

Report on the evaluation of the research and professional activities of CAS Institutes for 2015–2019

One of the CAS management's and CAS institutes' primary tasks is a permanent emphasis on increasing the quality of research and professional activities, engaging institutes in international research activities and high-quality fulfilment of other CAS functions stipulated by the relevant legislative regulations. In order to ascertain the quality of performance of this task, the CAS management has organised regular evaluations of its institutes since the CAS came into existence in 1993.

Evaluation of the research and professional activities of CAS institutes for 2015–2019 (hereinafter the "Evaluation") was conducted on the basis of Act No. 130/2002 Sb., on the support of research, experimental development and innovations using public funds and on amendments to related acts (Act on Support of Research, Experimental Development and Innovations) as amended. It is the basis for fulfilment of the provisions of Section 7(7) of this act: *"The provider shall provide the research organisation with institutional support for the research organisation's long-term conceptual development on the basis of its evaluation, which was conducted according to the methodology prepared in compliance with Section 35(2)(c)."* The evaluation results therefore serve as one of the materials for strategic management of the CAS, including funding of CAS institutes as one of the individual aspects of management. The CAS evaluation is interlinked with the Methodology for evaluating research organizations and research, development and innovations purpose-tied support programmes (so-called Methodology 17+), which is gradually being implemented on a national level by the Government Office.

The evaluation was conducted in accordance with two methodological documents and their annexes and respected the various specialisations of the CAS research-oriented and research-infrastructure institutes. The Library of the CAS and the CAS Centre of Administration and Operations are CAS research-infrastructure institutes. The information given below, regarding the evaluation of research and professional activities of research-oriented and research-infrastructure CAS institutes for the period 2015–2019, form a summary report on the evaluation of the research and professional activities of CAS institutes for the period 2015–2019.

Evaluation of research-oriented CAS institutes for the period 2015–2019

Evaluation methodology

The schedule and detailed procedure for the Evaluation of research and professional activities of research-oriented CAS institutes for 2015–2019 were determined by the document titled "Methodology of evaluation of research and professional activities of research-oriented institutes of the Czech Academy of Sciences for the period 2015–2019" (hereinafter the "Evaluation methodology"), which was approved by the CAS Academy Council at its 23rd and 24th session on 12 February 2019 and 12 March 2019 and which was further specified at the subsequent sessions.

The Coordination Board of the Evaluation, an advisory body to the CAS Academy Council, which supervised progress and adherence to the principles of evaluation, was appointed at the 25th session of the CAS Academy Council on 2 April 2019. With regard to the unscheduled postponement of Phase II of evaluation to the end of the term of office of the previous members of the CAS Academy Council and the need to maintain the continuity of this body's activities, the Coordination Board of the Evaluation was appointed already at the 1st session of the new CAS Academy Council, which was held on 6 April 2021.

The Evaluation methodology was also supplemented in relation to the Covid-19 pandemic, particularly with regard to long-term mobility restrictions in a number of countries. As a result of these restrictions, the evaluation timetable required modification (which primarily affected postponement of the date of Phase II of evaluation) and changes to the format of visits by the evaluation commissions during Phase II of evaluation, from on-site to online.

The CAS Academy Council approved the first proposal for changes to the schedule of Phase II of evaluation in relation to the pandemic on 15 April 2020 by means of 45th voting per rollam, when it was decided to reschedule on-site visits by the evaluation commissions to CAS institutes from October 2020 to 2021. The CAS Academy Council approved postponement of the submission of materials for Phase II of evaluation from 30 April 2020 to 30 November 2020, on 21 April 2020 by means of the 47th voting per rollam. The CAS Academy Council set a new period for on-site visits at its 36th session on 2 June 2020, and this period was between 8 March and 21 March 2021. Rescheduling of these visits also meant that all the related deadlines of Phase II of evaluation were moved, including the deadline for presentation of the summary information about evaluation to the CAS Academy Assembly, from 23 March 2021 to 8 December 2021. With regard to ongoing global restrictions linked to the Covid-19 pandemic, the CAS Academy Council voted per rollam on 14 and 18 December 2020 and decided that on-site visits by evaluation commissions in Phase II of evaluation would be replaced by online evaluation using remote communication tools (videoconferences).

The CAS Academy Council specified the following key evaluation objectives in the Evaluation methodology:

1. Increasing the quality of the research and professional activities of institutes by providing detailed and independent information about the institutes and research teams to the management of the individual institutes and the research teams themselves.
2. Obtaining objective information on the position of CAS institutes in the national, European and global context and their use for strategic management of the CAS as a whole, including funding of institutes as one of the individual aspects of management.

The methodological concept of the evaluation was based on five key principles:

1. Informed peer-review
2. Field-based character respecting specifics of the field
3. Two-phase process:

Phase I: evaluation of the individual selected outputs of the research activities of CAS institutes and their teams, using international panels and independent external evaluators

Phase II: evaluation of the institutes as a whole and their teams according to the specified criteria using international commissions

4. Awareness of evaluation within the CAS and the general public
5. Separation of Evaluation and Funding

Field classification into fields, panels, field groups and the characteristics of fields were adopted from the OECD Frascati Manual and adapted to the structure of research at the CAS. For the purpose of evaluation, the individual fields were divided into 12 panels and commissions depending on their representation in the research activities of CAS institutes (see tab. 1). The international panels and commissions partially shared their members. For logistical reasons, three fields were divided to two evaluation commissions active during Phase II of evaluation. Classification of research fields corresponds to the structure approved by the Presidium of the Research, Development and Innovation Council on 27 August 2018. This structure is based on the OECD Category to Web of Science Category Mapping 2012 converter, which converts field-based classification of OECD to field-based classification pursuant to Web of Science (WOS). The title of panel/commission No. 1 was specified at the 29th session of the CAS Academy Council on 3 September 2019.

Tab. 1: Field Panel and Commission Specialisation

Panel/Commission	Field Specialisation
1	Mathematics and computer sciences
2	Physical sciences
3	Chemical sciences
4	Earth and environmental sciences
5	Biological sciences A
6	Biological sciences B
7	Engineering and technology
8	Medical and health sciences
9	Social sciences
10	History and archaeology
11	Languages and literature
12	Humanities and the arts

During Phase I of evaluation, the individual selected outputs of the research activities of CAS institutes and their teams were classified on a 5-level quality scale using international panels and external evaluators. The quality scale was defined as follows:

1. Quality that is world-leading in terms of originality, scientific significance and rigour, and/or with actual or likely future groundbreaking innovative potential.

2. Quality that is internationally excellent in terms of originality, significance and rigour but which falls short of the highest standards of excellence and/or highly sophisticated result with actual or likely future significant innovative potential.
3. Quality that is recognized internationally in terms of originality, significance and rigour, and/or result of recognisable novelty with actual or likely future innovative potential.
4. Quality that is recognized acceptable in terms of originality, significance and rigour, and/or result representing improvement with actual or likely future potential to contribute to society or economy.
5. Quality that falls below the standard of scientific work.

During Phase II of evaluation, CAS institutes and research teams were evaluated by international commissions on the basis of two main and four additional criteria.

Main criteria:

1. Quality of results
2. Societal relevance

Further criteria:

1. Position within international and national context
2. Vitality, sustainability and strategy
3. Cooperation with universities and participation in education
4. Outreach activities

Materials for evaluation

In compliance with the Evaluation methodology, CAS institutes completed an electronic application for evaluation according to a unified content structure, which included the following sections:

Part 1: General information about the institute and individual teams

Part 2: Materials for Phase I of evaluation elaborated for each research team of the institute

Part 3: Materials for Phase II of evaluation, elaborated:

- a) for the institute as a whole,
- b) for each research team of the institute.

Materials for assessment were uploaded to the electronic KIS information system during the period between 1 January and 30 November 2020. Separate deadlines were set for individual submission of materials for Phase I and Phase II. The goal was to provide institutes with the greatest possible amount of time for the preparation of documents, while simultaneously gathering all the required materials for the field panels before commencing their activities within the terms of Phase I of evaluation on 1 April 2020.

The materials for Phase I of evaluation were uploaded to the electronic KIS information system during the period between 1 January and 31 March 2020.

Lists of the names of researchers were submitted by 31 January 2020 and the institutes were able to submit a request for approval of teams of less than four researchers within the same deadline. A total of 44 such requests were submitted by 17 CAS institutes. The institutes submitted information about research teams and their selected outputs included in Phase I of evaluation by 20 February 2020. Outputs were selected in the KIS system from a list of all outputs registered in the ASEP repository (administered by the Library of the CAS, hereinafter the "LCAS") on the basis of the interconnection of both systems. The institute classified each of the outputs intended for Phase I of evaluation in one field and one subfield according to the Web of Science codebook, by the same deadline. A total of 23 CAS institutes submitted a request for approval of the registered teams for evaluation, which differed from the institute's organisational structure, by the same deadline.

The institutes added brief comments to the individual outputs concerning the institute's contribution to the output, its significance and quality by 15 March 2020. During the period between 13 and 23 March 2020, the institutes were able to check the bibliometric data prepared by the LCAS and submit potential comments. Legitimate comments were subsequently integrated into the modified version of the bibliometric data by 31 March 2020. In order to make a selection of the highest quality outputs of the institute or individual research teams easier, the institutes were provided with a summary of outputs with bibliometric data over the 5-year evaluated period as early as 12 February 2020. The evaluated institutes ensured access to the full texts of the outputs through ASEP repository by 31 March. For only one monograph, it was not possible to provide access to the full text electronically for the foreign evaluators, so the department provided a physical copy of this output for the evaluation.

The background materials for Phase II of evaluation were uploaded to the KIS information system by 30 November 2020.

On 10 January 2020, during the phase of preparation of background materials, the Science Support Division of the CAS Head Office organised an instructional seminar for the evaluated institutes about the application for evaluation (for both phases). This was done with the participation of representatives of the CAS Academy Council, staff from the Science Support Division and the LCAS. Presentations from the seminars and answers to frequently asked questions (FAQ) were continuously published on the CAS internal web portal and in the KIS information system. The instructional seminar was preceded on 24 October 2019 by an informative seminar, at which participants from the institutes received a closer introduction to the preparation of evaluation, its methodology and the issue of bibliometric indicators. Space was also regularly given to the preparation of evaluation during meetings of CAS management and directors of institutes from the spring of 2019 and key information about the preparation of evaluation was also provided to the CAS Science Council and at meetings of the administrative staff of CAS institutes.

A seminar regarding the completion of Phase I of evaluation took place on 16 October 2020, at which participants from the institutes were acquainted with the preparation, progress and general results of Phase I of evaluation. The seminar also discussed the

preparation of Phase II of evaluation. Since the organisational arrangements of the new online format of visits by evaluation commissions was only approved on 12 January 2021, the institutes were operatively informed of this change in writing and three instructional online consultations regarding work with the online videoconference platforms were subsequently organised in cooperation with the CAS Centre of Administration and Operations. Representatives of 30 CAS institutes attended these.

Organisation of Phase I of evaluation

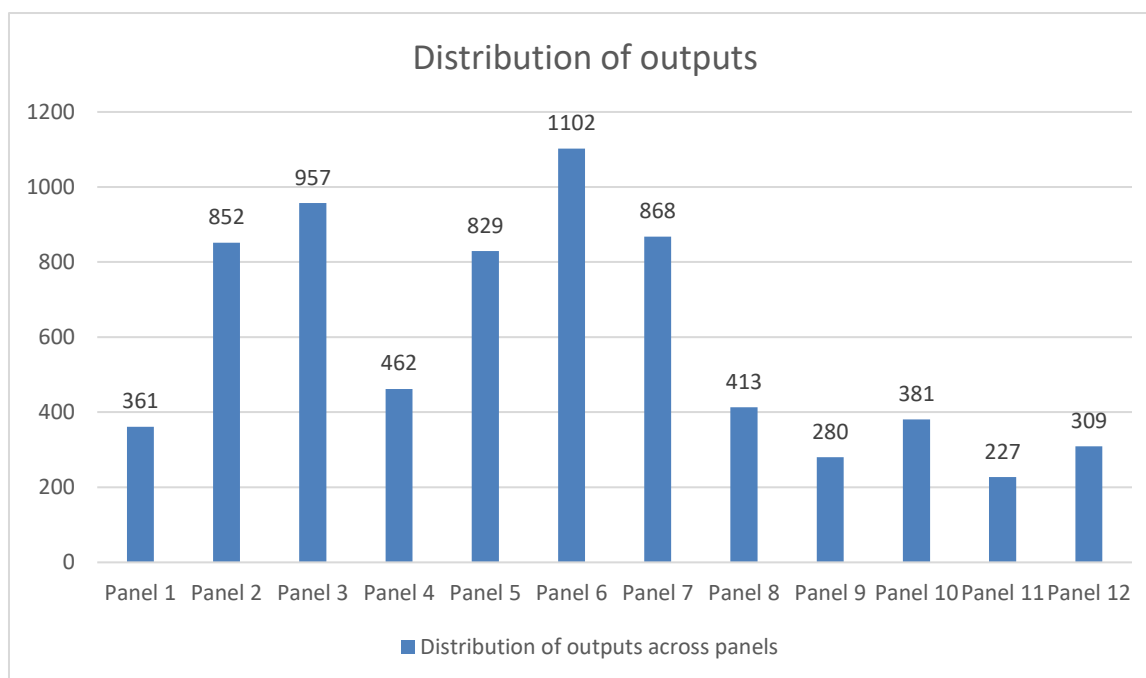
Phase I of evaluation was launched on 1 April 2020. The execution was entrusted to 12 field panels (see tab. 1), whose chairs and members were appointed by the CAS Academy Council. For various reasons, the members of some panels had to be operatively replaced or appointed additionally, and therefore the composition of the panels was updated on 29 April and 2 June 2020. By 16 July 2020, 189 members of panels, consisting of 7 to 29 experts, had been appointed.

In relation to panels No. 5 – Biological sciences A and No. 6 – Biological sciences B, communication with their chairpersons was lost as a result of the Covid-19 pandemic and so new chairpersons were expeditiously appointed. In relation to panel No. 5 – Biological sciences A, one panel member was allowed to evaluate three outputs in the role of the evaluator. In case of two outputs the member had been active already before he became a member of the panel and in one case he helped a panel member who was unable to obtain any assessment of the output, despite her greatest efforts, and the output did not fall within her specialisation. In relation to panel No. 7 – Engineering and technology, the situation where the chairperson of the panel was simultaneously in the position of panel member, i.e. he also ensured evaluation of the outputs, was accepted. For operative reasons, 95 evaluators evaluated over 15 outputs, which was the previously determined upper limit of work for the evaluators. Operative requirements and changes were regularly discussed with the chair of the Coordination Board of the Evaluation.

7, 041 outputs by 361 registered research teams from 52 CAS research institutes were evaluated during Phase I. A total of 26% more outputs were therefore evaluated compared to the previous evaluation.

Of the total 7,041 outputs, 5,958 papers were published in an impact periodical, 384 monographs were published, 326 articles were published in a specialised periodical and 208 chapters were published in a monograph. This also included 52 patents, 48 conference papers and 65 other types of outputs (utility and industrial models, prototypes, functional samples, verified technologies, etc.). A number of teams from various institutes proposed the same outputs – more than one team simultaneously submitted 286 outputs, of this, 272 outputs were proposed by two teams and 14 outputs by three teams.

The following graph shows the distribution of the number of outputs across individual panels.



According to the approved evaluation schedule, Phase I of evaluation should have been completed by June 2020. In relation to the epidemiological situation and the delayed launch of evaluation in panels No. 5 – Biological sciences A and No. 6. Biological sciences B as a result of replacement of the panel chairperson and also on the basis of requests from these chairpersons and the chairpersons of panels No. 1 – Mathematics and computer sciences and No. 9 – Social sciences, postponement of completion of Phase I until 16 July 2020 was permitted. The CAS Academy Council agreed to this at its 37th session on 30 June 2020.

Eight outputs remained unevaluated. In relation to three outputs – one type C – conference paper concerning project proposal (in panel No. 1 – Mathematics and computer sciences) and two type U – organisation of an event (in panel No. 2 – Physical sciences), the chairpersons of the relevant panels withdrew them from evaluation due to their non-scientific nature, in compliance with the Evaluation methodology. The remaining five outputs in panel No. 9 – Social sciences remained unevaluated because the panel members were unable to obtain an evaluator for these outputs, despite their best efforts, and they refused to evaluate these outputs themselves because they did not specialise in the relevant areas.

Organisation of Phase II of evaluation

Phase II of evaluation was formally launched on 11 January 2021 and 15 commissions in 12 fields were entrusted with this task (see tab. 1). The CAS Academy Council divided the commissions in the fields of Chemical sciences, Biological sciences A and Engineering and technology into two separate commissions for the purpose of evaluation during Phase II, with regard to the number of evaluated teams. Another measure was to set the maximum duration of the commission's online meetings to five days, with regard to reducing the burden on the evaluation commissions. The individual commissions were therefore given the task of evaluating 13 to 37 teams. Four institutes only registered one team for evaluation. One team subsequently withdrew from the

evaluation (approved by a decision of the Coordination Board of the Evaluation on 23 February 2021) and so the number of evaluated teams in Phase II of evaluation fell to 360.

The first members of the evaluation commissions were appointed on 29 October 2019, however, because of the adverse circumstances, commission members were operatively replaced and appointed additionally even after Phase II commenced; the last experts were approved by the CAS Academy Council at its 43rd session on 9 February 2021. The commissions had a total of 154 members. The number of experts in these commissions ranged between 7 and 14 with regard to the number of teams applying for evaluation by the commission, and the field specifics.

A total of 19 CAS institutes classified their teams in fields so that they were evaluated by more than one commission. Two commissions evaluated 13 institutes, three commissions evaluated five institutes and four commissions evaluated one institute. Their work required a great degree of coordination in these cases because the commissions collaborated on a summary final report for the institutes. The chairperson of the specific commission, who contributed the most to the evaluation of the institute, i.e. evaluated the greatest number of research teams, was responsible for coordinating the preparation of the summary report with other chairpersons. This coordination applied to all 15 commissions.

In agreement with the commissions and the directors of CAS institutes, schedules and itineraries of online remote visits to the evaluated institutes were planned (Table 2).

Tab. 2: The dates of online meetings by the commissions at CAS institutes

Commission number	Commission title	Date
1	Mathematics and computer sciences	8. 3. 2021– 10. 3. 2021
2	Physical sciences	15. 3. 2021– 19. 3. 2021
31	Chemical sciences	15. 3. 2021– 17. 3. 2021
32	Chemical sciences	8. 3. 2021– 11. 3. 2021
4	Earth and environmental sciences	15. 3. 2021– 18. 3. 2021
51	Biological sciences A	15. 3. 2021– 18. 3. 2021
52	Biological sciences A	15. 3. 2021– 19. 3. 2021
6	Biological sciences B	15. 3. 2021– 19. 3. 2021
71	Engineering and technology	8. 3. 2021– 12. 3. 2021
72	Engineering and technology	8. 3. 2021– 11. 3. 2021
8	Medical and health sciences	8. 3. 2021– 12. 3. 2021
9	Social sciences	15. 3. 2021– 18. 3. 2021
10	History and archaeology	8. 3. 2021– 12. 3. 2021
11	Languages and literature	8. 3. 2021– 10. 3. 2021
12	Humanities and the arts	15. 3. 2021– 18. 3. 2021

In compliance with the Evaluation methodology, observers-representatives of the CAS (particularly members of the CAS Academy Council and CAS Science Council) and observers-representatives of the evaluated institute, took part in Phase II of work by the field commissions, in order to ensure the transparency and comparability of evaluation of all institutes. Observers who were representatives of the contracting

authority were approved on 9 February 2021 or 9 March 2021 by the CAS Academy Council at its 43rd and 44th session. If the appointed member of the Academy Council was unable to personally take part in any meeting, he/she was replaced by another appointed observer. The observers-representatives of the evaluated institute, possibly their substitutes, were appointed by the directors of the respective institutes by 22 January 2021.

All those involved in Phase II of evaluation were acquainted in detail with the individual activities and tasks, with an emphasis on the smooth progress of online meetings and the preparation of final reports. Especially for commission members, instruction and discussion via videoconference took place on 5 March 2021 and 12 March 2021, i.e. always before the online meetings of the respective commissions commenced. Observers-representatives of the CAS also participated in the instruction.

The deputy-chairperson of the commission prepared brief minutes from each online meeting between the commission and an institute, which subsequently included a list of meeting participants provided by the institute.

Evaluation results

Within Phase I of evaluation, seven panels (panels No. 2 – Physical sciences, No. 3 – Chemical sciences, No. 4 – Earth and environmental sciences, No. 7 – Engineering and technology, No. 10 – History and archaeology, No. 11 – Languages and literature and No. 12 – Humanities and the arts) completed the evaluation of all outputs by the set deadline of 30 June 2020. The other panels completed the evaluation by 16 July 2020.

A total of 28,993 applications for the preparation of an opinion were sent. Of this number, 13,675 opinions were prepared by 1,650 evaluators from 57 countries around the world; 15,255 applications were denied or no one responded to them and 63 promised opinions were not delivered. Over 97% of the evaluators were from a foreign country. 445 outputs from 29 CAS institutes were submitted for evaluation in the Czech language and in some cases, the foreign evaluators had language difficulties with their evaluation. That is why 47 experts from the Czech Republic operatively evaluated these, while making sure to eliminate the conflict of interests.

Of the total number of evaluated outputs, 1,103 outputs (15.7%) were rated quality level 1, 3,055 (43.5%) were rated quality level 2, 2,442 (34.4%) were rated quality level 3, 442 (6.3%) were rated quality level 4 and 11 outputs (0.2%) were rated quality level 5. At least three assessments, or possibly more, were obtained for 599 outputs, two assessments were obtained for 5,534 outputs and one assessment was obtained for 786 outputs. No assessment could be obtained from evaluators for 114 outputs, and these were evaluated by members of the field panels.

The evaluation results of individual outputs were used to prepare qualitative profiles of the outputs of individual teams and also for field reports for Phase I of evaluation, which was one of the background materials for the field commissions during Phase II of evaluation.

After 16 July 2020, all the chairs and members of the panels were asked for feedback on the methodology and progress of evaluation via an electronic questionnaire. 148 experts responded to this request.

The evaluation commissions handed in the results of evaluation in Phase II in the format of the so-called final reports. A total of 50 of these reports were made available to the institutes on 17 May 2021, the remaining two were provided by 19 May 2021. The directors of the institutes were asked to submit their standpoints to the final reports by 3 June 2021. The directors raised objections to 25 reports and asked the Coordination Board of the Evaluation to pass these objections on to the commissions, 27 reports were accepted without objections. The Coordination Board of the Evaluation agreed to pass on all the objections from the institutes to the evaluation commissions, three objections were passed on to the commissions with specific reservations. The commissions insisted on the original wording of the reports in four cases and modified 21 reports. The directors of the institutes provided their final standpoints to all the reports following re-assessment by the commissions by 30 June 2021, exceptionally by 17 August 2021. One institute submitted a complaint to the Coordination Board of the Evaluation following re-assessment of the report. The Coordination Board acknowledged some of the institute's procedural objections and submitted its standpoint to the CAS Academy Council. The CAS Academy Council discussed the Coordination Board's standpoint at its 5th session, held on 7 September 2021, and gave its support.

In July 2021, the CAS Academy Council approved the report on the evaluation of the research and professional activities of research-oriented CAS institutes for 2015–2019 and ended the evaluation commissions' activities. A reward in the amount of CZK 18,495,000 was paid out to the experts for the activities of the field panels in Phase I of evaluation. For the activities of the field commissions in Phase II of evaluation, experts were paid out a reward in the amount of CZK 9,661,000.

After 2 July 2021, all the commission members were asked for their feedback on the methodology and progress of evaluation via an electronic questionnaire. A total of 101 responses were submitted.

Evaluation of the professional activities of CAS research-infrastructure institutes for the period 2015–2019

Evaluation methodology

The timetable and detailed procedure for evaluation of professional activities of CAS research-infrastructure institutes for 2015–2019 was determined in the document titled “Methodology of evaluation of professional activities of CAS research-infrastructure institutes for 2015–2019” and in related documents and instructions regulating the activities of evaluation commissions. The CAS Academy Council approved this at its 24th and 26th sessions on 12 March 2019 and 7 May 2019 and specified them at its subsequent sessions. Evaluation concerned the Library of the CAS (LCAS) and the CAS Centre of Administration and Operations (CAO).

The goals of evaluation of CAS research-infrastructure institutes:

- i) objective and independent evaluation of the execution of the main activities of research-infrastructure institutes and their organisational units of an infrastructural nature and quality planning of other functions stipulated by the legislative regulations,
- ii) acquisition of the relevant background materials for subsequent determination of the amount of institutional support by the provider. The amount of this support shall be determined on the basis of the provider’s managerial decision based on the results of the evaluation, and possibly other factors related primarily to the long-term development of the entire Czech Academy of Sciences.

Organisation of evaluation

At its 38th session on 2 September 2020 and its 39th session on 29 September 2020, the CAS Academy Council appointed two evaluation commissions for evaluation of the research-infrastructure institutes, one for each research-infrastructure organisation. The commission for evaluation of the professional activities of the LCAS had five members, the commission for evaluation of the professional activities of the CAO had seven members. The specialisations of the applying teams were taken into consideration when appointing the commissions. The rule that a maximum of one-third of the members of each of the commissions were permitted to be employed at CAS institutes, applied; in practice, this meant one member in each commission.

Both institutes were informed about the preparation and progress of evaluation by means of meetings between the directors of the CAS institutes and the CAS Academy Council, letters from the member of the CAS Academy Council authorised to prepare the evaluation and the internal CAS web portal.

Materials for evaluation

On the basis of the “Methodological instruction for the preparation of background materials by CAS institutes within evaluation of the professional activities of CAS research-infrastructure institutes for 2015–2019”, which was approved by the CAS Academy Council at its 26th session on 7 May 2019, the managements of the LCAS

and the CAO prepared by 1 October 2020 background materials, the structure of which was divided into the following thematic sections:

The materials for the entire institute and for each evaluated organisational unit:

- A) The quality and results of primary and other activities by organisational units according to the founding charter.
- B) Participation in support of CAS activities and the activities of its institutes.
- C) The quality of management of the institute (the institute's method of managing material and human resources – on the basis of its own SWOT analysis).
- D) Measures implemented on the basis of the results from evaluation for the 2010 – 2014 period.
- E) The concept for the institute's further development in the 2021 – 2024 period.

Other thematic topics, which were submitted on behalf of the institute or the organisational unit, if the specific topic was relevant:

- F) Evaluation of the position of the institute/organisational unit in the national context.
- G) The extent of foreign cross-border collaboration, including participation in foreign projects.
- H) Participation in national grant and programme projects, application and other activities.
- I) Pedagogical activities.
- J) Popularisation activities.

The materials also included:

- the institute's organisational chart,
- a summary of the age structure of individual organisational units,
- a summary of the achieved results of professional and specific infrastructure activities for the institute as a whole and also classified into individual organisational units,
- anonymised questionnaires about the use of professional and infrastructure services of both evaluated institutes, completed by other CAS institutes,
- own SWOT analysis of the entire institute and the individual evaluated organisational units, and the reasoning for their need.

The institutes also provided links to their annual reports.

Progress of evaluation

The background materials were made available to the evaluation commissions on 12 October 2020 by means of the KIS information system. The commissions also received the final reports from the previous round of evaluation for the 2010–2014 period. The LCAS registered four organisational units for evaluation, the CAO registered six.

Visits by the evaluation commissions to the evaluated institutes took place on: 12 November 2020 (CAO) and 23 November 2020 (LCAS). The visits included introduction of the institute by its director and introduction of the individual evaluated organisational units by their managers.

The evaluation commissions evaluated the institutes and individual organisational units from the following aspects:

1. The quality and volume of achieved results, including their reception.
2. The quality, scope and need for the provided research-infrastructure activities, and the response to assurance of these from the scientific community.
3. The institute's position on the national and international scale. Comparison of the institute with similar institutes abroad.
4. The prospects of the institute and its organisational units, the potential for involvement in new research-infrastructure activities and improvement of the quality of existing activities.
5. Overall assessment of the institute.

In relation to each aspect, the commissions classified the evaluated institutes and individual organisational units into one of five levels: 1 – excellent, 2 – very good, 3 – standard, 4 – with reservations, 5 – unsatisfactory.

The commissions also assessed how the institute applied recommendations from the preceding round of evaluation from the 2010–2014 period, which are given in the final reports by the evaluation commissions from 2015.

The evaluation results in the form of a final report on evaluation of the professional activities of a CAS infrastructure institute were submitted for the LCAS by the chairperson of the evaluation commission on 5 January 2021 and the director of the LCAS subsequently issued her standpoint to the report. The chairperson of the CAO evaluation commission asked for an extension of the deadline for submission of the final report until 12 January 2021. The deadline for the standpoint by the CAO director was accordingly extended until 26 January 2021. Both infrastructure institutes as a whole received a level 1 – excellent.

At its 43rd session on 9 February 2021, the CAS Academy Council approved the report on the evaluation of the professional activities of CAS research-infrastructure institutes for 2015–2019 and ended the evaluation commissions' activities. The costs for their activities were CZK 260,000.

Conclusion

Evaluation of CAS institutes for the 2015–2019 period took place under exceptionally difficult conditions during the Covid-19 pandemic. This meant that execution required the implementation of a number of operative changes to the Methodology of evaluation of research-oriented institutes, to its timetable or the composition of the expert bodies. Despite these complications, the evaluation was executed in full.

In compliance with Article 1(2)(e) of the Evaluation methodology (evaluation is based on separation of evaluation and funding), the Principles for the procedure for modifications to financial support (institutional funding) of CAS institutes following evaluation for the 2015–2019 period were approved by resolution from the 5th session of the CAS Academy Council held on 7 September 2021. On the basis of these principles, the management of the Czech Academy of Sciences initiated meetings with the managements of all individual CAS institutes during the period from 1 October to 2 November 2021, regarding the evaluation results and their requirements for funding for the development of research organisations in the 2022 – 2026 period. The CAS Academy Council subsequently prepared and approved a proposal for institutional support for the development of research organisations and included the evaluation results as part of the proposed budget for 2022.

In parallel with this process, the CAS Academy Council appointed a CAS Committee for Evaluation according to Methodology 17+, whose primary activity is the coordination of the preparation of materials for the national evaluation of research organisations according to Methodology 17+ in the CAS segment.