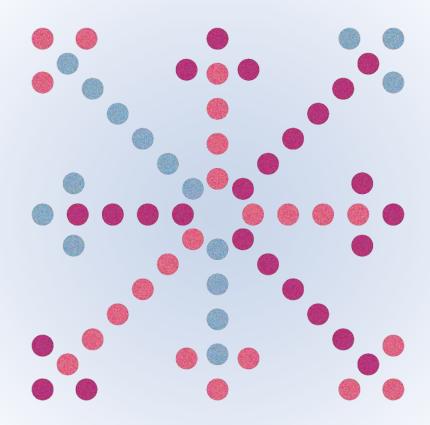
ENRIO Handbook on Whistleblower Protection in Research







ENRIO Handbook on Whistleblower Protection in Research

by the

European Network of Research Integrity Offices (ENRIO)



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INTRODUCTION

ENRIO, the European Network of Research Integrity Offices (also ENRIO vzw¹¹), is dedicated to exchanging information and developing best practices in different areas of research integrity (RI). Since the foundation of the network in 2008, leaders in the field from almost all European countries have shared their experiences in promoting exemplary research leadership while also handling allegations of research misconduct according to international and national standards. The topic of "whistleblowing" has emerged as one that poses challenges for ENRIO members, regardless of their national regulatory framework or institutional affiliation.

This handbook, developed by ENRIO, presents information on best practices regarding the protection of whistleblowers in research. The handbook aims to guide research performing institutions (RPOs) on how to implement a whistleblowing management system. Its contents may also be useful for research funding organisations (RFOs) as they monitor research projects or individual researchers and receive communications related to potential wrongdoing in funded research. The handbook is also directed at researchers, the interested public and potential whistleblowers. It offers some considerations for those contemplating reporting alleged research misconduct, along with potential issues that might arise during and after an investigation.

Much literature on the topic of whistleblowing already exists and has been of great value to ENRIO members (see references in Appendix 2). Moreover, ENRIO member offices have acquired considerable first-hand experience with investigation processes and questions related to whistleblowing. Individual members have communicated with and advised many whistleblowers in research, and these collective experiences shaped this handbook. Thus, the document contains further resources along with first-hand knowledge based on ENRIO members' and ENRIO network partners' experience working in RI.

The following checklist encapsulates broader measures to protect whistleblowers in research and refers to the handbook section for specific suggestions on each point.

*1 ENRIO vzw (meaning "vereniging zonder winstoogmerk") indicates that the network is an international non-profit association under Belgian law.

| Checklist: Ways to Protect Whistleblowers in Research | References |
|---|-------------------------------|
| Foster a culture of RI at all levels within the RPO. | Ch. 6, p.21 |
| Develop an institutional code of conduct for RI including both the institution's values and regulations on the handling of reports of breaches of RI. | Ch. 6, p.22 |
| Provide RI training for institutional members in order to prevent breaches of RI and also teach how to proceed in cases of alleged wrongdoing or research misconduct. | Ch. 6, p.23 |
| Ensure that researchers and other members of the institution can get advice on RI, e.g., by appointing RI officers/advisers or ombudspersons. | Ch. 6, p.23, Ch. 6, p.24 |
| Consider the possibility of anonymous reports of RI breaches to help reduce fear of retaliation if identity is revealed. | Ch. 6, p.26, Ch. 4, p.15 |
| Consider the installation of a "Whistleblower Management System" (WMS) to securely operationalise RI breach reporting. | Ch. 4, p.15 |
| Communicate consequences for breaches of confidentiality during and after ombuds procedures or investigations to ensure fair processes. | Ch. 6, p. 28 |
| Provide care and aftercare for whistleblowers and other persons involved. | Ch. 6, p.28, Ch. 7, p.30 |
| Ensure that the institution follows requirements of the EU Directive "on the protection of persons who report breaches of Union law" [3]. | Ch. 3, p.13 |
| Follow the requirements on whistleblower protection provided by national law. | Ch. 5, p.18 |
| Check the research funding requirements regarding the upholding of RI standards. | Ch. 8, p. 35 |
| Consider the publication of case reports while maintaining confidentiality regarding the persons involved. | Ch. 6, p. 28 |
| Define maliciously false RI accusations as research misconduct. | Ch. 6, p. 29 |
| Consider if measures of reputation repair might be required during or following an investigation. | Ch. 7, p. 33 |
| Distribute this handbook within the institution and make it publicly available as a resource for those considering reporting an observation or alleged breach of RI. | Ch. 8, p. 34, Ch. 9, p. 37 |
| Encourage members of the RPO community to discuss the handbook informally so all members of the administration and individual research teams understand its contents. | |

CHAPTER 1

Whistleblowing & Whistleblower Protection - Definitions

The term "blowing the whistle" on somebody or something has become widely used to describe the process of raising awareness of wrongdoing. "The exact origins of the whistleblower metaphor are unclear. The term was originally (in the late 1800s and early 1900s) associated with policemen making use of whistles, and later with refereeing in sports. During the 1960s the metaphor began to acquire its modern meaning as it was increasingly employed to denote individual actions that exposed something." [1, p. 1] Therefore, a whistleblower is someone who draws attention to something not in accordance with given rules or the law. In the field of research and RI, possible breaches of Good Research Practice (GRP) (also, Good Scientific Practice) and, as part of it, alleged research misconduct may also be reported [2, p. 3]. The following describes the terminology used in this report.

1) Definition of a "Whistleblower" - the Reporting Person

A whistleblower — or reporting person — is a natural or legal person who reports reasonably grounded information on alleged breaches of GRP that have occurred or are occurring in activities related to research conduct and/or research dissemination in academia and, when relevant, beyond. They report suspected (or actual) wrongdoing [2, p. 3]. Motives of whistleblowers to bring a suspicion forward in the form of a report can be diverse. Importantly, whistleblowers should act in good faith, meaning they have reasonable belief and/or evidence that the information is accurate at the time of reporting.

Other designations for the term whistleblower are *complainant* or, in a neutral sense, *informer* or *reporter*. According to the EU Directive for Whistleblower Protection [3], whistleblowers are those who speak up when they encounter wrongdoing that can harm the public interest in the context of their work, for instance, by damaging the environment, public health, consumer safety and EU public finances [4]. Persons who report any observation that might constitute a breach of GRP could be considered whistleblowers in research. Wrongdoing in research can harm the credibility of and trust in the research process, other researchers, and the validity of the research record.

Whistleblowers can report anonymously or using their identity (depending on laws or institutional regulations). Whatever the subject of a whistleblower's report, the motivation – with the few exceptions of purposely discrediting others – is based on naming wrongdoing in the field of RI. Whistleblowers report on breaches of GRP that they believe they have experienced or witnessed. They typically seek to reclaim their rights and/or prevent further harm to themselves, the trustworthiness of the research record, their institutions and related research communities and/or society. Research misconduct can result in severe consequences for society. Data manipulation in clinical studies that distort the findings, as just one example, can have potentially tragic effects on research participants and society at large.

As whistleblowers have different levels of being affected by alleged breaches of GRP, their role in possible proceedings is not necessarily active. Depending on national regulations and local rules, a whistleblower may file a report but might not be involved in the proceedings after reporting their concern. This regulation applies for Denmark, for example, where whistleblowers, who wish to remain anonymous, are not involved in the investigation process other than via a reporting function. In Lithuania and Austria, whistleblowers not directly affected by the reported RI wrongdoings cannot be part of the investigation, whether the proceedings are conducted by the national body of RI or by the affected institutions (independent of the whistleblowers remaining anonymous or revealing their names) [5].

2) Definition of the "Accused" - the Person Concerned

The person concerned — in general, the one who is accused — is the individual referred to in a report as the person whose integrity is questioned. Within an investigation of an alleged violation of GRP the accused is often referred to as the respondent. Terms such as *culprit*, *alleged offender* or *defendant* might also be used within legal investigations, depending on the jurisdiction.

3) Definition of the "Witness"

A witness has personal knowledge of an investigation or inquiry's subject but is neither the whistleblower nor the accused person. As an interested party, the witness could be a "person or organization [...] that can affect, be affected by, or perceive impact by a decision or activity." [2, p. 2].

4) Definition of the Term "Whistleblower Protection"

In 2017, the organisation ALL European Academies (ALLEA) published the revised version of the *European Code of Conduct for Research Integrity* (ALLEA ECoC) [6]. Regarding investigative procedures for research misconduct, the ALLEA ECoC states:

- → "Procedures are conducted confidentially in order to protect those involved in the investigation.
- → Institutions protect the rights of 'whistleblowers' during investigations and ensure that their career prospects are not endangered." [6, p. 9]

The protection of whistleblowers means actions of a competent authority that ensure confidential investigations and safeguard them from retaliation (see Chapter 6).

5) Definition of "Confidentiality" and "Transparency"

Confidentiality is defined as keeping information private and refers to individuals or institutions that are obliged to properly use the disclosed information under their control. In the context of confidential whistleblowing, "the identity of the whistleblower and any information that can identify them is known by the recipient but is not disclosed to anyone beyond a need to know basis without the whistleblower's consent, unless required by law" [2, p.3]. However, where a legal clarification is required or there is an ongoing public debate, neither confidentiality nor protection can be ensured.

Transparency refers to the right to be informed and applies to the respondent's rights "to have information on the legal basis under which their data is required and the protective measures adopted to protect the identity of the respondent." [7] Related to investigations of alleged research misconduct or ombuds procedures, transparency refers to the fact that individual steps of the procedures are clear. Involved persons should be informed about the process and the stage of the procedure at any time. However, the degree of required transparency can depend on (national) laws (e.g., whistleblowers who are not involved in a case themselves might not be involved in the procedure after having done the reporting, see Chapter 1.1).

CHAPTER 2

Whistleblowers - Who are they? A Categorisation

Whistleblowers in research can be categorised by different interests, aims and hierarchical aspects. Most whistleblowers in research are part of the research community, but individuals from outside the community also report research-related concerns

1) Persons within the research community

Whistblowers from within the research community can emerge from any level (trainee, junior, senior) and any degree status (student/apprentice/no degree, bachelor, master, doctoral level). Relationships in the research community can be characterised by strong hierarchical aspects and academic or economic dependencies. Quite often, reported wrongdoings within the research community are not limited to breaches of RI but may include mobbing, discrimination, sexual harassment or infringements of labour law. Depending on the jurisdiction, these are often considered human resources or personnel department matters or grievances and are handled separately from research misconduct allegations.

2) Persons related to the research community and academia

Whistleblowers can be people who work or study at academic institutions but are not researchers. For example, they could be administrative staff in the law or human resources department of the research institution or technical support staff employed in the department. Undergraduates might report alleged ghostwriting as they overhear fellow students talking about having hired a professional ghostwriting agency or observe wrongdoing by a more senior colleague. Employees of funding agencies and peer reviewers can observe alleged research misconduct in funding applications, annual and interim reports, and manuscripts. Internal auditors might also detect the wrongdoing of researchers. Sometimes other people involved in a proceeding may need to be protected, e.g., RI officers, commission members and witnesses, and especially those perceived as lower in the academic hierarchy [8]. This list of potentially associated whistleblowers is not exhaustive.

3) Persons doing "citizen science"

"In citizen science, scientific projects are carried out with the assistance or completely by interested amateurs [lat. amator "lover"]. Citizen scientists formulate research questions, report observations, carry out measurements, evaluate data and/or write publications. Compliance with scientific criteria is a prerequisite." [9] As there is still no exact definition for citizen science, two opposing camps exist: one denying citizen science as sound research and one accepting that citizens can do sound research. Whistleblowers within this field are very enthusiastic about their subject of research, investing a lot of time and sometimes private money in the projects. However, their reports are sometimes not taken seriously and might even be denied investigation.

4) Persons from outside the research community

The heterogeneous group of whistleblowers from outside the research community comprises graduates who are no longer within an academic institution, former employees of higher education institutions, professional "plagiarism hunters", relatives, spouses and other persons that might be related to the accused person. The commonality is that they are usually not directly affected by the alleged wrongdoing (other than by societal harm). Not being a party involved in an investigation, they are often not informed about the outcome (depending on national law, institutional statutes or codes of conduct). As for plagiarism hunters'2, their motivations can be obscure, and some may have political or economic interests. They can also raise public attention to alleged plagiarism or other misconduct before such allegations have been investigated, which may harm the accused, their personal environment and the institutions affected.

Conclusion

Whistleblowers need protection before, during and after an investigation as long as the allegation was brought forward in good faith and on reasonable grounds. The benefit of the doubt applies to both parties, whistleblowers and accused persons. The variety of types of whistleblowers in research given in this overview underlines the necessity of a robust whistleblower management system (WMS, introduced in Chapter 4).

*2 Plagiarism hunters need to be distinguished from plagiarism detection services. The latter are experts who are contracted to confirm the presence/absence of plagiarism using validated tools during the course of misconduct investigations.

So, what can institutions do to protect whistleblowers from retaliation? Before we introduce concrete measures in the next chapters, we will introduce two relevant documents that authoritatively address this question (albeit not specifically for RI). Both the European Union and the International Organization for Standardization (ISO) are international authorities that aim to strengthen and harmonise whistle-blower protection practices.

CHAPTER 3

Protection of Whistleblowers via EU Directive 2019/1937

Specific procedures in European countries are legally covered by national laws. Although there is no European constitution, the institutions of the European Union (EU) can issue a "directive": a legal act that describes a goal that all EU countries must achieve within a specific time frame [10]. It is up to the individual countries to make their own laws guaranteeing that the addressed states reach these goals. When all elements of the directive are adopted in national laws, the directive is "transposed". To strengthen and harmonise whistleblower protection throughout Europe, the European Parliament and the European Council issued a directive on the topic of whistleblower protection on 23 October 2019: Directive (EU) 2019/1937 [...] on the protection of persons who report breaches of Union law [3]. We refer to it here as "the Directive" or "the EU Whistleblowing Directive".

In the strict sense, this EU Directive covers whistleblowing about breaches of (European) "Union law" in a large but well-defined number of areas in which breaches "may cause serious harm to the public interest, in that they create significant risks for the welfare of society" [3, p.17]. The Directive sets forth common minimum standards for the protection of persons reporting breaches in such policy areas as protection of the environment, public health, protection of privacy and personal data, security of network and information systems and others. Although research behaviour within these areas is not self-evident, research activities can take place in these sectors (e.g., public health, personal data protection), and there may be a risk of harm to the public interest as a result of research misconduct. Another link to research misconduct could be explicated through the right to freedom of expression

in reporting threats or harm to the public interest. Also, this link manifests through freedom of expression as a part of academic freedom, which is inherent in the research community.

Even though research misconduct does not directly fall under Union law, the Directive explicitly states that "Member States could decide to extend the application of national provisions to other areas with a view to ensuring that there is a comprehensive and coherent whistleblower protection framework at national level." [3, p.17] It makes sense for a national whistleblower law not to be limited to European Union law but to be extended to the protection of whistleblowers in areas that are not covered

Using the Directive as the framework, all aspects of protecting a whistleblower could be addressed under certain circumstances. At the heart of the Directive is Article 8, requiring legal entities to set up a WMS (an internal reporting channel, see also Chapter 4 describing the ISO37002 Guideline). The description of minimum norms of what such an internal complaint-receiving channel should entail is detailed and clear in the Directive's legal text, article 9 [3, p.38]. The text further involves:

- → distinguishing reasonable grounds for a report from interpersonal grievances, malicious and frivolous or abusive reports or unsubstantiated rumours and hearsay
- ensuring the confidentiality of communications and advice
- ensuring the protection of the identity of the whistleblower
- receiving and handling information provided by a whistleblower about breaches
- providing the ability to report anonymously and it identifies detailed protection measures, such as
- → exempting a whistleblower from liability
- prohibiting retaliation against a whistleblower (by swapping the burden of proof).

Slow Implementation in European Countries

Considering the broad scope of this Directive, EU Member States were given two years to comply with the Directive. The deadline for countries to implement the Directive into national law was December 2021, but only seven of the 27 EU countries managed to do so in time [11]. Overall, and to date, national transposition is gradual and uneven. It is monitored by Transparency International [12] and the Whistleblowing International Network [13], who set up the "EU Whistleblowing Monitor" [14] precisely to track the progress of the transposition of this particular EU Directive 2019/1937 in the 27 EU member states. The Monitor keeps a monthly blog about recent developments in each country. Importantly, an extensive collection of resources regarding the implementation of whistleblower legislation in Europe can be found online *[e.a., 15]*

Further Ways to Follow the EU Directive

The ISO37002 Guideline, described in detail in Chapter 4, also gives direction on how to implement a WMS. The ISO Guideline and the EU Directive should inspire research institutions to develop or strengthen their reporting channels for RI as part of a well-functioning WMS. Both are detailed enough to be used as templates or checklists

The ISO Guideline is designed as a "gold standard", whereas the EU Directive describes only "minimum norms". A good WMS may be positioned between those two. Although arguably not yet required by law, over time national legislators may apply the specifications of the EU Directive to whistleblowing in research, since the EU Directive does not exclude research in its list of applicable domains. Therefore, developing a robust WMS that includes research is an excellent forward-looking solution for national legislators.

CHAPTER 4

Using ISO37002 to Design a Best Practice Whistleblower Management System (WMS)

Globally there is a lack of harmonisation of laws, processes, and procedures associated with whistleblowing. This can create complexity when misconduct allegations involve people and evidence located in multiple jurisdictions and when multiple involved organisations have different methods for managing these matters. The International Organization for Standardization (ISO) is an international standard-setting body located in Switzerland that develops best practice standards and guidelines for various processes across numerous business sectors. In 2021, the ISO published

the world's first best practice guidance for establishing a WMS [2]. While too new to be confirmed as a "standard", it is recognised as best practice for organisations to create, manage, and monitor a comprehensive system addressing misconduct allegations arising from institutions of any size or sector, including universities, research institutes, and hospitals.

Whistleblowing is a Process, not a Hotline

Many organisations write and implement whistleblower policies; however, a policy alone is not enough because the policy must operate within a formal WMS that has robust provisions for confidentiality, secure storage (documents, evidence), impartial and expert investigations, communication channels that permit ongoing discourse with stakeholders, protections against stakeholder detriment, support tools, and ethics and integrity training [16, 17]. A strong WMS is especially relevant to the responsible conduct of research because it ensures a comprehensive mechanism for reporting and investigating allegations of research misconduct, including the requirement for meaningful corrective action [18].

Whistleblowing should be viewed as a sensitive activity occurring amid a series of associated processes, procedures, and regulations. The sensitivity of whistleblowing is linked to ethical and legal confidentiality requirements that intertwine with the reputation and image of each stakeholder. While whistleblowing might occur via a telephone or web portal "hotline", disclosing an allegation is only one part of a complex and lengthy process that comprises a WMS. Some organisations might be required to have a WMS, while others might provide one voluntarily as a demonstration of good will and risk management.

Benefits of the ISO37002 Design

One of the benefits of the ISO37002 guidance is that it can be used as an out-of-the-box WMS, or as a template that organisations can customise to their unique specifications (perhaps based on organisational size or sector). Given the variety of types of potential whistleblowers (e.g., see Chapter 2), the system can be adjusted accordingly. The ISO37002 guidance gives direction on all elements of the WMS, including investigations, organisational culture, whistleblower support and protection, communication and reporting as well as resourcing and monitoring of the WMS (Box 1). Important definitions such as "whistleblower", "wrongdoing", and "detrimental conduct" are also provided.

Box 1. Key Elements of an ISO37002 WMS

- → Framing the context of the organisation
- → Leadership alignment
- → Support team (e.g., resources, training, IT, data security, WMS marketing)
- → Operations (e.g., intake, triage, risk mitigation, protection, support, investigation, reporting, communication)
- → WMS performance evaluation
- → WMS quality improvement

Another benefit of using the ISO37002 template to shape an organisation's WMS is that it ensures key elements are incorporated and not forgotten in the design of the WMS. A deficient or incoherent WMS could expose the organisation and its whistle-blowers to preventable risk. Creating a solid WMS can also foster trust with users (including the people accused of misconduct, witnesses, case investigators, and institutional administrators).

The ISO37002 guidance document is designed to work in conjunction with all international co-existing legal frameworks, for example, *EU General Data Protection Regulation* (GDPR) [19], *Corporations Act 2001* [20], and the EU Whistleblowing Directive [3, Article 21, p. 44]. Whenever there appears to be a conflict between the ISO37002 and a legal regulation, the legal regulation should override and guide operations; that is, organisations should ensure that their WMS aligns with their local legal requirements, and these laws and codes should be referenced in an organisation's WMS.

Conclusion

Whistleblowers deserve an organised, coherent, and well-resourced WMS. Similarly, other stakeholders, including witnesses, those accused of misconduct, and WMS staff, deserve the procedural protections offered by a robust WMS. Organisations can be unfamiliar with the necessary components, operation, and maintenance of a WMS. Thus, the ISO37002 guidance document is a beneficial tool. Further, when the WMS is audited (or its cases are audited) by internal or external parties, having used a best practice guide to design and run the WMS indicates that the WMS has a strong foundation and can withstand scrutiny.



CHAPTER 5

National Protection of Whistleblowers and Other Persons Involved in the Handling of a Case in Europe

Across Europe, there is no uniform policy or practice of protection of whistleblowers and other persons involved in handling a case of an alleged breach related to research or research dissemination. Some countries (or institutions) have established law-based or self-regulatory systems for the protection of whistleblowers, although such systems may have different scopes (e.g., in most European countries, they mainly focus on corruption cases while in other parts of the world, for example in Australia, national whistleblowing legislation applies to corporations). As the protection of whistleblowers is of great importance in the handling of a case, developing an effective system to protect them should involve different stakeholders, such as national and institutional RI officers, RI advisers (e.g., in the UK and in Finland), investigative committees and similar bodies (if they exist), (inter)national research funders, (inter)national publishers, journal editorial staff, (inter)national scientific community to employees, employers (e.g., leadership, dean of the faculty, staff of the council in research institutions), witnesses, consulting experts, and reviewers. It is crucial that umbrella organisations, such as ENRIO, ALLEA, Science Europe, European University Association (EUA) and others, take leadership in fostering good practices for the protection of whistleblowers and other persons involved in handling cases of alleged breaches related to BI and/or research dissemination

A national code of conduct for RI can sustainably support the protection of whistleblowers in research. For example, the *Netherlands Code of Conduct for Research Integrity [21]* declares that as part of their duty of care research institutions "ensure that researchers can work in a safe, inclusive and open environment where they feel responsible and accountable, can share concerns about dilemmas and can discuss errors made without fearing the consequences ('blame-free reporting')" (p. 20). The Swiss *Code of Conduct for Scientific Integrity [22]* states that "[t]he person who made the allegation also has the right to confidentiality. There may, however, be circumstances during the investigation where confidentiality cannot be maintained. In this event, the institution or funding organisation will provide protection against possible discrimination or reprisals, especially if the person who made the original allegation is in a relationship of dependency with the accused person." (p. 32).

In institutional codes, it is important to extend the practice of protection of whistle-blowers to other persons involved in handling a case of an alleged breach related to RI and/or research dissemination, aligned with national codes of conduct. In the Netherlands, the national code "is binding by virtue of self-regulation, and hence binding on those institutions that adopt it" [21, p.10] while in Switzerland, the national code expects that "[a]II organisations working in the scientific environment should observe the standards of this Code, while also defining their own more specific internal rules and making them binding on their members." [22, p.12]. Institutional leadership should publicly declare their code as shaping the ethical research compass of their organization.



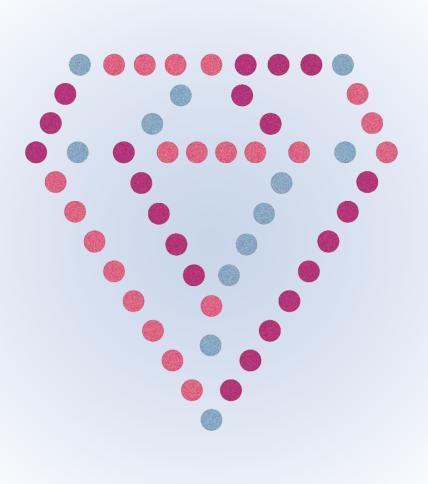


What Can Research Institutions Do to Protect and Support Whistleblowers?

1. Fostering a Culture of Research Integrity

Starting from the top leadership and all the way down, research institutions and institutions of higher education are obliged to protect their employees from harm. Therefore, if whistleblowing happens in good faith and/or with reasonable grounds, the whistleblower must have a right of protection guaranteed by their employer [3, Article 20, p. 43; Article 21, p. 44].

Institutions should foster an open research environment and encourage a culture of responsible conduct of research in which admitting mistakes and honest self-correction are appreciated and even acknowledged. To achieve this, information about failure management shall be provided. This might reduce the need for any reporting of potential wrongdoing in general and leave fewer people in the position of whistleblowing in the first place. Those goals can be enshrined in the statutes or other regulations of the institution. It is also the responsibility of the leadership of each research institution to provide ongoing resources to support measures to ensure RI. Institutions should reflect on their attitude towards RI. It is beneficial to regard RI as a matter of quality assurance. Universities should be proud to be able to handle allegations properly. Sometimes, research institutions cover up cases of misconduct as a panicky, instinctive reaction. However, having a well-managed misconduct case is not a scandal for an institution. It is only a scandal when the institution tries to hide or cover up the case, or if it handles a case badly or mistreats a whistleblower or other individual involved. Having no cases can mean that people are too afraid to report their concerns, so low case numbers can be a sign of a weak speak-up culture. Moral courage in academia should be fostered so that everyone is encouraged to report an alleged breach. To achieve this, "moral distress" within academia should be prevented, and addressed when identified. This emphasises the seriousness required in dealing with misconduct. For example: The heads of research work units, like principal investigators, department chairs or mentors, should establish a "safe space" or forum for discussing both successes/triumphs and failures/"disasters". This can increase acceptance of addressing problems and seeking solutions before any misconduct is committed and must be reported.



2

2. Develop an Institutional Code of Conduct for Research Integrity

Every institution needs clear definitions of GRP to be publicly accessible to highlight the boundaries and grey zones. Clarity of standards can provide researchers with a better understanding of when a behaviour or research practice falls outside of GRP or ethical norms. This, in turn, determines the point at which whistleblowing might be appropriate to report possible breaches of GRP.

Institutions have a duty to guarantee that procedures for investigating RI allegations are transparent (clear and known). These should include, among other things, a strict guarantee of confidentiality on behalf of the investigative committee. All committee members (including the administrative support staff and any legal or other advisors) should be procedurally bound to respect confidentiality, as well as all witnesses and experts the committee consults.

Research institutions should adopt and publish clear standards regarding proper reporting and handling of misconduct investigations [23]. Those may include guidance on whom to contact in case of a concern and what measures to consider to keep whistleblowers anonymous and/or protected. This might improve any follow-up and investigation procedure and reduce the need for additional data collection from the whistleblower after the process has started. Moreover, this would minimise repeated data exchange and contact or involvement of whistleblowers in the investigation process and providing a more streamlined and defined structure.

Research institutions involved in handling misconduct cases should provide clear rules on what information may be accessible or restricted and to whom. Standard operating procedures for reporting (including evidence) should be established, as well as guidelines for internal and external data handling with regard to third parties, including research participants if applicable, and the public. Those should clearly preserve the line between transparency, confidentiality and privacy, including any witness and administrator involved.

The research institution's leadership must ensure that the institutional RI statute or code of conduct is binding for every researcher without exception – regardless of their status, reputation or the amount of third-party funding they have secured. If a whistleblower reports an alleged breach of RI against a researcher in a higher hierarchical position, the status of the accused person must not influence how the

raised allegation is handled. Instead, the institutionally anchored rules of procedure must be strictly followed.

Moreover, investigative committees and especially the leadership of an institution should comply with the standard procedure when an accused person (or a person involved in proceedings) retains a lawyer, e.g., to manage further communication. Especially in such a scenario, the head of the organisation must be aware of their responsibility toward all parties involved in the proceeding and observe it appropriately. Whistleblowers (as well as accused person(s)) must be particularly protected from retaliations in such cases. The confidential, fair and legally compliant proceedings will reveal the nature and gravity of the allegation and potential appropriate sanctions

3. Provide Advice for Whistleblowers

Encouraging and enabling whistleblowing depends on obstructing and supporting factors. Whistleblowing is not only undermined by the whistleblower's fear of negative consequences for their career and reputation but also because they may not know or are insecure about to whom and how they should report their concerns. Therefore, both hindering and supporting factors must be kept in mind in the implementation of a successful WMS.

Alongside general GRP rules, good whistleblowing practices help potential whistleblowers to avoid improper reporting practices or even accidentally disclosing confidential information (see also Chapters 4 and 9).

Supervisors of early career researchers should receive training and information on how to properly handle allegations against any third persons originating from their subordinates and to whom these should be reported in their institution (e.g., RI officers). This should reduce the risk of public accusation and revealing whistle-blowers' identities. It should also guide whistleblowing into the secure channels for handling alleged breaches of GRP.

4. Communicate and Train in Research Integrity

It is important to establish a policy on RI that includes widespread communication of GRP rules, whistleblowing practices and existing channels for whistleblowing, and the confidential and anonymous handling of cases. RI should be added to the syllabi

of introductory seminars or workshops to reach the majority of personnel and students in research institutions

A practice of disseminating knowledge on GRP can provide a greater, psychologically important, sense of security and legal protection for whistleblowers. Furthermore, it sends a strong message that clearly communicates the high priority of whistleblower protection to those accused and involved in cases. This can deter attempts of intimidation, harassment, and retaliation of both whistleblowers and the accused. The meaning and importance of whistleblowing must be openly discussed and shared with the research community and the public. If people who experience or observe alleged research misconduct do not feel encouraged to report it and supported in the process, they may not do so. A person may quickly feel powerless against structural wrongdoing and assume that they are unable to change or influence the situation. Any notion of complaints going unconsidered or ignored and having no effect can discourage reporting. Therefore, detailed information on the importance of whistleblowing, the seriousness of related allegations and possible outcomes of investigations are crucial (for the whistleblowers, the accused persons and the related institutions).

5. Appoint Research Integrity Advisors or Ombudspersons

A whistleblower in a stressful or conflict situation needs to have someone to talk to in confidence about concerns of possible RI breaches. Therefore, a good practice for institutions is to have a confidential counsellor or ombudsperson as a neutral and trustworthy contact point. Another option is to appoint an external whistleblower protection officer.

Personnel responsible for RI matters and contact points for whistleblowers should be designated by the leadership or by an election in the research institution. Staff members giving confidential advice on RI or handling cases of alleged research misconduct are called RI advisors, RI ambassadors, RI officers or ombudspersons for RI/GRP

They can advise potential whistleblowers about the reporting and handling of misconduct cases and assure them of protection by all possible means during an investigation process to foster psychological safety and anxiety-free reporting. Immediate means of protection could be to transfer whistleblowers to another mentor or supervisor, move whistleblowers to a different environment or working group, or

postpone a particular stage or extend deadlines. These steps should be taken with the whistleblower's consent and with the utmost care to reduce long-term negative implications. A subsequent formal investigation will then reveal which disciplinary actions might have to be taken after the whistleblower is placed in a more secure position.

RI advisors or other designated personnel should be fully supported by their research institution and receive proper training on handling whistleblower concerns and misconduct cases when taking on this important role.

RI advisors (or the equivalent staff members) must be able to handle allegations and confidential information as independently as possible. They must not be influenced, persecuted or forced to provide insight into a case investigation. Also, no entity or person who acquires information on a case investigation may exert pressure on anyone involved in case handling.

At best, several independent RI advisors should be appointed to avoid bias in specific investigation procedures against any party involved or any other conflict of interest. Also, to ensure that a whistleblower has somewhere to turn if the contact person is not available, a substitute capable of guiding whistleblowers should be appointed (see Chapter 4).

If whistleblowers contact a national body of RI or an ombuds office for the first time, they might not use the whistleblower platform or directly contact the RI advisor but instead call the office's secretariat. In this case, it is important to ensure that all employees of the agency or office a) uphold confidentiality and b) know exactly what to do; i.e., provide the contact information for the person who can lead the whistleblower in the upcoming process.

RI advisors and personnel of institutions involved in processing misconduct allegations must ensure that the whistleblowers' identity is not revealed during case handling, documentation, and reporting. This also requires identity protection against those involved in the investigation process, if possible [3, Article 21, p. 44].

6. Develop a Whistleblowing Management System (WMS) and Consider Anonymity

Whistleblowers in the field of RI use various forms of communication for the initial submission of their concern: complaints and evidence can be submitted by email, phone, mail, through whistleblower platforms, or by a personal consultation of the respective contact person. Depending on the policy and the size (including human resources) of the institution receiving the report, there are various ways in which such a report is handled and what is reported back to the whistleblower at first contact

It is important that, where possible, the option for confidential (and possibly anonymous) reporting should be provided regardless of the size of the advisory body (see Chapter 4). For the whistleblower, abuse of power, conflict of interest and fear of retaliation or career damage are examples of why they might want to remain unidentified. Ensuring anonymous and confidential reporting will make it easier for whistleblowers to come forward with allegations through the proper channel and address the RI advisor or ombudsperson without accidentally exposing themselves. Furthermore, non-disclosure agreements should be considered, especially when multiple or external entities are involved in handling a case. This option might serve to secure confidentiality and add a legal component as an additional layer to protect the data from or concerning whistleblowers.

A WMS makes documentation, follow-up on cases and reporting easier for the designated RI entity and potential successors. In this context, anonymising whistle-blowers' names should be considered to avoid any unintentional leak during investigation procedures. The fewer people who know the whistleblowers' identity, the safer the whole procedure. For example, ensuring that information is blinded, that whistleblowing platforms adhere to GDPR standards, and that documentation does not reveal the identity of whistleblowers or other witnesses involved to anyone who is not authorised to receive the information is important. Several WMS models for different scopes already exist in a GDPR-compliant setup (see Chapter 4).

Evidence from the Austrian Agency for Research Integrity shows that in 2021, about one third of whistleblowers who used the whistleblowers' platform on the agency's website reported anonymously [24]. Since very few misused the possibility of total anonymity just to blow off steam, the considerable number of reasonable requests clearly shows the benefit of providing the possibility of anonymous reporting. Most

of the anonymous whistleblowers decided to use the platform's functionality of a post box for confidential communication with the office. Some of those revealed their names within the consultation process after trust was established by getting detailed information about the procedural steps of an investigation and related consequences and by being assured that their names would only be revealed to persons involved, with their consent.

In fair proceedings, all parties involved should be given the opportunity to present their point of view. However, when a procedure or an investigation is initiated, it is not always possible to keep the whistleblower's identity confidential, e.g., in authorship disputes. In such cases, whistleblowers should be made aware at the beginning of a procedure that disclosure of their identity might be required during the proceeding, even though their report was anonymous [2, p.19, Section 7.5.5 Confidentiality; p. 26, Section 8.4.2 Protecting and supporting the whistleblower].

Some research institutions and funding agencies reject anonymous reporting, not because anonymous disclosures are considered invalid, but because national law or institutional regulations might preclude RI advisors or ombudspersons from following up on anonymous reports. In these cases, some of those rejected whistleblowers might then address the national RI body (if there is one) for support or investigation by an independent committee. It is unclear how many whistleblowers take this opportunity or refrain from further reporting.

Regarding countries without a national body on RI, the problem of not accepting anonymous requests becomes obvious: whistleblowers wishing to stay anonymous go unheard, possible breaches of GRP/RI go unnoticed and structural problems may endure. In such a situation, what are the options for a whistleblower? In cases of data manipulation within studies, whistleblowers could potentially address an ethics committee or investigative journalists. In authorship conflicts about publications, they could contact the journal. Some might reach out to professional plagiarism hunters. However, in cases of "honorary authorship", an example of research misconduct that is strongly connected to systematic abuse of power at universities, reporting anonymously (not uncommon in a group of people) might be the only way to prevent harm from those in the weaker hierarchical position.



7. Provide Care and Aftercare for Whistleblowers and Other Persons Involved

Whistleblowers should be provided with information about available local psychological and legal counselling as part of an independent support structure. This might provide safety and a greater sense of emotional support and security and reduce distress for whistleblowers in general. This kind of support is especially important if they are suffering retaliation from the accused persons or subtle forms of isolation or scrutiny within their environment or the research institution (see also Chapter 7, Aftercare for Whistleblowers).

8. Publish Case Reports While Maintaining Confidentiality

If publication of case reports (e.g., conclusion, decision, summary) is considered after closing an investigation, for example, to comply with transparency rules of the research institution or the funding agency, or to maintain transparency for the scientific community and the public, any data that could identify the whistleblower(s) must be omitted. To safeguard confidentiality, such reports could be issued by someone other than the involved RI advisor who is not informed about the whistleblower's identity. Lithuania, for example, uses techniques of double anonymisation when reporting cases so as not to reveal the identity of those involved in a case [25]. The personal data of whistleblowers, accused persons, and those involved in the investigation must be handled according to the GDPR's requirements at all times. GDPR violations targeting whistleblowers can potentially prompt legal action for self-protection, especially in cases where whistleblower protection is not integrated in national law

9. Communicate Consequences for Breaches of Confidentiality

The ALLEA ECoC [6] states in Section 3.2: "Procedures are conducted confidentially in order to protect those involved in the investigation." Violating confidentiality can cause detriment for all parties involved in a case of alleged breaches of GRP, or to those who accompany or investigate the proceeding; for example, RI advisors or officers, national RI bodies, ethics and RI committees and involved institutions in general. If accusations of wrongdoing are revealed to the public before being investigated, this can even harm governmental structures and society. Violations of confidentiality can occur easily if the request for confidentiality is a) not secured by written consent from all parties and b) not legally binding. Therefore, institutions should describe the consequences of breaching confidentiality in their statutes. If breaking confidentiality agreements can be sanctioned, penalties should align to the severety of the matter. The possibility of implementing fines or other punishments would depend on national law.

It is usually unnecessary to send the complete case documentation, including the names of whistleblowers, to the alleged person(s) without the whistleblower's consent. In some jurisdictions, it can even be illegal to disclose the identity of the whistleblower. Where possible according to national law, to protect the whistleblower's identity, and to comply with personal data protection, correspondence to and by the whistleblower, e.g., the initial enquiry letter or email, should not be forwarded directly to the alleged person(s). Instead, the alleged person(s) should be issued a depersonalised summary of the complaint if they are asked for a statement on the matter.

10. Define Malicious Accusations as Research Misconduct

Not all persons reporting breaches can be considered whistleblowers, in the sense of "heroes" fighting for the correction of wrongdoing. Some of them maliciously accuse others of breaches of GRP or research misconduct - meaning that at the moment of the complaint submission, the person knows that their allegation is false. Malicious accusations are not to be confused with reporting alleged research misconduct that a whistleblower is convinced has occurred. Purposely false accusations can stem from personal issues or a political agenda. Persons who deliberately seek to discredit others may make ungrounded claims. In any case, a definition of "bad faith" or allegations brought in a lack of good faith or without reasonable grounds should be defined and standards for determining the distinction should be articulated.

Whistleblowers do not have to prove their allegation(s) but a complaint can only be accepted for consideration if the facts of the case provide enough evidence of alleged wrongdoing to initiate a consultation or investigation. Some accusations are submitted in a moment of anger and without supporting documents. Therefore, whistleblowers should be encouraged to provide evidence of their allegation(s) using secure transmission channels. Fraudulent accusations can be exposed via the lack of evidence

Following the ALLEA ECoC, malicious accusations of research misconduct can themselves be addressed as research misconduct since this could harm the rep-

utation of the falsely accused or damage the integrity of the research process (see Section 3.1 "Research Misconduct and other Unacceptable Practices"): "In addition to direct violations of the good research practices set out in this Code of Conduct, examples of other unacceptable practices include, but are not confined to [...] Accusing a researcher of misconduct or other violations in a malicious way" [6, p. 8].

The type of sanctions for research misconduct and who carries out the sanctions differs from country to country. It falls within the responsibility of the involved institutions, ethics committees, investigation bodies or journals. For example, sanctioning purposely false or malicious accusations within RI might not be the responsibility of (only) RI advisors or the national RI bodies. Malicious accusations also occur in other fields of society. If they are illegal, the law takes effect. These legal cases could be civil or criminal and involve defamation and libel, for example.

CHAPTER 7

Aftercare for Whistleblowers: A Longitudinal Approach

An unfortunate history of anxiety, tension, and even retaliation surrounds whistle-blowing. This is likely the case because, until recently, there have been few legal protections for whistleblowers. Deeply held ethical principles and values such as honesty and justice are strong motivators for people to "blow the whistle." Still, adhering to these principles and values may not alleviate the traumatic experience that many whistleblowers face as a result of their honourable deeds. Pain and suffering can be experienced across various facets of a person's life, including strain on mental health, physical health, spiritual health, career, and finances. A small Dutch study using two validated surveys found that "85% of whistleblowers suffered from severe to very severe anxiety, depression, interpersonal sensitivity and distrust, agoraphobia symptoms, and/or sleeping problems." [26] This chapter offers guidance to whistleblowers and organisations that sponsor WMS programmes in practice, (e.g., SpeakUp programmes, whistleblower hotlines, integrity offices) to ensure a longitudinal and holistic approach to aftercare for whistleblowers.

The Case is Over, but the Impact is Not

A common misconception in the fields of RI, compliance, and governance is that a whistleblowing case is "over" when the investigation is finished. The case findings are a product of the investigation, but the outcome is linked to other important downstream activities such as communication, corrective action, and monitoring. If these activities are forgotten or poorly managed, this can negatively affect the whistleblower's experience. Therefore, support and protection for the whistleblower must not end simply because the investigation has finished ("case closed"). Further, this support should be broad and include emotional, financial, legal, and reputational matters as far as possible (Table 1) [2, p. 26, Section 8.4.2 Protecting and Supporting the Whistleblower].

| Table 1. Longitudinal and Holistic Support for Whistleblowers | | | | | | | |
|---|-----------------------|-----------------|---------------------|------------|-------------------|--|--|
| Emotional | Financial | Medical | Legal | Reputation | Career | | |
| Mental health | Compen- sation for | Medical care | Legal advice | Apology | Training | | |
| counselling | harm | | | Recogni- | Coach | | |
| Spiritual | Financial | | Legal assistance | tion* | access | | |
| care | reward | | | | Job protection | | |

^{*}Employer publicly recognises the whistleblower for their ethical act of reporting misconduct (with the consent of the whistleblower).

Two typical support streams for whistleblowers are EAP (Employer Assistance Program) and WPO (Whistleblower Protection Officer). Both should be available to whistleblowers before, during, and after the case has been "concluded." This means that EAP and WPO staff should embrace a longitudinal and holistic approach to whistleblower care and protection, and recognise the continuing care needs of whistleblowers, especially if they have suffered detriment such as retaliation, reputational harm, or social harm such as family or peer strife. The people who staff WMS programmes need to acknowledge and compassionately serve the aftercare needs of whistleblowers.

The Dissatisfied Whistleblower

Often, whistleblowers are unhappy about the outcome of a case investigation. Research from Australia found that over 60% of whistleblowers were "not at all satisfied" with the outcomes of their case investigation [27]. More generally, and based on experience, dissatisfaction can derive from one or more areas of the whistleblowing experience (Table 2).

| Table 2. Whistleblower Dissatisfaction Reasons | | | | | | |
|---|---|--|--|--|--|--|
| Procedures | Outcome | Personal Harm | | | | |
| Justice Fairness Expertise Conflict of Interest Communication | Transparency Corrective Action Monitoring | Emotional Physical Financial Spiritual Social Career | | | | |

When considering becoming a whistleblower, the person should be aware of their motives and expectations for reporting the misconduct and the possible outcomes of an investigation. This is important because the case investigation process can be lengthy, and they might be disappointed with the outcome. Also, self-reflection after a case is important because it can help reduce harms that occurred during the experience and generate valuable feedback to the management and governance boards of the WMS.

Considering the significant amount of moral courage required to report misconduct or other breaches of RI or GRP (even anonymous reporting), a disappointing outcome should be avoided for whistleblowers where possible. Nevertheless, after careful investigation, some reporting may lead to a finding that no misconduct or other breach occurred. Thus, some whistleblowers may inevitably be disappointed. Organisations should focus their efforts on the quality of procedures (e.g., intake, investigation, communication), outcome (reporting, implementation, monitoring), and risk of harm (detriment protection) for all parties involved. A proactive focus will help build quality into the WMS and enhance users' trust [28].

Rewards and Remediation

In some regions of the world such as in the USA, whistleblowers can receive a financial reward for their act of whistleblowing. For example, the False Claims Act [29] allows whistleblowers to receive up to 30% of the amount recovered by the US government following a successful case investigation. For example, Duke University paid USD \$112.5 million to settle a case of research grant fraud/data misconduct, while the whistleblower, a lab analyst, received USD \$33 million as a reward [30]. Financial rewards such as this can be useful when a whistleblower wants to retire, resume employment after a time gap or start a new venture following the whistleblowing experience. Rewards can also be non-financial such as a thank you letter or proclamation of the whistleblower's value and appreciation [2, p. 27, Section 8.5 Concluding Whistleblower Cases]. Any public declaration should only be made with the consent of the whistleblower, and to do otherwise could be a confidentiality violation.

As shown in Table 2, the potential for whistleblower harm arises in many areas of their life (emotional, physical, financial, spiritual, social and career). Harm in more than one area, or significant or lengthy duration of harm can be expensive. Therefore, organisations should take proactive measures to prevent harm (and threats of harm) to whistleblowers and be ready to respond with remediation when harm (or harm threats) are identified. This is an ethical obligation. In some regions of the world, this is also a legal obligation [3, p. 44, Article 21; 31]. Similarly, whistleblowers should be made aware of their legal rights for compensation if they experience detriment as a result of reporting misconduct.

Reputation Repair

Aftercare for whistleblowers should also consider any reputational damage that has occurred. This damage can be in the context of peers who shun their whistleblower colleague due to fear or a sense of breach of trust. Damage can also occur when the whistleblower is found to be complicit in some misconduct associated with the case. The latter can occur, for example, when a whistleblower illegally obtains evidence in an attempt to prove their case [32]. Reputation is a dual concept consisting of internal (personal) and external (image) components. Repair of the personal, internal component can be helped by counselling support, therapists, ethicists [33], and executive coaches who explore the hurt, harm, values, principles, and relationships involved. Rebuilding trust requires time, patience, and a series of trust-earning acts

(e.g., being helpful, being honest, and honouring commitments). The external image component can be assisted with the help of professional coaches with skills in leverage and pivot, helping the whistleblower to bounce back using their existing skill set.

Conclusion

Whistleblowers and WMS programmes must be prepared to manage the aftercare needs associated with reporting misconduct. This means a mindset that views the care of a whistleblower as longitudinal and holistic and not ending when the case is concluded. Organisational tools and resources should remain available to whistleblowers along their journey, and this will create a base of trust that helps future whistleblowers to feel safe and supported in the reporting of misconduct and other breaches of integrity and GRP.

CHAPTER 8

What Other Factors Contribute to Whistleblower Protection?

1. The Whistleblower's Responsibility

Public allegations pose a risk for whistleblowers. To protect their identity, whistleblowers are responsible for using appropriate reporting channels when coming forward with allegations. In addition, the number of people the whistleblower talks to about the case matter should be kept to a minimum.

Persons considering whistleblowing related to research misconduct can be encouraged to do so by making them aware that their protection is based on three fundamental principles:

- 1. report in good faith*3,
- 2. gather the information to be reported by legal access, and
- 3. report internally first.

For a detailed guideline, see Chapter 9 "Practical Tips for Whistleblowers".

*3 In some regions of the world reporting must be made "with reasonable grounds", not good faith.

All entities involved in case investigations and/or outcome reporting (including external experts) must also protect whistleblower identities while fulfilling the requirement for transparency related to cases.

2. The Role of National Law and National Ministries

In countries with whistleblower protection laws and legal standing in investigations originated by whistleblowing, the state should require the protection of a whistleblower's identity in cases of legal prosecution of the accused and the need for testimony by whistleblowers in court. In cases of retaliations against whistleblowers, courts and lawyers could refer to Directive (EU) 2019/1937 [3] even if the Directive is not yet included in national laws or other legally binding documents. Alternatively, national laws against discrimination of employees might apply in cases of retaliation against a whistleblower. National Ministries of Education, Research, Science or Innovation, as the overarching institutions, might refer to national law and the EU Directive and stress the need for an institutional whistleblower protection programme. Those measures might also be mandatory in case of funding from national funding agencies.

3. The Role of Funders

Research funding bodies have a role in encouraging universities and other research institutions to implement RI structures, by introducing the provision of an RI policy or statute as a mandatory application requirement. It could also be a requirement to follow the RI policy of the funding body. While, for example, the ALLEA ECoC [6] is a non-binding framework for self-regulation, it becomes legally binding for institutions and researchers if they accept research funding provided through the EU Research and Innovation Framework Programmes, including the European Research Council (ERC).

As another example, the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG, Germany's largest research funding organisation) published a code of conduct in 1998, requiring research institutions and higher education institutions applying for research funding to implement the guidelines of the code as a statute. These RI statutes made the RI rules legally binding for employees of the respective institutions. DFG's code of conduct *Guidelines for Safeguarding Good Research Practice* [34] was comprehensively reviewed and newly published in 2019. The revised code contains a guideline (Guideline 18: Complainants and respondents)

that specifically addresses aspects of whistleblower protection [34, p. 21; 35]. Another guideline (Guideline 4: Responsibility of the heads of research work units) states: "Suitable organisational measures are in place at the level of the individual unit and of the leadership of the institution to prevent the abuse of power and exploitation of dependent relationships." [34, p.11; 36] The requirement to prevent abuse of power — on the side of the funder — is also a means to protect whistleblowers.

Research funding bodies, who naturally have an interest in RI to ensure proper use of their funds, could also establish a budget to help retaliated whistleblowers to cover the costs of legal support or compensation for income loss during transition periods when changing their working environment, institution or working group to escape retaliation

4. Regulations for Cross-Border Cases

Researchers collaborating internationally can refer to existing guidelines, e.g., journal guidelines, recommendations of the Cooperation Liaison between Universities and Editors [37] and the ALLEA ECoC [6]. Responsibility for taking over an international case of alleged breaches of GRP can also be determined by existing rules. In 2009, the Organisation for Economic Co-operation and Development (OECD) Global Science Forum developed the quide "Investigating Research Misconduct Allegations in International Collaborative Research Projects" [38] and in 2013 the so-called "Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations" was adopted by the participants of the 3rd World Conference on Research Integrity [39]. In some countries, a whistleblower's report will only be considered for investigation if they or the accused person is strongly connected to the country's research system. The problem with cross-border country cases is that harmonised implementation of regulations across the EU is still missing, and therefore the protection of whistleblowers is fragmented. A new EU directive or a new section within the existing EU Whistleblowing Directive [3] that could be applied to RI is needed. For that, it is strongly recommended that institutions observe international developments on this subject and derive rules for whistleblower protection in cross-border cases

5. The Role of Publishers

Publishers and journal editorial staff informed about research misconduct must protect the whistleblower's identity during the reporting process and their internal case handling (e.g., during the expression of concern or any retraction notice).

The possibility of anonymity is also crucial for reviewers who see the need to report on shortcomings they came across coincidentally within their peer-reviewing tasks. If a reviewer suspects alleged research misconduct related to a manuscript they have received, they should immediately inform the editor. The editor will, in turn, handle the case according to the publisher's guidelines and in confidence [37].

CHAPTER 9

Practical Tips for Whistleblowers

These practical tips for whistleblowers are aimed at two different target groups. First, those seeking advice about a concern that affects them or their work, or who have a specific suspicion of dishonest behaviour by another person. Secondly, those who are reporting a breach or misconduct that does not directly affect them. Of course, there are many overlaps. However, it is important to be aware that personal and emotional involvement generally make it difficult to get an unbiased and objective view of the matter. In addition, when weighing one's options, the fear or assumed certainty of a particular negative reaction by the person to whom the accusation refers may prompt a proactive adjustment of one's own behaviour. Depending on the case, this can lead to a serious aggravation of the overall situation or lead the whistleblower to make considerable misjudgements. Therefore, especially those who belong to the first target group need appropriate tips and guidance on the role of a whistleblower at the earliest possible stage.

The protection of one's person and one's reputation, including scientific reputation, must be carefully considered and weighed. In the 1998 publication by CK Gunsalus, "How to blow the whistle and still have a career afterwards" [40], the most important recommendations for whistleblowers on protecting their reputation are still valid. However, several points need to be supplemented and adapted to current conditions,

particularly given the highly evolved media landscape and the social media channels that were not available at that time. Ombudspersons were also rare at the time, and clearly defined procedures and broad consensus guidelines for dealing with research misconduct were the exception rather than the rule.

Moreover, Libia L. Carrion and Katrina A. Bramstedt provide important advice in the article "Academic Integrity, Moral Courage, and Whistleblowing in Student Research" that not only applies to undergraduates and early-career researchers but is also important for researchers in general [41].

Tip 1: Stick to facts and avoid assumptions

Although this is often a major challenge, especially when there is personal involvement, the facts that can be proven should always be considered first: Who did (or did not do) what and how can it be proven? The more detail with which the facts and observations can be described, the easier it is to examine an allegation and either confirm or refute its factual basis

In this context, it is essential to emphasise the importance of early and meaningful documentation of the research process, which is, or should be, part of routine research methodology. Comprehensive documentation includes not only records of the individual stages of the research process but also protocols and agreements (e.g., on authorship, research goals, tasks within a working group, etc.), email correspondence, and successive manuscript versions with documented revisions by individuals (if the dispute refers to a publication). Especially in allegations that someone has committed research misconduct, documentation can substantiate facts and provide information about the development of such behaviour. Examining such documents can establish and verify the facts and distinguish them from possible assumptions.

One should examine whether the allegation could also be an honest error. This possibility should be considered as a matter of principle and examined as clearly and as soon as possible before the allegation is made. Even in the case of apparently sufficient evidence – or precisely because this is lacking – it is advisable to check one's perception of the facts as neutrally as possible. Points that do not support an accusation but instead exonerate the individual should be considered.

The information recorded in such documentation in no way replaces careful and indepth examination by the persons or commissions whose task it is to handle cases.

However, solid documentation facilitates such an investigation and strengthens the credibility of the whistleblower in the sense of a "good faith" attitude, bringing the allegation with reasonable grounds.

Under no circumstances may unfair or illegal ways of securing evidence be used to prove research misconduct. Even if this should seem obvious in individual cases, conversations, for example, must not be recorded without the permission of all parties involved. Instead, it is advisable to take notes during the conversation to make a record of the essential content and results and immediately thereafter to send them by email to all parties to confirm what has been discussed and agreed upon (preferably also sending a blind copy to a private email address), and to attach all this to the documentation. Ethical behaviour on the part of the whistleblower (no matter how serious the observed wrongdoing) is required in order to exclude the risk of discrediting oneself and thus undermining the accusation of research misconduct. In the case of uncertainty or ambiguity, RI officers or ombudspersons may be consulted to verify the appropriateness of one's conduct.

Tip 2: Consider carefully the possible impact of an allegation

Whistleblowers who want to report suspected research misconduct are often in a situation of not knowing or being unable to assess the possible consequences for themselves and others. Therefore, it is strongly recommended that they get help and support in advance to be able to proceed with confidence. Assistance can come from people such as an ombudsperson, an RI advisor or an experienced, trustworthy researcher – somebody with a rational and unbiased view of the allegation. A careful review of the facts of the case and the possible implications by the whistleblower can help them to weigh their options. This should include consideration of the impact of any misconduct that is eventually found to have occurred, as well as the impact that an unjustified allegation may entail, both for the whistleblower and the person being accused.

For example, it should be kept in mind that different breaches of GRP have different consequences. The ALLEA ECoC Section 3.2, "Dealing with Violations and Allegations of Misconduct/Fairness" [6, p. 9] states: "Action is taken against persons for whom an allegation of misconduct is upheld, which is proportionate to the severity of the violation." However, not every breach of GRP is defined as "research misconduct". For instance, disputes about authorship or the sequence of authors do not necessarily constitute research misconduct but may be flagrant violations of the

rules that still have the potential for remedy [6]. Before launching a formal investigation in such cases, it is wise to check whether the research institution provides conflict mediation as a possible solution.

Frequently, other people are also affected by an allegation, so the impact can extend to a work group or collaboration with colleagues. The damage to the reputation of the individual or even the institution as a whole, which usually results from a case of misconduct, must also be taken into account, rather than looking for reasons to sweep the suspicion under the carpet. This reflection can shed comprehensive light on what it means for the persons concerned. Further, it is essential to correct research misconduct and false published research records. However, to walk the path as safely and conscientiously as possible, whistleblowers can seek help in advance, as described in Tip 3.

The possible personal and/or professional consequences are often serious for whistleblowers and not always easy to assess. The dilemma often involves weighing the interests related to one's research career and personal advancement against the personal sense of justice, the desire to behave with integrity, and the concern of jeopardising one's professional goals precisely by doing so. Naturally, the more intensely someone is directly affected by the misconduct, the more difficult such an objective review becomes. In this case, it is even more important to turn to the 3rd tip while carefully considering the 2nd tip.

Tip 3: Talk to a person you trust

Knowledge of research misconduct by others is stressful in many ways and can lead to significant inner conflicts: Am I obligated to disclose, and what happens if I don't comply? What if the accusation turns out to be groundless, and I have wronged someone? How can I avoid personal hostility and repercussions for my career and personal life? Are there other people involved who need to be protected? To bring order to these thoughts and valid questions and to carefully explore the options for action, a consultation with a trusted person is recommended. Many institutions have established ombudspersons or other confidential counsellors who deal with clarifying suspicious cases and related questions. Everything presented to an ombudsperson is subject to confidentiality protection. For this reason alone, a counselling session is advisable, as it eliminates the risk of uncontrolled and uncontrollable disclosure of the allegation in the first instance.

When deciding to ask another person for advice, at the very least it is advisable do so within the rules and possibly existing regulations of the institution in question for dealing with suspected cases of research misconduct. This will provide information on what is considered misconduct or other breaches and what action should be taken.

In cases where no ombudspersons or comparable, institutionalised contact persons are available, careful consideration must be given to whom one can turn confidentially. These can be, for example, experienced researchers who are experts in the subject and can assess an accusation with the appropriate professional skills. The chosen person must be a person of integrity. Otherwise, their advice may be misleading or even unhelpful.

It should be borne in mind that shared knowledge can also bring others into conflict, and therefore, it is advisable to address this from the outset. It may also make sense to initially present the suspicion in question in an anonymous form, provided that the circumstances in the working group make this possible. If the counsellor is someone whose word carries weight within the institution, this may provide some additional protection, and there may be an opportunity to raise the allegation together. This too should be considered in light of existing circumstances and implications and jointly decided

In addition, it is advisable to become familiar with the local or internal regulations of an ombudsman procedure before or ask questions about it at the beginning of the meeting. It is important to know whether or to what extent the whistleblower can have a voice in what happens after reporting. It should be clarified in advance if or under what circumstances the RI advisor or ombudsperson is obligated to follow up on a report even if the whistleblower does not agree to do so. Any ambiguities in this regard should be discussed with the RI advisor/ombudsperson or confidant at the beginning of the consultation.

The interview with the ombudsperson or person of trust should be well prepared, i.e., the allegations should be summarised meaningfully and the questions to the accused person should be clearly formulated. Any personal connections and resulting concerns about consequences should also be addressed rather than concealed. A whistleblower should always consider the recommendations of the ombudsperson or person of trust seriously. If there are doubts about the advice, a second opinion could be helpful before a decision is made based on "gut feeling".

In discussion with an ombudsperson, protection of the whistleblower should be addressed, and what realistic possibilities exist for this (see Chapters 4 and 5). Careful consideration should also be given to the whistleblower's objectives in making the report and to the interests behind it, so as to weigh whether the possible consequences of the case will do the whistleblower more harm than good as far as their work and personal circumstances.

Tip 4: Question and analyse your personal interests and concerns

Especially for persons directly affected by the research misconduct of others in their work and/or career, an objective and factual consideration of what has happened is very difficult.

The goal should always be to clarify the facts of the case and to determine objectively whether misconduct has occurred; nevertheless, this may not be possible without the support of an RI advisor or ombudsperson through the formal proceeding. In addition, it is essential to keep in mind the possible consequences for all parties involved. As a general rule, a whistleblower should not suffer any negative consequences for disclosing research misconduct (see Chapters 4 to 8).

Conversely, a whistleblower should not make their personal interests the main subject of the case, especially regarding possible sanctions and punishments. It may be understandable if someone whose research career is affected or even threatened by misconduct wishes harm to the person responsible and seeks retribution. However, the demand for punishment or even revenge for perceived injustice is counterproductive in many respects when dealing with research misconduct. On the one hand, it carries the risk of losing sight of the facts and focusing too much on one's sensitivities and thus possibly using or provoking unfair or even illegal methods to achieve the desired satisfaction. On the other hand, it could lead to the whistleblowers becoming the target of attacks, with the legitimate concern being ignored or at least not dealt with adequately.

The in-depth consideration of one's own goals and interests should also be addressed in a conversation with an ombudsperson or person of trust. The exchange of ideas with a person who has a more objective view of what is happening usually leads to a reconsideration of excessive or unattainable goals, so they can be managed with a sense of integrity and respect for self and others.

Tip 5: Check the options for anonymous reporting

The first thing to check is whether anonymous tips are accepted and followed at the respective institution, since the regulations on this can vary greatly. A whistleblower who is not directly affected by the misconduct that they wish to disclose in good faith can primarily protect themselves by remaining anonymous. If the institution's statute or the applicable regulations expressly permit anonymous reporting, an ombudsperson or person of trust should be consulted to consider ways of anonymous communication.

It is much more difficult to stay anonymous when the whistleblower's work is directly affected, especially if the research working group is small. This must also be considered from a legal perspective because if there is a binding obligation to inform the whistleblower about the processing of the case and the outcome, their contact information must be available. If this is the case, anonymous reporting is not possible. If anonymity can be preserved, particular care must be taken when describing the facts and formulating the suspicion; in particular, subjective statements and insinuations without substance must be avoided. These could call into question the credibility of the report.

In the case of an anonymous report, consideration could also be given to whether the reporting documents or their copies should be kept in a neutral and GDPR-friendly location, such as the ombudsperson's office. Depending on the nature of the suspected misconduct and the accused person, this can strengthen the protection of the whistleblower.

Tip 6: Keep the circle of confidants as small as possible

Whistleblowers must weigh very carefully with whom they share, or perhaps even have to share, their knowledge and when. A suspicion that is communicated to a large circle of people at an early stage always carries the risk of uncontrolled disclosure or misinterpretation, prejudices and assumptions, including about the possible motives of the whistleblower. From this point of view alone, publication, e.g., via social media channels, is not conducive to clarifying the facts and may have the opposite effect. Anyone confronted with an accusation published in this way and the resulting scandal due to rapid fire spread of information is more likely to be slowed down than encouraged in their motivation to contribute to a factual clarification. With only one or a few other people, the options for action can be discussed much

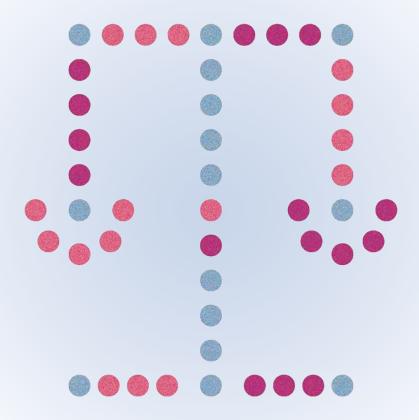
more constructively. However, there may be situations in which it must be considered whether certain people who may be directly or indirectly affected need to be informed confidentially to protect them from possible harm as well.

Sometimes, however, it may be helpful or even necessary to disclose misconduct together with others. This may be the case, for example, if several people are directly affected by the misconduct or are severely hindered or even stopped in their careers by its effects. Thus, if a recurring pattern is evident in the nature of the misconduct, "strength in numbers" may be helpful. This has another invaluable advantage: when several people report a matter jointly, they can talk to each other about it without violating confidentiality, because they are all enclosed in the same "bubble of confidentiality". However, it is important to ensure that everyone adheres to the confidentiality rule outside of this bubble as well.

Tip 7: Stay patient (even though it may be difficult)

Procedures for investigating research misconduct often take a long time, and the reasons for this vary. It starts with identifying subject matter experts, resolving any conflicts of interest, and securing dates for the meetings of the investigative committee members that allow everyone time for a careful review and evaluation of relevant documents and evidence. Sometimes expert opinions or legal assessments have to be obtained. The purely administrative effort of this process should not be underestimated. This is often difficult for those who act as whistleblowers to comprehend, and it is also hard to bear. However, this should not lead to speculation about possible cover-ups and "sweeping things under the rug" unless there are concrete indications of delay tactics or other concerns. Instead, it is advisable to remain in contact with the persons involved and to regularly ask about the status of the investigation. In the case of anonymous reports, this is usually not possible, unless there are sophisticated anonymisation procedures available (see Tip 5), but here too an attempt should be made to temper impatience and to allow the persons involved sufficient time for a thorough, objective investigation.

If during the investigation conversations are held with other affected persons or with members of the investigative committee, these should be noted. This can also help calm the whistleblower, offering a sense of safety and trust in the difficult process and a chance for reflection on the events surrounding the allegation.



CHAPTER 10

On Being a Whistleblower: From One Who Has Walked the Path

- A Letter to the Reader -

Being a whistleblower does not mean blowing the whistle once and things magically improve. Advocating for values and fighting for positive changes in academic culture is much more like climbing a steep mountain when the rocks are falling upon you and the earth is crumbling beneath your feet. The most important task? To get ready and equipped.

The path is slippery, but each step you make in the right direction is highly rewarding. On the way, you may encounter those who do everything in their power to knock you down, discredit you as one who sparks conflict, and stigmatise you as *persona non grata*. You will most likely face the phenomenon of "fracturing," or divided loyalties, and meet those who rise within academic hierarchies but are unsupportive of or even hostile toward calls for change.

The gatekeepers are powerful. They may use all available tools, including defamation, to stop you in your tracks as they struggle to protect their power and block change. As you continue on the path and break the silence in an attempt to pursue the truth and bring about change, your work and career may be threatened or even entirely blocked. Regardless of your skill, knowledge, and willingness to contribute to your field and to society, your willingness to speak up about wrongdoing may have dire consequences. There may be no opportunities, no place for you. Your office might move from one with a view of the sun-lit mountains to one in the cellar with a view of the garbage bins. You might even get fired.

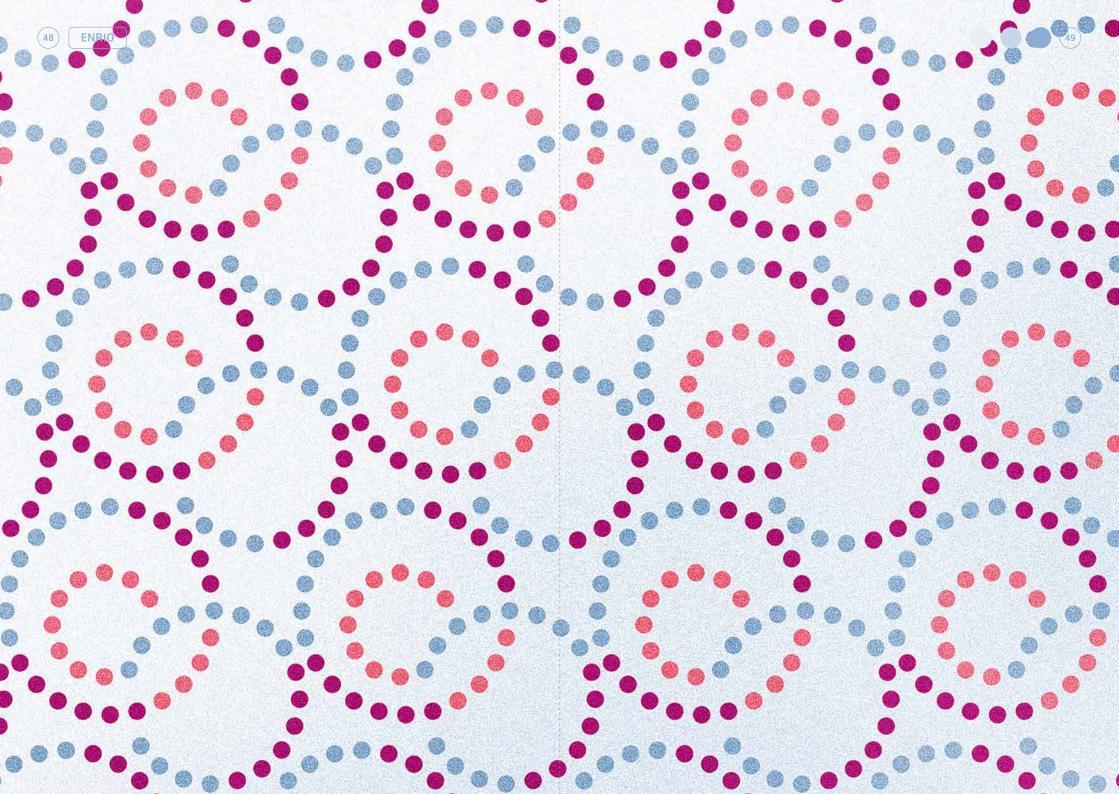
The list of your allies becomes short. But those who stay on the list become stronger as their actions and words demonstrate that they share your values and commitment to truth. Do not expect to stay on the list of those who hold powerful positions but place their own interests first but know that your devotion to those on your list who fight for what is just and right will grow. There may be unions, networks, friends,

and strong leaders advocating for integrity who step out of the shadows to support you in your time of need. These supporters will guide you in the darkest days of climbing up the mountain.

Being ready and equipped for the journey of the whistleblower means preparing for the journey by gathering all the information and strength you will need. It also means nurturing your health, taking time to rest and reflect, asking for help and accepting a hand. There are many challenges and risks inherent to the journey. In spite of these challenges, one reward is knowing you made it to the other side of the mountain by looking everyone in the eye and speaking your truth. Another is knowing that you may have paved an easier path for the next whistleblower to follow behind you. Perhaps the greatest reward is knowing that you may have made a difference, even a small one, by leaving the mountain better than you found it.

A call to those in power positions: There is still a long and steep way towards fair and inclusive academic culture. If you honestly aim for science to serve societal needs, please do your part to demonstrate that by encouraging and listening to the people who speak up about wrongdoings and protect and acknowledge the whistleblowers as they take each frightening step. In any case, it is safer, faster, less expensive, and much more enjoyable to climb together.

Urša Opara Krašovec



APPENDIX 1: List of Abbreviations

ALLEA – ALL European Academies

ALLEA ECoC – The European Code of Conduct for Research Integrity (ALLEA)

ENRIO – European Network of Research Integrity Offices vzw.

ERC – European Research Council

EU – European Union

GDPR – EU General Data Protection Regulation

GRP - Good Research Practice

ISO – International Organization for Standardization

RFO - Research Funding Organisation(s)

RI – Research Integrity

RPO – Research Performing Organisation(s)

WMS – Whistleblower Management System(s)

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APPENDIX 3: Flowchart on Whistleblowing in Research

GRP

Good Research Practice

PC

Person Concerned (accused person)

RC

Research Community

RFO

Research Funding Organisation(s)

RI

Research Integrity

RIO

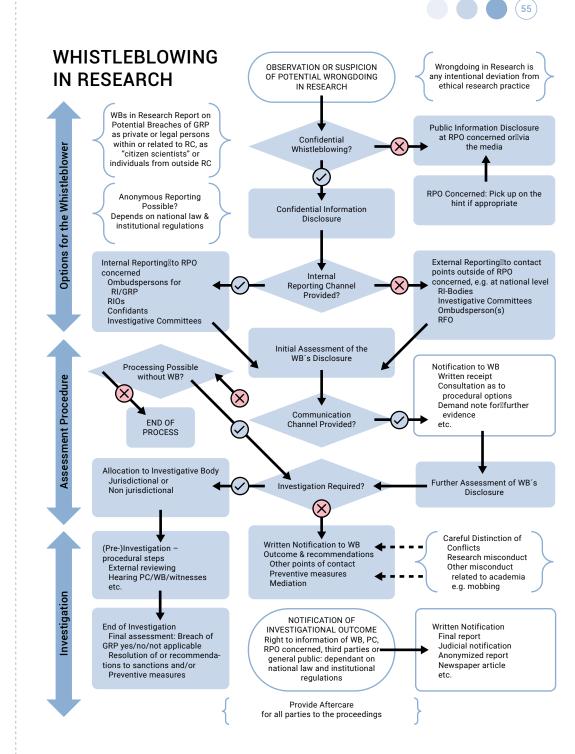
Research Integrity Officer

RPO

Research Performing Organisation(s)

WB

Whistleblower (reporting person)



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APPENDIX 4: ENRIO Working Group on Whistleblower Protection

An ENRIO working group that explored the question how whistleblowers in research can and should be protected was informally founded in 2016. The working group was active in parallel to a group of ENRIO members working on the handbook on the investigation of research misconduct [23]. In January 2018, a kick-off meeting was held in Helsinki, Finland, to initiate the strategic work of the group. It was organized by Sanna Kaisa Spoof (Finnish Advisory Council for Research Integrity, TENK), who chaired the group until 2020. From 2018 to 2019, the group met regularly - in changing compositions - at international ENRIO meetings to discuss diverse aspects of whistleblower protection. A session and panel discussion dedicated to the topic were also held at the first European Congress on Research Integrity Practice organised by ENRIO and TENK in September 2021. Subsequently, the drafting group was founded, initiating the writing process of this handbook. The finalised draft was comprehensively reviewed by expert reviewers as well as the ENRIO members in 2022 and 2023. The working group would like to thank all ENRIO members for their fruitful discussions during ENRIO meetings and for their feedback on the handbook draft. The final version of the handbook was approved by the members and the board of ENRIO in June 2023

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Disclosure

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