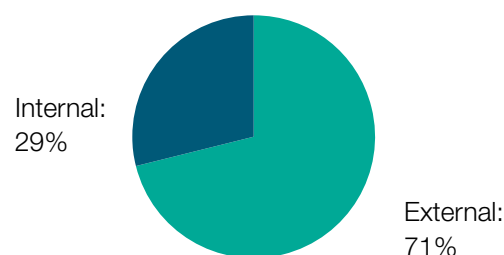


Figure 9 Investigatory body internal or external to organisation

Of all bodies mentioned by the respondents, most are external to the MO (71%). It should be noted that since each respondent was offered the opportunity to indicate different types of bodies that are responsible for investigating allegations of research misconduct, the data for different bodies in the same country or organisation are included in the total percentages given here.

Furthermore, where they exist, the majority of the bodies responsible for investigating allegations of research misconduct are permanent rather than ad hoc in nature (see Figure 10).

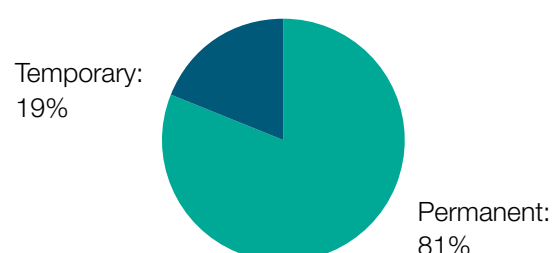


Figure 10 Permanent or temporary investigatory bodies

The number of bodies whose role is an advisory one is almost equal to those bodies that can adjudicate on cases themselves (see Figure 11).

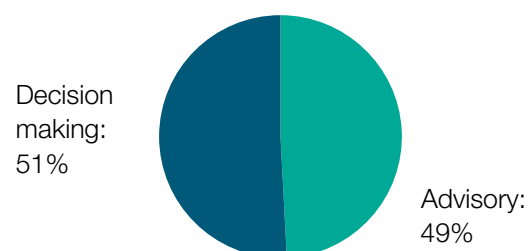


Figure 11 Role of investigatory body with regards to misconduct cases



“As a basis for research integrity policies and procedures, Research Funding and Performing Organisations should clearly describe what they mean by research integrity”

In terms of the membership of investigatory groups, where the investigatory group is formed by the organisation conducting investigations, the numbers recruited externally exceeded the number recruited internally.

The nature of the bodies that deal with allegations can vary from a board of an organisation to a dedicated internal commission (e.g. an ethics committee) or dedicated external bodies. It was difficult to find a clear pattern in the organisations or in countries.

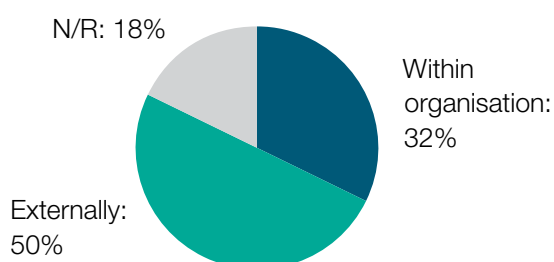


Figure 12 Internal or external recruitment of members of investigatory group

3.6 Mobility

The survey investigated what processes, if any, are in place to track researchers with a record of violations of research integrity when moving between institutions, be it in the same or different countries.

The survey found that only a minority of respondents have procedures (other than general human resources procedures) for dealing with an allegation made after the person has moved to another organisation (see Figure 13).

The same applied to investigations that were on-going at the time of the person's move to another organisation. Likewise, only a minority of respondents have procedures for following up on a completed investigation when the accused person moves after the investigation is completed.

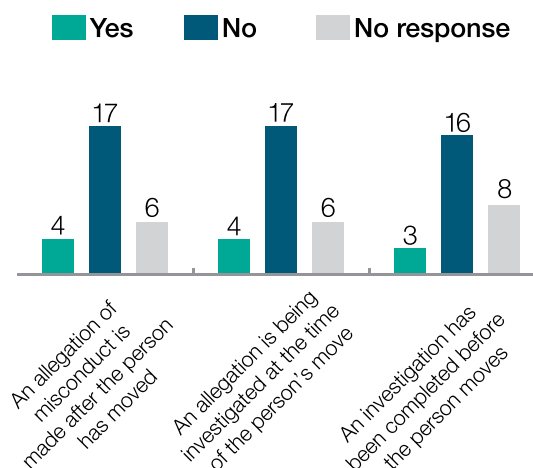


Figure 13 Existence of procedures to deal with allegations of misconduct in case of movement of researchers between organisations

The survey also explored the situation with regard to previous misconduct allegations, and what policies are in place relating to the status of potential new appointments to the organisation or to a grant funded by the organisation (see Figure 14).

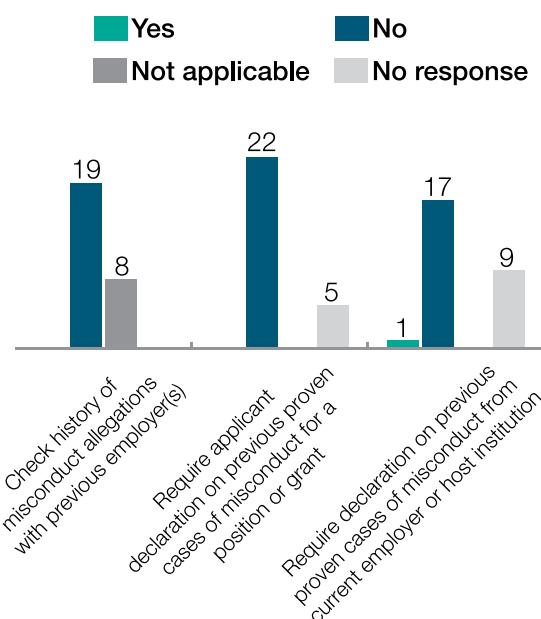


Figure 14 Presence of organisation policy on previous allegation or proven case of misconduct

18 With regards to incoming researchers or other employees, none of the respondents reported that their organisation has a policy for checking with previous employer(s) about any history of allegations of misconduct when a new appointment is to be made.

No organisation requires a declaration on any previous proven cases of research misconduct from applicants for a position or a grant, while very few required such a declaration from the current employer or host institution of an applicant for a position or a grant.

A more detailed examination of issues related to mobility and disclosure processes within SE MOs or their host institutions and some good practice examples and recommendations for future action by research organisations are provided in Section 6.

3.7 Whistle-blowers

When asked about policies or procedures pertaining to the treatment of whistle-blowers, the survey found that a whistle-blower arrangement has been put in place in only a minority of the organisations taking part in the survey.

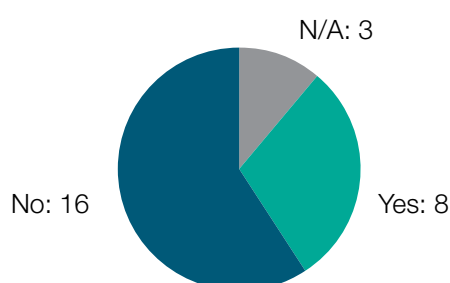


Figure 15 'Whistle-blower' arrangement in the organisation

3.8 Sanctions

SE MOs were asked what options for sanction they had, in case of proven research misconduct. The survey found that there are a whole range of sanctions at the disposal of MOs or the host institutions within which they make research awards:

- ▶ remark, reprimand, warning and the like;
- ▶ publication of the conclusion on a case;

- ▶ supervision requirements for further funding; dismissal;
- ▶ blocking of grants;
- ▶ restitution of grants and other means;
- ▶ replacement of the researcher who is executing the funded research;
- ▶ obligation to retract a scientific publication or data or to publish an erratum;
- ▶ exclusion from membership in evaluation and other committees;
- ▶ no eligibility for applications for a period of time; and
- ▶ withdrawal of academic degrees by the instances that are mandated to confer them.

As an employee, the basis of a sanction for misconduct can be the same as under labour legislation for other violations, or under legislation applying to civil servants for similar violations. Where no legislation exists, rules on sanctions have not been established or are still under discussion. In these cases, sanctions are apparently applied on a case-by-case basis.

It was also found that there can be a division of responsibilities, for example between bodies investigating and concluding cases and others providing sanctions (i.e. organisations where the researcher is employed or organisations which fund their research).

One respondent indicated that sanctions can also be taken against organisations failing to respect research integrity rules.

3.9 Appeal

The survey explored the situation with regards to the possibility of appeals against the findings of a misconduct investigation.

Less than half of respondents reported that their organisation permits appeals against an administrative decision concerning an investigation undertaken by them. For many organisations, administrative decisions are final, only leaving room for appeal in a court of law.

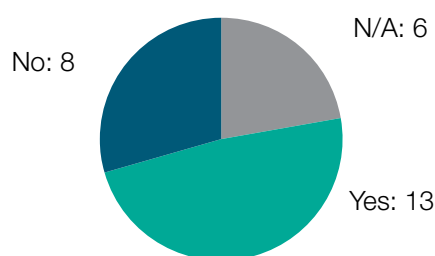


Figure 16 Presence of an administrative appeal system

3.10 Number of Cases and Trends

The survey made some attempt to document the number of misconduct cases (either upheld or disproven) that have been experienced by MOs, or about which they have information from the institutions that they fund, over the previous year.

Although a number of respondents provided data on allegations, investigations generally (and more specifically within the organisation) and proven cases, these data are not substantial enough to draw valid conclusions. Therefore, they should be treated with utmost caution. Many respondents are probably not aware of the cases that have been investigated outside their walls, and even the statistics from their own organisation may not be accurate. For that reason, the data that were provided are not included in this report.

For the same reason, indications of trends with respect to these data are not very reliable and must be accepted as the 'gut feeling' of the respondents regarding trends. Figure 17 indicates the number of respondents (out of 27 in total) that indicated whether they saw an increase, decrease or no change (stability) in numbers of allegations and proven cases, respectively, or did not provide figures at all.

These issues with data collection highlight the importance of improving transparency about allegations and cases of proven misconduct, perhaps through the development of central registration, either by funding agencies, national oversight bodies or national research integrity offices.

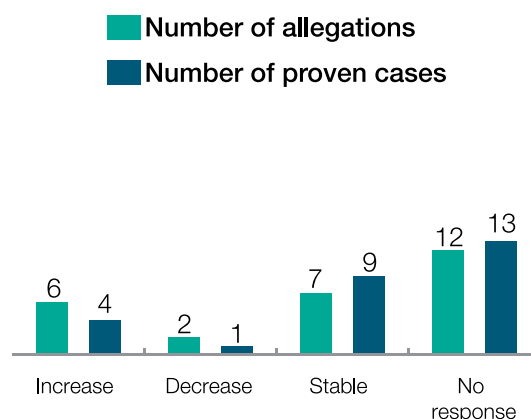


Figure 17 Trend on misconduct related to research funded by or performed in the organisation

3.11 Collaboration

The final issue that was raised in the survey was that of 'collaboration and research integrity'. This issue is receiving increased attention and rightfully so, as internationalisation of research in general is growing, and is being actively encouraged through many programmes and initiatives across Europe. The 3rd World Conference on Research Integrity (WCRI) in Montreal in May 2013 was dedicated to this theme and resulted in the Montreal Statement on Research Integrity (2013).^[10]

Figure 18 presents survey responses to the question of whether, as part of its standard agreements (e.g. Memoranda of Understanding, MoU) for collaboration, an organisation includes requirements concerning research integrity and allegations of scientific misconduct.

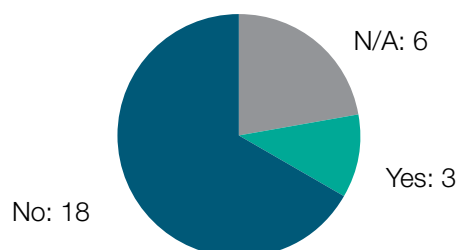


Figure 18 Requirement in collaboration MoU on research integrity and allegations of scientific misconduct

20 Despite the growing importance of cross-sectoral and cross-border collaboration, the survey found that only a small number of the respondents are very active in taking measures to ensure that standard collaborative agreements contain relevant requirements on research integrity and misconduct, for instance modelled on the 'boilerplate' text of the Organisation for Economic Co-operation and Development (OECD).^[11]

A more detailed examination of issues regarding collaboration within SE MOs or host institutions, and some good practice examples and recommendations for future action by research organisations are provided in Section 6.

3.12 Self-assessment

Survey respondents were provided with an opportunity to reflect on their own practices with regard to research integrity. Asked how they assess their existing mechanisms to promote research integrity and the impact this has had on them, the responses could be clustered according to three categories:

- ▶ Some organisations acknowledged that they still have much to do.
- ▶ Some organisations were satisfied with what they have put in place, despite admitting that there still is room for improvement and that continuous monitoring remains necessary.
- ▶ Some organisation indicated that they are undertaking a thorough revision of their policies and procedures.

In many cases, even where organisations have policies and processes in place, they observed that it is too early to evaluate whether these have had any impact on behaviours and levels of misconduct.

Exchanging information on policies and guidelines between partners, comparison with evolving best practice in other national organisations, and discussion with partners beyond the national borders can be helpful to developing robust policies and processes. Many organisations indicated that collaboration and division of responsibilities between national partners, such as funders and performers or specialised research integrity offices, is beneficial. Division of responsibilities can be defined in various ways, among others as making a distinction between

cases of fraud, dealt with by one (type of) body, and negligence or violations of good practices by another (type of) body. In some organisations there is regular reporting after determined periods of time.

3.13 Recommendations on Policy and Process

Overall, the survey found gaps and weaknesses in the policies and processes of many MOs. Obviously, this observation can only apply to the time period of the survey and changes may have occurred in some MOs in the intervening time. It should also be noted that the level of involvement of MOs in research integrity activities depends to a large extent on the type of MO, the national research integrity setup in the specific country, and other factors such as legal systems, tradition, role in the national research structure and so on.

Despite these caveats, a number of recommendations on processes and policies, emerged from the findings of the survey, and these are presented below for the consideration of MOs, other research organisations and regulators. The recommendations should be viewed and interpreted in accordance with the specific organisational and national setting applicable to each MO.

1. As a basis for research integrity policies and procedures, **RFOs** and **RPOs** should clearly describe what they mean by research integrity.
2. Both **RFOs** and **RPOs** should develop a policy on research integrity which includes promotion of good research practice, clear procedures for dealing with allegations of research misconduct and a description of the possible sanctions that can be employed in proven cases of misconduct.
3. **RFOs** and **RPOs** should have a published policy that protects employees from disciplinary action where they raise concerns about alleged misconduct. The types of misconduct covered should be described within the policy.
4. **RPOs** and/or **Regulators** should aim to make public the outcomes of all proven cases of research misconduct; ideally this should include the names of the researchers involved, but this will need to be considered on a case-by-case basis.
5. **RFOs** and **RPOs** should also support the central collection of data on research integrity, including data on cases – either under investigation or proven.



4 Raising Awareness of Research Integrity

4.1 Introduction

Raising awareness of research integrity helps to promote its importance amongst the research community and may contribute to preventing research misconduct. Awareness of research integrity issues among the research community can also be patchy. RFOs and RPOs often struggle to raise awareness of, and achieve buy-in to, research integrity policies and processes among their research community. In addition, support for research integrity governance initiatives at institutional, regional and national governmental level often does not reflect the importance of this topic.

This section sets out best practices (examples and recommendations) for RFOs and RPOs on how to raise awareness of research integrity in their daily activities (e.g. administrative processes and procedures). Awareness includes acceptance of individual and collective responsibility for research integrity. Awareness goes beyond training (which is addressed separately in Section 5) and complements it.

The examples given in this section were devised by SE MOs who participated in the Working Group on Research Integrity (the Task Group on Raising Awareness) or were suggested by respondents to the survey described in Section 3.

4.2 Communicating about Research Integrity

Many SE MOs already have a specific policy on research integrity. For example, Research Foundation Flanders (FWO),^[12] the German Research Foundation (DFG),^[13] and the Netherlands Organisation for Scientific Research (NWO)^[14] have specific policies available on their websites. For organisations that have yet to develop a policy for themselves, there are much guidance and many useful frameworks already available to help them in their thinking. For example, the Singapore Statement on Research Integrity (2010),^[2] the Statement of Principles for Research Integrity from the Global Research Council (2013),^[3] the European Code of Conduct for Research Integrity (2011)^[4] and the Montreal Statement on Research Integrity (2013)^[10] can be used as inspirations.

In addition to their policy on research integrity, some SE MOs clearly set out what they consider good research practice^{[13],[15],[16]} and publish their procedures for dealing with allegations of misconduct.^{[17],[18],[19]} By making such information downloadable from its website, an organisation makes a clear statement that it takes responsibility for research integrity and/or research misconduct.

Although many organisations provide information about research integrity on their websites, the information is not always easy to find and/or is not always available in English.

In addition, it is often not clear who a researcher should contact with a concern or to obtain further guidance on research integrity or possible incidents of misconduct. Identifying designated contact persons responsible for the organisation's policy and/or an ombudsperson, and providing their names and contact details on the website, is, therefore, an important part of the communication process.

4.3 Stressing Research Integrity in the Application Procedure

Research misconduct can take place at all stages of the research process, from the application process to dissemination of the research results.

In addition, researchers involved in the assessment and peer-review procedures for funding applications can misbehave. They can, for example, misuse their authority, be biased in favour or against a specific proposal, share the information with other people not involved in the assessment procedure, or steal ideas presented in funding applications. It is, therefore, very important to make the applicants and all those involved in the decision-making process aware of the importance of good scientific practice.

4.3.1 Writing and Submitting a Research Proposal

Applicants for research funding should be aware of the importance of research integrity from the very beginning of writing and submitting their proposal, since it is possible for research misconduct to take place even at this early stage.

An applicant can, for example, cite incorrectly or not at all, or may copy someone else's proposal. A simple way to make an applicant aware of their research integrity responsibilities is to include a declaration in the application form, in which the applicant confirms that he/she endorses, for example, a specific code of conduct or accepted standards for good research practice. By submitting the proposal an applicant automatically commits himself/herself to these standards. This practice is already enforced by several SE MOs. For example, the Swiss National Science Foundation (SNSF) uses the following text:

The main applicant hereby confirms that the information given in all parts of this proposal including the attachments is correct. Documents were prepared in agreement with the persons involved and according to the standards of good scientific conduct. All information relevant to the proposal is presented unambiguously and completely. Earlier work of the applicants and third parties is declared as such and publications of the applicant(s) and of third parties are correctly cited.

The SNSF also has a declaration which concerns specifically the research plan:

The research plan must be written in accordance with the rules of good scientific practice and sources must be cited correctly.

The research plan must consist of original text that has been written by the applicants themselves. A limited amount of text (or other material, graphs, etc.) by third parties or text published by the applicants themselves is permissible in the sections concerning the state of research as well as when describing standard methods. The quoted texts must be clearly designated as such (quotation marks or appropriate wording) and a verifiable source must be mentioned nearby and in the bibliography.

The SNSF uses a special software to compare texts and analyse suspected cases of plagiarism. A number of universities have made such programs available to their students and employees. We recommend that you contact your institution for further information.

As another example, Research Foundation Flanders (FWO) has incorporated a research integrity clause into all its calls, application forms and contracts^[20]

while the DFG incorporates guidance on research integrity into its instructions to researchers on submitting a funding application.^[21]

4.3.2 Peer Review and Assessment of Research Proposals

Everyone involved in the assessment procedure for a funding proposal, for example a referee or a member of a selection committee, needs to be aware of their role in upholding standards of good research practice. In this way, an applicant can have full confidence that decisions of the evaluators/assessors will be made without bias and without regard to personal interest, and that information about their application will not be disclosed to anyone except those directly involved in the decision-making process.

Such awareness of the expected behavior of everyone involved in the grant-making process can be achieved by a requirement to sign a declaration of interest, before commencing their tasks, in which they pledge to observe good practice and/or to retain confidentiality concerning both the content of applications and the decision-making process regarding them.

For good practice in peer review see also the 2011 ESF European Peer Review Guide (Chapter 3: Pillars of good practice in peer review).^[22] Other examples of good practice regarding Conflicts of Interest include the DFG guidelines for reviewers,^[23] the NWO Code of Conduct on Conflicts of Interest,^[24] the Research Council of Norway Regulations on Impartiality and Confidence,^[25] and the Danish Code of Conduct for Research Integrity – Chapter II.6.^[26]

4.4 Stressing Research Integrity in Research Practice

During the actual research it is important that everyone who is involved in the research project is aware of the importance of good research practice. This section explores the many opportunities for RPOs and RFOs to ensure that researchers are made aware of expected practices. Of course, training on specific research issues and on broader good research practices, as part of a researcher's overall education, is also vital in this regard, and this topic is covered in more detail in Section 5.

4.4.1 Grant Agreement or Contract

When a grant is awarded and/or a researcher is appointed at an RPO, this provides a good opportunity to (again) stress the importance of good research practice. Including the requirement to follow good research practice in the terms and conditions of employment contracts (RPO) and/or terms and conditions of grants/regulations (RFO) is an obvious step. Providing specific information about, for example, data management, ethical aspects of research or specific guidelines regarding laboratory experiments, policy on experimental design or publication ethics are also good practices.

As examples, information about contracts for R&D projects, including expectations on good research practice, can be downloaded from the Research Council of Norway website, in the form of various documents, such as an R&D Project Agreement Document and the General Terms and Conditions.^[27] Like many other SE MOs, the UK Research Councils have a specific clause in their Grant Terms and Conditions relating to good research practices which might be a useful starting point for MOs who do not yet incorporate such a clause in their grant documentation.^[28] Where projects are collaborative, the OECD 'boilerplate' text for International Collaborative Research Projects is a useful template for research funders.^[11]

4.4.2 Committing to General Standards of Good Research Practice

Some RPOs ask their researchers to commit to standards and norms of good research practice. For example, Utrecht University (the Netherlands) recently decided that all PhD students, when obtaining their PhD, must swear an oath that they have performed their research according to the main principles of

good research practice: Scrupulousness, Reliability, Verifiability, Impartiality and Independence. Erasmus University Rotterdam asks all its Masters and PhD students to swear to the general rules of good research practice. No organisation has yet extended this commitment to its entire research staff, including mid-career and senior staff.

4.5 Recommendations related to Awareness Raising

Overall recommendations on how to raise awareness as described in this section are the following:

6. **RFOs and RPOs** should make a clear statement on their website describing the organisation's policy and making it possible to download relevant documents. The information should be available in English and include the name and contact information of the person responsible for the policy on research integrity.
7. **RFOs** should provide a clause on research integrity in application forms. In each of their calls, they should also provide information about how research integrity is dealt with during the assessment procedure, including what is expected of peer reviewers and committee members.
8. **RFOs** should provide general information and/or guidelines about good research practice in the terms and conditions of grants and contracts; in some cases researchers may be required to sign a formal agreement.

“Research Funding Organisations should provide a clause on research integrity in application forms”



5 Research Integrity Training

5.1 Introduction

Training interventions are vital in imbuing a culture of responsible conduct among researchers at all stages of the career pathway. Despite its importance, provision of research integrity training at national and local level is highly fragmented in most countries. The evidence base for what makes a successful training programme and how this should be delivered to different groups and levels of researcher is only now starting to emerge, but has not been collated in any systematic way that would allow informed choices on best practice.

In the following sections recommendations on who should be trained, what the curriculum should cover and how training should be delivered are provided for the consideration of MOs and other research organisations. The examples of good practice were chosen from individual answers to the survey (Section 3) and made available by SE MOs that took part in the activities of Working Group on Research Integrity.

5.2 The Elements of Research Integrity Training

5.2.1 Fostering a Culture of Research Integrity

The recent Conclusions on Research Integrity of the EU Competitiveness Council,^[29] stressed the importance of fostering a culture of integrity in research by promoting research integrity training. Precisely who should be responsible for training will vary depending on the roles of organisations (research performer and/or funder of research). However, regardless of their remit, it is clear that all organisations have a responsibility to actively support research integrity training as a means to nurture a strong research environment.

5.2.2 Who Should Receive Training in Research Integrity?

Hiney (2015)^[30] argues that training in good research practices should not be confined to undergraduate students, but should be integral to the professional development of researchers/ research managers throughout their career: from senior researcher to undergraduate, from nurse to senior administrator

and so on. Obviously, such training needs to be appropriate to the differing skills of students/ researchers. In addition, specific training would support members of ethics/integrity committees and ombudspersons^[31] in the demanding work that they do.

5.2.3 What Should be Covered in Research Integrity Courses?

When designing courses on research integrity, the precise course topics that should be covered will depend on the participants. That said, the experience of MOs who have developed training would suggest that at a minimum, modules should cover:

- ▶ Research planning and conduct of research: research design, methodology, analysis etc. (including unconscious bias)
- ▶ Data management: lab tools, data acquisition, record keeping, data sharing and ownership, data storage and so on
- ▶ Responsible authorship and publication: rules of authorship, scientific writing, referencing, how to use and value for instance internet resources, and so on
- ▶ Mentor/mentee relationships
- ▶ Collaborative research, responsibilities of researchers, students, institutions, and so on
- ▶ Conflicts of interest
- ▶ Definitions of and differences between questionable (and unacceptable) research practices and research misconduct: policies for handling allegations, where to go in case of conflicts in research integrity and misconduct issues

In addition to the topics suggested above the following topics are more appropriate for experienced researchers or are related to ethical issues:

- ▶ Peer Review
- ▶ Ethical issues pertaining to research with human participants
- ▶ Ethical issues pertaining to research with animals
- ▶ Ethical issues of dual use research
- ▶ Social responsibility, environmental and social impacts of research

5.2.4 How Should Research Integrity be Taught?

Training for undergraduates and doctoral students should not be seen as something separate to normal research training. Whenever research methods are being taught, good research practices need to be an integral part of them. Additionally, anyone acting as a mentor and role model (senior researchers, lecturers, supervisors) has a responsibility to ensure that they constantly update their skills and knowledge of good research practices.

While there is, as yet, a paucity of empirical evidence about the most effective methods of training in research integrity, the experience of MOs that provide training is that active participation of students and researchers, rather than exclusive use of online resources, is most effective in facilitating discussion and learning. Active participation and blended learning includes case studies and role-playing. It is also important to ensure that trainers are appropriately trained, to introduce both knowledge and consistency into research integrity curricula.

5.3 Best Practices and Promising Models among MOs

There are already some best practices that have been developed or are in development across SE MOs. This section does not provide an exhaustive list but suggests promising models that could be adopted/ adapted by other MOs.

5.3.1 Austrian Science Fund, Austria

In 2008, the Austrian Science Fund (FWF) was the driving force in establishing a National Agency for Research Integrity (OeAWI) as an association.^[32] By July 2015, OeAWI had a total of 38 member institutions, in particular all Austrian universities, universities of applied sciences and various non-university research and funding institutions.

Besides offering independent investigations of alleged cases of research misconduct, OeAWI provides expertise on awareness raising and prevention of questionable research practices and research misconduct. Since 2010, the agency has offered lectures and workshops on good research practice for member institutions. For instance, in courses for researchers virtual cases of research

misconduct are discussed. The selected cases are quite realistic, and rarely black or white, and therefore provoke vivid discussions amongst the participants. At some research institutions there is now a regular lecture or workshop once a year or once a semester. Participants include PhD students, postdoctoral fellows, senior researchers, teaching staff, ombudspersons, quality managers and even school librarians.

5.3.2 German Research Foundation, Germany

With the assistance of the German Research Foundation (DFG), the 'Research Ombudsman' committee has developed a curriculum for good scientific practice^[33] for all academic disciplines. This curriculum can be used for classes on good research practice at universities and research institutions, in Research Training Groups and within structured doctoral training.

The curriculum offers two-part learning and training opportunities: the first part concentrates on case studies and the second part can be used within the framework of furthering academic qualifications.

Since 2012, the DFG has also funded a workshop for local ombudspersons at universities and research institutions on the topic of mediation and conflict management. This workshop provides ombudspersons with specific support for their work and offers them a forum for discussing conflicts and how to resolve them.

5.3.3 Institute for Medical and Organisational Ethics, Germany

In 2015, the German Institute for Medical and Organisational Ethics developed its first Open Teacher Training Course on 'Good Scientific Practice' for academic staff members who intend to integrate good scientific practice into their teaching activities. The course consists of short presentations, case discussions, exercises, small group work, plenary discussions and expert talks. The Institute has plans for an International Teacher Training Course in 2018, to be delivered in English.

5.3.4 The Research Ethics Library, Norway

‘The Research Ethics Library’ (FBIB) was developed as a tool for training and raising awareness of research integrity and research ethics in a broad sense. FBIB is a web-based collection of articles, managed by the Norwegian National Research Ethics Committees.^[34] The website was launched in 2009 as the result of collaboration with seven Norwegian universities.

The library aims to serve as an introduction to central research ethical topics, and offers more than 90 articles written by experts on all subject areas. While each article serves as an introduction to a topic, it also offers case study exercises, suggested further reading, links to other resources, news articles and references. Therefore, rather than presenting an encyclopedia or a set of answers, the objective is to encourage debate and reflection. The main target groups are academic teachers and students, but the library is used by a broader public as well.

The articles in the Library are structured within three main sections: (i) An introduction to research ethics; (ii) Relevant research ethical topics; and (iii) Practical information. Several topics are relevant to research integrity (i.e. honesty, research misconduct, authorship, conflicts of interest, research methods, bias, whistle-blowing, supervision, research and society, research and environment, relevant research ethics bodies, legislation and guidelines, both national and international, and so on).

The Library is continuously updated and expanded with new articles and case studies. An English version of the Research Ethics Library was launched in October 2015.^[35]

5.3.5 Portuguese Foundation for Science and Technology, Portugal

The Office of Ethics and Research Integrity of the Portuguese Foundation for Science and Technology (FCT) runs a training activity that is available to the different research/education institutions that it funds. Currently it is offered as a seminar (one to three hours) on responsible conduct of research. In this seminar responsibility in research is framed within the context of research integrity and misconduct (Fabrication, Falsification and Plagiarism) and the issues of ethics in research (with humans and animals). In the future, the FCT aims to make it mandatory for all FCT-funded researchers to undertake a course in responsible

conduct in research. This procedure, based on the requirement for training of researchers who work with animals, is being discussed in Portugal but is not presently established.

5.3.6 The Academies of Arts and Sciences, Switzerland

In Switzerland, the Academies of Arts and Sciences plan to draft a core curriculum for research integrity training.^[36] Once ready, it will be made available to all parties offering research integrity training, in particular the higher education institutions, but also private research institutions. This initiative is based on several workshops with experts in the field and with the ombudspersons of Swiss universities, but also on a survey among the Swiss universities that showed very clearly the need for a core curriculum.

5.3.7 Medical Research Council, UK

The Medical Research Council (MRC) launched its e-learning module in December 2014. It is available to everyone via the Regulatory Support Centre Learning Management System.^[37] The e-learning module is based on the MRC’s document Good Research Practice (GRP),^[38] which sets out the expectations for MRC researchers in the form of principles, guidelines and standards. The module aims to explain the principles and guidelines, and show how these relate to other requirements and guidance that research teams need to take into account. It includes case studies to illustrate some of the issues teams may face and ends with a multiple-choice quiz so that users can test their knowledge. The course and the quiz should take no more than an hour and the module is divided into sections so that it does not have to be done in a single sitting. It is intended to support local induction material for new starters and to act as a reminder and entry point to the GRP document for more established staff.

5.4 Recommendations Related to Training

The overall recommendations for training in research integrity, as described in this section, are the following:

9. **RFOs** and **RPOs** should actively support training in research integrity within their remits.
10. **RPOs** should ensure that all people working on research projects are trained in good research practice.
11. **RFOs** and **RPOs** should encourage responsible bodies to ensure that training in research integrity is mandatory and that it starts at the undergraduate/PhD level and continues throughout a researcher's career.
12. **RFOs** and **RPOs** should encourage responsible bodies to establish train-the-trainer courses to introduce knowledge sharing and harmonisation and to maintain training standards.



6 Strengthening Collaboration and Monitoring Mobility

6.1 Introduction

Cross-border collaboration is essential for science to achieve its full potential. This can take many forms, but is particularly fostered by the movement of people between countries. This poses particular challenges for the protection and promotion of research integrity, which is no longer just an issue for individual organisations and countries, but increasingly for international collaborations and partnerships. It helps to maintain the excellence of science and to ensure public trust in science and scientists.

Research organisations need to ensure that collaborations work smoothly and efficiently and that excellence can be maintained. In order to do so, potential collaborators need to reach agreement on a common approach to research integrity. This in turn requires each party to the collaboration to have a clear understanding of the points of agreement and divergence in their own policies and procedures, and the policies and procedures of other parties to the collaboration.

Barriers to collaboration might arise, for example, from incompatibility of legal systems and approaches, different governance topologies or different levels of expertise brought to bear on investigations. Potential problems can be minimised by agreeing common policies and processes at the planning stage of a collaboration.

The Working Group (Task Group on Strengthening Collaboration) explored policies, procedures and practices in relation to research integrity and misconduct in the context of research collaborations between institutions or between individuals working in different institutions. The focus was mainly on cross-border collaboration, but within-country collaborations were also relevant.

This work is particularly important in the context of Science Europe's commitment to foster collaboration across Europe and the aim of the European Research Area to strengthen cross-border co-operation and competition.

6.2 Previous Initiatives Related to Strengthening Collaboration

Work on the international dimension of research integrity has been the subject of several previous initiatives/reports, in particular:

► **The Organisation for Economic Cooperation and Development (OECD) Global Science Forum 'Best Practices for Ensuring Scientific Integrity and Preventing Misconduct' (November 2007)**

This report summarises the discussions that took place during a workshop held in Tokyo in February 2007. The goal of the workshop was to "deepen the understanding of the underlying phenomena, identify the range of possible solutions and, based on experience, enumerate the pros and cons of various practical measures, lessons learned and good practices."^[39]

► **OECD Global Science Forum 'Investigating Research Misconduct Allegations in International Collaborative Research Projects - A Practical Guide'^[40] (April 2009)**

This short guide provides practical recommendations and tools to help in the investigation of possible cases of research misconduct in international research collaborations. It includes a recommended 'boilerplate' text for inclusion in written agreements for collaborative research involving parties from more than one country. The text could be complemented by a more specific document that describes the policies and procedures to be applied in case of alleged scientific misconduct.

► **The ESF/ALLEA consensus document 'The European Code of Conduct for Research Integrity'^[41] (July 2010)**

This Europe-wide Code addresses good practice and bad conduct in research, offering a basis for trust and integrity across national borders. The Code offers a reference point for all researchers, complementing existing codes of ethics and complying with national and European legislative frameworks. It is not intended to replace existing national or academic guidelines, but represents

agreement across 30 countries on a set of principles and priorities for self-regulation of the research community. It provides a possible model for a global code of conduct for all research.

► **The ESF report ‘Fostering Research Integrity in Europe’^[42] (December 2010)**

This report summarises the discussions of an ESF Forum, integrating its conclusions into a comprehensive strategy for safeguarding integrity in scientific research and practice at the national and European levels. The report includes the Code of Conduct referred to above.

► **World Conferences on Research Integrity**

The World Conferences on Research Integrity^[43] were organised to promote exchange of information and to further discussion of ways to promote research integrity and harmonise efforts to foster responsible research practices.

World Conferences were held in Lisbon (16–19 September 2007), Singapore (21–24 July 2010), Montreal (5–8 May 2013) and Rio de Janeiro (31 May–3 June 2015).

The third Conference resulted in the ‘Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations’. It is intended as a global guide to the responsible conduct of research; it is not a regulatory document and does not represent the official policies of the countries or organisations that funded or participated in the Conference.

6.3 Complementary Science Europe and ENRIO Initiatives

In addition to high-level statements and guidance documents, there are many national policies and guidance documents, including procedures for undertaking formal investigations of allegations of research misconduct. Rather than review or repeat these, the Working Group explored what was actually happening in SE MOs via the survey results (see Section 3) and supplementary questions.

Where responses to questions relating to ‘strengthening collaboration’ indicated that more useful information might be available, some follow-up questions were sent to certain respondents.

The results of these supplementary questions are given in Annex 3.^[44]

In addition to SE MOs, members of the European Network of Research Integrity Offices (ENRIO) have valuable experience of what happens when a person against whom an allegation has been made moves from one country to another. A set of questions was asked of the 24 members of ENRIO. The results of this supplementary survey are given in Annex 4.

6.4 Conclusions from Supplementary Survey Responses

Most of the MOs that replied to the survey took the issue of research integrity seriously, though there were some differences in definitions and approaches. Some MOs had detailed policies, guidance and procedures, while in others these were still being refined. Apart from definitions of research integrity and serious research misconduct, where there is generally alignment, there has understandably been a tendency for different countries or organisations to develop their individual approaches according to local culture and legal frameworks. Some countries (e.g. Denmark, Norway and Switzerland) have statutory regulation in the area of research misconduct and have national bodies charged with investigation; whereas in most countries the issue is more devolved, covered by other legislation (e.g. fraud, employment) and is policed by employers according to their own processes (over which there may be some convergence on ‘best practice’).

The difficulties are compounded when it comes to agreements and allegations that involve more than one institution within a country, and compounded further when they involve institutions in different countries.

Previous reports (see Section 6.2) have attempted to address the problem of research integrity at an international level. However, these only offer guidance and encouragement, and there is no formal mechanism for ensuring the guidelines are followed.

The response rates to the supplementary surveys of SE MOs and ENRIO members were 63% and 35%, respectively, and as such, there needs to be caution in generalising from the responses.

32 Nevertheless the replies have revealed some interesting findings, for example:

- ▶ In countries where there was an overarching body responsible for research integrity, there was a process for ensuring that if a person moved from one institution to another while an allegation was still being investigated, the investigation would continue (though this was not explicitly stated in their guidance).
- ▶ Where there was no overarching body, there appeared to be no such formal mechanism, so whether an investigation continued was ad hoc. From the very limited evidence here, it is not possible to assess how frequently such investigations are pursued.
- ▶ The same was true whether the person being investigated changed institutions within country or between countries.
- ▶ None of the organisations employing researchers reported that they had an explicit policy on checking with previous employer(s) any history of allegations of misconduct for a potential new appointment.
- ▶ No organisation explicitly required a declaration on any previous proven cases of scientific misconduct either from applicants (for a position or for a grant), or from their current employer/host institution.
- ▶ Only eight MOs stated that they had a whistleblower arrangement in their organisation.
- ▶ Nearly all respondents had a range of sanctions they could impose, and in most cases this was explicit.
- ▶ With respect to formal agreements covering collaborations between institutions, only three respondents (DG, Denmark; RCUK, UK; HRB, Ireland) reported that they had guidance that research integrity/misconduct should be included in such agreements. None explicitly mentioned the OECD 'boilerplate' text.
- ▶ Only one member of ENRIO reported cases of investigations being pursued when more than one country was involved.
- ▶ Pursuing such cases is difficult because of different legislations, but the evidence is that at least in some countries it can be done where there is a will.

6.5 Recommendations Related to Strengthening Collaboration and Monitoring Mobility

Overall, given the amount of research that is undertaken in Europe, there is very little reported research misconduct. However, it is very likely that proven instances of research misconduct are under-reported. One of the aims of the Working Group was to encourage more openness, and in particular to encourage organisations to investigate allegations of misconduct thoroughly and then report on the outcomes of proven cases. Ultimately this is likely to benefit, not compromise, organisations' reputations.

13. **RFOs and Regulators** should make explicit in their policies and guidance on research integrity that allegations of misconduct will be pursued even if a person moves from one institution to another (either within a country or between countries), and that the initial employer/host institution will be involved in pursuing these allegations.
14. **RFOs** should make clear in their policies and guidance that it is a requirement of the initial employer/host institution to pursue any allegations of misconduct, even if a person moves from one institution to another, either within a country or between countries.
15. **RPOs** should consider, when making appointments to research positions, requiring applicants to state in their application that they have not had an allegation of research misconduct against them upheld (within a previous specified period), and that they are not subject to an ongoing investigation.
16. **RFOs and RPOs** should ensure that all formal agreements for research collaboration include a section on expectations concerning research integrity and an agreement on the process that would be used if an allegation of research misconduct were made against someone working on the research programme.

The previous recommendations should be considered in the context of the remits of MOs (both **RPOs** and **RFOs**), acknowledging that existing national law and that the statutes of SE MOs may differ considerably. The following are two further recommendations that might require legislation, but which might also be achieved by mutual agreement between **RFOs** and **RPOs**:

17. RPOs and RFOs should encourage the development of collaborative agreements that explicitly allow **host institutions** to share information at national and international level regarding cases of research misconduct which are under investigation, or regarding proven cases – whether or not sanctions have been imposed.

18. RPOs and RFOs should ensure that the mechanisms set out in their research integrity policies for investigating allegations of misconduct include a means of investigating the allegation after the person has left the host institution where the alleged misconduct took place.



7 Sanctions

7.1 Introduction

There is a view that without the threat of sanctions, either for an organisation or an individual, policies and guidance have no ‘teeth’ and may simply be ignored. However, there are complex legal issues concerning the imposition of sanctions, particularly where it may affect a person’s employment – either immediately or in the future. Funders and institutions may be reluctant to apply sanctions where there is a risk of expensive legal challenge and reputational damage if a case is lost.

The survey asked respondents:

What are the possible consequences (sanctions, recommendations, etc.) at the level of your organisation (or another organisation involved) if a person is found guilty of research misconduct? Please give a short description.

Nearly all respondents had a range of sanctions they could impose, and in most cases this was explicit. (None specified any direct link between the severity of the misconduct and the level of sanction).

7.2 Possible Sanctions for Misconduct

In order to assist MOs (and others) with regard to sanctions, the Working Group (Task Group on Strengthening Collaboration) undertook desk research to analyse the responses in terms of the possible sanctions that may be applied and the possible constraints in applying sanctions.

This analysis describes a range of sanctions that an employer or a funder may apply. How this might be done may vary according to jurisdiction.

7.2.1 Legal Background

The range of possible actions or sanctions that may be applied in proven cases of research misconduct varies from one country to another. This is because of different legal traditions, and depends – among other things – on the legal status of an RFO, the scope of its responsibilities (for example as a provider of public or private money), and the degree of its independence (e.g. from its government).

RFOs potentially have a wide range of possible sanctions at their disposal, varying from the actions by the RFO itself to referring the misconduct to the courts, where it may be construed in the same way as any other professional misconduct or fraud, that is where a criminal offence may have been committed. In the latter case, any sanctions would be imposed by the court in accordance with the criminal or civil law of the country.

In cases that are deemed non-criminal, sanctions may potentially be applied by the employer of the person guilty of misconduct or (if different) by the RFO. Sanctions may be applied to individuals or to the organisations which employ them. In the survey, there were some MOs that did not yet have detailed policies or processes concerning allegations of misconduct and they tended to rely on the employer to apply any sanctions.

In those MOs that reserved the right to apply sanctions, either to the individual or to their employer, a recommendation is normally taken by a special committee (in a/the Research Integrity Office) and then officially approved by a higher level Board. In each case the seriousness of the (proven) scientific misconduct is taken into account, and possible interventions are intended to match the circumstances of the case. In most MOs, such decisions are made public (on websites) and, where/ if relevant, the public authority supervising the area and the host institution are informed. If during this process it is considered that a criminal offence (e.g. fraud) may have been committed, a formal report is made to the police.

7.2.2 Sanctions against Individuals

The possible sanctions against individuals may be applied according to (i) employment law, (ii) civil law, or (iii) academic policies or professional standards.

(i) Employment law

Sanctions against an individual employee may include one or more of:

- ▶ A written letter of reprimand, expressing the criticism and/or warning
- ▶ A remark in the employee’s file

- ▶ Enforced resignation
- ▶ Dismissal (usually with more severe financial and career consequences than resignation)

(ii) Civil law

Sanctions against an individual employee may include one or more of:

- ▶ Issuing an order to stay away from the institution for a period of time
- ▶ Requiring the individual to hand over or forfeit stolen scientific material, imposition of financial penalties for copyright infringement or other costs associated with personal rights, patenting rights, and competition law
- ▶ Repayment of funds, such as for scholarships, grants or other external funding, or of claims for compensation filed by the institute or by a third party.

(iii) Academic or professional policies and standards

Sanctions, excluding those listed above, against an individual may include one or more of the following; these may be applied by the organisation indicated in bold:

- ▶ Withdrawal of a (usually postgraduate) degree (**RPOs**)
- ▶ Withdrawal of an academic title (e.g. 'Professor') and/or a teaching qualification/accreditation (**RPOs**)
- ▶ Exclusion from acting as a reviewer (**RPOs, RFOs, Journals**)
- ▶ Exclusion from membership of academic and/or professional bodies (including, for example, denying voting rights, eligibility in elections for academic bodies and committees, or termination of representation on external committees) (**RPOs, Professional Bodies**)
- ▶ Termination of a grant* (**RFOs**)
- ▶ Removal of the individual from a research project (or requirement for additional supervision or oversight) (**RPOs, RFOs**)
- ▶ Removal of the individual from supervising a student or all students (**RPOs, RFOs**)
- ▶ Exclusion of the individual from applying for further grants (**RPOs, RFOs**)
- ▶ Retraction or correction of published papers (**Journals, RPOs**)

- ▶ Removal or time-limited suspension of licence to practice as a health professional (e.g. doctor, nurse, pharmacist, etc.) (**Professionals, Regulators**)

*(*It should be noted that it takes time for an allegation to be investigated fully, by which time any relevant grant funding may have already ended).*

7.2.3 Sanctions against Institutions

Sanctions that may be applied against institutions (e.g. by a funder) are more limited because usually it is an individual who has transgressed, not the institution; however, they include:

- ▶ Cessation, or even repayment, of research funds to/from the institution (**RFOs**)
- ▶ Banning the institution from applying to the funder for a set period of time (**RFOs**)

The latter may be pertinent where the institution has itself not taken scientific integrity seriously, for example by not having a clear policy, by not following its own procedures, or by lying about a proven case against one of its employees.

7.3 Conclusions Related to Sanctions

This analysis describes a range of sanctions that an employer or a funder may apply, which can vary according to jurisdiction. Sanctions should not be applied lightly, but it is important that they are there (i) to help encourage good practice, and (ii) as a way of reassuring the public that the research community takes the issue of research misconduct seriously and is generally able to police itself. In serious cases, where there is a possible breach of criminal law, it is of course right that researchers should be investigated as any other citizen, and that penalties may follow.

Where sanctions have been applied to individuals, subject to national laws and customs, it would be helpful if such information were published so that other potential employers and funders are aware.

Notes and References

- [1] Science Europe Working Group on Research Integrity (2015), Seven Reasons to Care about Research Integrity: <http://scieur.org/integrity>
- [2] Singapore Statement on Research Integrity (2010): www.singaporestatement.org
- [3] Global Research Council (2013), Statement of Principles on Research Integrity: www.globalresearchcouncil.org/sites/default/files/pdfs/grc_statement_principles_research_integrity%20FINAL.pdf
- [4] ESF and ALLEA (2011), European Code of Conduct on Research Integrity: www.esf.org/fileadmin/Public_documents/Publications/Code_Conduct_ResearchIntegrity.pdf
- [5] Science Europe Roadmap (2013) <http://scieur.org/roadmap>
- [6] DASTI (2013), National systems for handling cases of research misconduct: www.enrio.eu/images/National_systems_for_handling_cases_on_research_misconduct.pdf
- [7] Godecharle S., Nemery B., Dierickx K. (2013), Guidance on research integrity: no union in Europe. The Lancet, Vol 381 v(Issue 9872), p1097-1098: [www.thelancet.com/journals/lancet/article/PIIS0140-6736\(13\)60759-X/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)60759-X/fulltext)
- [8] The Hungarian Scientific Research Fund (OTKA) no longer exists.
- [9] One consolidated response to the survey was submitted on behalf of the seven UK research councils.
- [10] www.researchintegrity.org/Statements/Montreal%20Statement%20English.pdf
- [11] www.oecd.org/sti/sci-tech/42713295.pdf
- [12] www.fwo.be/en/the-fwo/organisation/research-integrity/
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- [26] <http://ufm.dk/publikationer/2014/filer-2014/the-danish-code-of-conduct-for-research-integrity.pdf>
- [27] www.forskningsradet.no/en/Contract_and_reporting/113882213515
- [28] www.rcuk.ac.uk/documents/documents/tcfecJan2015-pdf (p7)
- [29] Competitiveness Council (2015), Conclusions on Research Integrity: <http://data.consilium.europa.eu/doc/document/ST-14201-2015-INIT/en/pdf>
- [30] Hiney M. (2015), Research Integrity: What it means, why it is important and how we might protect it. Science Europe Briefing Paper: <http://scieur.org/integrity-paper>
- [31] In some countries universities and research institutions have established ombudspersons. They provide mediation in conflicts, give support and in some cases advice when dealing with conflicts or research misconduct.
- [32] www.oeawi.at/en/index.html
- [33] <http://www.ombudsman-fuer-die-wissenschaft.de/curriculum/>
- [34] <https://www.etikkom.no/FBIB/>
- [35] <https://www.etikkom.no/en/library/>
- [36] www.akademien-schweiz.ch/en/index/Schwerpunkthemen/Wissenschaftliche-Integritaet.html
- [37] www.byglearning.co.uk/mrcrsc-lms/
- [38] www.mrc.ac.uk/publications/browse/good-research-practice-principles-and-guidelines/

[39] www.oecd.org/sti/sci-tech/40188303.pdf

[40] <https://www.oecd.org/sti/sci-tech/42770261.pdf>

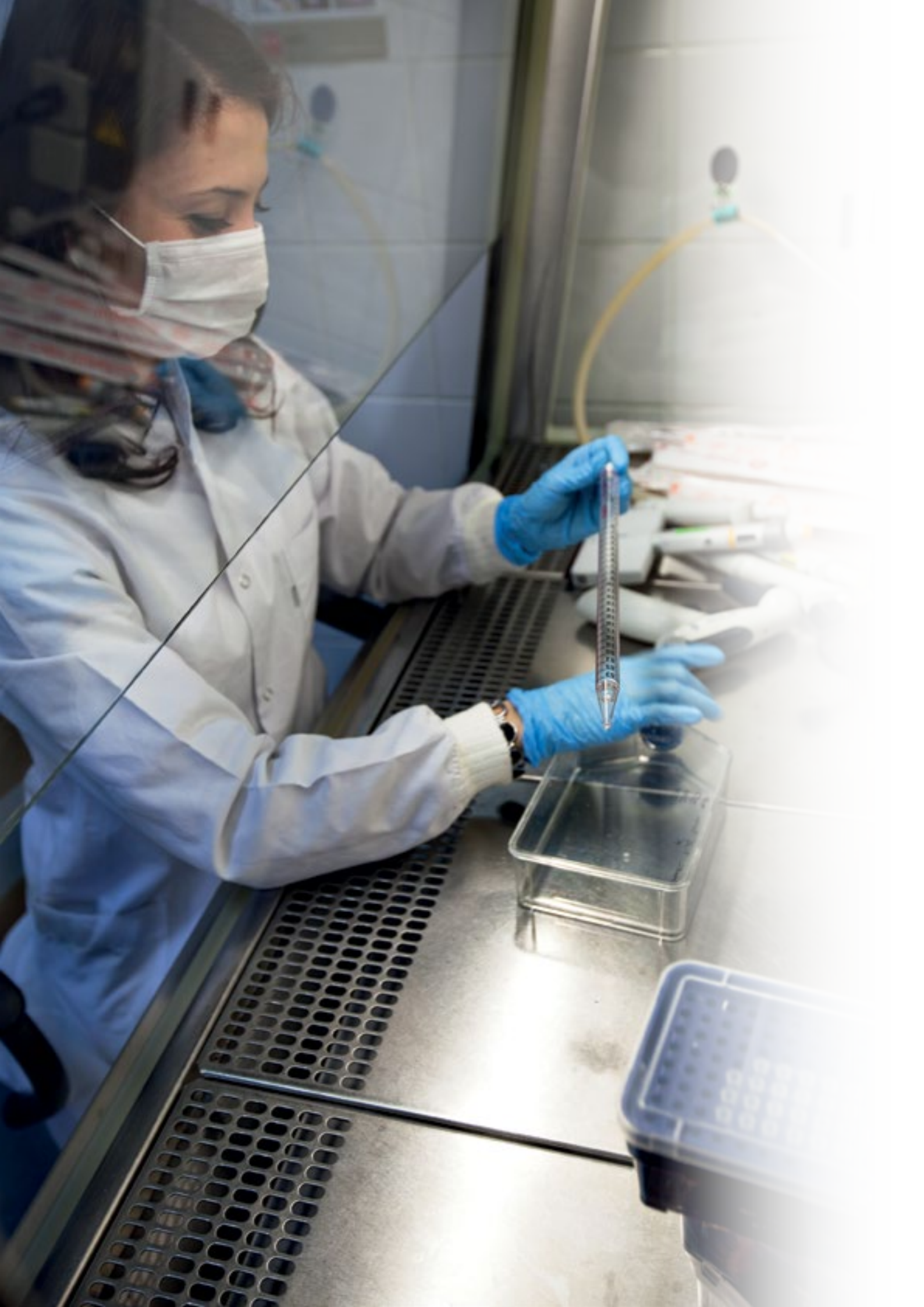
[41] www.esf.org/coordinating-research/mo-fora/research-integrity.html

[42] www.oaawi.at/downloads/ESF-research-integrity-report.pdf

[43] www.researchintegrity.org

[44] Where organisations have been named, they have consented to publication of their responses.





Annex 1 – Members of the SE Working Group on Research Integrity (period 2014–2015)

Country	Organisation	Acronym	First name	Last name
Austria	Austrian Science Fund	FWF	Nicole	Föger
Belgium	Fund for Scientific Research	F.R.S.-FNRS	Arnaud	Goolaerts
Belgium	Research Foundation Flanders	FWO	Olivier	Boehme
Bulgaria	Bulgarian Academy of Sciences	BAS	Eugenia	Stoimenova
Denmark	Danish Council for Independent Research	DFF	Mathias	Willumsen
Estonia	Estonian Research Council	ETAg	Kadri	Mäger
France	National Centre for Scientific Research	CNRS	Michèle	Leduc
France	French Alternative Energies and Atomic Energy Commission	CEA	Pierre	Chagvardieff
France	National Institute for Agricultural Research	INRA	Pierre-Henri	Duée
France	French National Institute of Health and Medical Research	Inserm	Michelle	Hadchouel
France	National Institute for Development	IRD	Marie	Baudry Devaux
Germany	German Research Foundation	DFG	Kirsten	Hüttemann
Germany	Max Planck Society	MPG	Thomas	Dantes
Hungary	Hungarian Scientific Research Fund	OTKA	Előd	Nemerkenyi
Ireland	Health Research Board	HRB	Maura	Hiney
Italy	National Research Council	CNR	Cinzia	Caporale
Lithuania	Research Council of Lithuania	LMT	Edita	Suzideliene
Luxembourg	National Research Fund	FNR	Asaël	Rouby
Netherlands	Netherlands Organisation for Scientific Research	NWO	Francien	Petiet
Norway	Research Council of Norway	RCN	Gro	Helgesen
Poland	National Science Centre	NCN	Wojciech	Sowa
Portugal	Foundation for Science and Technology	FCT	Ana Sofia	Carvalho
Slovakia	Slovak Research and Development Agency	APVV	Adriána	Liptáková
Spain	Spanish National Research Council	CSIC	Jorge	Velasco
Sweden	Swedish Research Council	VR	Johan	Dixelius
Switzerland	Swiss National Science Foundation	SNSF	Markus	Röthlisberger
UK	Medical Research Council / Research Councils UK	MRC / RCUK	Tony	Peatfield

Introduction

Research integrity is a theme that in recent years has been given increasing attention. Almost every country has experienced cases where researchers seriously violated basic rules of good research practice.

At every level, authorities and organisations are taking measures to promote good research practice, give training to researchers in this respect, try to raise awareness on the subject and treat allegations of violations of research integrity in a proper way.

Building on the achievements of the ESF–ALLEA Forum on Research Integrity, the General Assembly of Science Europe included research integrity in its Roadmap and set up a dedicated Working Group (WG) on this theme in May 2013. The areas of focus will include; developing an understanding of where we are in terms of implementation of governance and good practice frameworks, in order to promote transparency and harmonisation; reviewing what evidence exists to help us understand the systemic drivers of misconduct; investigating how we best can promote a culture of integrity through education and awareness raising; and finally, exploring how we can collaborate across borders, sectors and disciplines in a manner that supports high standards of research integrity.

In order to gather data on processes and initiatives on research integrity for further analysis and mapping, the WG is now launching a survey. It contains 13 sets of questions on key issues related to research integrity policies and practices that are (to be) established by the Member Organisations of Science Europe.

The answers provided to the survey will inform us on the different approaches the organisations are taking, but might also point out where challenges lie and where there is room for improvement. The analysis, mapping and processing of data into a report and recommendations to the members of Science Europe by the WG will follow after the closure of this survey.

You are kindly invited to fill in this online survey by 9 May. Your answers should reflect the position of your organisation and might require the co-operation of one or more experts on research integrity in or affiliated to your organisation.

We would welcome full and frank responses. The responses will be shared among WG members (see <http://www.scienceeurope.org/policy/working-groups/Research-Integrity>). We are aware that some of the information provided may be sensitive and we will consult respondents if we plan to publish information that might be perceived to be critical of particular MOs.

We thank you in advance for your cooperation.

For the purpose of this survey, research integrity is understood as encompassing all stages of the research life-cycle, ranging from proposal to dissemination; it refers to Peer-Review and Ethical Review, Good Research Practice (GRP) and Publication Ethics.

0. Definition

0a. Does your organisation have a definition of research integrity?

☐ Yes ☐ No

If yes, how does your organisation define research integrity?

If yes, what is the source of your definition (OECD Report on Research Integrity, European Code of Conduct ESF-ALLEA, others)?

Please provide links to the mentioned documents.

1. Policies

1a. Does your organisation and/or any other organisations or authority in your country/state/region have a policy or similar instrument (e.g. code of conduct, etc.) on research integrity?

☐ Yes ☐ No

If so, please give a short description

Link to online related document:

If appropriate, does your organisation promote the policy or similar instrument mentioned under 1a?

☐ Yes ☐ No

If so, please give a short description of how your organisation does this (e.g. workshop, training, ...)

If not, does your organisation plan to develop a policy on Research Integrity?

☐ Yes ☐ No

If so, by when?

1b. Does your organisation have information about research integrity on its website?

☐ Yes ☐ No

If so, please provide a link.

2. Awareness

2a. Does your organisation promote awareness of research integrity generally?

☐ Yes ☐ No

If so, how does your organisation promote awareness of research integrity?

2b. Does your organisation's staff make a formal commitment on research integrity?

☐ Yes ☐ No

If so, please indicate describe the format and content of this commitment:

2c. Do researchers who are funded/ employed by your organisation make a formal commitment on research integrity?

☐ Yes ☐ No

If so, please describe the format and content of the commitment:

2d. Do groups other than those already mentioned above and also affiliated to your organisation make a formal commitment on research integrity? If yes, please specify which groups.

☐ Yes ☐ No

If yes, please specify which groups and what kind of commitments they make.

2e. If appropriate: does your organisation have provisions on research integrity in its application forms, its progress report templates etc.?

☐ Yes ☐ No

If so, please give a short description.

Do you have other ways to promote research integrity?

☐ Yes ☐ No

If so, please give a short description.

2f. Do you have other ways to promote research integrity?

☐ Yes ☐ No

If so, please give a short description.

3. Training

3a. Does your organisation support training on research integrity?

Please choose **all** that apply:

- Recommend training for each employees, grantees, etc.
- Fund training
- Organise training
- Other
- No support

If appropriate, please specify or further describe the answer you have given above:

3b. How is training on research integrity generally carried out in your country and which (types of) organisations are involved in/responsible for the training?

Please choose **all** that apply:

- Dedicated national/regional agency
- Individual universities/research institutions
- Other

Please specify

4. Legislation

4a. Are there any legal instruments regarding research integrity that have an impact on your organisation? (Consolidated acts/statutes, executive/governmental orders, other legally binding instruments, contracts etc.)

☐ Yes ☐ No

If yes, please:

- (i) Give the name of the legal instruments;
- (ii) Describe their nature (consolidated acts/statutes, executive/governmental orders etc.); and
- (iii) Provide a link (preferably to an online English version).

5. Mandates

5a. Are there (types of) institutions in your country/state/region which can deal with cases of research misconduct?

☐ Yes ☐ No

If so, please:

- (i) List the various (types of) institutions;
- (ii) Give their name; and
- (iii) Describe their mandate.

6. Allegations

6a. Are there established procedures in your organisation for dealing with allegations of research misconduct (targeting any possible stage of the research process)?

☐ Yes ☐ No

If so, are information on the procedure available on the website or through other means?

☐ Yes ☐ No

Please provide the link(s) to the information publicly available on the procedures:

If no, please explain the reasons for the absence of such procedures:

6b. In case of allegations of research misconduct, please give the name of the various groups (permanent board, temporary committee, external body, etc.) that may be activated / contacted by your organisation:

(since the activated groups may differ depending on the research process stage, you can list up to 10.)

6c. Are the groups internal to your organisation or external?

6d. Are the groups permanent or temporary set?

6e. Do the groups advice your organisation or make the final decisions with regards to the alleged cases?

Please choose as appropriate

- ☐ Advisory
- ☐ Decision making
- ☐ Other

6f. Are the members of the groups recruited within your organisation or externally?

6g. Per identified group, please describe:

- (i) the types of qualifications and competences represented in it;
- (ii) how the group's members are recruited and by whom they are appointed;
- (iii) who the key persons (researchers, judges, civil servants, etc.) involved in the preparation and decision making process in a case of allegation of research misconduct are;
- (iv) what the respective roles (investigation, secretariat, decision making, etc.) are.

6h. Per identified group; please indicate:

- (i) how confidential are the investigations of alleged cases of misconduct are (Examples: the allegation is known by the group investigating it only; the fact that an investigation is underway is made public; working sessions of the investigating group are held in public);
- (ii) how and to whom the decisions are communicated (for instance is the funding agency which funded the work affected by the misconduct informed of the final decision?)

7. Collaboration**7a. Are there, in your organisation, procedures when a researcher moves from one organisation to another (either within one country or between countries) if:**

- (i) An allegation of misconduct is made after the person has moved?
- (ii) An allegation is being investigated at the time of the person's move?
- (iii) An investigation has been completed before the person moves (and in this case is the policy different according to the outcome of the investigation– i.e. proven or unfounded case of misconduct)?

If you replied yes to any of the above subquestions (i, ii or iii) please give a short description of the relevant procedures.

7b. For potential new appointments, does your organisation have a policy on checking with previous employer(s) any history of allegations of misconduct?

☐ Yes ☐ No

7c. Does your organisation require declaration on any previous proven cases of scientific misconduct

Please choose Yes or No for each item:

- From applicants (for a position or for a grant)? ☐ Yes ☐ No
- From their current employer / host institution? ☐ Yes ☐ No

7d. Is there a whistle-blower arrangement in your organisation?

☐ Yes ☐ No

If yes, please give a short description. (max. 2500 characters with spaces)

8. Sanctions**8. What are the possible consequences (sanctions, recommendations, etc.) at the level of your organisation (or another organisation involved) if a person is found guilty of research misconduct?**

Please give a short description.

9. Appeal**9. Does your organisation have an administrative appeal system?**

☐ Yes ☐ No – decisions are final

If yes, please describe:

10. Trends

- 10a. How many allegations of research misconduct were related to your organisation (i.e. to research funded by or performed in your organisation) in the most recent 12-month period?**

Please provide an estimate if you do not have exact numbers, or indicate if you don't know.

- 10b. How many of the above mentioned allegations of research misconduct (see your answer to question 10a) have been investigated in the most recent 12 month period?**

Please provide an estimate if you do not have exact numbers, or indicate if you don't know.

- 10c. How many of the above mentioned allegations of research misconduct (see your answer to question 10b) were investigated by your organisation in the most recent 12 month period?**

Please provide an estimate if you do not have exact numbers, or indicate if you don't know.

- 10d. How many of the allegations related to your organisation (i.e. research funded by or performed in your organisation), mentioned in your answer to question 10b, were proven cases of research misconduct after investigation, in the most recent 12 month period?**

Please provide an estimate if you do not have exact numbers, or indicate if you don't know.

- 10e. If applicable, what is the trend related to research funded by or performed in your organisation?**

Please choose INCREASE, STABLE or DECREASE for the following:

- Number of allegations? ☐ Increase ☐ Stable ☐ Decrease
- Number of proven cases? ☐ Increase ☐ Stable ☐ Decrease

If appropriate, please indicate what the possible reasons for these trends are (e.g. recent implementation of a research integrity policy):

11. Boiler Plate

- 11. As part of its standard agreements (e.g. MoUs) for collaboration, does your organisation include requirements concerning research integrity and allegations of scientific misconduct? (e.g. OECD 'boilerplate' text - see: <http://www.oecd.org/sti/sci-tech/42713295.pdf>)**

☐ Yes ☐ No

If yes, please give a short description of their nature and content.

12. Assessment

- 12. How does your organisation assess its existing mechanism(s) for promoting research integrity and obtained results? (triggered improvements, remaining challenges?)**



Question 7a

Are there, in your organisation, procedures when a researcher moves from one organisation to another (either within one country or between countries) if:

- (i) An allegation of misconduct is made after the person has moved;*
- (ii) An allegation is being investigated at the time of the person's move;*
- (iii) An investigation has been completed before the person moves (and in this case is the policy different according to the outcome of the investigation – i.e. proven or unfounded case of misconduct)*

Responses

Only five of the respondents answered 'Yes' to any of the three main sub questions. (Of these, all except HRB reported that when a person moves from one country to another the 'within-country' procedure would be followed). The five were:

The Danish Council for Independent Research (DFF), Denmark

A national body, the (three) Danish Committees on Scientific Dishonesty,^[a] processes cases relating to scientific dishonesty raised by report and which relates to (1) research performed in Denmark, (2) research performed by persons with employment in Denmark, or (3) research performed with Danish public support. If a person has moved or is moving, the committees follow normal procedure.

In response to a further question concerning where a person against whom an allegation has been made has moved institution or country: "How many such cases have you seen in say the past three years?" the response (October 2014) was that there was one ongoing case involving two Danish universities. No difficulties had been experienced relating to the fact that two institutions (within the country) were involved.

The Max Planck Society (MPG), Germany

Formal investigations are conducted according to the Rules of Procedure in Cases of Suspected Scientific Misconduct.^[b] There have been no recorded cases over the past three years in which a person against whom an allegation has been made has moved institution or country (as at October 2014).

German Research Foundation (DFG), Germany

The DFG Rules of Procedure for Dealing with Scientific Misconduct^[c] regulate the DFG's course of action in cases of suspected scientific misconduct by applicants, grant recipients, and other individuals responsible for the use of DFG funds, as well as DFG reviewers and members of DFG committees participating in review and decision-making processes.

It does not matter whether a researcher moves from one organisation to another, either within one country or between countries.

In the past three years, the DFG has seen a few cases of allegations involving a person who has moved institution; in each case the DFG-investigation started after the individual had moved.

The Health Research Board (HRB), Ireland

In terms of the institutions funded by HRB, in the case of a person moving organisations, it should be the responsibility of the original organisation to inform a new employer of any wrong-doing on the part of the researcher, via the reference process. However, anecdotally there have been a few cases in Ireland where the new employer had no idea of the previous history of the researcher until they committed misconduct again.

There is no information concerning numbers of instances where a person against whom an allegation had been made has moved institution or country as there is no formal recording of such cases.

[a] <http://ufm.dk/en/research-and-innovation/councils-and-commissions/the-danish-committees-on-scientific-dishonesty>

[b] www.mpg.de/197361/procedScientMisconduct.pdf

[c] www.dfg.de/formulare/80_01/80_01_en.pdf

48 On the basis of very limited anecdotal evidence, information about upheld allegations of misconduct involving a person moving from one institution to another is not made public by one or other institution unless it is somehow reported in the media.

Swiss National Science Foundation (SNSF), Switzerland

If there is suspicion of scientific misconduct in connection with applications for SNSF grants, the Commission on Research Integrity of the SNSF^[d] will conduct an investigation. This is the case even if the incriminated person has moved. Where an allegation is upheld, and if the person has no postal address in Switzerland, SNSF publishes the outcome, including sanctions imposed, officially at federal level.

In the past three years, the SNSF has seen only one recorded case where a person against whom an allegation has been made has moved institution or country. A legal framework is needed to enable information exchange between higher education institutions in case of scientific misconduct.

There are legal complications concerning cases where an individual moves institution, mainly data protection and employment legislation. This is particularly the case if the other institution concerned is located abroad, as it then involves the laws of more than one country. Within the Swiss federal system, if more than one institution is involved, both have to deal with the allegation, but they have to co-ordinate and respect the data protection legislation. Legislation on data exchange in case of suspicion of scientific misconduct has to be completed on the level of Swiss cantons.

Questions 7b & c

For potential new appointments, does your organisation have a policy on checking with previous employer(s) any history of allegations of misconduct?

Does your organisation require declaration on any previous proven cases of scientific misconduct

- ▶ From applicants (for a position or for a grant)
- ▶ From their current employer/host institution

Responses

Only HRB Ireland reported that it had any process in place:

The HRB does not specifically check for allegations of research misconduct against a potential employee, since it does not directly employ researchers. However, HRB does check references, and naturally if a previous employer intimates that there was a professional misconduct situation involving a potential employee, HRB would ask for more detail.

Concerning proven cases, (as above) the HRB asks previous employers for references – but, as it does not directly employ researchers, this refers to general employees of the HRB, and hence primarily to professional misconduct. Host institutions seek references from previous employers for research and other academic staff. However, the previous employer is not legally obliged to disclose investigated (or pending) cases of misconduct. The HRB does not have a policy in relation to its host institutions, since their own human resources policies would apply.

No respondent reported a requirement for a declaration on any previous proven cases of scientific misconduct either from applicants (for a position or for a grant), or from their current employer/host institution.

Question 11

As part of its standard agreements (e.g. MoUs) for collaboration, does your organisation include requirements concerning research integrity and allegations of scientific misconduct (e.g. OECD 'boilerplate' text)?^[11]

Responses

Only four MOs answered 'yes' to this question (or to a follow-up question). These were:

The Danish National Research Foundation (DG), Denmark

Since autumn 2012, the DG has included in its agreements between the Foundation and grant holders a section concerning research integrity in

which the Foundation has referred to the Singapore Statement on Research Integrity 2010 and the European Code of Conduct for Research Integrity 2011.

On 5 November 2014, a new Danish Code of Conduct for Research Integrity^[26] was published that will be referred to in the Foundation's future contracts.

Also, grant holders are asked to include in their yearly reports to the Foundation about the academic work of the preceding year a brief statement on consideration of, and possible initiatives regarding, research integrity.

To date, the Foundation has not experienced any resistance from grant holders regarding the requirements concerning research integrity in the agreements.

The Research Council of Norway (RCN)

The RCN's 'Template for Consortium Agreement' states that "in the event a consortium participant does not perform the agreed R&D activity in a satisfactory manner, the board may decide to transfer responsibility for the work in whole or in part to another consortium participant, based on specified terms and conditions." The template does not specifically mention research integrity, nor allegations of scientific misconduct. The RCN does not use the OECD 'boilerplate'.

In responding to this question, the RCN pointed out that, while Norway has a law that defines misconduct (Act of 30 June 2006 on ethics and integrity in research),^[e] very few other countries have laws in this area. The RCN stated that it might develop practice further by being more specific in its grant agreements/contracts.

Research Councils UK (RCUK)

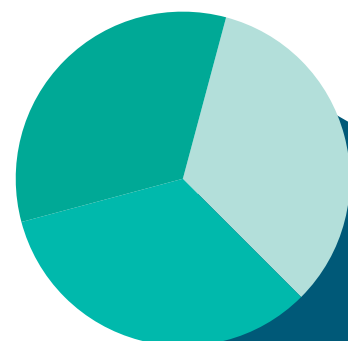
RCUK recommends that "in establishing research collaborations, researchers should be mindful of the policy and guidelines set out in the RCUK policy and ensure that research partners and their employing institutions are able to meet the required standards of research conduct. All parties should be clear about their respective roles and responsibilities within the collaboration, when appropriate drawing up written agreements. Where necessary, the Research Councils will discuss particular issues with relevant third parties including, for example, the Foreign and Commonwealth Office and UK Trade and Investment".^[f] None of the Councils uses a specific 'boilerplate' approach.

The Health Research Board (HRB), Ireland

Collaborative agreements are managed at a host institution level, and the HRB cannot oblige institutions specifically to use the OECD 'boilerplate'. However, Clause 15 of the HRB grant Terms and Conditions sets out the HRB's expectations that any research that it funds or co-funds, in the case of collaboration, would have safeguards in place concerning research integrity.

[e] <https://www.etikkom.no/en/In-English/Act-on-ethics-and-integrity-in-research/>

[f] www.rcuk.ac.uk/Publications/researchers/grc/



Annex 4 – Results from the Supplementary Survey of Members of the European Network of Research Integrity Offices (ENRIO)

The European Network of Research Integrity Offices (ENRIO) was founded directly after the first World Conference on Research Integrity in 2007 in Lisbon, Portugal. It is an informal network and consists of representatives from 23 European countries, all of whom are primarily national opinion leaders in the field of research integrity.

ENRIO aims to raise awareness and share knowledge, experiences and (possible) solutions related to the investigation of allegations of research misconduct and to consider questions on training and education with regard to research integrity and good research practices. The network supports initiatives to establish national offices on research integrity in countries which lack such structures.

Furthermore, ENRIO co-operates with other organisations with European or global interests in research integrity.

The following questions were sent in 2014 to all ENRIO members and responses were received from eight members (35%).

Question 1

How many cases are you aware of since October 2009 where a person has moved country – either from or to your country – after an allegation of research misconduct has been made against them, but before any investigation has been concluded? If you can provide (here or below) identifying details (including the other country) that would help to avoid double-counting.

Question 2

For each case in (1):

- ▶ *What was the allegation (e.g. Fabrication, Falsification, Plagiarism)?*
- ▶ *How was it investigated (e.g. which organisation's procedures were followed)?*
- ▶ *Were there any legal difficulties (e.g. employment or data protection)? If so, how were these overcome?*
- ▶ *What was the outcome?*
- ▶ *Was the outcome published? If so, can you provide a reference/link?*

Question 1 Responses

Seven ENRIO members responded 'no' – that is members were unaware of any cases (since October 2009) where a person had moved country – either from or to their country – after an allegation of research misconduct had been made against them, but before any investigation had been concluded.

Question 2 Responses

Only the Austrian Agency for Research Integrity^[g] provided a detailed response to Question 2; this was in the form of four cases/inquiries:

- ▶ Authorship conflict and plagiarism. The procedures of the Austrian Agency for Research Integrity were used. The respondent moved to another country during the very last stages of the investigation. Because of a risk of legal action, the new employer was not informed.
- ▶ Double submission of a proposal; plagiarism. The allegation involved Austria and one other country. The procedures of the Austrian Science Fund were used. There was contact between the Austrian Science Fund and the authorities in the other country about the case. Misconduct was verified, but the outcome was not published.
- ▶ Data manipulation and fabrication. This is an ongoing case between Austria and Germany, involving two individuals. It is being investigated by DFG. The DFG concluded its investigation of one of the individuals in July 2014: research misconduct was verified.^[h]
- ▶ Authorship conflict. This was a conflict between a PhD student and her supervisor which led to the fact that the PhD student was unable to finish her thesis in Austria. The supervisor meanwhile moved to another country, and the PhD student to a third. The conflict was resolved through a professional mediator. The current (new) employers were not informed.

As a general rule, the outcomes of all confirmed cases investigated by the Austrian Agency for Research Integrity are published on its website in brief anonymised form (in its annual reviews).

[g] www.oewwi.at/downloads/OEAWI_Geschaeftsordnung_e.pdf

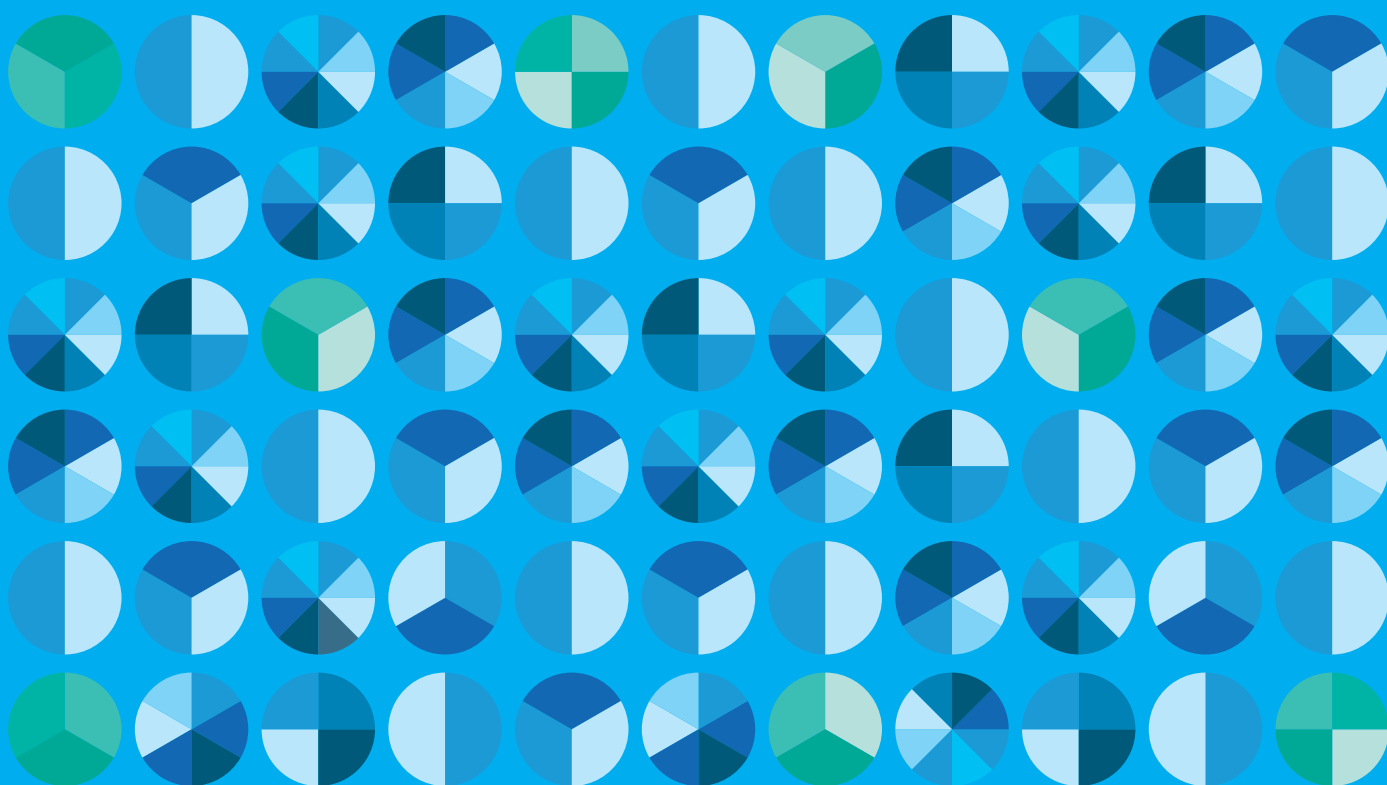
[h] www.dfg.de/en/service/press/press_releases/2014/press_release_no_26/index.html



Science Europe is a non profit organisation based in Brussels representing major Research Funding and Performing Organisations across Europe.

More information on its mission and activities is provided at:
www.scienceeurope.org

To contact Science Europe, email office@scienceeurope.org



Science Europe
Rue de la Science 14
1040 Brussels
Belgium

Tel +32 (0)2 226 03 00
Fax +32 (0)2 226 03 01
office@scienceeurope.org
www.scienceeurope.org

