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## Guidelines for the institutional evaluation of scientific institutions

#### CONTENTS

	Preamble	5
A.	Procedures for the institutional evaluation of scientific institutions	8
A.I	Aims	8
A.II	Principles	8
A.III	Acceptance of a proposal for evaluation	11
A.IV	Procedure	12
A.V	Admission to the Leibniz association and large strategic exceptional	
	appropriation requests	13
В.	Criteria for the institutional evaluation of scientific institutions	15
B.I	Criteria for the assessment of research performance	16
B.II	Criteria for the assessment of transfer	18
B.III	Criteria for the assessment of research infrastructural performance	19
B.IV	Criteria for the assessment of organisation and endowment	19
B.V	Criteria for the assessment of cross-sectional dimensions	20
C.	Follow-up on the implementation of evaluative recommendations by	
	the Wissenschafsrat	22

### **Preamble**

Regarding the mission and composition of the Evaluation Committee

The Wissenschaftsrat (WR, German Science and Humanities Council) conducts evaluative procedures on various levels. For these procedures, the WR draws on a wide array of forms of evaluation. These include individual institutional evaluations of scientific institutions, evaluations of research funding programmes, structural assessments of individual subjects, of interdisciplinary research areas, types and associations of research infrastructure as well as the systems of research and higher education in individual states (*Länder*). Similarly, the WR also conducts evaluative procedures – in part from a comparative perspective – regarding concepts e.g. for research buildings and large-scale research infrastructures. Furthermore, the WR evaluates scientific organisations, both from an internal perspective and with regard to their relation to other sectors within the systems of research and higher education.

The WR has established an Evaluation Committee with a particular focus on institutional evaluations of publicly funded non-university research institutions. In addition to research institutions, this comprises research infrastructure facilities as well as institutions with principal functions in other areas (e.g. cultural affairs, policy consultation) who conduct their own research at a substantial level in order to fulfil their functions. Among the institutional evaluations of individual institutions conducted by the Evaluation Committee are comparative evaluations of requests for admission of institutions and large strategic exceptional appropriations into the joint funding programme of the Federal Government and the *Länder* within the scope of the Implementation Agreement WGL (AV-WGL) | ¹ The Evaluation Committee acts as a steering body for institutional evaluations of research institutions and is also concerned with the resolution of methodological evaluation issues. The present guidelines focus on the methods and criteria for the institutional evaluation of research institutions.

<sup>| 1</sup> Implementation Agreement regarding the GWK-Agreement on the joint funding of member institutions of the Gottfried Wilhelm Leibniz Science Association of October 27, 2008 in the version dated April 20, 2012.

Moreover, the Evaluation Committee exercises other functions that are not subject of these guidelines. Those include evaluations of research funding programmes and institutions as well as the institutional evaluation of higher education institutions (e.g. central scientific institutions, institutes, centres) and, in this context or independently, structural evaluations related to subject or research areas. | 2 Particular importance is given to system evaluations of non-university sectors (e.g. Leibniz Association, departmental research). In the execution of these system evaluations, the Evaluation Committee expands on insights from individual evaluations of institutions from the respective non-university sector. It focusses on overarching aspects, in particular aspects of organisation, structure and governance as well as the function and integration of the respective area within the national and international system of research and higher education. The recommendations for the advancement of the respective area, in turn, impact the individual institutions and their evaluation.

Experts from different scientific fields, from Germany and abroad, as well as representatives of the Federal Government and the *Länder* sit on the WR Evaluation Committee. The General Secretary of the Joint Science Conference (GWK) is a permanent guest. The Committee is chaired by a member of the Scientific Commission of the WR. The chair appoints a deputy chair from among the members of the Evaluation Committee. Membership of the Evaluation Committee should not exceed six years.

#### Regarding the subject matter and purpose of the present guidelines

These guidelines aim to transparently illustrate the proceedings and criteria to be applied in the institutional evaluation of research institutions by the WR. In particular, they are directed towards members of the Evaluation Committee and the working groups appointed by the Committee as well as the institutions to be evaluated. For departmental research institutions of the Federal Government, the criteria of the respective guidelines compiled by the WR apply. |3

Institutional evaluations of research institutions are conducted in a two-tier procedure in accordance with the customs and conventions of the WR. | <sup>4</sup> This procedure differentiates between the evaluation report and the science policy statement. The principles of the two-tier evaluation procedure are outlined in these guidelines (cf. A.II and A.IV).

<sup>| 2</sup> An example of a research area-related structural evaluation in conjunction with the evaluation of higher education institutions is the evaluation of centres of social sciences at Hessian higher education institutions. Cf. Wissenschaftsrat: Übergreifende Stellungnahme zu geisteswissenschaftlichen Zentren (Drs. 9864-10), May 2010.

<sup>|</sup>  $^3$  Cf. Kriterien des Evaluationsausschusses für die Begutachtung von Einrichtungen mit Ressortforschungsaufgaben des Bundes (Drs. 3078-13), July 2013.

<sup>| 4</sup> Cf. e.g. Wissenschaftsrat: Leitfaden der Evaluation universitätsmedizinischer Einrichtungen (Dr. 6867-18), January 2018.

The WR Evaluation Committee has revised the present guidelines in its meetings in November 17/18, 2020. The WR has discussed and adopted the guidelines in its January 20-22, 2021 meetings.

## A. Procedures for the institutional evaluation of scientific institutions

#### A.I AIMS

Institutional evaluations of scientific institutions | 5 aim to identify strengths and weaknesses and to provide recommendations as to the elimination of weaknesses and the promotion of strengths. This contributes to an increase in the performance level of an institution as a whole and to improving the quality of research and other performance areas (such as teaching, research infrastructure performance and transfer).

The funding recommendation of the WR is generally worded such that the science-policy decision concerning the continuation or non-continuation of funding is left to the Federal Government or the *Land*. In critical cases, however, implementation of the recommendations of the WR is considered a precondition for further funding. In case of insufficient research performance, the WR may recommend terminating funding for the institution. This applies specifically to such institutions that had serious deficits in prior evaluations and/or did not implement earlier recommendations or where the implementation proved to be insufficient.

#### A.II PRINCIPLES

Based on the experiences of the WR and its Evaluation Committee in the evaluation of scientific institutions, certain principles deemed critical for a successful evaluation will be outlined hereafter. These principles are to be interpreted as a

<sup>| 5</sup> To be understood here and henceforth as publicly funded research institutions, in particular in the non-university sector. In addition to research institutions, this includes research infrastructure facilities as well as institutions with principal functions in other areas (e.g. cultural affairs, policy consultation) that conduct their own research on a substantial level in order to fulfil their functions.

standard, details will be reviewed continually during the evaluation process and adapted as needed.

- \_ Transparency: The criteria and procedures as well as the names of the reviewers must be known to all stakeholders at the beginning of the evaluation. In a consulting session at an early stage, the WR Head Office will outline the procedure for the institutions to be evaluated. In addition, the expectations placed on the reviewers are explicitly stated.
- \_ Separation of expert evaluation and the science policy statement (two-tier procedure): the expert evaluation of an institution rests with a working group expressly appointed for this purpose by the Evaluation Committee. The working group consists mainly of researchers from the disciplines relevant to the institution to be evaluated. The research evaluation results are documented in an evaluation report, that after adoption by the working group may no longer be amended in subsequent stages of the evaluation procedure. The members of the working group are informed at the beginning of the evaluation procedure that the working group will not issue a statement on the institution and its future from a science policy perspective; this statement remains reserved to the Evaluation Committee and the WR (regarding the procedure cf. A.IV).
- \_ Participation: All stakeholders in the procedure receive the opportunity to participate. This includes, in addition to the representatives of the institution to be evaluated, representatives of the funding bodies and with institutions that are included in the joint funding programme by the Federal Government and the *Länder* pursuant to Article 91b of the German Constitution the Head Office of the Joint Science Conference (GWK). Representatives of the funding bodies are accorded guest status. They should be present as such at evaluations, which excludes participation in internal consultations and deliberations of the working group.
- Acceptance: Evaluation procedures must be acceptable as appropriate and fair to all stakeholders. Thus, the presentation of the facts in the initial part of the evaluation report will be co-ordinated with the institution to be evaluated and with the funding bodies and not amended subsequently. Following the site visit, in case any questions remain, the Evaluation Committee may grant the evaluated institution a hearing (in writing or verbally). The funding bodies and the institution receive the evaluation report as adopted by the working group. The funding bodies will be granted the opportunity to issue a statement concerning the evaluation report during a meeting of the Evaluation Committee, wherein they are expected to also include the perspective of the institution. Afterwards the Evaluation Committee drafts the outline of a science-policy statement and presents it to the WR for consultation and decision-making.

- Selection of qualified reviewers: Evaluation procedures pose specific requirements with regard to the experience and expertise of the expert reviewers. Thus, their qualification with regard to the assignment profile, the respective emphases in the areas of research, teaching, research infrastructure and/or transfer as well as the task profile of the institution to be evaluated will be ensured. For the evaluation of institutions with a strong interdisciplinary focus, the composition of the working group will reflect an appropriate representation of disciplinary as well as interdisciplinary orientations among the reviewers. To optimally draw upon their potential, the selection of reviewers follows the principle of diversity (e.g. with regard to competency, discipline, parent institution, age, career level, nationality, gender). |6
- Prevention of conflicts of interest: During the composition of the working group, care will be taken that none of the reviewers have any relationship with the institution to be evaluated that could indicate a potential conflict of interest. This includes specifically (retroactively up to five years) a former membership in the respective institution, advisory and supervisory functions for the institution, participation in application/appointment procedures; furthermore (without limitations of time) the existence of a teacher/student relationship, close family or other personal relations with leading researchers of the institution as well as current membership at another institution based in the same Land as the institution to be evaluated. Reviewers participating in an evaluation have to declare in writing that the reasons for potential conflict of interest listed above do not apply to them and need to disclose any further potential reasons for a conflict of interest (such as joint projects and publications). Employees of institutes that are part of the Leibniz Association may not be involved as reviewers in evaluation procedures for the admission of institutions into the joint funding programme of the Federal Government and the Länder in the scope of the Implementation Agreement WGL (AV-WGL) or for exceptional appropriation requests of Leibniz institutions. In all cases of potential conflicts of interest, the reviewer has to refrain from participation. Institutions to be evaluated may not suggest reviewers. Preemptively, they will have the opportunity to point out a potential conflict of interest of a reviewer. This will be examined by the head of the working group and the WR Head Office and decided upon a case-by-case basis.
- \_ **Procedural efficiency**: The burden on institutions to be evaluated is generally considerable, since answering the questionnaire, compiling the

required documentation and preparing the site visit are very time-consuming. With the aim of an efficient process for all stakeholders, evaluation procedures undergo regular revisions and are analysed for their expediency and quality as well as for the required effort and its relation to the benefit provided by the procedure. |7 Data are requested according to the principle of data economy. If institutions have recourse to data maintained internally in preparation for external evaluations, this allows for limited relief. In this case, the respective recommendations by the WR on the set of core data should be considered. |8

- Non-intended evaluation effects: Evaluation procedures can elicit non-intended effects. Work following a dominant trend in the respective field may get overrated in evaluations, whereas original concepts deviating from the trend might get underrated. Generally, frequent evaluations can produce a tendency for researchers to align their work more closely to the probability of success in evaluations and less to the standards of their field. Evaluation criteria and procedures are appraised critically for non-intended effects and adapted, if appropriate.
- Confidentiality and data protection: The members of the working group and the Evaluation Committee are obliged to observe confidentiality with regard to the evaluation documentation and the contents of the consultations as well as to destroy the documents received in the context of the evaluation upon closure of the procedure. Concerning publicly inaccessible personal data and information transmitted in the scope of the evaluation, the institutions to be evaluated must ensure that pertinent legal requirements for data protection are met.

#### A.III ACCEPTANCE OF A PROPOSAL FOR EVALUATION

The Evaluation Committee concerns itself exclusively with institutions that (also) have the function to conduct research and are of adequate importance within the science-policy sector.

The WR decides on the acceptance or rejection of an evaluation proposal in the framework of the twice-yearly WR Work Programme consultations. Proposals by the Federal Government and/or the *Länder* to evaluate a research institution will be examined upon receipt by the Chair of the Evaluation Committee and

<sup>&</sup>lt;sup>7</sup> Cf. Wissenschaftsrat: Peer Review in Higher Education and Research | Position Paper (Drs. 6680-17), October 2017, p. 24f.

<sup>| 8</sup> Wissenschaftsrat: Empfehlungen zu einer Spezifikation des Kerndatensatz Forschung (Drs. 5066-16), January 2016; Wissenschaftsrat: Stellungnahme zur Einführung des Kerndatensatz Forschung (Drs. 8652-20), October 2020.

the Secretary General of the WR, consulting an expert where appropriate. In uncomplicated cases, acceptance of the proposal is recommended to the WR.

In problematic cases, the proposal is presented to the Evaluation Committee for elaboration of a recommendation to the WR. In the scope of its deliberations, the Evaluation Committee may hear representatives of the proposers; alternatively, in case of preliminary enquiries, the head of the Evaluation Committee may decide to task individual members of the Evaluation Committee or of the WR Scientific Commission with conducting a hearing and subsequently informing the Evaluation Committee about the results. This procedure is applied regularly to proposals for the evaluation of concepts for the founding of new research institutions. The Secretary General and the WR Head Office are at all times at the disposal of the Federal Government and the *Länder* for consultations on evaluation projects.

Institutional evaluations of research institutions by the WR must be fundamentally without prejudice as to the outcome of such evaluations. In case of reasonable doubt as to the unprejudiced outcome of an evaluation, it may be rejected, suspended or terminated depending on the status of the procedure.

Once initiated, an evaluative procedure should generally be concluded without interruption. Any deviation from this principle requires a compelling reason.

#### A.IV PROCEDURE

In institutional evaluations, the performance and the performance capability of larger organisational units (e.g. departments, research groups) as well as entire institutions and their significance for the national and international science landscape are evaluated. The focus will generally be on the performance over the last three to five years as well as on the assessable performance gradient. Performance of individuals or the quality of individual projects are not assessed.

The WR procedure for institutional evaluations is essentially based on the method of informed qualitative assessment by research peers and other reviewers and follows the two-tier principle (cf. A.II).

According to this principle, the Evaluation Committee appoints a working group, generally headed by a member of the Evaluation Committee. This working group consists of expert representatives within and beyond the scientific field of the institution as well as of representatives of the Federal Government and the *Länder*. The working group will compile an evaluation report that may not be amended during further proceedings.

Based on the evaluation report and the hearing of the funding bodies, the Evaluation Committee will elaborate an outline for a science policy statement. | 9 It will incorporate overarching and comparative perspectives and summarise the recommendations the Evaluation Committee considers most important. Deviations from the expert review of the working group must be substantiated. The Evaluation Committee presents the outline of the science policy statement to the WR for discussion and acceptance (including the attached, no longer amendable evaluation report of the working group). Following acceptance by the WR, the statement, including the evaluation report, is published.

Should the evaluative proceedings be terminated via a retraction of the proposal, the review report will not be published; however, it will be forwarded to the members of the Scientific Commission of the WR, marked "Private. Confidential". The proposers will be informed of the status of the consultations. The WR will announce the retraction of the proposal in a standardised press release.

#### A.V ADMISSION TO THE LEIBNIZ ASSOCIATION AND LARGE STRATEGIC EX-CEPTIONAL APPROPRIATION REQUESTS

The WR, on behalf of the Federal Government and the *Länder* and based on Art. 1 (3) of the Implementation Agreement WGL (AV-WGL), issues statements regarding the admission of institutions into the Leibniz Association and the expansion of current Leibniz institutes via large exceptional appropriation requests of a content-related and strategic nature. These proceedings also follow the two-tier principle (cf. A.II).

The statement issued by the WR is based on a scientific evaluation of the institution to be admitted or the strategic exceptional appropriation request, respectively, and the results will be stated in an evaluation report. In further proceedings, this report may no longer be amended.

The Evaluation Committee, based on the individual evaluation reports on the institutions/exceptional appropriation requests and considering the position of the Leibniz-Association, prepares outlines of science policy statements and forwards them to the WR for discussion and resolution.

The WR statement incorporates, as dimensions of evaluation, the scientific quality of the institution or of the exceptional appropriation request, the supra-regional significance and the structural relevance for the system of research and higher education at large. It takes the position of the Leibniz Association into

<sup>| 9</sup> Furthermore, in the elaboration of the outline of a science-policy statement regarding a proposal for admission of an institution to the Leibniz Association or for a large strategic exceptional appropriation request, the Evaluation Committee also incorporates the position of the Leibniz Association (cf. A.V).

- account. The WR categorises the overall eligibility of the proposals and along the three aforementioned dimensions into the following categories:
  - \_ excellent
  - \_ very good
  - \_ good
  - \_ not sufficient.

Within this framework and beyond the individual statements, the WR compiles a list of priorities for the proposals (admission and exceptional appropriation requests) assessed excellent, very good and good. | 10

The scientific quality of an institution/an exceptional appropriation request is evaluated based on the evaluation criteria the WR generally applies (cf. B). Sufficient scientific quality is a necessary requirement for an institution/an exceptional appropriation request in the determination whether its funding is in the science policy-related interest of the nation as a whole. Further requirements involve the supra-regional importance as well as the structural relevance of the institution/the exceptional appropriation request for the system of research and higher education. In the framework of assessing the structural relevance for the system of research and higher education, another factor is whether the research topic is significant from a scientific and science-policy perspective, cannot be explored as such at higher education institutions, and whose integration into the Leibniz Association promises particularly good developmental opportunities and substantial added value.

I 10 Resolutions on the implementation of the AV-WGL of the GWK Committee of April 28, 2009, last amended August 3, 2020, p. 10 in conjunction with the GWK report on the further development of the procedure on the admittance/strategic expansion of Leibniz institutes from June 26, 2020, p. 6, where it is stated that the initiation of the evaluation procedure is not connected with a financing commitment; the WR is therefore not only asked to evaluate the individual institutes, but also to compile a priority list which is used by the GWK Committee in their recommendations to the GWK Conference. Due to the increased competition, this priority list also comprises large strategic appropriation requests.

## B. Criteria for the institutional evaluation of scientific institutions

The working group appointed for the execution of the expert evaluation decides in its internal preliminary discussion on the criteria to be applied and how to prioritise them. Relevant factors for the decision-making process are the self-description and mission of the respective institution that generally determine a primary emphasis – e.g. on more basic or application oriented research, on research infrastructures or transfer. If the mission and self-description of an institution encompass research functions as well as research infrastructure functions, transfer or other functions, the criteria applicable for the respective functions should be combined.

The main focus of the WR in the evaluation of research performance and other performance areas is on the quality of scientific work. The WR employs quantitative as well as qualitative indicators in the evaluations. In doing so, it acts on the assumption that, in research performance and other performance areas, quantity does not necessarily inform about quality. | 11 The order of the criteria listed as follows does not imply any prioritisation. The data are collected in accordance with the stipulations pertaining to the core data set on research. | 12

An additional aspect in the evaluation of an institution of potential importance from a science policy perspective is the singularity of its spectrum of functions. This aspect, however, does not necessarily indicate the performance capabilities of an institution.

<sup>| 11</sup> Cf. Wissenschaftsrat: Recommendations on the Assessment and Management of Research Performance (Drs. 1656-11\_engl), November 2011, p. 38 ff.

<sup>| 12</sup> Wissenschaftsrat: Empfehlungen zur Spezifikation des Kerndatensatz Forschung (Drs. 5066-16), January 2016; Wissenschaftsrat: Stellungnahme zur Einführung des Kerndatensatz Forschung (Drs. 8652-20), October 2020. Cf. Wissenschaftsrat: Recommendations on the Assessment and Management of Research Performance (Drs. 1656-11\_engl), November, November 2011, pp. 38-44.

The working group assesses the quality of the research achievements in national and international comparison. Criteria with particular validity, that are also well established in the international arena, are listed hereafter:

#### Regarding the Research Programme

- Innovative approaches (among others particularly creative, venturous and interdisciplinary projects);
- \_ Quality of the methods used (state of the art, adequacy etc.);
- \_ Coherence of the research programme and substantive establishment of priorities;
- \_ Convincing mid- and longer-term perspectives for the scientific work of the institution;
- \_ Integration of the research programme into the national and international research landscapes.

Regarding publications, conferences, patents, third-party funding and scientific awards

- \_ Qualified publications in the formats prevalent in the respective research field or fields;
- \_ Invitations for researchers of the institution to prominent scientific presentations at important symposiums in Germany and abroad;
- \_ Hosting symposiums of national and international importance;
- Acquisition of third-party funding, in particular funding awarded within competitive proceedings with intensive scientific quality control measures, while considering institution-specific admission restrictions in certain funding programmes;
- Acquisition of funding for research and development contracts (e.g. from companies or ministries) suitable for the research programme of the institution;
- \_ Scientific awards, distinctions.

The quality of the research performance in an institution is assessed by additional perusal of selected publications and their reception in the scientific community concerned.

Additionally, in suitable cases, bibliometric indicators are used for the assessment of the scientific activity profile. | <sup>13</sup> If necessary, the Evaluation Committee may commission organisations with methodological competence for the compilation of bibliometric analyses.

<sup>| 13</sup> For structural evaluations of a subject or research area or for system evaluations, bibliometric procedures such as publication and citation analyses may also be appropriate.

- \_ Regular internal quality assurance, e.g. by internal audit, a scientific advisory board or a similar body; appropriate composition of this body;
- \_ Regular external quality assurance via evaluations and/or other suitable procedures;
- \_ Conveyance and assurance of scientific integrity (e.g. guidelines ensuring good scientific practice | 14);
- \_ Procedures for the management of cases of conflict, academic misconduct (e.g. plagiarism); ombudspersons. | 15

#### Regarding cooperations and networking

- \_ Research cooperation with higher education institutions, non-university research institutions and companies in Germany and abroad;
- \_ Establishment and expansion of regional, supra-regional or international research alliances;
- \_ Joint appointments of leading researchers with higher education institutions (in accordance with the different well-established models within this context);
- \_ Appointments of researchers at the institution to professorships at higher education institutions or to leadership positions of other research institutions:
- \_ Research visits by researchers from the institution at other research institutions in Germany and abroad;
- \_ Research visits to the institution by researchers from Germany and abroad;
- \_ Appointment of researchers to bodies with science- or science policy-related relevance;
- \_ Significance of the institution within the national and international research environment.

#### Regarding teaching and early career support

- \_ Participation of researchers at the institution in academic teaching;
- \_ Supervision of scientific theses of young researchers within or outside the institution by researchers at the institution, in cooperation with a higher education institution;
- Participation in university-based programmes of structured graduate promotion (graduate programmes, graduate schools etc.);

<sup>| &</sup>lt;sup>14</sup> Cf. Deutsche Forschungsgemeinschaft (DFG, German Research Foundation): Leitlinien zur Sicherung guter wissenschaftlicher Praxis. Kodex, Bonn 2019.

<sup>| 15</sup> Cf. Wissenschaftsrat: Recommendations on Academic Integrity | Position Paper (Drs. 4609-15\_engl), April 2015.

- Availability of qualification positions and/or stipends for Ph.D. candidates and postdoctoral young researchers;
- \_ Reliable perspectives for the career development of young academics (see also B.IV Criteria for the assessment of organisation and endowment) e.g. options for tenure track;
- \_ Acquisition and/or establishment of junior research groups;
- \_ Implementation of events specifically targeted to young researchers (e.g. summer schools, colloquia).

#### **B.II CRITERIA FOR THE ASSESSMENT OF TRANSFER**

To be able to provide high-quality transfer to other areas of society, an appropriate proportion of own research is needed. Thus, these criteria also apply to institutions with a high percentage of transfer tasks but will be adapted and complemented, if necessary. Accordingly, the following criteria may be considered in the assessment of transfer tasks as well:

- \_ Overarching transfer and founding strategies, where applicable;
- Research activities with regard to issues and challenges arising from transfer activities;
- \_ Application of research results (transfer- or translation-related performance) such as product development and patent registration, grant and licensure;
- \_ Spin-offs;
- \_ Participation in standardisation bodies;
- Implementation of clinical studies;
- \_ Organisation of research-based exhibitions, educational and transfer offers;
- \_ Strategies for user communication (e.g. user council);
- \_ Strategies for the communication of science to the public at large;
- Incorporation of practical applications into research and development, potentially also ideas for their translation into products/applications;
- \_ Competitive capacity of the range of services in comparison nationally and internationally.

These criteria also apply to the assessment of consulting provided for policy and other areas of society (e.g. education and industry). Here, additional criteria apply as follows:

- \_ Overarching strategy for consultation services;
- \_ Independence of the institution in its provision of consultation services;
- \_ Transparent consultation procedures.

#### B.III CRITERIA FOR THE ASSESSMENT OF RESEARCH INFRASTRUCTURAL PER-FORMANCE

Besides top-quality transfer services, research infrastructure services for scientific communities require on the part of the institution that an appropriate proportion of its work is dedicated to research. Thus, the criteria for research are equally relevant to the evaluation of institutions with a high proportion of research infrastructure functions, but will be adapted and complemented, if appropriate. In the assessment of research infrastructure performance, additional criteria such as the following may be applied:

- \_ (Further) development of research infrastructures and specific scientific methods involved therein, via internal research and development activities;
- \_ Strategy for the integration of research infrastructure(s) into the research landscape in Germany and abroad and relevance of the research infrastructure(s) for the scientific community or communities;
- \_ Access to the research infrastructures for researchers of other institutions;
- \_ Qualification and further qualification of research infrastructure personnel;
- \_ User orientation and satisfaction; quality of support and assistance for users; full exploitation of the existing potential for utilisation; continuous quality assurance of services by a User Council;
- \_ Level of authority in the management of data;
- \_ Sustainability of the digital components of services that are maintained within the framework of research infrastructure services throughout the scientific community;
- \_ Reception of research results gained via external research infrastructure utilisation in the scientific community.

#### B.IV CRITERIA FOR THE ASSESSMENT OF ORGANISATION AND ENDOWMENT

An appropriate level of personnel, financial and infrastructural endowment as well as a viable institutional concept are fundamental for institutions to be able to fulfil their often quite complex tasks. In addition, scientific work as well as the provision of infrastructure and transfer services require organisational and management structures that are flexible and adaptable to new exigencies.

#### Regarding internal governance

- \_ Interaction of the various boards (e.g. board of directors, board of trustees, advisory board) in the fulfilment of tasks;
- \_ Adequacy of the governance structure with regard to the tasks and the transparency of the decision-making framework;
- \_ Status and implementation of internal incentive systems (e.g. bonus systems);

- 20
- \_ Organisational flexibility in the fulfilment of tasks (e.g. matrix structure, project-based task design etc.);
- \_ Appropriate controlling structures to continually review long-term strategic plans, work processes and resources.

#### Regarding structure and qualification of personnel

- \_ Adequacy of personnel numbers and structure with regard to the tasks of the institution (e.g. proportion of scientific versus non-scientific personnel; balanced age structure);
- Personnel quality assurance (public recruitment advertising, recruitment of qualified personnel, e.g. procedures similar to professorship appointments for executive management positions, activities for further qualification);
- \_ Balance between flexibility of human resources and reliability of career development and stable development perspectives for young researchers;
- \_ Gender equality, also in leadership positions; measures to promote work-life balance.

#### Regarding budget and infrastructure

- \_ Adequacy of funding with regard to the tasks of the institution (e.g. proportion of institutional funding to other sources of funding, third-party funding, other revenue);
- \_ Flexibility of budget management;
- \_ Adequacy of infrastructural endowment with regard to the fulfilment of tasks (e.g. premises, equipment, laboratories, IT infrastructures, access to academic literature and research data);
- \_ IT-safety, data retention and management (e.g. security and access to research data for third parties, storage and archiving);
- \_ Long-term usability of the research infrastructures (e.g. maintenance, operation, access, rules of access);
- \_ Coordination with other institutions concerning the procurement of sophisticated device infrastructure; assessment of shared potential for utilisation (e.g. with neighbouring higher education institutions).

#### B.V CRITERIA FOR THE ASSESSMENT OF CROSS-SECTIONAL DIMENSIONS

Particularly against the background of the digital transformation, international orientation and the challenge of ensuring that knowledge management remains sustainable in the long-term are tasks that are not restricted to individual performance areas such as research but should instead apply to every area within an institution. Thus, the criteria for these tasks are designed as cross-sectional dimensions for the institution as a whole.

For the evaluation of the international orientation, foreign or international cooperations, publications, conferences and third-party funding are considered in the performance areas of research, teaching, research infrastructures and transfer. Moreover, the proportion of early career and established researchers as well as experts from other areas of society from abroad, who are active at the institution either as guests (e.g. with stipends from the institution or from third parties) or as employees of the institution, are also considered. Of further relevance are research visits from researchers employed at science institutions abroad.

#### Regarding long-term perspectives for knowledge management

As an additional cross-sectional dimension, lasting sustainability of knowledge management has been subject to increasing interest in evaluative processes. This affects – in character specific to the institution – a number of work and task domains. As an example, research data management and the reusability of research data as well as access to and provision of digital data and publications (Open Data / Open Access) should be considered. It is of relevance for the archive, library and collection areas to index and digitalise inventories and collections as well as to interlink digital and analogue collections or documentations. Furthermore, the digital transformation affects teaching in higher education as well as communication with users also about digital offers. A newer part of knowledge management is the sustainable (potentially digital) management of administrative tasks. Specific digitalisation strategies, the integration of digital transformation processes in research, publication and transfer strategies, corresponding research projects, third-party funding and cooperations with research and industry partners as well as IT and other technical infrastructures are examples for factors to consider in the evaluation of the above-mentioned areas.

# C. Follow-up on the implementation of evaluative recommendations by the Wissenschaftsrat

After an appropriate period of time – usually three years after an institutional evaluation has been completed – the WR requests a report regarding the implementation of the WR recommendations from the funding body/bodies. | <sup>16</sup> This will be mentioned during consultations prior to an evaluation. Moreover, this expectation will be conveyed in the science policy statement.

Based on the implementation report, the Evaluation Committee devises a statement on the implementation of the recommendations up to this point, which is discussed by the WR under a separate agenda item and published after adoption thereof. If the implementation has not been satisfactory, the WR will express in the statement the expectation that the funding bodies will initiate a re-evaluation of the institution in question after an appropriate time period.