



Czech Academy
of Sciences

COARA ACTION PLAN

Towards the advanced research assessment of the CAS
institutes and their research teams

July 2024

Background

The Czech Academy of Sciences (hereinafter the “CAS”) is the largest public non-university scientific institution in the Czech Republic. It conducts research through its 54 institutes, including 2 research-infrastructure institutes, which are established by the CAS as public research institutions.

Research by the CAS covers scientific fields from Mathematics, Physics, Earth Sciences, Life and Chemical Sciences to Humanities and Social Sciences. The main mission of the CAS and its institutes is to carry out high-quality scientific research at the frontiers of knowledge that respects the current and anticipated needs of our society. The CAS thus places great emphasis on the freedom of scientific inquiry, regardless of whether the research is motivated by socio-economic benefit, the desire for knowledge, or both.

The CAS strives to be the highest quality scientific institution in the Czech Republic and to achieve the standards of leading institutions in scientifically advanced countries in research and professional activities and institutional management. To achieve this, CAS management has been organising periodic evaluations for its institutes and their research teams since the beginning of the CAS existence in 1993. The Methodology and evaluation results are published transparently on its website ([here](#)). The CAS is continuously developing its evaluation system based on feedback from the main actors in the evaluation, as well as based on experience from other countries. When developing its evaluation system, the CAS seeks to reflect new challenges arising from changes in the scientific environment and society and from international initiatives that support a responsible approach to research assessment emphasising the quality of research and its societal relevance and their assessment based on appropriate approaches and criteria. Therefore, the CAS has in the past incorporated important elements to strengthen the quality of assessment into its evaluation system: informed peer review, independence, formative feedback, transparency, field specialisation and, with regard to the limited size of the Czech R&D&I environment, predominantly foreign experts conducting evaluation. In 2013, the CAS joined the [San Francisco Declaration on Research Assessment](#) and implemented the declaration’s recommendations into its evaluation system.

The principles of the [Agreement on Reforming Research Assessment](#) (ARRA) reflect long-term trends in the field of improving evaluation systems and are in accordance with the CAS long-term goal to improve the quality of research assessment. The CAS therefore joined the initiative preparing ARRA in 2022, signed the agreement and joined the broader coalition of [COARA](#) signatories.

In accordance with its commitment under the Agreement on Reforming Research Assessment, the CAS presents below an action plan that will be applied in the process of preparing and implementing the upcoming evaluation of its institutes and their research teams for the period 2020-2024. The action plan and the impact of each implemented activity will be assessed as part of regular reflection on evaluation after its completion.

Main challenges

The CAS strives to ensure that its evaluation system is of the highest possible quality and contributes to the set objectives, but it is also shaped to certain extent by the external environment and influenced by a number of external and internal conditions, which are challenges with which the evaluation system must deal.

The external environment and conditions consist primarily of national legislation and the national evaluation system which serves as a joint framework including the CAS, as well as universities and resort research organisations. This uniform evaluation system for diverse research organisations is unusual in scientifically advanced countries, introduces a number of limitations into the evaluation system and its flexibility. However, the national evaluation system is currently undergoing reflection, and the CAS greatly welcomes the fact that not only the bodies that are responsible for the preparation of the national evaluation, as well as many important actors in the Czech Republic have joined the ARRA initiative. This could be an indication that evaluation in the Czech Republic, not exclusively at the national level, will continue to improve, cultivate and approach international standards.

The internal conditions are represented by the CAS environment and its organisational division into 54 differently sized institutes and more than 400 differently sized research teams active in a wide range of research areas, including interdisciplinary ones. It is necessary to ensure that evaluation is appropriate and useful, as well as feasible and associated with the smallest possible administrative burden.

The CAS evaluation system thus faces the following main challenges:

1. To carry out evaluation in accordance with Czech legislation and the national evaluation methodology.
2. To ensure a comprehensive assessment of 54 institutes and their teams from different research areas, some of which conduct interdisciplinary research covering multiple disciplines and some of which have the nature of research infrastructure.
3. Through assessment, to contribute to improving research quality, international competitiveness and cultivating an environment in accordance with the CAS mission and its long-term priorities.
4. To ensure a balance between the benefits and costs of evaluation.

Objectives

In accordance with the CAS long-term approach and current priorities in relation to research assessment and ARRA commitments, the CAS has identified the following objectives on which it will continue to work and where it sees room to make the most impactful changes, with regard to the aforementioned challenges.

1. Continue to strengthen the qualitative approach to assessment, abandon the inappropriate use of bibliographic indicators based on the influence of journals as proxies for the quality and/or impact of research and outputs.
2. Deepen the formative aspect of assessment, enhance the quality of feedback obtained from international peers.
3. Strengthen respect for differences in various fields of research, including interdisciplinary research.

4. Find more appropriate ways to assess and appreciate different outputs and results, especially the results of applied research.
5. Continue to raise awareness of the meaning, principles and approach to research assessment in the scientific community.
6. Simplify assessment to focus on priority areas that are crucial to the mission of the CAS and its institutes.
7. Include Open Science in assessment and support the institutes in their conceptual approach to the principles of Open Science.

Operational action plan 2024–2027

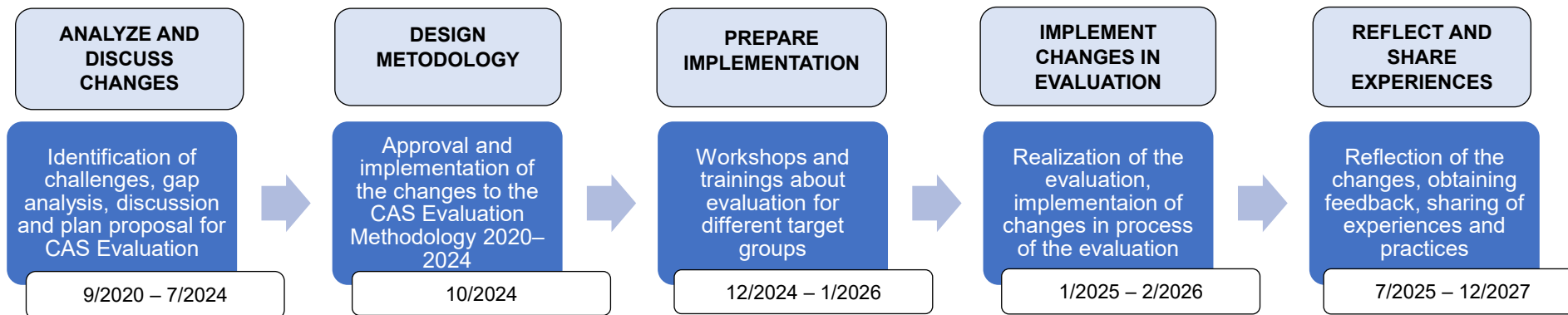
The COARA Commitments	CAS Actions
<p>1. Recognise the diversity of contributions to, and careers in, research in accordance with the needs and nature of the research.</p> <p>Purpose: This commitment will broaden recognition of the diverse practices, activities and careers in research, considering the specific nature of research disciplines and other research endeavours.</p>	<p>1.1 Through evaluation, support the concept of human resources development and the creation of conditions enabling researchers to play different roles and pursue different careers in research.</p> <p>1.2 Appreciate the service of researchers to the research community (e.g. involvement in peer review of journal articles, involvement in assessment of institutes, projects, researchers, etc., organising scientific conferences).</p> <p>1.3 Recognise the contributions of research-service units for research and its societal relevance.</p> <p>1.4 Support the implementation of Open Science principles with emphasis on the involvement of researchers from the CAS institutes in specific roles enabling effective implementation of Open Science in the institute.</p>
<p>2. Base research assessment primarily on qualitative evaluation for which peer review is central, supported by responsible use of quantitative indicators.</p> <p>Purpose: This commitment will enable the move towards research assessment criteria that focus primarily on quality, while recognising that responsible use of quantitative indicators can support assessment where meaningful and relevant, which is context dependent.</p>	<p>2.1 Set up qualitative peer review as a main principle for assessing the quality of research work in terms of its value to scientific knowledge and its benefits to society.</p> <p>2.2 Use a narrative approach to the assessment providing a wider context enabling the use of a wider range of information.</p> <p>2.3 Continue to involve highly erudite, independent experts in the assessment, with a transparent way of nominating them to evaluation bodies (commissions) and appropriate rewards for their work.</p>

<p>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</p> <p>Purpose: This commitment will reduce the dominance of a narrow set of quantitative journal- and publication-based metrics.</p>	<p>3.1 Abandon bibliographic indicators of journals as proxies for quality and/or the impact of research, do not use simplistic JIF/AIS quartile-based statistics in assessments.</p> <p>3.2 As part of qualitative peer review, also assess institutions' strategy for supporting high-quality and responsible publishing.</p> <p>3.3 When assessing selected (the best) scientific results, perform an assessment in the full range of their quality and contribution (scientific quality, significance, societal relevance, ...).</p>
<p>4. Avoid the use of rankings of research organisations in research assessment</p> <p>Purpose: This commitment will help avoid that metrics used by international rankings, which are inappropriate for assessing researchers, trickle down to research and researcher assessment. It will help the research community and research organisations regain the autonomy to shape assessment practices, rather than having to abide by criteria and methodologies set by external commercial companies. This could include retaining control over ranking methodologies and data.</p>	<p>4.1 Draw attention to the limited indicative value and limits of various rankings, especially those based on counting publications and bibliographic indicators, which can significantly disadvantage small disciplines or small institutions.</p> <p>4.2 As part of assessment, do not create comparisons between institutes across disciplines, even those that are close to each other, as it is not possible to obtain indicators that would enable robust and objective comparisons.</p>
<p>5. Commit resources to reforming research assessment as is needed to achieve the organisational changes committed to</p> <p>Purpose: This commitment will ensure that organisations allocate the necessary resources, whether in the form of budget or staff capacity, to improve research assessment practices within their agreed timeframe.</p>	<p>5.1 Increase the allocation of funds and staffing for the preparation and implementation of changes in assessment, including the creation of supporting information systems, education, training and evaluation of the impact of implemented changes to assessment.</p> <p>5.2 Continue to ensure and involve a preparatory team including scientists from different disciplines, with management experience, experience in assessment (its implementation and design) and international experience, who will prepare a proposal for the implementation of the aforementioned changes in academic evaluation for the period 2020-2024 on the basis of respective analyses.</p>
<p>6. Review and develop research assessment criteria, tools and processes</p>	<p><i>Note: Applies to Section 6.1; Section 6.2 applies to the assessment of internal CAS programmes and will be subject to a subsequent institutional change.</i></p>

<p>6.1 Criteria for Units and Institutions</p> <p>With the direct involvement of research organisations and researchers at all career stages, review and develop criteria for assessing research units and research performing organisations, while promoting interoperability</p> <p>Purpose: This commitment will ensure that national / regional / organisational authorities and evaluation agencies review and, where needed, develop criteria for the assessment of research performing units and organisations, in accordance with the Principles. It will foster the responsible use of metrics in assessing research performing units and organisations, and help to prevent contradictions or incompatibilities between the assessment of research, researchers and research performing organisations. It will also safeguard the interoperability of adapted or newly developed assessment processes.</p>	<p>6.1.1 Actively cooperate with national authorities on the preparation of a national methodology, participate in joint discussions, find opportunities for synergies and complementarity of evaluation systems at the national level and at the level of the CAS.</p> <p>6.1.2 For mutual harmonisation of individual evaluation systems, be as interoperable and transparent as possible, i.e. harmonise evaluation systems by sharing methodologies and assessment results in a timely and open way, both with assessors and those assessed, and between individual institutions, with respect for their individual differences.</p> <p>6.1.3 Continue to prepare the CAS evaluation – setting criteria, tools and assessment processes based on feedback on past evaluations from all actors (assessors and those assessed), as well as on data, analyses and alternative possible solutions and their discussion with representatives from different scientific fields. Make further use of the experience of research assessment in scientifically advanced countries and the recommendations of professional initiatives.</p> <p>6.1.4 Redefine and reduce the assessment criteria to ensure a better balance between the benefits of assessment and its costs (especially time costs) in order to make assessment more beneficial and effective.</p> <p>6.1.5 Appreciate the application of Open Science practices in the evaluation and for this purpose set up a set of recommendations at the CAS level that will enable the development of systems to support Open Science and the implementation of its principles at all CAS institutes.</p>
<p>7. Raise awareness of research assessment reform and provide transparent communication, guidance, and training on assessment criteria and processes as well as their use</p>	<p>7.1 Communicate openly and transparently with all actors in the evaluation about evaluation objectives, criteria, tools and processes through personal discussions at institutes, thematic workshops, trainings and support materials for the evaluation.</p>

<p>Purpose: This commitment will ensure that organisations raise awareness of the reform among all actors. It will ensure that organisations transparently communicate the criteria, tools and processes used for research assessment and train researchers and assessors in their use.</p>	<p>7.2 Raise awareness of the reform of research assessment, the CAS involvement in this and other initiatives, and raise awareness of the aims of these initiatives.</p>
<p>8. Exchange practices and experiences to enable mutual learning within and beyond the Coalition</p> <p>Purpose: This commitment will ensure organisations exchange and make use of information for mutual learning. It will help avoid fragmentation, contribute to the coherence of assessment practices between organisations, and enable researcher mobility. It also will allow those further ahead to share approaches and lessons learned, to benefit those who have further to go on their reform journey.</p>	<p>8.1 Monitor trends in assessment systems in advanced countries and the ways in which these systems deal with crucial challenges in assessment.</p> <p>8.2 Be in contact with representatives from other countries who are involved in the assessment and be active in the national community that deals with research assessment.</p> <p>8.3 Mutually share the experience gained from the evaluation with other entities in the Czech Republic.</p>
<p>9. Communicate progress made on adherence to the Principles and implementation of the Commitments</p> <p>Purpose: This commitment will ensure organisations update one another on the progress made. It will foster careful self-reflection and monitoring of their own adherence to the Principles and progress towards meeting the Commitments.</p>	<p>9.1 Perform a reflection of the changes and activities implemented under this action plan and openly share experience of the implementation of these changes.</p>
<p>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</p> <p>Purpose: This commitment will ensure that assessment approach decisions are evidence informed. It will help organisations reflect on their own processes, gain understanding about whether assessment practices achieve the desired goals, and engage in evolutive assessment based on new evidence as it becomes available. It will also help to ensure control and ownership of research assessment data by the research community.</p>	<p>10.1 After the completion of the evaluation for the period 2020-2024, provide and process feedback on evaluation from all actors (experts from other countries and institutes assessed) and assess the chosen approach, criteria and tools used in relation to the evaluation aims in an objective manner.</p> <p>10.2 Openly share evaluation results and “assessment of the evaluation” with the research community and the wider public through publicly accessible platforms.</p>

Key milestones and Timeline



The Czech Academy of Sciences will demonstrate progress towards reviewing, developing and evaluating criteria, tools and processes that fulfil the core commitments, with a touch point at the end of 2027, by which time the CAS will have worked through at least one cycle of review and development of the assessment criteria, tools and processes in line with this action plan. Timeline corresponds with undergoing preparations of the evaluation cycle for the period 2020-2024 which has already started in 2020. COARA commitments have been incorporated into these preparations.