

Action Plan

to support the translation of the EU recommendations
on research assessment reform (CoARA) into
organizational practice at Charité Universitätsmedizin
Berlin and the Berlin Institute of Health (BIH) 2024-2028

Part 1: Introduction, Status Quo and Perspectives of internal
actors (2024-2025)

Open for internal comments until April 30th, 2025



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Notes:

Parts of the action plan are based on a 2-day virtual brainstorming event with actors at Charité and BIH that was conducted to introduce CoARA and to discuss internal perspectives on research assessment reform. Dr. Stephan Gauch was invited as a specialist to discuss the role of metrics in research assessment in biomedicine.

This first version of part 1 of the action plan is open for comments for Charité and BIH employees and leadership until April 30th, 2025. A revised version will be published afterwards.

Persons with significant contributions to writing version 1 of the Action Plan Part 1 are listed as authors. Authors with significant contributions to writing the subsequent versions of the Action Plan Part 1 will be added to the authors list accordingly.

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Summary

Charité and BIH have committed to the Agreement on Research Assessment Reform, which is based on the European Union's recommendations for reforming research assessment outlined by the Coalition for Advancing Research Assessment (CoARA) in 2022. This agreement includes ten commitments that aim to strengthen the quality and impact-oriented research assessment and to support a robust peer review system in research performing institutions and funding bodies. The agreement is non-binding, but Charité and BIH have agreed to implement it, where necessary, over the next five years. This agreement also includes plans to share an action plan, to report on progress, and to actively participate in CoARA working groups. Charité and BIH chair a working group focused on aligning biomedical research assessment with CoARA principles, with active members from more than ten institutions across Europe ([CoARA WG SAGA](#)).

The CoARA activities at Charité and BIH (<https://www.bihealth.org/de/translation/coara-charite-und-bih>) are coordinated by the AG Incentives and Responsible Research Assessment the QUEST Center.

This working document is the first in series of iterative action plans that, in total, will outline six action areas relevant to research assessment reform: **Action Area 1 – Landscape and Status Quo:** A comprehensive review of the status quo of research assessment practices and research environments at Charité and BIH. **Action Area 2 - Stakeholder Engagement:** Identification and active involvement with relevant actors within Charité and BIH. **Action Area 3 - Goal Setting:** Establishment of clear objectives and identification of key areas for action in relation to status quo and context. **Action 4 - Pathways:** Development of specific activities, strategic actions, processes, and outputs to support change. **Action Area 5 - Resources:** Assessment of the necessary resources and evaluation of implementation feasibility. **Action Area 6 - Monitoring and Reporting:** Continuous tracking of progress, and activities adjustments based on feedback, and transparent reporting mechanisms.

The action plans are not policy documents and therefore have the character of working documents.

This **Action Plan Part 1 focuses on the Status Quo and Perspectives of internal actors (2024-2025)** on the current research assessment system at Charité and BIH, and also provides a background to the CoARA and its policy context (Action Area 1 and Action Area 2).

Chapter 1 describes the Key Elements, Objectives, and Limitations of the planned series of Action Plans. Each document is planned as working papers based on virtual brainstorming event (or similar) participatory format with relevant actors at Charité and BIH. Working versions are open for comments from Charité and BIH employees over a 4-week period. Each working version is published on the CoARA community platform on Zenodo to report our activities and progress to the CoARA secretariat.

Chapter 2 provides a short background on the rationale of the EUs recommendation on research assessment reform and provides selected literature to illustrate the area of problem.

Chapter 3 describes the science policy response on the EU level with the foundation of the CoARA written in the European Research Area (ERA) Policy Agenda 2022-2024 (Priority 3) that sets out voluntary ERA actions to contribute to the priority areas defined in the Council Recommendation on a Pact for Research and Innovation in Europe (Pact for R&I).

Chapter 4 provides an overview of the organizational context for Charité and BIH. Focusing on research assessment, this chapter introduces the reader to the relevant actors, existing initiatives, and strategic programs.

Chapter 5 describes the relevant actors and functions of the academic self-administration at Charité. Knowledge about these processes, rights, and responsibilities is particularly relevant to inform research assessment reforms.

Chapter 6 provides an inventory of 16 research environments at Charité and BIH. This list is neither exhaustive nor final and will be updated by the actors over time.

Based on structured discussions with actors from Charité and BIH, **Chapter 7**, describes the actors' perspectives on typical assessment criteria in research: Productivity, Quality, Transfer and Innovation, Impact, Excellence, and the Use of Bibliometric Indicators. For each criterion, the actors described their importance, current practice, suggestions for improvement, and barriers in the current research assessment system at Charité and BIH. Overall, the actors identified an over-reliance on simple quantitative indicators that might make it easier to compare research outputs, but do not capture the range of quality and excellence of research output nor the contributions of individual researchers.

Chapter 8 provides a short overview of the upcoming activities in 2025 with a further virtual brainstorming event planned for June 2025 to discuss further topics related to goal setting (action area 3) with representative from selected research environments and a presentation of the major elements of this AP Part 1 to the research committee.

Chapter 9 outlines opportunities to participate in the CoARA activities, for interested Charité and BIH employees and students

The Charité and BIH have a long history of advancing their research assessment system and ensuring high-quality research and its assessment. Building on these existing initiatives, the CoARA framework will therefore be used as a guide for the process of building collaborations and for supporting knowledge transfer between the different research environments and activities.

1. Key Elements, Objectives, and Limitations of the Action Plan

Charité and BIH have both signed the Agreement on Research Assessment Reform based on the European Union's (EU) recommendations on research assessment reform that was put forward by the Coalition for Advancing Research Assessment (CoARA) in 2022. The reform lays out a framework to move towards more quality and impact-oriented assessments of research and the strengthening of the peer-review system including the abandonment of indicators that are inadequate for quality or impact assessments.

The primary goal of this action plan is to support - where necessary- the translation of the commitments outlined in the Agreement on Research Assessment Reform [2] into organizational practice at Charité – Universitätsmedizin Berlin and the Berlin Institute of Health (BIH).

Advancements to the research assessment system towards improving quality and impact assessments are not new at Charité and BIH. Besides improving the incentive and assessment systems towards rewarding high quality research with practical impact, the ongoing advancement of research assessment policies and practices at Charité and BIH also aims to enhance the competitiveness of researchers in the European research landscape while strengthening Charité and BIH as internationally recognized institutions for diverse and translational research, as outlined in both the Strategy Charité 2030 and BIH Strategy. [3, 4]

Building on existing initiatives, we will use the CoARA commitments as a framework to structure this action plan, adjust or justify existing and new quality and impact-oriented initiatives at Charité and BIH, as well as identify and support potential synergies and collaborations.

In 2021, in preparation for CoARA, the European Commission consulted stakeholders at European and international levels to develop strategies for reforming research assessment. The objective was to shift towards more appropriate research assessment criteria and methodologies that better reflect research quality, impact, and performance. [2]

In November 2022 (BIH) and March 2023 (Charité), the BIH Board of Directors and the Faculty Management and Executive Board of Charité, respectively, signed the Agreement on Research Reform and decided to participate as an active member of CoARA. [5, 6] Prior to this, CoARA was presented to both the Research Commission and the Faculty Council at Charité for discussion.¹

¹ Research Committee meeting date 24.11.2022 in the context of the Resplnd project presentation; Faculty Council meeting 5.3.2023. MK was appointed CoARA representative for both BIH and Charité. Voting rights within the CoARA are only exercised once.

Signing the agreement is not legally binding, but by signing it, the organizations have committed themselves to gradually implementing the agreement internally over a period of 5 years. By signing the agreement, the organizations have also agreed to design and publish an action plan, in which they outline the cornerstones of the planned implementation of the Agreement within their organization.

In addition to implementing the commitments, CoARA membership also includes active participation in the CoARA working groups or national chapters. [7] Charité and BIH currently hold the chair of the CoARA Working Group (MK is the chair) “Supporting the alignment of research assessment systems with CoARA in biomedical disciplines through administrative reforms and governance”.² This Working Group currently engages more than 10 active member institutions from across Europe. Furthermore, Charité researchers are also active participants in the other 13 international CoARA working groups, e.g., the Working Group Ethics and Research Integrity Policy in Responsible Research Assessment for Data and Artificial Intelligence (ERIP) and the Working Group Recognizing and Rewarding Peer Review. Charité is also an active member of the CoARA National Chapter Germany that was initiated and is currently coordinated by the Deutsche Forschungsgemeinschaft (DFG).

A summary and updates of CoARA-related activities can be found on the CoARA @Charité and BIH Webpage (<https://www.bihealth.org/de/translation/coara-charite-und-bih>).

1.1 Key Elements of the Action Plans

By design, this action plan is an iterative, living document that will be updated and amended annually through a participatory process. This document serves as the first in a series of targeted action plans, each designed to address distinct aspects of advancing research assessment. The different parts of the action plan will undergo revisions each spring until 2028, regularly incorporating new priorities, addressing gaps, and refining activities in collaboration with stakeholders. Each working version is published on the CoARA community platform on Zenodo to report our activities and progress to the CoARA secretariat. This approach supports the sustainability and responsiveness of research assessment reform activities.

The iterative action plans follow these guiding principles:

- **Transparency:** Clearly defined objectives and openly shared processes.

² <https://coara.eu/working-groups/working-groups/wg-supporting-the-alignment-of-research-assessment-systems-with-coara-in-biomedical-disciplines-through-administrative-reforms-and-governance>, accessed on 19.03.2025.

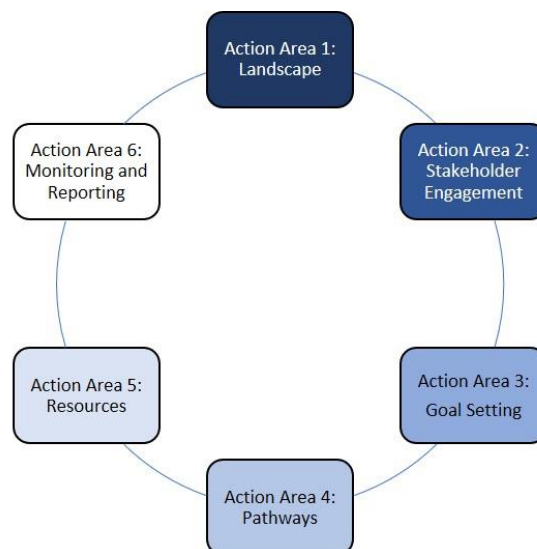
- **Stakeholder-Driven Approach:** Engagement of key actors, including administrative and academic personnel responsible for implementation in targeted workshops, e.g. virtual brainstorming events.
- **Responsiveness:** Flexibility to adapt based on feedback and changing needs as well as evolving evidence in research assessment practices.
- **Evidence-Based Strategies:** Decisions informed by robust research and best practices.
- **Realism:** Consideration of institutional constraints and requirements to ensure feasibility.
- **Pragmatism:** Developing solutions that fit into and improve existing workflows of research assessment practices.

Furthermore, the action plans will acknowledge:

- The **specific institutional contexts** of Charité and BIH.
- The broader **Berlin research ecosystem** and its stakeholders.
- Connections to **national and international research collaborations**.

The action plans will cover the following action areas (Figure 1).

Figure 1: Action areas



Action Area 1 – Landscape and Status Quo: A comprehensive review of the status quo of research assessment practices and research environments at Charité and BIH.

Action Area 2 - Stakeholder Engagement: Identification and active involvement with relevant actors within Charité and BIH.

Action Area 3 - Goal Setting: Establishment of clear objectives and identification of key areas for action in relation to status quo and context.

Action 4 - Pathways: Development of specific activities, strategic actions, processes, and outputs to support change.

Action Area 5 - Resources: Assessment of the necessary resources and evaluation of implementation feasibility.

Action Area 6 - Monitoring and Reporting: Continuous tracking of progress and activities, adjustments based on feedback, and transparent reporting mechanisms.

1.2 Objectives of the Action Plan, Part 1

The first part of the action plan series covers aspects from the action areas 1 and 2 and includes the following topics:

- **Background:** Selected background information (Chapter 2) and an overview of CoARA and its commitments (Chapter 3).
- **Institutional Structure:** Description of Charité and BIH's organizational framework and governance (Chapter 4).
- **Academic Self-Administration:** Insights into the academic self-administration at Charité and BIH and decision-making structures relevant to research assessment (Chapter 0)
- **Inventory of research environments at Charité and BIH** (Chapter 6)
- **Actors Perspectives:** Internal viewpoints on the status quo and desired direction of research assessment (Chapter 7)
- **Next Steps:** Roadmap for upcoming activities (Chapter 8)
- **Opportunities for Active Engagement:** Ways of participation in CoARA initiatives within Charité, BIH, and beyond (Chapter 9)

1.3 Limitations and Challenges

A well-defined action plan should specify tangible activities and realistic goals (practical impact) without becoming overly detailed. A too-generic plan risks merely reiterating existing recommendations without providing concrete steps for local implementation. Given the size and bureaucratic complexity of Charité and BIH with over 17 Centers, more than 5,000 researchers, and

more than 300 professorships from various fields, it is, on the other hand, an impossible task to bring all relevant decision-makers to one table to define concrete tasks for implementation, including the allocation of resources, and to put recommendations into concrete actions.

In light of that background, the following limitations and challenges seem relevant to be mentioned in our context:

First, not all commitments can be uniformly applied across all departments at the same pace.

Ongoing customization based on the status quo and needs of different research environments within Charité and BIH will be essential as well as adaptation to different missions and available resources.

Second, the basis of changing the research assessment system in a biomedical faculty and research organization is largely an administrative reform based on shared notions and values within the research community. In the context of Charité and BIH, this action plan is not an official policy document (yet) of the academic self-administration and organizational governance structure at Charité and BIH. One part of the action plan is therefore dedicated to describing the roles of the academic self-administration and ways of political participation to support a common understanding of what and whose involvement is necessary to change current assessment practices on the administrative level.

Third, the actual conduct of research assessment is ultimately beyond the reach of the administration and relies on the freedom of the fellow researcher performing the act of assessment. However, herein also lies the opportunity to mobilize the researchers towards more quality-oriented assessments with an administrative and science management system supporting and driving that change.

Fourth, consensus within the organization is a crucial prerequisite for changes in current research assessment practices among researchers and within the administration and governance. However, the area of research assessment reform is characterized by the lack of consensus. There is a wide variety of approaches all claiming to focus on quality and impact, and to select “the best” fairly, but there is great heterogeneity on how to reach that goal and in the conceptualization of what a practical solution might look like.

Fifth, the people involved in CoARA at Charité and BIH and the writers of this action plan are not representing the most powerful members of internal decision-making. Furthermore, the reach of our activities is limited. There is a risk of creating and maintaining another echo chamber among the like-minded that does not reach beyond the small circles of those already in agreement and creates self-referential tasks and outputs.

Sixth, an earnest endeavor to change research assessment practice requires a much larger timeframe for reform and a more realistic assessment of what and who is required to change organizational practice as currently outlined in CoARA.

While we recognize certain limitations, we remain committed to pursuing this opportunity with optimism—aiming to spark meaningful conversations across various levels, and understanding that any eventual reforms may evolve differently from those outlined in the action plans.

2. Background for research assessment reforms

The area of research assessment reform has existed for decades and has been consistently driven by policymakers and scientists committed to improving research assessment within Europe, but also globally. [7]

Major concerns center on the fact that, despite high investment in science [8-10], the societal benefits and practical impact remain underutilized. More specifically, first, research topics are often chosen purely by the researchers themselves without involving interest groups, even though the involvement of stakeholders in the research process is known to increase the innovative and translational power of research. [11-13] Second, due to methodological shortcomings, research results from studies might not be comprehensive enough nor sufficiently reliable to draw generalizable conclusions, and therefore, their practical or societal benefits are limited. [14, 15] Further, due to poor reporting practices, they also sometimes unfortunately provide limited useful and reusable information and content for the scientific community, itself. [16, 17]

Third, a substantial proportion of the existing scientific achievements and innovations are not accessible to many societies because of patents, closed publications, barriers to data sharing, or lack of infrastructure and resources. These barriers stand in the way of fair, needs-based distribution and restrict access to research knowledge and products, hindering the further acceleration of scientific progress. [18]

The current research assessment and incentive system is one of the many factors that contribute to the imbalance between public investment and utilization and the practical impact of research. The current research assessment system largely relies on productivity and reputation as the pillar of "excellence", rather than quality, content, or the practical usefulness of research.

When selecting researchers for funding, hiring, or promotion, despite a certain variety in available criteria and indicators, assessments are largely based on productivity and reputation-based criteria as uncovered by a recent study of 314 policies from 190 academic institutions and 218 policies from 58 government agencies, covering 32 countries in the Global North and 89 countries in the Global South. [19]

The quality or information value of the research is mostly not assessed by engaging with the content but assumed to be implicit in the reputation of the publishing venue via the Journal Impact Factor (JIF) or the institution. [20-23]

Heidenreich et al. (2023) examined whether the results of intervention studies from Cochrane reviews published in journals with high journal impact factors lie closer to the "truth" compared with

those published in lower-impact journals. They found a positive association between the JIF and the closeness to ‘truth’ of the research findings (approaching “truth” by the level of pooled effect estimates with moderate or high certainty being closer to the true values than those with low certainty), but its predictive power for the accuracy of a study result was very low. Regression analysis found that the association was not a result of better-designed studies, as the predictive power of the JIF could only be explained by methodological quality to less than 5%. Therefore, the authors strongly discourage the use of the JIF when assessing the quality of a particular study. [24]

When research funding and research performing institutions select research priorities, the focus is also often on topics with reputational and market potential and the possibility of acquiring third-party funding. Other topics receive less prioritization, regardless of the quality and potential benefits for the research communities or practical and societal impact. [25, 26]

Furthermore, there is a gap between evolving research and publishing practices and a seemingly stagnant research assessment system. As a result of technological progress and digitalization, research practices, the sharing of methods and data, and the publication channels of research results have diversified in recent decades. In addition to traditional journal publication, other forms of research output, such as preprints, data publications, code, software, protocols, pre-registrations, and alternative peer review processes, have since become established in many fields. Furthermore, stakeholder engagement and interdisciplinary research have comprised an essential part of application-oriented research in many fields; however, the assessment system fails to acknowledge and reward the contributions of these practical, impact-oriented research practices. [20, 27]

Further, international and national research policy goals from policymakers such as the European Commission, funders, and some publishers are geared towards responsible research, innovation, and open science, while, at the same time, assessment practices in many institutions remain rather rigid and continue to be based on traditional standards and attributions. [1, 19]

3. Response from the European research community and CoARA

In Europe, CoARA represents a form of culmination of long-standing efforts and research—both locally and internationally— to examine and raise awareness about the limitations of traditional assessment systems and the need for reform.

The CoARA and its activities are written in the European Research Area (ERA) Policy Agenda 2022-2024 (Priority 3) that sets out voluntary ERA actions to contribute to the priority areas defined in the Council Recommendation on a Pact for Research and Innovation in Europe (Pact for R&I). [28]

The next ERA policy agenda 2025-2027 is expected to be adopted in May 2025.³ The European Commission Research and Innovation recommendations to the Council highlight the CoARA as an achievement and recommend the further focus on research assessment reform in the next years.⁴

On July 20, 2022, the European Commission, the European University Association (EUA), and Science Europe published a joint agreement on the need for research assessment reforms. [2] The agreement was developed in a previous stakeholder process involving over 350 organizations including the German Research Foundation (DFG), the European Research Council (ERC) and EC Research and Innovation. The BIH was also actively involved in this process.

On December 2, 2022, the Coalition on Advancing Research Assessment (CoARA) was founded by the organizations that had signed the Agreement on Research Assessment Reform before that date. [29] CoARA is funded by an EU Boost project receiving from the EU Horizon program until 2026. [29]

By signing, institutions commit to the gradual local implementation of the commitments formulated in the Agreement. These are based on the scoping report “Towards a reform of the research assessment system” published by the European Commission in 2021, [1] and outline the following principles: [2]

- Compliance with ethical principles and integrity, reduction of the risk of bias;
- Safeguarding the freedom of research;
- Maintaining the independence of institutions while avoiding contradictions in assessment procedures within an institution; and

³ https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/commission-adopts-proposal-next-european-research-area-policy-agenda-2025-2027-2025-02-28_en, accessed on 19.03.2025.

⁴ https://european-research-area.ec.europa.eu/sites/default/files/documents/2025-02/COM_2025_62_F1_PROPOSAL_FOR_A_RECOMMENDATION_EN_V5_P1_3951028.PDF, accessed on 19.03.2025.

- Complete transparency with regard to the evaluation criteria and tools for the evaluation, open access to the evaluation, and collected data on which an evaluation is based.

With regard to the selection of assessment criteria and processes, the focus of the evaluation should be on:

- The quality and impact of the research on the research itself or on society. Various quality criteria for evaluation (multidimensional evaluation) should be used;
- The elements of open science and the early sharing of methods, data, and other research output, as these are considered a prerequisite for research quality; and
- The recognition of diversity in terms of research topics, forms of publication and career paths, inclusion, and collaborations.

The action plan is guided by four core and six supporting commitments (Figure 2). [2]



CoARA COMMITMENTS

- 1 Recognize the diversity of contributions to, and careers in, research in accordance with the needs and nature of the research.
- 2 Base research assessment primarily on qualitative evaluation for which peer review is central, supported by responsible use of quantitative indicators.
- 3 Abandon inappropriate uses in research assessment of journal- and publication-based metrics, in particular inappropriate uses of Journal Impact Factor (JIF) and h-index.
- 4 Avoid the use of rankings of research organizations in research assessment.
- 5 Commit resources to reforming research assessment as is needed to achieve the organizational changes committed to.
- 6 Review and develop research assessment criteria, tools and processes
- 7 Raise awareness of research assessment reform and provide transparent communication, guidance, and training on assessment criteria and processes as well as their use
- 8 Exchange practices and experiences to enable mutual learning within and beyond the Coalition
- 9 Communicate progress made on adherence to the Principles and implementation of the Commitments.
- 10 Evaluate practices, criteria and tools based on solid evidence and the state-of-the-art in research on research, and make data openly available for evidence gathering and research.

Figure 2. The 10 CoARA commitments, own graph from: <https://coara.eu/agreement/the-commitments/>, accessed on 10.09.2024.

4. Organizational context at Charité and BIH

The following section describes the organization, its governance, and relevant actors of the Charité and BIH. The knowledge of the organization's actors, their roles, and how they interact with each other is an important starting point for effective policy development and implementation that aims to advance the current research assessment procedures.

Charité – Universitätsmedizin Berlin is one of the largest university hospitals in Europe. It is the joint medical faculty of Freie Universität Berlin and Humboldt-Universität zu Berlin, spread across four campuses in the capital: Campus Benjamin Franklin (CBF), Campus Berlin Buch (CBB), Campus Charité Mitte (CCM), Campus Virchow-Klinikum (CVK). In total, the Charité comprises more than 100 clinics and institutes, organized into 17 CharitéCenters, making it one of Berlin's largest employers. At the end of 2023, 19,977 people were employed by Charité, including 5,671 researchers and doctors, 6,188 nursing staff members, 1,535 administrative staff members, and 321 professors, as well as approximately 10750 students and trainees. [30, 31]

The Charité's core tasks are clinical and nursing care, research, as well as teaching and learning. In 2023, Charité recorded 295 million euros in third-party funding, one Cluster of Excellence with a Charité speaker, three Clusters of Excellence with Charité participation, 31 German Research Foundation (DFG) Collaborative Research Centers (6 with a Charité speaker, and 25 with Charité participation), 5 DFG Research Groups, 28 European Research Council (ECR) Grants and 19 European collaborative projects with Charité coordination. Furthermore, it is hosting four German Centers for Health Research. [30-34]

Charité's organizational structure is built upon three central pillars: the Clinical Center, the Faculty of Medicine, and the Berlin Institute of Health, as the translational research division of the Charité. The clinical area of the Charité is organizationally divided into 17 CharitéCenters. All clinics and institutes are assigned to one CharitéCenter. In addition, the Deutsche Herzzentrum der Charité (DHZC) is a strategically and operationally independent specialist clinic for cardiovascular diseases.

The Charité Administration is divided into different business divisions, administrative offices, and central service providers. For example, there are business divisions assigned to the Chief Executive Officer, including the areas of Corporate Development, Governance, Compliance and Data Protection, and Legal Services. The business divisions of the Faculty comprise the areas of Appointments, Charité BIH Innovation – the joint technology transfer of the Charité and BIH –, Corporate Policy, and Research Management. Further business divisions are assigned to the Chief Financial and Infrastructure Officer, the Chief Human Resources Officer / Chief Nursing Officer, and

the Chief Medical Officer. In addition, there are other central service providers such as the Clinical Trial Office or the Medical Library. The second part of the Charité Administration is divided into administrative offices for, among others, QA-Unit Clinical Studies and Digital Transformation.

The Charité's management bodies include the Executive Board, the Faculty Board, the Hospital Management, the BIH Board of Directors, and the DHZC - Divisional Board. Charité's primary supervisory bodies are the Medical Senate and the Supervisory Board. The Executive Board is Charité's highest governing body of Charité. It manages the Charité and is responsible for the realization of its tasks and corporate goals in the areas of research, teaching, patient care, and translation. It is also responsible for the implementation of agreements with the State of Berlin. The members of the Executive Board include the Chief Executive Officer, the Dean, the Chief Financial and Infrastructure Officer, the Chief Medical Officer, the Chief Human Resources Officer / Chief Nursing Officer, and the Chief Translational Research Officer / Chair of the BIH Board of Directors.

The Faculty Board represents the Charité Faculty of Medicine in academic matters both internally and externally. It shapes the direction and focus of research and teaching activities and aims to ensure the highest quality through continuous performance evaluation. The Faculty Board holds extensive financial authority. It consists of six members: the Dean, the Faculty Business Director, and four Vice Deans – two for research and two for education, with each Vice Dean focusing on either preclinical or clinical affairs. The Dean heads the Faculty Management and is responsible for the research and teaching budget. The Faculty Management draws up a so-called partial economic plan and implements it after approval by the Supervisory Board. The Faculty Council is the highest body of the Faculty and is responsible for all tasks of the Faculty of Medicine. It is chaired by the Dean in an advisory capacity and its members are elected. The Research Committee serves as an advisory body to the Faculty Council on significant research matters, including research assessment.

The Vice Dean's Office for Research is the central institution for preclinical and clinical research affairs. More detailed information about the responsibilities of the Vice Dean of Research (Preclinical Affairs) and the Vice Dean of Research (Clinical Affairs) will be available on the Charité website or intranet.

The Vice Dean's Office for Studies and Teaching is the central institution for the implementation of study programs. Other areas and institutions that are indirectly relevant are Quality Management (QM) in Teaching and Learning and the student councils.

The Medical Senate consists of representatives of the parent universities FU and HU as well as Charité. It is chaired alternately by the presidents of the FU and HU. The Medical Senate issues statements on the establishment and discontinuation of study programs, on the admission figures of

the Faculty of Medicine, and on the guidelines and plans for the advancement of women. The Supervisory Board, a legally-mandated body consisting of 15 external members with voting rights and additional advisory members, advises the Executive Board, monitors the Charité's financial performance, and is responsible for ensuring the quality of teaching and research.

The Charité strategic program 2030 outlines several areas of strategy ("Strategiefelder"). The advancement of the research assessment systems falls into the strategy areas "Internal Transformation" and "Research and Innovation" with its subfields "research strategy" and "digitalization".⁵

Peerspectives is a researcher-led Peer Review Training Initiative for the Biomedical Sciences based at the Institute of Public Health at Charité. Given that scientific publications are the primary means of disseminating knowledge and are used to assess research productivity and impact and for the purposes of academic qualifications and hiring decisions, Peerspectives aims to strengthen the peer review system by offering formal training on its purpose and conduct, including hands-on workshops during which real scientific reviews are conducted in small groups.

Originally founded in 2013, the Berlin Institute of Health (BIH) was formally incorporated as a translational research department and third pillar of Charité in 2021. The BIH has its own Board of Directors, its own supervisory body ("Governing Board") and a Scientific Advisory Board (SAB). The Chairman of the Board of Directors of the BIH at Charité is also Charité's Chief Translational Research Officer of Charité and has a seat on the Charité Executive Board. The Administrative Board advises and monitors the legality, expediency and efficiency of the Board of Directors' management. The BIH's mission is biomedical translation. [35] The BIH's Strategic Research Program pursues three interconnected and collaborative Research Objectives: (1) responsible translational methodologies, (2) computational and functional precision medicine, and (3) advanced regenerative therapies. The Research Objectives are driven by the BIH's Research Groups and rely on support from the BIH's translational platforms and programs.

The BIH organizes its research into four sections: Translational Sciences and Applications, Exploratory Diagnostic Sciences, Advanced and Personalized Therapies and Medical and Health Data Sciences. Each section pursues its own goals and key areas, with its research centers and working groups collectively contributing to the BIH mission of translational research. One constituent part of the Translational Sciences and Applications section is the BIH QUEST Center that develops and implements new approaches and tools to ensure trustworthy, useful and ethical biomedical

⁵ https://intranet.charite.de/charite2030/umsetzung_in_strategiebausteinen/, accessed on 19.03.2025.

research. Among other things, these efforts focus on research assessment, incentives, and the reward system and implementing and piloting new approaches such as the MERIT Portal for professorial appointments or the Open Data LOM and Open Data IOM – implementation projects of open data as a new assessment criterion in the annual performance-based allocation of state funds for research at Charité and the indicator-oriented allocation of internal at BIH.⁶ The BIH QUEST Center is still a unique institutional unit with one center being specifically dedicated to both meta-research on research practices and implementation of tools to strengthen research.

The QUEST Center is also Co-leading the Berlin University Alliance (BUA) innovation group Matters of Research Assessment and its Implementation (MAI-I). Based on a comprehensive analysis of local governance, administration, and assessment practices, as well as a scoping review of research assessment in hiring, promotion, and tenure, MAI-I supports the implementation of research assessment reforms for professorial appointments across the Berlin University Alliance (BUA).

At the BIH, the Board of Directors is responsible for the strategic planning and implementation of the research program. An extended Board of Directors is formed to involve the full-time scientific staff of the translational research area in the opinion-forming and decision-making process of the Board of Directors. The Extended Board of Directors advises the voting members of the Board of Directors with regard to its tasks. To do so, it may submit statements to the voting members and request information as well as the consideration of its motions. The Extended Board of Directors consists of the Dean of Charité and four elected members of the full-time academic staff of the Translational Research Department. The Scientific Advisory Board of the Translational Research Unit comprises up to 14 external experts with experience in the field of medical sciences. The members of the Scientific Advisory Board are appointed for four years by the Administrative Board on the recommendation of the Directorate. The Chairperson of the Scientific Advisory Board and the Deputy Chairperson are elected from among the members of the Scientific Advisory Board. The Scientific Advisory Board advises the Board of Directors and the Administrative Board on scientific issues.

The BIH Strategic Research Program 2023-2027 [4] is operationalized in an Activity Manual to facilitate joint, transparent work on long-, medium-, and short-term goals within the Research Objectives and Activities, to adjust them if necessary, and to track progress and successes. On the level of the research groups and project teams, BIH personnel can actively engage in outlined activities and strategic goals.

⁶ As of April 2024, the Open Data LOM has been paused and is currently unavailable to Charité researchers eligible for LOM.

In 2024, the concept of BIH Working Groups (“Arbeitskreise”) was introduced. The elected members of the BIH Extended Directorate and Section Leads have set up a process of establishing working groups as an instrument to facilitate the active contributions of the BIH Faculty to the BIH development.⁷

A first set of active Working Groups are:

- BIH Leadership Mission Working Group
- Equal Opportunity Self-Assessment Working Group
- BIH Administrative Research Support Working Group
- BIH Evaluation and Indicators Scientists Working Group
- New Research Information Platform Working Group

⁷https://intranet.charite.de/bih/organisation_und_verwaltung/gewaehlte_vertretungen/bih_erweitertes_direktorium/arbeitskreise_working_groups/, accessed on 19.03.2025.

5. Pathways for influence - The academic self-administration at Charité

The Faculty of Medicine at Charité has numerous committees responsible for the organization of research and teaching, among other duties (Figure 3). These include the Faculty Council as the highest body of the faculty. The Education Commission is responsible for almost all issues relating to studies and makes important decisions in this regard, such as the adoption of study and examination regulations. The Faculty Council makes the final decision, usually on the recommendation of the Education Commission. The Habilitation and Appointment Committees are convened by the Faculty Council for each pending appointment or habilitation. Appointment Committees are sometimes also structural committees, in which the structure surrounding the Chair or Institute position to be filled is discussed. The Doctoral Commission deals with the organization, structure and implementation of doctoral procedures at the Charité. The Research Commission presents, assesses and discusses research projects, prioritizes funding applications and investments in research equipment, and discusses general research issues. The Faculty Council of the Charité sets up an Academic Grants Committee dedicated to promoting early-career scientists, in which experts from the clinic and research jointly develop effective and sustainable funding programs for early-stage scientists at all career levels at the Charité, select suitable applicants, and select projects for funding. [36, 37]

Charité's Ethics Committee supports physicians, researchers, and other members of Charité in addressing and evaluating the ethical and legal aspects of (biomedical) research involving human subjects, human-derived materials, and epidemiological research using personal data.

Academic self-governance at the Charité

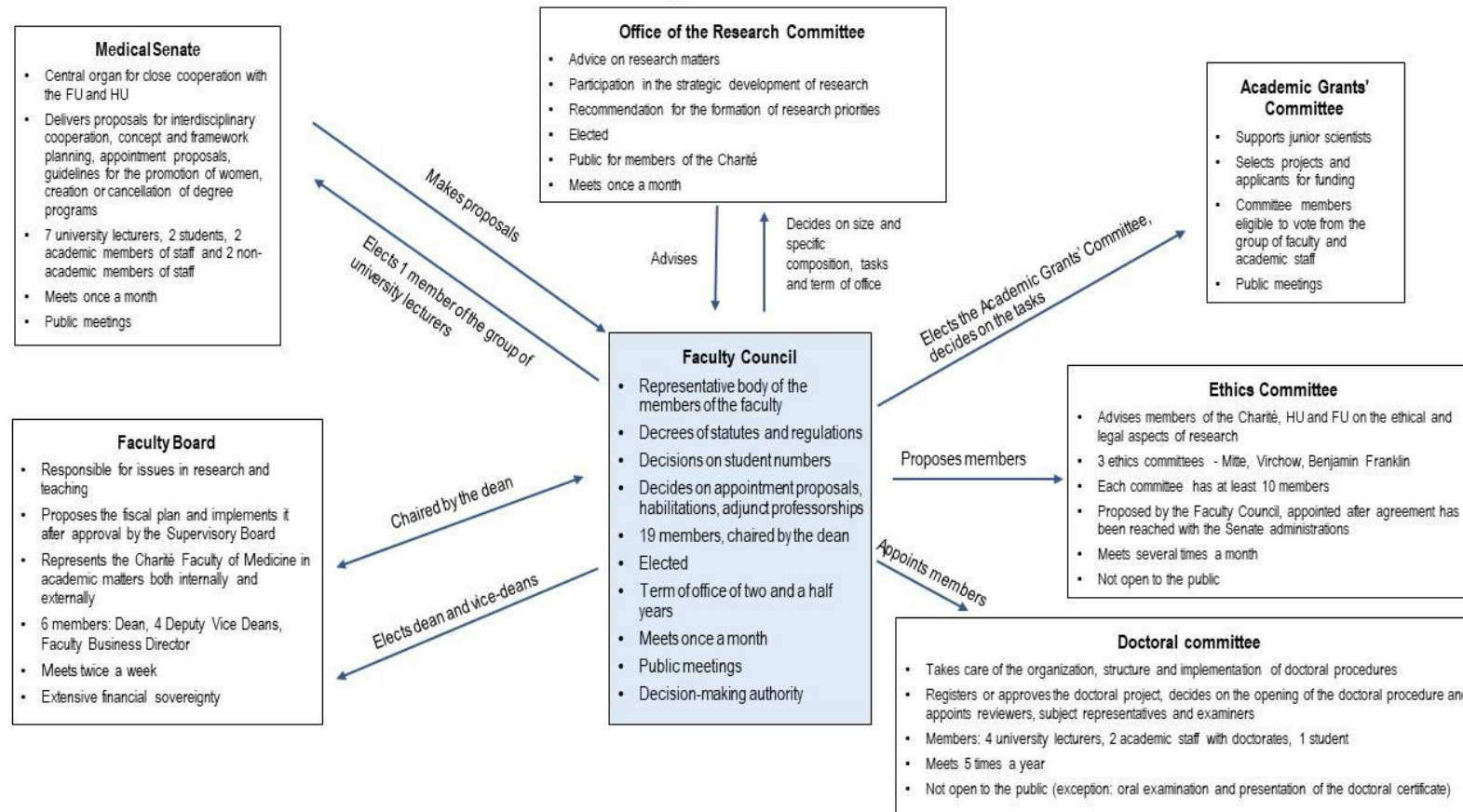


Figure 3. Schematic of academic self-governance structure at Charité

6. Inventory of areas of research assessment

The following section shows areas at the Charité and BIH where research, researchers, or research performance is assessed for different purposes. Where available, links to the current assessment procedures are provided. The list represents in alphabetical order a starting point for an inventory of current institutional research assessment environments and procedures at the Charité and BIH. The list is not yet comprehensive and will be updated iteratively in the next versions of this evolving action plan part 1.

6.1 Academic Grants Committee (“Nachwuchskommission”) and Funding for Students and Early Career Researchers (“Nachwuchsförderung”)

<u>Academic Grants Committee (“Nachwuchskommission”) and Funding for Students and Early Career Researchers (“Nachwuchsförderung”)</u>	
Aim, Funding lines and criteria	The Faculty Council elects an Academic Grants' Committee to support junior scientists and optimize academic talent management towards scientific excellence in an international context. Funding Lines and criteria: overview
Level of assessment	Individual researcher, project
Notes	Funding lines updated annually on the website

6.2 Business Division for Professorial Appointments (“Geschäftsbereich Berufungen”)

<u>Appointments and Tenure-Track Evaluation</u>	
Criteria	Appointments: see https://career.charite.de/ and MERIT Portal (pilot phase) (https://merit-portal.charite.de/) The current criteria for tenure track (TT) evaluations are published here
Level of assessments	Individual researcher

Notes	<p>The application criteria for appointments have recently been adjusted. In the future, applications will be recorded and made available to the appointment committees via the MERIT portal (https://merit-portal.charite.de/) (PMO 352). The MERIT portal is currently being piloted at the Charité and BIH. The adapted criteria are published here in the form of a structured, narrative CV. [38] JIF and H-Index are no longer queried here.</p> <p>The TT evaluation criteria were recently adapted in a structured process by the appointment's office in corporation with the QUEST Center with the Evaluation Commission for TT with regard to a quality-oriented assessment. The adjusted criteria were submitted to the Faculty Board in March 2024.</p>
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6.3 BIH Biomedical Innovation Academy (BIA)

<u>BIH Biomedical Innovation Academy (BIA)</u>	
Funding lines	<p><u>BIH Charité Clinician Scientist Program</u></p> <p><u>BIH Charité Junior Clinician Scientist Program</u></p> <p><u>BIH Charité Digital Clinician Scientist Program</u></p> <p><u>BIH Charité Junior Digital Clinician Scientist Program</u></p> <p><u>Advanced Clinician Scientist Pilot Program</u></p> <p><u>PhD Program</u></p>
Level of assessments	Individual researcher, project
Notes	<p>Adaptations of <u>structured, quality-oriented project criteria and assessment aides</u> [39] developed by the QUEST Center are part of most funding lines at the BIA or are currently introduced for the project assessment part of the program.</p> <p>The excellence of the applicant is assessed mainly by journal and publication-based citations metrics and amount of third-party funding.</p>

6.4 BIH Center for Regenerative Therapies

<u>BIH Center for Regenerative Therapies (BCRT)</u>	
Funding lines	<p><u>Kickbox Grant for Young Scientists</u></p> <p><u>Kickbox Grant for Career Kickoff</u></p>

Level of assessments	Individual researcher, project
Notes	<p><u>Berlin School for Regenerative Therapies (BSRT)</u> graduate program</p> <p><u>Admission to BSRT</u>: Project proposal must be assessed by BSRT coordination office, then discussed with the BSRT community and BSRT Quality Assessment Board at the <u>BSRT Pitch Event</u>. Admission to graduate school granted after a positive evaluation by the BSRT Quality Assessment Board.</p>

6.5 BIH QUEST Center

<u>BIH QUEST Center</u>	
Prizes and measures	<p><u>Overview prizes</u></p> <p><u>QUEST Publication Metrics Dashboard</u></p> <p><u>MERIT Portal Charité</u></p> <p><u>Open Data IOM</u></p>
Level of assessments	Publication, project, individual researcher, group/department
Notes	<p>The QUEST Centers develops and implements quality, open science and impact-oriented research assessment tools in cooperation with funders, researchers and other actors.</p> <p>https://www.bihealth.org/de/translation/innovationstreiber/quest-center</p>

6.6 Charité 3R

<u>Charité 3R</u>	
Funding lines	<u>Overview</u>
Level of assessments	Individual researcher, project

Notes	<p>Provides funding for projects by Charité scientists that have the potential to either replace or reduce the use of animals in research in the future or to refine the animal testing that is necessary. Applications are examined by independent assessment process.</p> <p><u>Charite 3R Toolbox</u>: structured along the lines of the 6R model proposed by the BIH QUEST Center [40] which adds robustness, registration and reporting to the existing 3Rs of replacement, reduction and refinement.</p>
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6.7 Charité BIH Innovation (CBI)

<u>Charité BIH Innovation (CBI)</u>	
Funding lines	<p><u>SPARK-BIH</u></p> <p><u>BIH Digital Health Accelerator</u></p>
Level of assessments	Individual researcher, project
Notes	Funding to promote translation of early stage inventions into clinical practice or of the development of digital health solutions for patients or health care systems via licensing or spin-offs respectively.

6.8 Office for Doctoral Studies (Promotionsbüro)

<u>Office for Doctoral Studies</u>	
Tracks and approaches	<ul style="list-style-type: none"> • Standard track • Advanced track <p>Cumulative, publication-based dissertation or</p> <p>Monograph possible plus disputation or two oral examinations</p>
Level of assessments	Publications, journal where the scientific manuscripts are published, monograph
Notes	<p>Detailed description of the different tracks and requirements as well as relevant criteria can be found at the office of doctoral studies website (https://promotion.charite.de/) and subpages.</p> <p>Information on the journal criteria can be found here: https://promotion.charite.de/en/doctoral_procedure/regulations_2017/dissertation/notes_on_journals/#c30604426</p>

	Existing information for dissertation reviewers: https://promotion.charite.de/en/information_for_reviewers_examiners/
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6.9 ERC / DFG Emmy Noether Grant Scouting (“Charité Talentschmiede”)

ERC / DFG Emmy Noether Scouting	
Funding lines	<ul style="list-style-type: none"> Seed funding for writing a competitive grant proposal (ERC or DFG Emmy Noether)
Level of assessments	Individual researcher
Notes	Charité Talent Factory: Internal call for projects to identify potential grant applicants and to help candidates prepare for the requirements of the ERC or DFG Emmy-Noether funding scheme. Applicants receive feedback from a Charité-based panel of ERC-/ DFG- experienced researchers. The best candidates will also have access to support (up to €5,000) for the development of their ERC or DFG Emmy Noether application.

6.10 Habilitation

Habilitation	
Criteria	Assessment criteria can be found here
Level of assessment	Publications, Individual researcher
Notes	<ul style="list-style-type: none"> Third Party Funding, JIF and RCR are stored in the system for the calculation of the annual performance-oriented funding. Further training certificates of specialists can be entered, documented and evaluated. Applications for university research funding are also submitted via the system. Possibility to create parameter-controlled links to the research database and thus generate publication/project lists for specific individuals or institutions.

6.11 Indicator-oriented funding in research (IOM) at the BIH (BIH IOM)

BIH IOM	
Criteria	Third Party Funding, open data in publications
Level of assessment	Research group
Notes	Introduced in 2023 based on amount of acquired third party funding and additionally open data in publications. Researchers at BIH without eligibility for the Charité LOM qualify.

6.12 Medical Library

<u>Medical Library</u>	
Criteria	<u>Open Access Fund</u> <u>Open Access Dashboard of the library</u>
Level of assessment	Individual researcher, publication
Notes	<ul style="list-style-type: none"> Open Access fees for articles in OA journals with quality-assured publication services can be fully funded centrally from 2023 onwards with up to EUR 2,000. Additionally, Gold OA articles originating from DFG-funded research can be funded with up to EUR 1,400 (incl. VAT), even if the journal does not fully meet the known criteria. List of eligible journals can be found <u>here</u>.

6.13 Performance-oriented funding in research at Charité (“Leistungsorientierte Mittelvergabe Forschung“, LOM)

<u>LOM Forschung</u>	
Criteria	Detailed information on the LOM is cont. updated and available at: https://intranet.charite.de/forschung/interne_forschungsfoerderung/hinweise_leistungsbudget_lom/
Level of assessment	Departmental

Notes	<p>The measure consists of the performance-oriented funding (LOM) and additional incentives.</p> <p>The LOM uses the criteria third party funding (50%), and publications with the JIF (25%) and Relative Citation Ration (25%) as metrics to allocate an annual budget of ca. 10 Mill Euros performance-based.</p> <p>Additional incentives included among others: <u>open data in publications [41]</u>, patents, number of applications to the German Research Foundation. Effective as of April 2024, the additional incentives including the open data incentive, introduced in 2019, have been canceled.</p>
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6.14 Reporting und Dashboards

Reporting	
Reports	<ul style="list-style-type: none"> • <u>Annual reports</u> • <u>Charité Metrics Dashboard at QUEST</u> • <u>Open Access Dashboard of the library</u>
Level of assessment	Publications, group, departmental
Notes	

6.15 Research Information System

<u>FACT Science and Research data base</u>	
Criteria	Researcher, Publications, JIF, RCR, Third Party Funding
Level of assessments	Publications, Project
Notes	<ul style="list-style-type: none"> • Third Party Funding, JIF and RCR are stored in the system for the calculation of the annual performance-oriented funding. • Further training certificates of specialists can be entered, documented and evaluated. • Applications for university research funding are also submitted via the system.

	<ul style="list-style-type: none"> • Possibility to create parameter-controlled links to the research database and thus generate publication/project lists for specific individuals or institutions.
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6.16 Target agreements for senior scientific staff (“Zielvereinbarungen”)

Target agreements for senior scientific staff (“Zielvereinbarungen”)	
Criteria	The criteria are kept confidential
Level of assessment	Individual researcher (senior)
Notes	

7. Actors' perspectives

We conducted an asynchronous virtual brainstorming (VBS) event over two days that was targeted at employees of Charité or BIH who have a connection to research assessment in their work, be it in planning, execution, and application, or as scientists who are reviewers and/or applicants.⁸

The event was structured in predefined session with open discussion sections on between (see table 1). Each day began with a short kick-off during which the background and content of the action plan and CoARA were presented. On both days, structured discussions took place during predetermined time slots about selected topics announced in advance.

The event was widely publicized in the Research Commission⁹ and throughout several internal networks. A targeted effort was made to identify key members from the administration and governance of Charité and BIH, from which specific individuals were personally invited.

A total of 34 people, including the organizers, from various scientific fields and status groups took part in at least one of the VBS meetings on both days:

- Charité students
- Charité science (Mid-level and senior researchers),
- Charité science management
- BIH science (Early career and senior researchers)
- BIH science management and administration
- Equal opportunities officers from BIH and Charité
- Data science and IT from BIH and Charité

⁸ A virtual brainstorming session is a collaborative meeting conducted online, during which participants generate and discuss ideas to solve a problem or develop creative solutions. This method leverages digital tools and platforms to facilitate communication and ideation, often resulting in a higher number of ideas and increased creativity compared to traditional in-person sessions. Virtual brainstorming (VBS) events have been successfully used in other settings to bring together a large number of scientists on a topic and actively involve them in discussion and the creation of written output. (42, 43) A VBS with an asynchronous component has the advantage that people are flexible in terms of time and place, when and in what form they want to contribute; for example, their participation is not impeded by tight work schedules or clinical care assignments.

⁹ Kip, M. (2024, Januar 18). CoARA at Charité and BIH. Zenodo. <https://doi.org/10.5281/zenodo.15020274>

Table 1. Agenda– Virtual Brainstorming Event: Action Plan for CoARA at the Charité and BIH

February 19, 2024, 9:00 – 23:59		February 20, 2024, 9:00 – 23:59	
Asynchronous collaboration on different sections of the action plan - individually or via Microsoft Teams		Asynchronous collaboration on different sections of the action plan - individually or via Microsoft Teams	
8:40 – 9:00	Kick off Day 1 CoARA Charité representative Dr. Miriam Kip	8:40 – 9:00	Kick off Day 2 CoARA Charité representative Dr. Miriam Kip
9:00 – 10:00	Live Session Assessing “Productivity”	9:00 – 10:00	Live Session Assessing “Impact”
11:00 – 12:00	Live Session Assessing “Quality”	11:00 – 12:00	Live Session Assessing “Excellence”
12:00 – 13:00	Ask the Bibliometrician: Dr. Stephan Gauch (Robert K. Merton Center for Science Studies, HU Berlin)	12:00 – 13:00	Ask the Bibliometrician: Dr. Stephan Gauch (Robert K. Merton Center for Science Studies, HU Berlin)
14:00 – 15:00	Live Session Assessing “Transfer and Innovation”		

The discussions were introduced with pre-structured questions relating to the planned content of the action plan. The discussion was led by JLR and MK and recorded by FH. For each structured discussion round, a corresponding document was created and open for all to freely comment. The documents were available for editing during the entire brainstorming event and for several days afterwards.

The description of the actors’ perspectives focuses on the importance, current practice, suggestions for improvement, and barriers in the current research assessment system encountered at Charité and BIH. They are based on the discussion protocols of the VBS event and follow the structure of the live sessions (Productivity, Quality, Transfer and Innovation, Impact, Excellence, Use of Bibliometric

Indicators). Furthermore, additional input provided by the participants in the pre-structured documents during the VBS or afterwards were considered in the synthesis.

The various sections reflect the different perspectives and are intended to reflect the diversity of "unaltered" opinions and perspectives. This first version makes no claim to completeness or "correctness". Instead, the sections serve as an initial basis for discussion, which will be gradually augmented, further developed and concretized together with these and other stakeholders over the next years.

7.1 Productivity

Reflection:

The discussion began with the following key questions:

How important is the assessment of productivity/quality/transfer and innovation/impact/excellence of scientists in your fields? How is it currently measured? What do you think are the advantages and disadvantages? How could it be better measured?

Importance of productivity assessment:

The discussion shows that the assessment of the productivity of researchers at Charité and BIH is of great importance in various areas. Productivity is often used as a measure of academic excellence, particularly for appointments and tenure-track positions. Despite this importance, there is considerable criticism of the methods and metrics currently used.

Current measurement of productivity:

Currently, productivity is mainly measured by publications, in particular by the Journal Impact Factor (JIF). This factor, although widely used and known, is often criticized as inadequate and misleading. It evaluates journals and not the individual research achievements of scientists. At the Charité, narratives and impact stories are also used for assessments. Nevertheless, the JIF continues to dominate assessment practice in many commissions and appointment procedures.

Advantages and disadvantages of the current assessment of productivity:

Advantages:

- Simplicity and pragmatism: The JIF and the number of publications are easily measurable and understandable indicators.
- General acceptance and dissemination: These metrics are well known and widely used in the scientific community.

Disadvantages:

- Lack of consideration of individual research achievements: The JIF evaluates the journal rather than the quality of an individual scientist's research.

- Distortion of research priorities: The focus on high-ranking publications can lead to neglect of less prestigious, but still important, fields of research.
- Discrimination against certain groups: Women and others who often undertake collaborative activities are disadvantaged in traditional productivity assessments.

Suggestions for improving productivity assessment:

Diversification of the assessment criteria

- Inclusion of publications, applications, consultations and other forms of output.
- Standardization and operationalization of terms such as "medical need" and research gaps to better assess socially relevant research. Projects that explicitly derive a medical or research need [44, 45]
- Activities in committees, commissions and teaching should be recognized as part of productivity.
- The supervision of doctorates and peer-reviewed journals should also be included.

Consideration of qualitative aspects:

- Evaluation methods should focus not only on the quantity but also on the quality of research and its impact.
- More emphasis should be placed on the competence and skills of researchers.

Use of multidimensionality:

- When productivity becomes the goal, it loses its significance. A more diverse catalog of achievements could be more meaningful than a focus on publication output. Overall, it is clear that the assessment of productivity should be more differentiated in order to do justice to the diverse aspects of academic work.
- A spider diagram could better reflect the diversity of academic activities and competencies and thus enable a more comprehensive assessment.

Practical challenges and perspectives:

The introduction of new assessment criteria is complex. It requires a cultural change within the organizations and the entire science system. The shift from metric indicators such as the JIF to more comprehensive assessment methods requires time and persuasion.

Productivity as a predictor of success:

The common assumption is that productive scientists will be also successful in the future. This is often based on quantitative measures such as the number of publications. However, sheer quantity is not always a reliable indicator of quality or competence.

Medical need and research gaps:

A standardized procedure for the assessment of productivity via medical application needs or research needs could be an alternative to the purely quantitative assessment of productivity. The operationalization of "medical need" is still a challenge.

Evaluation of Early Career Researchers (ECR) and doctoral students:

The quantitative assessment of productivity among early career researchers is controversial. The question arises as to whether we should pay attention to quantity at all in this phase. Institutions often prefer quantity (training many doctoral students) or equal quantity with quality (3 publications equal one high impact publication as currently). The discussion emphasizes that the current practice of evaluating first authorships in top journals often reflects the environment of the doctorate more than the individual performance of the doctoral candidate. There is a need for adjustment here to ensure transparency and fairness in the evaluation. Researchers prefer quality (competent training), but this requires more resources, e.g. per doctoral student or ECR.

Conclusion:

The assessment of academic productivity is a complex and controversial issue. While current methods such as the JIF are widely used, there is considerable criticism of their suitability and fairness. Diversifying and qualitatively expanding the evaluation criteria could lead to a fairer and more comprehensive assessment. The discussion highlights the need for a fundamental revision of evaluation practices to better capture actual research performance and societal impact.

7.2 Quality

Reflection:

The discussion was guided by with the following key questions:

How important is the assessment of quality of scientists in your fields? How is it currently measured? What do you think are the advantages and disadvantages? How could it be better measured?

Importance of quality assessment

The discussion showed that assessing the quality of research is of central importance in most areas of research assessment, especially in highly competitive areas such as the Excellence Initiative. Quality is considered at the level of individual researchers, or projects. It influences the allocation of funding and the selection of candidates for scientific positions and projects. For doctoral students, the criteria of the dissertation, which often emphasize the IF, are of decisive importance.

Current measurement of quality:

Quality is currently measured primarily by publication performance, with indicators such as the impact factor (IF) and the H-index playing a central role. The pre-selection, e.g. in the Excellence Strategy, is typically based on publications in high-ranking journals such as Cell or Nature. Only then are the candidates' ability to collaborate and other relevant characteristics are discussed.

Advantages and disadvantages of the current assessment of quality:

Advantages

- **Objectivity and comparability:** Metrics such as IF and H-index provide a seemingly objective and comparable basis for evaluating academic performance.
- **Established standards:** These indicators are widely recognized and facilitate the rapid assessment of research performance.

Disadvantages

- **Limitations and biases:** These metrics cannot reflect the quality of research and disadvantage collaborative and interdisciplinary work.
- **Productivity pressure:** The focus on quantity can lead to increased publication pressure, which can impair the quality of research.

Suggestions for improving quality assessment:

- It is proposed that sets of structured quality and content-based characteristics are defined and explicitly named instead of using publications metrics as proxies for quality
- **Inclusion of open science:** Open science could be integrated as an additional quality feature were applicable, e.g. provision of research data in shared data platforms with defined use and access protocols for collaborative research would be a very measurable quality indicator (with major overlap to transfer and innovation)
- The quality of collaborative approaches was emphasized as crucial

Practical challenges and perspectives:

Strengthening the peer review system

The discussion emphasized the importance of quality- and content-oriented assessments using peer review over metric practices. However, there was a lack of clarity about the exact dimensions and operationalization of research quality. "Pure" quality often has little influence on career progression.

Anonymous evaluations

For doctoral processes, an anonymous evaluation by the doctoral candidates after completion of the project could be useful to enable a more objective assessment. Doctoral candidates should be involved in all areas of project development in order to develop a more comprehensive understanding and greater motivation for high-quality research.

Epistemic diversity

Considering diversity in research practice could increase the quality of research. The contribution of historically marginalized groups should be given greater consideration in order to promote more comprehensive and inclusive scholarship.

Conclusion

The discussion shows that assessing the quality of researchers is a complex and multi-layered issue. While current methods offer some objectivity, they are actually not reflecting, are too one-dimensional and can overlook important aspects of research quality. An improved assessment of quality could be achieved through new, multidimensional approaches that also consider diversity, open sciences and collaborative capacity in research.

7.3 Transfer and Innovation

Reflection

The discussion was guided by with the following key questions:

How important is the assessment of transfer and innovation of scientists in your fields? How is it currently measured? What do you think are the advantages and disadvantages? How could it be better measured?

Importance of the assessment of transfer and innovation:

The assessment of transfer and innovation plays a central role in the scientific landscape, particularly at institutions such as Charité and the Berlin Institute of Health (BIH). These processes are essential for the translation of scientific knowledge into practical applications and technologies, which in turn contributes to social and economic development. At Charité BIH Innovation technology transfer is promoted through various measures, including support for transfer projects, the management of intellectual property (IP) and patents, licensing and spin-offs. Both the organizational perspective of Charité and BIH and the individual perspective of the researchers are considered.

Current methods of measuring transfer and innovation:

Transfer and innovation are currently measured primarily by key performance indicators (KPIs) that focus on patents, license agreements and invention disclosures. These KPIs are evaluated from an organizational perspective, although their significance is limited.

- Patents and licenses: The number of patents, license agreements and their volume are common indicators.
- Invention disclosures: The number of invention disclosures filed is another measurement parameter.

Advantages and disadvantages of the current methods:

Advantages

- Objectivity and comparability: KPIs provide a quantitative basis for assessing the success of transfer measures.

- Established practice: The use of patents and license agreements is a globally recognized method for evaluating innovation.

Disadvantages

- Limited informative value: KPIs often do not capture the actual innovation value or long-term benefits of projects.
- Lack of consideration of individual contributions: The contribution of individual researchers to innovation processes is often not sufficiently considered.
- Tension between market and solution value: Projects with a high medical need are not always marketable, which can lead to a discrepancy between innovation potential and market value.

Suggestions for improving the assessment of transfer and innovation:

- Early assessment of innovation potential: It was suggested to assess innovation potential at an early stage, but uncertainties need to be considered as medical projects are often not yet mature.
- Integration of Open Science: Although Open Science is not actively promoted, the combination of open and commercial research could be a promising approach to strengthen transfer and innovation potential
- Patient and Stakeholder Engagement (PSE): PSE can play an important role in knowledge and technology transfer. However, PSE currently plays a subordinate role in the whole cycle of projects, except when it comes to product optimization. Implementing PSE in early project phases can improve transfer and innovation potential
- Involvement of service providers: importance of involving statutory health insurance companies and other healthcare providers to facilitate the transfer of research results into practice.
- Differentiated patent measurement: It was proposed to differentiate between registered, accepted and still current patents in order to enable a more precise assessment.
- Path-of-impact- on clinical practice: Use of studies clinical guidelines and recommendations

Practical challenges and perspectives:

The assessment of innovation potential depends on the project status and includes the areas of tension between market and solution value. The transfer of research software poses a particular challenge, as it is not always financially viable.

Use of research in clinical guidelines: currently only a measure for specific, practice-changing clinical studies. These studies are of course based on other clinical and preclinical studies; to measure and acknowledge the impact of such studies – or the is the real challenge

Knowledge and technology transfer currently play a subordinate role in the career assessment of individual scientists. This leads to a low weighting in appointment procedures and in the evaluation of scientific careers.

Conclusion

The evaluation of transfer and innovation in science is a complex and multidimensional field. While current methods are based on established KPIs, there is considerable room for improvement, especially by considering individual contributions, the integration of open science, the assessment of the impact of research in practice/clinical guidelines, involvement of stakeholders, and the role of transfer and innovation in career assessments. A holistic and differentiated approach could significantly increase the effectiveness of innovation processes and lead to a better translation of scientific findings into practice.

7.4 Impact

Reflection

The discussion was guided by with the following key questions:

How important is the assessment of impact in your fields? How is it currently measured? What do you think are the advantages and disadvantages? How could it be better measured?

Importance of the evaluation of impact

The evaluation of impact is of great importance in many scientific fields. It plays a central role in the allocation of third-party funding and the assessment of research results. Impact can be assessed at various levels: at the level of individual researchers, projects, institutions or publications.

Impact refers to the relevance and effect of research on various stakeholders and areas of society. From the perspective of Patient and Stakeholder Engagement (PSE), impact means relevance for a patient community. In health research, there is an increasing demand for PSE to be part of research projects and for patient representatives to be involved in the review processes.

Current methods of impact measurement

Impact is currently measured using various indicators, such as

- Bibliometric indicators: Citations, impact factor of publications.
- Patents and licensing: Number and volume of patents and licenses.
- Third-party funding: Amount of third-party funding raised.
- Patient involvement: Relevance of research for patient groups and their involvement in projects.
- Industry collaborations: Influence of research on clinical guidelines and market transfers.

Advantages and disadvantages of current methods

Advantages

- **Quantifiability:** Bibliometric indicators and patents provide measurable data that is easily comparable.
- **Recognized standards:** These indicators are internationally widely used.

Disadvantages

- **Short-termism:** Many indicators only capture short-term effects on citations and not the long-term social impact or impact on the research field
- **One-sidedness:** Focus on quantifiable data neglects qualitative aspects such as the actual improvement in patient care or social impact, or improvement of methods
- **Bias and trends:** Scientific fads and hypes can distort evaluations.

Suggestions for improving impact measurement

- **Impact narratives:** Narrative descriptions of impact, such as impact narratives or essays, should be used instead of pure metrics. These could better represent the complex effects of the research and take the specific contexts and meanings of impact into account
- **Long-term evaluation:** Impact should be evaluated in the long term in order to capture sustainable effects. Appropriate resources should be made available for this.
- **Path-to-impact:** There should be a stronger focus on the path to impact. This includes describing the steps that are necessary to achieve impact.
- **Diversification:** Diversification of what counts as impact is necessary. This includes consideration of patient and stakeholder engagement and consistency of the research question and medical need

Practical challenges and perspectives:

Meaning of Impact

Impact is defined differently. In the patient community, it is the relevance of research results, while in industry cooperation it is the influence on clinical guidelines that counts. In the scientific community, impact means the improvement of practice and interaction with healthcare stakeholders. In basic research, measuring impact is more difficult, but could be understood as improving methods or the knowledgebase. Furthermore, sex and gender should be considered as factors.

Awareness of limitations

Impact often only becomes apparent after a long time, and science reacts slowly to trends. Small research fields have problems with expertise and conflicts of interest. Careerism and pressure on lower hierarchies were also criticized.

Evaluation committees should be aware of their own knowledge limitations regarding (potential) impact and take these into account in their decisions.

Conclusion

The assessment of impact in science is a multi-layered and complex topic. Current methods provide a basis, but are often too one-sided and short-term oriented. A more comprehensive and differentiated approach that includes qualitative aspects and long-term impact could improve evaluation. Narrative assessments, long-term evaluation processes and greater consideration of pathways to impact offer promising approaches to better reflect the actual impact of research on the research community, on clinical practice, or on society.

7.5 Excellence

Reflection

The discussion was guided by with the following key questions:

How important is the assessment of excellence in your fields? How is it currently measured? What do you think are the advantages and disadvantages? How could it be better measured?

The importance of evaluating excellence

The assessment of excellence plays a central role in the German science system, especially since the introduction of the Excellence Initiative. Excellence is used as a benchmark for the allocation of funding and the recognition of scientific achievements.

Current methods for measuring excellence

Bibliometric indicators: Number and quality of publications, impact factor of journals, altmetrics scores.

Funding: Amount of third-party funding acquired.

Cooperation: Cooperation with renowned, reputable institutions in the Global North.

Advantages and disadvantages of current methods

Advantages

- **Objectivity:** Bibliometric indicators provide a quantifiable and comparable basis for evaluation.
- **Recognition:** Cooperation with renowned institutions increases the visibility and recognition of research.

Disadvantages

- **One-sidedness:** The focus on quantifiable indicators neglects qualitative aspects and local relevance.

- Inequality: The Excellence Initiative reinforces existing inequalities in the science system by primarily benefiting institutions that are already well-funded.
- Bias: Excellence ratings are prone to bias and often reflect reputation.

Suggestions for improving the measurement of excellence

- Expanded definition: Excellence should include transdisciplinary and participatory research approaches, as suggested by the Society for Transdisciplinary and Participatory Research (GTPF).
- In relation to Patient and Stakeholder Engagement (PSE), excellence means meaningful and active involvement of patients in research processes.
- Narrative assessments: Instead of pure metrics, narrative descriptions should be used to better represent the multiple aspects of excellence.
- Long-term perspective: Excellence should be assessed over the long term and in terms of its impact, including the impact on clinical guidelines and patient care.
- Local relevance: Research with high local relevance should be given more visibility and recognition
- Awareness of bias: Evaluators should be aware of their own knowledge limitations and potential biases and include these in their decisions.

Practical challenges and perspectives:

“Empty” term

Excellence is an "empty term" that is interpreted differently and says more about the evaluators than about the people being evaluated. The term is susceptible to bias. Excellence must be considered multidimensionally, and is difficult to define as it changes over time.

Strong influence

The Excellence Initiative has strongly influenced the German science system and is emotionally charged. Excellence is often confused with prestige, which increases susceptibility to bias. Excellence is a self-fulfilling prophecy in which individuals or institutions recognized as excellent receive more resources. Bibliometric analyses show that the Excellence Initiative primarily benefits those who have already received a lot of research funding and increases inequality in the science system.

Governance

Excellence is a key term in the context of research policy and its integration into governance paradigms, particularly in relation to the economization of knowledge and location development.

Conclusion

Excellence is a concept that is difficult to define and measure. Current methods are often too one-sided and reinforce existing inequalities. A more comprehensive and differentiated approach that

includes qualitative aspects, local relevance and narrative assessments could improve the measurement of excellence and contribute to a fairer and more inclusive science system.

7.6 Use of Bibliometric Indicators

Introduction and Context

Dr. Stephan Gauch from the Robert K. Merton Center for Science Studies at Humboldt University Berlin gave a lunch talk (title: How to Recognize a Good (Bibliometric) Indicator for the Assessment of Individual Researchers). The session aimed to address current challenges in using bibliometric indicators and explore strategies to enhance their effectiveness and fairness.

Short Summary of the talk

Types of Bibliometrics

Gauch introduced a heuristic approach, categorizing bibliometrics into four main types:

- Evaluative Bibliometrics: Focused on productivity (number of publications) and impact (number of citations).
- Explorative Bibliometrics: Involves mapping networks and detecting trends.
- Curative Bibliometrics: Concerns data quality and classification specifics.
- Reflexive Bibliometrics: Centers on developing methods and understanding bibliometrics as a profession.

He emphasized the importance of understanding the specific roles and limitations of each type to use them effectively.

Key Considerations for Effective Bibliometric Indicators

Gauch outlined several critical considerations and heuristics for recognizing good bibliometric indicators:

- Numerical Comparison: Assumptions of equivalence are central to meaningful comparisons. Metrics should be used with caution, considering implicit and explicit assumptions.
- Fairness and Bias: Different fields have varying citation cultures, and document types (e.g., review articles) can influence citation counts. Recognizing these nuances is essential to avoid unfair assessments.
- Citation Windows: Counting citations within specific periods can mitigate biases related to the age of articles. However, this approach has limitations, such as delayed recognition of impactful work.
- Fractional Counting: To address the increasing number of co-authors, fractional counting distributes credit among authors, offering a more nuanced view of contributions.

Challenges and issues with current bibliometric practices

- Anchored in degree conferral processes, directly and indirectly
- Example from Charité: “top journal” (based on subject area JIF rank lists) option to obtain PhD degree in Advanced Track at the Charité requires only 1 publication with high JIF versus usual 3 publications of lower JIFs.
- The rise of “dashboard culture”, i.e. unreflected use of highly automated reporting & visualization techniques without moving back into the underlying data material, i.e. content & context of the outputs.
- Emphasizing “vertical thinking” (e.g. rankings & ratings) over “horizontal thinking” (e.g. mapping & positionality in a field or topic)
- Isolated individual assessment based on bibliometrics or any other type of simplified quantitative assessment should be avoided or at least carefully framed.
- Mistaking the size of a data base for diversity & quality is a crucial mistake. Size and Diversity are distinct categories.

Proposals for Improvement

Broad Scope and Inclusion: Evaluation schemes should be inclusive and recognize diverse research profiles. They should integrate self-reports, institutional data, and interviews to provide a comprehensive view.

Holistic Assessment: Emphasizing quality, originality, and societal impact over sheer productivity. Peer review should remain central, supported by responsible use of quantitative indicators.

Transparency and Openness: Ensuring transparency in evaluation criteria and processes, along with open access to evaluation data for those being assessed.

Conclusion

The session underscored the complexity and nuances of using bibliometric indicators for research assessment. Effective indicators should balance quantitative measures with qualitative insights, recognizing the diverse contributions and contexts of individual researchers. Continuous evaluation and adaptation of these indicators are crucial to ensure fairness and relevance in research assessment practices.

8. Next steps

The previous chapters provided a first overview of the current areas of research assessment at Charité and its organizational actors that decide on, implement, and conduct research assessments within the organization. The thematic synthesis of the discussions with the participants of the brainstorming event, as described above both by the brainstorming and AP's contributors within the Charité and the BIH amounts to an overemphasis on using quantitative metrics in the current research assessment practices, especially the relatively undifferentiated application of metric indicators in assessing individual researchers at Charité and BIH. Moreover, this applies to all of the criteria of research assessment that were discussed: productivity, quality, transfer and innovation, impact, and excellence all are operationalized by simple, even by the same metrics. In turn, this assessment complex appears to be disincentivizing the production of groups, its researchers, and its students are aspiring to and are capable of doing so.

This overview is preliminary - a core step in acting is to complete and substantiate the review of current research assessment practices and structures at Charité and BIH in a structured, participatory process that involves the perspectives and knowledge of researchers, governance, and administration. While CoARA and its commitment provide a core framework for responsible research assessments, it is the prerogative of the academic self-government and the organizational leadership of the faculty and Charité as a whole to decide on the specific areas, modes, and resources for advancing research assessment. Therefore, the action plan is an open process to gather organizational knowledge and, especially, support both Charité and BIH decision-making and implementation.

The first step is Part 1 of a series of action plans. The next steps include:

- A revision of this document after gathering comments and feedback from Charité and BIH; and
- A further VBS to define next steps and further parts of the series of action plans covering the remaining action areas outlined in Chapter 1. A suggested timeline is shown in Table 2.

Table 2. Timeline of next planned steps to refine Action Plan

March 2025	April	May	June	Jul	Sep	Oct	Nov	Dec	Jan 2026
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AP Part 1 V1 open for comments			VBS 2	Co-writing AP part 2					
			AP Part 1 V2						

9. "How can I get involved?" - Opportunities for active participation and capacity building at Charité and BIH

9.1 CoARA @Charité and BIH

At Charité and BIH, all interested employees, students and trainees can actively participate in CoARA topics at monthly or tri-monthly meetings (CoARA@Charité and BIH). The group also aims to address those interested in higher education policy who would like to understand academic self-administration and the opportunities for shaping it at Charité and BIH. The meetings are organized by an interdisciplinary team at Charité and BIH. An overview of the activities, contact persons and information can be found on the website of the group:

<https://www.bihealth.org/de/translation/coara-charite-und-bih>

9.2 Journal Club DRIVERS

In monthly meetings of the Journal Club Diversity and Responsible Research and Innovation (DRIVERS), which are also open to the public, publications on responsible research and diversity, equality and inclusion in science are presented and discussed against the background of the further development of research assessment. The Journal Club is jointly organized by colleagues from the BIH and BIH QUEST Center, the Einstein Center for Neurosciences and Charité's NeuroCure Cluster of Excellence. Additional details about DRIVERS are available on its webpage:

<https://www.bihealth.org/de/translation/innovationstreiber/quest-center/events/kurs/journal-club-for-diversity-and-responsible-research-and-innovation-drivers>

9.3 The National Chapter of CoARA

On March 5, 2024, the constituent meeting of the German CoARA member organizations of the National Chapter took place under the chairmanship of the DFG. [46] The German National Chapter has aims to be a forum for the discussion of Germany-related topics of research assessment and its reform, to offer practical support in their reform efforts. There is also the opportunity for employees of non-members who would be eligible to join to participate in the discussions taking place in CoARA and its working groups. More information is available on: <https://coara.eu/working-groups/national-chapters/coara-national-chapter-germany/>

9.4 The CoARA Working Group SAGA

In an initial call in May 2023, the "Incentives and Responsible Research Assessments" working group applied to CoARA for the establishment of an international working group on the topic of "Supporting the alignment of research assessment systems with CoARA in biomedical disciplines through administrative reforms and governance" (SAGA). [47] This application was approved in June

2023. Since September 2023, the working group has met monthly and officially started in November 2023 to discuss the role of administration and governance in the further development of research assessment in an international context with other signatories. The working group is currently finalizing an action plan template to support the administration, science management and governance in implementing the CoARA commitments. The working group is open to anyone with an interest in the role of administration and governance in the further development of research assessment, as long as they belong to one of the signatory organizations. Further CoARA working groups can be found here, that are open to all employees of signatory organizations. Additional information on the SAGA working group can be found here: <https://coara.eu/working-groups/working-groups/wg-supporting-the-alignment-of-research-assessment-systems-with-coara-in-biomedical-disciplines-through-administrative-reforms-and-governance/>

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