

CoARA Action Plan - Technische Universität Braunschweig

In November 2022, Technische Universität Braunschweig (TU Braunschweig / TU BS) joined the Coalition on Advancing Research Assessment (CoARA) and signed the Agreement on Reforming Research Assessment (ARRA). As a signatory to ARRA, TU Braunschweig is committed to sharing its progress in reviewing and developing criteria, tools, and processes aligned with the CoARA commitments.

TU Braunschweig acknowledges the importance of a responsible research culture in facilitating world-leading research. Consequently, we are dedicated to promoting research endeavours that prioritize research integrity and support the professional development of each individual researcher. We endorse that evaluation predominantly necessitates qualitative assessment, with peer review playing a central role, supplemented by a responsible utilization of quantitative indicators.

Our overarching objective is to ensure comprehensive evaluation of research and researchers, acknowledging diverse types of outputs, practices, and activities, while considering the influence of varied career paths and personal circumstances on the quality and impact of research.

Embarking on the journey towards an assessment reform

TU Braunschweig already has a strong history of engagement in research assessment and promoting measures that lead towards a responsible research assessment (RRA):

- TU Braunschweig, in its commitment to upholding the highest standards of research conduct, has signed and committed in 2021 to the DFG's Guidelines for Safeguarding Good Research Practice. By setting up a commission and publishing a concept for implementing the DFG Code, TU Braunschweig is reaffirming its dedication to these values.¹
- TU Braunschweig places a significant emphasis on research integrity and ethical conduct, ensuring that all research activities adhere to the highest standards of transparency and accountability.²
- TU Braunschweig actively supports the principles of open science, encouraging researchers to openly share their results to foster collaboration and maximise research impact.³
- TU Braunschweig also fosters a positive research culture that values collaboration, interdisciplinary work, and public outreach activities to address societal challenges through research.⁴
- TU Braunschweig is currently undergoing a university development process with research as one of the four performance dimensions. The established vision and goals for research serve as the foundation for the CoARA action plan.⁵

¹ https://www.tu-braunschweig.de/en/organisation/committees/boards/good-research-practice

² https://www.tu-braunschweig.de/en/forschung/daten/transparenz

³ https://www.tu-braunschweig.de/en/forschung/daten/openaccess

⁴ https://www.tu-braunschweig.de/en/research/research-profile/core-research-areas

https://www.tu-braunschweig.de/en/university-development-initiative/university-development-concept

Nevertheless, the University is seeking to continuously improve and to make valuable contributions on a national and international scale in the realm of responsible research assessment (RRA). In pursuit of this goal, TU Braunschweig actively participates in the international CoARA Working Group for reforming academic research assessment (ACA) and will contribute to the German Chapter working group.

Our CoARA Action Plan therefore is designed to embed existing RRA practice at TU Braunschweig and outlines further actions to ensure we continually remain abreast of best practice and play a significant role in the promotion of RRA nationally and internationally.

The process perspective

In order to drive forward the reform of research assessment, several key steps need to be taken. At TU Braunschweig, we are committed to executing an action plan that aims to establish a responsible research assessment framework by 2028. This **comprehensive process** will involve discussing and considering, ongoing initiatives such as career development, strategic positioning in university rankings, the use of bibliometrics and the university development process. We have outlined **yearly steps** that our institution, researchers, and faculties will **collaboratively undertake** to achieve this objective. The **process is adaptable**, allowing for further developments based on outcomes from working groups, exchanges with other universities, and concurrent research assessment processes to be integrated. Each year therefore, a detailed roadmap for the following year will be established through a **review process**, considering the current state of work and progress made so far.

2024: Setting the scene and alignment with university development processes

- Provide resources and form a cross-university core working group: This step is necessary to allocate the necessary resources and establish a dedicated team that will drive the research assessment reform process. The core working group will consist of representatives from different departments and faculties, ensuring a comprehensive and collaborative approach.
- Sensitize the scientific community for reform: Building relationships with researchers and stakeholders is crucial to gain their support and involvement in the reform process. By actively engaging with the scientific community, we can understand their concerns and needs and create a shared vision for responsible research assessment.
- Determine the status quo of research assessment at TU Braunschweig: Assessing the current state of research assessment practices is crucial to understand the existing framework. At the same time concurrent university processes need to be identified. Possible tools could include surveys and questionnaires, interviews and focus groups or data analysis. This step will provide a baseline for further actions and helps in setting realistic goals.
- Identify a common desired responsible framework: It is important to identify a common desired responsible framework that takes into account the specificities of each field of science. This framework will serve as a guiding vision for the future state of research assessment.
- Perform a gap/swot analysis: By conducting a thorough gap/swot analysis, we can identify any
 discrepancies or gaps between the current state of research assessment and the desired responsible

framework and categorize them into areas of possible strengths, weaknesses, opportunities or threats. With this analysis, we will finally be able to pinpoint specific key areas that require attention and improvement and are crucial for the university development process.

• Uncovering Challenges and Embracing Opportunities: It is crucial to assess and acknowledge the challenges and opportunities linked to research assessment reform in the mentioned key areas at an early stage. This evaluation is essential for developing effective strategies that can be implemented successfully in the future. By gaining a deep understanding of potential obstacles and possibilities, we can tailor our approach accordingly. One potential avenue is to seek insights from CoARA Members who have already implemented an action plan on research assessment. We can leverage synergies through regular exchange of best practices to drive our own reforms forward.

By following these concrete process steps, we aim to establish a solid foundation for research assessment reform in the established key areas at TU Braunschweig.

2025: Iterative experimental phase

- Update existing and design new processes, criteria, metrics, and tools (RRA Framework) where necessary: To develop and refine assessment criteria, tools, and processes in the identified key areas, collaboration with assessors and individuals being assessed is necessary. This collaboration ensures the consideration of diverse contributions in research beyond journal publications. The aim is to incorporate practices that promote robustness, openness, transparency, and inclusiveness of research, such as peer review, teamwork, and collaboration. Concrete actions could include updating institutional policies and guidelines to incorporate the updated assessment criteria, developing online platforms or databases to facilitate the submission and evaluation of diverse research outputs, establishing clear procedures for assessing non-traditional contributions, or integrate aspects of CoARA into the preparation of excellence university proposals.
- Establish pilot initiatives in key areas: For instance, a pilot initiative at TU Braunschweig might involve testing the tools developed within the TU Braunschweig or by the ACA working group in an iterative process, to assess their readiness for use. Depending on the degree of maturity of each tool (new process, criteria and metric), implementation of such (new process, criteria and metric) will take place with varying speeds.
- Develop guidelines for implementation: Creating clear guidelines and providing support materials are essential for a successful implementation of the processes, criteria, metrics, and tools developed in the previous step. These guidelines will help stakeholders understand the purpose, objectives, and procedures of the framework, ensuring consistent application and transparency across the university community.
- Seek feedback from the university community: To ensure inclusivity we plan to make the RRA Framework and guidelines available for at least one month to all members of the TU Braunschweig university community. This allows individuals to review and provide their input on the proposed framework. Feedback can help identify potential areas that require further clarification or improvement and any practical challenges or limitations that may arise during its implementation (e.g. who might new approaches discriminate against; how might they be gamed; what are the potential unintended consequences). Valuable insights and suggestions should be incorporated into refining the RRA Framework.

2026-2027: Implementation

- Implement developed and new assessment tools, processes, criteria and metrics: In light of the initiatives undertaken in 2025, any newly developed assessment tools, processes, criteria, and metrics will be implemented across the university in key areas, provided they are deemed ready for use.
- Provide training, guidance and support to assessment panels: Assessor training is crucial to ensure a consistent understanding and application of the developed/new assessment criteria and processes. Concrete undertakings could involve organizing workshops or webinars, providing guidance documents or manuals previously developed, and offering ongoing support through mentorship or consultation sessions.
- Evaluate developed and new assessment tools, processes, criteria and metrics: In a formal process e.g. via questionnaires, we plan to gather feedback from the university community at the end of 2026 and 2027. Valuable insights and suggestions should be incorporated into refining the RRA Framework. This iterative process ensures that all relevant perspectives are considered and improvements are made based on practical experiences.

2028: Anchoring in the university and "living" the reform

- Assess the effectiveness of the agreed measures: To determine the impact and effectiveness of the measures implemented during the cycle an evaluation will be conducted. This evaluation should include quantitative and qualitative data analysis, feedback from stakeholders, and an assessment of whether the intended goals were achieved.
- **Document and communicate the results achieved:** A report at the end of the cycle will highlight the outcomes and achievements and should provide a clear overview of the results obtained through the implemented measures, including any improvements or advancements made in key areas.
- Celebrate achievements: In order to acknowledge the accomplishments and favorable results arising from the implemented measures, they will be celebrated. This will motivate stakeholders and reinforce the importance of their contributions to the overall success of the action plan.
- Monitor progress throughout subsequent cycles: By establishing mechanisms to regularly monitor progress during future cycles, timely adjustments will be guaranteed.

By following this action plan, we can ensure that our research assessment practices are aligned with best practices, are transparent, fair, and capable of effectively evaluating research outcomes within our university community.

Team CoARA of the TU Braunschweig

Prof. Dr.-Ing. Peter Hecker, Andreas Hebbelmann, Christin Teskey, Dr. Phillip Hahn, Cornelia Beier, Robert Strötgen, Dr. Jana Mersmann, Dr. Anne Fleige