Guidelines for Safeguarding Good Research Practice

Code of Conduct

DFG

Disclaimer: This English translation of the DFG Code of Conduct *Guidelines for Safeguarding Good Research Practice* is provided for informational purposes. The English text was carefully translated and reviewed for accuracy. In the event that the English and German versions permit different interpretations, the German text shall prevail.

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Research Integrity Team

Phone: +49 228 885-3201

gwp@dfg.de

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1 Foreword

The purpose of the white paper *Safeguarding Good Scientific Practice,* published by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) in 1998, was to further research integrity and establish it as an integral part of research and teaching.

In summer 2018, the DFG Executive Board voted to revise the white paper and the *Rules of Procedure for Dealing with Scientific Misconduct,* a decision that was prompted by wide-ranging changes in research brought about by the digital turn and new developments in publishing, the structure of research institutions and forms of cooperation. The reflection and discussion process on the revision took place against the backdrop of international debate on research integrity. The Code provides a framework for safeguarding public confidence in the research endeavour while ensuring that policies and guidelines are in place to protect complainants and to foster the principle of the presumption of innocence to the extent possible.

Against this background, an expert committee was appointed and tasked with revising the white paper *Safeguarding Good Scientific Practice* and the *Rules of Procedure for Dealing with Scientific Misconduct.* The committee held its first meeting in August 2018.

The members of the committee were:

- Professor Dr. Klaus-Michael DEBATIN, Ulm University Medical Center
- Professor Dr. Michael FAMULOK, University of Bonn
- Professor Dr. Onur GÜNTÜRKÜN, University of Bochum
- Professor Dr. Marlis HOCHBRUCK, Karlsruhe Institute of Technology
- Professor Dr. Johannes JANICKA, TU Darmstadt
- Professor Dr. Wolfgang LÖWER, University of Bonn
- Professor Dr. Ansgar OHLY, LMU Munich
- Professor Dr. Stephan RIXEN, University of Bayreuth

- Professor Dr. Elisabeth STAUDEGGER, University of Graz
- Professor Dr. Eric STEINHAUER, FernUniversität Hagen

This committee of ten, chaired by Professor Dr. Marlis Hochbruck, was divided into three subcommittees focusing on the following topics:

(1) Data, Publications, Digital Turn
Chair: Professor Dr. Eric Steinhauer

(2) Research Staff
Chair: Professor Dr. Marlis Hochbruck

(3) Rules of Procedure for Dealing with Scientific Misconduct
Chair: Professor Dr. Stephan Rixen

Meetings of the committee and subcommittees were also attended by guests who contributed their special expertise to the discussions. The members worked closely with representatives of the German Rectors' Conference (HRK) to deepen their shared understanding of standards of good research practice and to ensure consistency in the handling of suspected cases of misconduct.

The approximately one-year process of revising the white paper focused on embedding a binding culture of research integrity at higher education institutions (HEIs) and non-HEI research institutions in the spirit of a professional code of ethics.

The recommendations set out in the 1998 white paper initiated a system of self-monitoring and voluntary commitment within the German academic research system that has enjoyed broad consensus to this day. The work of the committee serves as the basis for the Code, which also draws on international reference works, and describes appropriate standards for research in the form of guidelines. The guidelines take into account the diversity of the various subject areas and enable researchers, HEIs and non-HEI research institutions to align their actions, internal structures and processes to the guidelines in keeping with the principle of academic voluntary commitment.

The Code, which contains 19 guidelines, is based on a multidimensional approach:

The Code comprises three levels, each designed to reflect the level of abstraction within the text. The guidelines at level one have a high abstraction level. The explanations that follow at level two also have a relatively high level of abstraction. The printed version of the Code includes levels one and two. The third level will be available as a dynamic document on the DFG website. It will contain research area specific information, case studies and frequently asked questions and will be prepared in detail in autumn 2019. Third-level content will be developed and quality assured continually in cooperation with universities and non-university institutions, research organisations, the Ombuds Committee for Research Integrity in Germany (OWID) and other stakeholders, and adapted to changing practices in research. The goal is to create a current reference work for the research community in Germany.

The standards of good research practice are divided into six guidelines that define general principles and eleven guidelines that cover the key steps of good practice throughout the research process. The Code concludes with two guidelines that set out the procedure for handling instances of non-compliance with good research practice.

The framework conditions in place at research institutions are essential to enabling good, productive research. Such conditions include time and adequate resources for research, teaching and the qualification training of researchers in early career phases.

The Code of Conduct *Guidelines for Safeguarding Good Research Practice* was adopted on 3 July 2019 by the DFG General Assembly during its annual meeting, held in Rostock, following approval by the DFG Senate on 28 March 2019. The *Rules of Procedure for Dealing with Scientific Misconduct* were approved on 28 March 2019 in the Senate and on 2 July 2019 by the Joint Committee.

I would like to thank everyone who has contributed to the revision of the Code.

Bonn, July 2019

Professor Dr. Peter Strohschneider

(President of the DFG from 2013 to 2019)

2 Preamble

Scientific integrity forms the basis for trustworthy research. It is an example of academic voluntary commitment that encompasses a respectful attitude towards peers, research participants, animals, cultural assets, and the environment, and strengthens and promotes vital public trust in research. The constitutionally guaranteed freedom of research is inseparably linked to a corresponding responsibility. Taking this responsibility into full account and embedding it in individual conduct is an essential duty for every researcher and for the institutions where research is carried out. The research community itself ensures good practice through fair and honest attitudes and conduct as well as organisational and procedural regulations. In different roles, scientific and scholarly societies, research journals, publishers, research funding agencies, complainants, ombudspersons and the Ombuds Committee for Research Integrity in Germany (OWID) also contribute to safeguarding good research practice; they harmonise their conduct in publicly or privately funded research with the principles of the Code.

Individuals who report a well-founded suspicion of misconduct fulfil a crucial function in the self-regulation of the research community. Scientific and academic societies promote good research practice by developing a shared understanding among their members and by defining binding ethical standards, which they establish within their specialist communities. Journal publishers take account of the requirements of high-quality research with a stringent peer-review process. The Ombuds Committee for Research Integrity in Germany (OWID), an independent body, and local ombudspersons are trustworthy points of contact that offer advice and conflict mediation on issues relating to good research practice and potential misconduct.

Funding organisations also play an important role in establishing and maintaining standards of good research practice. Through the design of their funding programmes, they create a framework that promotes research integrity. By ensuring that procedures are in place to deal with allegations of misconduct, they also help to combat dishonesty in research.

Within the scope of its responsibility, the DFG has prepared the following *Guidelines for Safeguarding Good Research Practice.* They represent the consensus among the member organisations of the DFG on the fundamental principles and standards of good practice and are upheld by these organisations. These guidelines underline the importance of integrity in the everyday practice of research and provide researchers with a reliable reference with which to embed good research practice as an established and binding aspect of their work.

3 Standards of Good Research Practice

3.1 Applicability

The DFG Code of Conduct is aimed at both researchers and institutions (HEIs and non-HEI research institutions). It outlines the main standards of good research practice and describes the procedure to follow in the event of non-compliance with these standards.

3.2 Principles

Guideline 1: Commitment to the general principles

Higher education institutions and non-HEI research institutions, with the participation of their members, work together to define rules of good research practice, ensure that their employees are made aware of these guidelines and related policies and regulations, and require their employees to comply with them with due regard for the type of research undertaken in the relevant subject area. Individual researchers are responsible for ensuring that their own conduct complies with the standards of good research practice.

Explanations:

In particular, the principles include working lege artis, maintaining strict honesty in attributing one's own contributions and those of others, rigorously questioning all findings, and permitting and promoting critical discourse within the research community. The principles of good research practice are set out in the following guidelines.

Guideline 2: Professional ethics

Researchers are responsible for putting the fundamental values and norms of research into practice and advocating for them. Education in the principles of good research begins at the earliest possible stage in academic teaching and research training. Researchers at all career levels regularly

update their knowledge about the standards of good research practice and the current state of the art.

Explanations:

Experienced researchers and researchers in early career phases support each other in a process of continuous mutual learning and ongoing training and maintain a regular dialogue.

Guideline 3: Organisational responsibility of heads of research institutions

The heads of HEIs and non-HEI research institutions create the basic framework for research. They are responsible for ensuring adherence to and the promotion of good practice, and for appropriate career support for all researchers. The heads of research institutions guarantee the necessary conditions to enable researchers to comply with legal and ethical standards. The basic framework includes clear written policies and procedures for staff selection and development as well as for the support of researchers in early career phases and equity and diversity.

Explanations:

The head of each HEI and non-HEI research institution is responsible for ensuring that an appropriate organisational structure is in place at the institution. He or she makes certain that the tasks of leadership, supervision, quality assurance and conflict management are clearly allocated in accordance with the size of individual research work units and suitably communicated to members and employees.

With regard to staff selection and development, due consideration is given to gender equality and diversity. The relevant processes are transparent and avoid implicit bias as much as possible. Suitable supervisory structures and policies are established for researchers in early career phases. Honest career advice, training opportunities and mentoring are offered to researchers and research support staff.

Guideline 4: Responsibility of the heads of research work units

The head of a research work unit is responsible for the entire unit. Collaboration within the unit is designed such that the group as a whole can perform its tasks, the necessary cooperation and coordination can be achieved, and all members understand their roles, rights and duties. The leadership role includes ensuring adequate individual supervision of researchers in early career phases, integrated in the overall institutional policy, as well as career development for researchers and research support staff. 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.

Explanations:

The size and the organisation of the unit are designed to allow leadership tasks, particularly skills training, research support and supervisory duties, to be performed appropriately. The performance of leadership tasks is associated with a corresponding responsibility. Researchers and research support staff benefit from a balance of support and personal responsibility appropriate to their career level. They are given adequate status with corresponding rights of participation. Through gradually increasing autonomy, they are empowered to shape their career.

Guideline 5: Dimensions of performance and assessment criteria

To assess the performance of researchers, a multidimensional approach is called for; in addition to academic and scientific achievements, other aspects may be taken into consideration. Performance is assessed primarily on the basis of qualitative measures, while quantitative indicators may be incorporated into the overall assessment only with appropriate differentiation and reflection. Where provided voluntarily, individual circumstances stated in curricula vitae – as well as the categories specified in the German General Equal Treatment Act *(Allgemeines Gleichbehandlungsgesetz)* – are to be taken into account when forming a judgement.

Explanations:

High-quality research is oriented towards criteria specific to individual disciplines. In addition to the generation of and critical reflection on findings, other aspects of performance are taken into consideration in the evaluation process. Examples include involvement in teaching, academic self-governance, public relations, and knowledge and technology transfer; contributions to the general good of society may also be recognised. An individual's approach to research, such as an openness to new findings and a willingness to take risks, is also considered. Appropriate allowance is made for periods of absence due to personal, family or health reasons or for prolonged training or qualification phases resulting from such periods, and for alternative career paths or similar circumstances.

Guideline 6: Ombudspersons

HEIs and non-HEI research institutions appoint at least one independent ombudsperson to whom their members and employees can turn with questions relating to good research practice and in cases of suspected misconduct. They take sufficient care to ensure that people are aware of who the ombudspersons at the institution are. For each ombudsperson there must be a designated substitute in case there is any concern about conflicts of interest or in case the ombudsperson is unable to carry out his or her duties.

Explanations:

Ombudspersons may not serve as members of a central governing body of their institutions while serving in this role. An ombudsperson has a set term of office. A further term of office is permissible. Researchers who are persons of integrity and who have management experience are eligible to be selected as ombudspersons. As neutral and qualified contact persons, they advise on issues relating to good research practice and in suspected cases of scientific misconduct and, where possible, contribute to solution-oriented conflict mediation. Ombudspersons maintain confidentiality in dealing with queries and, if necessary, notify the responsible body at their institution, normally an investigating committee, in the event of suspected cases of misconduct. HEIs

and non-HEI research institutions give ombudspersons the support and acceptance they need to carry out their duties. Institutions may initiate additional measures to help facilitate the work of an ombudsperson. HEIs and non-HEI research institutions incorporate in their regulations a right of choice that enables members and employees to contact their institution's ombudsperson or the Ombuds Committee for Research Integrity in Germany (OWID). OWID is an independent body that provides advice and support on issues relating to good research practice and allegations of inappropriate conduct.

3.3 Research Process

Guideline 7: Cross-phase quality assurance

Researchers carry out each step of the research process *lege artis*. When research findings are made publicly available (in the narrower sense of publication, but also in a broader sense through other communication channels), the quality assurance mechanisms used are always explained. This applies especially when new methods are developed.

Explanations:

Continuous quality assurance during the research process includes, in particular, compliance with subject-specific standards and established methods, processes such as equipment calibration, the collection, processing and analysis of research data, the selection and use of research software, software development and programming, and the keeping of laboratory notebooks.

If researchers have made their findings publicly available and subsequently become aware of inconsistencies or errors in them, they make the necessary corrections. If the inconsistencies or errors constitute grounds for retracting a publication, the researchers will promptly request the publisher, infrastructure provider, etc. to correct or retract the publication and make a corresponding announcement. The same applies if researchers are made aware of such inconsistencies or errors by third parties.

The origin of the data, organisms, materials and software used in the research process is disclosed and the reuse of data is clearly indicated; original sources are cited. The nature and the scope of research data generated during the research process are described. Research data are handled in accordance with the requirements of the relevant subject area. The source code of publicly available software must be persistent, citable and documented. Depending on the particular subject area, it is an essential part of quality assurance that results or findings can be replicated or confirmed by other researchers (for example with the aid of a detailed description of materials and methods).

Guideline 8: Stakeholders, responsibilities and roles

The roles and responsibilities of the researchers and research support staff participating in a research project must be clear at each stage of the project.

Explanations:

The participants in a research project engage in regular dialogue. They define their roles and responsibilities in a suitable way and adapt them where necessary. Adaptations are likely to be needed if the focus of a participant's work changes.

Guideline 9: Research design

Researchers take into account and acknowledge the current state of research when planning a project. To identify relevant and suitable research questions, they familiarise themselves with existing research in the public domain. HEIs and non-HEI research institutions ensure that the necessary basic framework for this is in place.

Explanations:

Methods to avoid (unconscious) distortions in the interpretation of findings, e.g. the use of blinding in experiments, are used where possible. Researchers examine whether and to what extent gender and diversity dimensions may be of significance to the research project (with regard to methods, work programme, objectives, etc.). The context in which the research was conducted is taken into consideration when interpreting findings.

Guideline 10: Legal and ethical frameworks, usage rights

Researchers adopt a responsible approach to the constitutionally guaranteed freedom of research. They comply with rights and obligations, particularly those arising from legal requirements and contracts with third parties, and where necessary seek approvals and ethics statements and present these when required. With regard to research projects, the potential consequences of the research should be evaluated in detail and the ethical aspects should

be assessed. The legal framework of a research project includes documented agreements on usage rights relating to data and results generated by the project.

Explanations:

Researchers maintain a continual awareness of the risks associated with the misuse of research results. Their responsibility is not limited to compliance with legal requirements but also includes an obligation to use their knowledge, experience and skills such that risks can be recognised, assessed and evaluated. They pay particular attention to the aspects associated with security-relevant research (dual use). HEIs and non-HEI research institutions are responsible for ensuring that their members' and employees' actions comply with regulations and promote this through suitable organisational structures. They develop binding ethical guidance and policies and define procedures to assess ethical issues relating to research projects.

Where possible and practicable, researchers conclude documented agreements on usage rights at the earliest possible point in a research project. Documented agreements are especially useful when multiple academic and/or non-academic institutions are involved in a research project or when it is likely that a researcher will move to a different institution and continue using the data they generated for their own research purposes. In particular, the researcher who collected the data is entitled to use them. During a research project, those entitled to use the data decide whether third parties should have access to them (subject to data protection regulations).

Guideline 11: Methods and standards

To answer research questions, researchers use scientifically sound and appropriate methods. When developing and applying new methods, they attach particular importance to quality assurance and the establishment of standards.

Explanations:

The application of a method normally requires specific expertise that is ensured, where necessary, by suitable cooperative arrangements. The establishment of standards for methods, the use of software, the collection of research data and the description of research results is essential for the comparability and transferability of research outcomes.

Guideline 12: Documentation

Researchers document all information relevant to the production of a research result as clearly as is required by and is appropriate for the relevant subject area to allow the result to be reviewed and assessed. In general, this also includes documenting individual results that do not support the research hypothesis. The selection of results must be avoided. Where subject-specific recommendations exist for review and assessment, researchers create documentation in accordance with these guidelines. If the documentation does not satisfy these requirements, the constraints and the reasons for them are clearly explained. Documentation and research results must not be manipulated; they are protected as effectively as possible against manipulation.

Explanations:

An important basis for enabling replication is to make available the information necessary to understand the research (including the research data used or generated, the methodological, evaluation and analytical steps taken, and, if relevant, the development of the hypothesis), to ensure that citations are clear, and, as far as possible, to enable third parties to access this information. Where research software is being developed, the source code is documented.

Guideline 13: Providing public access to research results

As a rule, researchers make all results available as part of scientific/academic discourse. In specific cases, however, there may be reasons not to make results publicly available (in the narrower sense of publication, but also in a broader sense through other communication channels); this decision must not

depend on third parties. Researchers decide autonomously – with due regard for the conventions of the relevant subject area – whether, how and where to disseminate their results. If it has been decided to make results available in the public domain, researchers describe them clearly and in full. Where possible and reasonable, this includes making the research data, materials and information on which the results are based, as well as the methods and software used, available and fully explaining the work processes. Software programmed by researchers themselves is made publicly available along with the source code. Researchers provide full and correct information about their own preliminary work and that of others.

Explanations:

In the interest of transparency and to enable research to be referred to and reused by others, whenever possible researchers make the research data and principal materials on which a publication is based available in recognised archives and repositories in accordance with the FAIR principles (**F**indable, **A**ccessible, **I**nteroperable, **R**eusable). Restrictions may apply to public availability in the case of patent applications. If self-developed research software is to be made available to third parties, an appropriate licence is to be provided.

In line with the principle of “quality over quantity”, researchers avoid splitting research into inappropriately small publications. They limit the repetition of content from publications of which they were (co-)authors to that which is necessary to enable the reader to understand the context. They cite results previously made publicly available unless, in exceptional cases, this is deemed unnecessary by the general conventions of the discipline.

Guideline 14: Authorship

An author is an individual who has made a genuine, identifiable contribution to the content of a research publication of text, data or software. All authors agree on the final version of the work to be published. Unless explicitly stated otherwise, they share responsibility for the publication. Authors seek to ensure that, as far as possible, their contributions are identified by publishers or infrastructure providers such that they can be correctly cited by users.

Explanations:

The contribution must add to the research content of the publication. What constitutes a genuine and identifiable contribution must be evaluated on a case-by-case basis and depends on the subject area in question. An identifiable, genuine contribution is deemed to exist particularly in instances in which a researcher – in a research-relevant way – takes part in

- the development and conceptual design of the research project, or
- the gathering, collection, acquisition or provision of data, software or sources, or
- the manuscript analysis/evaluation or interpretation of data, sources and conclusions drawn from them, or
- the drafting of the manuscript.

If a contribution is not sufficient to justify authorship, the individual's support may be properly acknowledged in footnotes, a foreword or an acknowledgement. Honorary authorship where no such contribution was made is not permissible. A leadership or supervisory function does not itself constitute co-authorship.

Collaborating researchers agree on authorship of a publication. The decision as to the order in which authors are named is made in good time, normally no later than when the manuscript is drafted, and in accordance with clear criteria that reflect the practices within the relevant subject areas. Researchers may not refuse to give their consent to publication of the results without sufficient grounds. Refusal of consent must be justified with verifiable criticism of data, methods or results.

Guideline 15: Publication medium

Authors select the publication medium carefully, with due regard for its quality and visibility in the relevant field of discourse. Researchers who assume the role of editor carefully select where they will carry out this activity. The scientific/academic quality of a contribution does not depend on the medium in which it is published.

Explanations:

In addition to publication in books and journals, authors may also consider academic repositories, data and software repositories, and blogs. A new or unknown publication medium is evaluated to assess its seriousness.

A key criterion to selecting a publication medium is whether it has established guidelines on good research practice.

Guideline 16: Confidentiality and neutrality of review processes and discussions

Fair behaviour is the basis for the legitimacy of any judgement-forming process. Researchers who evaluate submitted manuscripts, funding proposals or personal qualifications are obliged to maintain strict confidentiality with regard to this process. They disclose all facts that could give rise to the appearance of a conflict of interest. The duty of confidentiality and disclosure of facts that could give rise to the appearance of a conflict of interest also applies to members of research advisory and decision-making bodies.

Explanations:

The confidentiality of third-party material to which a reviewer or committee member gains access precludes sharing the material with third parties or making personal use of it. Researchers immediately disclose to the responsible body any potential or apparent conflicts of interest, bias or favouritism relating to the research project being reviewed or the person or matter being discussed.

Guideline 17: Archiving

Researchers back up research data and results made publicly available, as well as the central materials on which they are based and the research software used, by adequate means according to the standards of the relevant subject area, and retain them for an appropriate period of time. Where justifiable reasons exist for not archiving particular data, researchers explain these

reasons. HEIs and non-HEI research institutions ensure that the infrastructure necessary to enable archiving is in place.

Explanations:

When scientific and academic findings are made publicly available, the research data (generally raw data) on which they are based are generally archived in an accessible and identifiable manner for a period of ten years at the institution where the data were produced or in cross-location repositories. This practice may differ depending on the subject area. In justified cases, shorter archiving periods may be appropriate; the reasons for this are described clearly and comprehensibly. The archiving period begins on the date when the results are made publicly available.

4 Non-Compliance with Good Research Practice, Procedures

Guideline 18: Complainants and respondents

The responsible bodies at HEIs and non-HEI research institutions (normally ombudspersons and investigating committees) examining allegations of misconduct take appropriate measures to protect both the complainant and the respondent. The investigation of allegations of research misconduct must be carried out in strict confidentiality and adhere to the presumption of innocence. The information disclosed by the complainant must be provided in good faith. Knowingly false or malicious allegations may themselves constitute misconduct. The disclosure should not disadvantage the research or professional career prospects of either the complainant or the respondent.

Explanations:

Particularly in the case of researchers in early career phases, the disclosure should not lead to delays in the complainant's own qualification phase and no disadvantage should arise to the writing of final dissertations or doctoral theses; the same applies to working conditions and possible contract extensions.

The investigating body will respect the presumption of innocence vis-à-vis the respondent at each stage of the process when considering each case. The respondent should not experience any disadvantage resulting from the investigation of the allegation until such time as research misconduct has been formally established. The complainant must have objective reasons for suspecting that an infringement of the standards of good research practice may have occurred.

If the complainant is unable to verify the facts personally, or if there is uncertainty with regard to the interpretation of the guidelines on good research practice in relation to an observed set of circumstances, the complainant should consult the local ombudsperson or the Ombuds Committee for Research Integrity in Germany (OWID) to clarify the suspicion.

HEIs and non-HEI research institutions are responsible for deciding whether to investigate anonymous allegations. Disclosures made anonymously can only be investigated if the complainant provides the party investigating the allegation with solid and sufficiently concrete facts. If the complainant's identity is known, the investigating body will keep the individual's name confidential and will not share it with third parties without the individual's consent. Different requirements apply only if there is a legal obligation or if the respondent cannot otherwise properly defend himself or herself because, as an exception, the case concerns the identity of the complainant. The investigating body will promptly inform the complainant if his or her name is to be disclosed; the complainant can decide whether to withdraw the allegation due to the impending disclosure. The confidentiality of the process is limited if the complainant makes his or her suspicion public. The investigating body will decide on a case-by-case basis how to handle the breach of confidentiality on the part of the complainant. Should research misconduct not be proven, the complainant must continue to be protected, assuming that the allegations cannot be shown to have been made against his or her better knowledge.

Guideline 19: Procedures in cases of alleged research misconduct

HEIs and non-HEI research institutions establish procedures to handle allegations of research misconduct. They define policies and regulations on the basis of a sufficient legal foundation. The regulations define the circumstances that constitute misconduct, procedural rules and the measures to take should an allegation be upheld. Regulations are applied in addition to relevant higher-level laws.

Explanations:

Not every breach of good research practice constitutes misconduct. Only deliberate or grossly negligent infringements defined in a set of regulations are considered scientific misconduct. Particular examples of misconduct include fabrication of data, falsification of data and plagiarism. The regulations enacted by HEIs and non-HEI research institutions define responsibility for each

step of a procedure, the consideration of evidence, substitutes for ombudspersons and members of investigation committees, conflicts of interest and the procedural principles of the rule of law. The respondent and the complainant are each given the opportunity to be heard at each stage of the process. Until such time as it is demonstrated that misconduct has occurred, information relating to the individuals involved in the process and the findings of the investigation is treated in confidence. HEIs and non-HEI research institutions ensure that the entire process is conducted as promptly as possible and implement the steps necessary to complete each stage of the procedure within an appropriate time frame. The regulations stipulate various measures to be applied according to the seriousness of the scientific misconduct ascertained. If, after it has been established that misconduct has occurred, the revocation of an academic degree is being considered, the responsible bodies are included in deliberations. Once inquiries are complete, the result is announced to affected research organisations and, if relevant, third parties with a justified interest in the decision.

5 Implementation of the Guidelines

Higher education institutions and non-HEI research institutions, but also all research institutions must implement levels one and two of guidelines 1 to 19 in the DFG Code of Conduct Guidelines for Safeguarding Good Research Practice in a legally binding manner in accordance with the organisational form of the institution. Compliance with this Code is a prerequisite for receiving DFG funding; institutions that do not implement the guidelines are not eligible for funding. When submitting funding proposals to the DFG and in accepting funding, applicants and grant recipients agree to adhere to the principles of good scientific practice as stipulated in DFG funding guidelines and the funding guidelines of programmes implemented by the DFG.

The Code entered into force on 1 August 2019. For those research institutions that had already implemented the relevant requirements in the DFG white paper *Safeguarding Good Scientific Practice* in a binding manner, there was a transition period for implementing the Code, which ended on 31 July 2021.

If an institution cannot implement the guidelines in a legally binding manner on its own due to its organisational structure or its particular nature or other circumstances, there are various options for implementing and acknowledging the Code. Institutions to which this applies may associate themselves with an institution that has implemented the DFG Code and ac knowledge its implementation of the Code as binding for them (the cooperation model). If the institution cannot find a cooperation partner, it can contact the German Rectors' Conference (HRK), which will arrange a partner institution that is willing to act in allegations of scientific misconduct in individual cases. In matters relating to ombudspersons, the institutions concerned may contact the Ombuds Committee for Research Integrity in Germany (OWID). They will implement the principles of the Code accordingly.

Deutsche Forschungsgemeinschaft

German Research Foundation

Kennedyallee 40 • 53175 Bonn, Germany

Postanschrift: 53170 Bonn, Germany

Phone: +49 228 885-1

Fax: +49 228 885-2777

postmaster@dfg.de

www.dfg.de/en