MINISTRY OF EDUCATION, YOUTH AND SPORTS

EX-ANTE EVALUATION METHODOLOGY FOR LARGE RESEARCH INFRASTRUCTURES

The presented „Ex-ante Evaluation Methodology for Large Research Infrastructures“ aims to establish the framework for assessment of the new concepts/projects of large research infrastructures, which have not been included in the „Roadmap of the Czech Republic of Large Infrastructures for Research, Experimental Development and Innovation for the years 2016-2022”, but might have emerged since the last roadmap update in 2015 (based on the outcomes of the 2014 comprehensive evaluation of large research infrastructures).

Besides presenting the methodical framework of assessment the evaluation methodology brings a complex overview of the research infrastructures´ policy approach of the Czech Republic in the recent years and in this way introduce the evaluators to the large research infrastructures´ landscape of the Czech Republic. In this regard, the ex-ante evaluation methodology is complemented by the roadmap of large research infrastructures quoted above, which gathers all R&D facilities of the Czech Republic fulfilling the relevant criteria and characteristics and sets them into the large research infrastructures´ environment of the Czech Republic.

The evaluation methodology comprises an introductory part describing the importance of research infrastructures for research community and businesses, provides the evaluator with an overview of the latest development in the field of large research infrastructures in the Czech Republic and determines the evaluation criteria, evaluation process itself, its timetable and expected outcomes:

In brief, the envisaged goal of current evaluation exercise is to obtain independent expert basis and science-based recommendations for the 2018 update of the „Roadmap of the Czech Republic of Large Infrastructures for Research, Experimental Development and Innovation for the years 2016-2022”.

It is also supposed that new concepts/projects of large research infrastructures successful in the evaluation will be submitted for approval of the Government of the Czech Republic for public funding in the years 2018-2022.

1. Introduction

Research infrastructures, including e-infrastructures, represent **one of the key "pillars" of the national research and innovation ecosystems** of individual EU Member States, the European Research Area (hereinafter referred to as the "ERA") as a whole and other macro-regional and global formations. They are **principal "backbone" for conducting excellent R&D** as the critical mass of material, financial and human resources and technological and knowledge expertise is concentrated within their capacities. Research infrastructures thus enable the achievement of breakthrough ideas in basic or "blue-sky" research, "frontier" research in fundamental and applied scientific fields and development of advanced technologies showing a high knowledge intensity and a potential for application in innovative products of high added value.

Research infrastructures create **favourable environments, where individual segments of the knowledge triangle (i.e. the education, research and industry) are efficiently interconnected** resulting in intensive interactions and stimulating private investments in R&D. Construction of research infrastructures, development of their advanced technological devices and upgrade of their capacities offer **great opportunities for enterprises** to take part in tenders for delivery of these facilities. Such tenders stimulate and encourage the firms to produce advanced and **state-of-the-art technologies** and increase their innovation skills. In consequence, the private sector benefits from the research infrastructures both from the economic and knowledge point of view since the enterprises are stimulated to supply the research infrastructures with **high-tech products** that increase their economic profits and strengthen their competitiveness. At the same time, enterprises use the know-how resulted from the R&D carried out in research infrastructures to produce **goods and services widely applicable on the marketplace**.

By the concentration of capacities and capabilities of public and private R&D sector research infrastructures contribute to fostering of the leverage effect and to the **bloom of science and technology parks**, which flourish in their surroundings. In this way, the investments made in research infrastructures significantly overlap into a broad range of socio-economic sectors, in addition to the results of R&D achieved by using their facilities. Research infrastructures thus contribute to the **progressive development of entire economic spheres and** (while speaking in geographical terms) **of urban areas at the level of regions and macro-regions**. As research infrastructures are generally constructed and operated in a direct response to the identified R&D and societal challenges and needs, results achieved by using their facilities are also of high socio-economic relevance and impact, bringing important multiplier effects to society.

While being networked at the (inter-) national level and operated on the basis of open access policy research infrastructures enable even more **efficient addressing of the macro-regional and global challenges**, which we are facing and which generally require knowledge intensive and high-tech solutions. The operation of research infrastructures´ capacities and capabilities in an integrated (inter-) national area in line with the principles of open access policy allows

their users to achieve the results that would be barely achievable by individual participants of research and innovation ecosystem by using their own institutional facilities. In this respect, research infrastructures **prevent research organisations from fragmentation and duplication of their efforts and help to increase the efficiency of public spending on R&D** by providing their users with top-class facilities, technological devices, expertise and open access services mediating the most up-to-date and state-of-the-art resources for conducting excellent R&D.

In conclusion, research infrastructures´ purpose is to respond to socio-economic needs, serve the research community and provide it with top-quality facilities, expertise and services, thus enabling to conduct **cutting-edge research and technology development leading to address grand societal challenges by knowledge-based solutions**. Research infrastructures also serve as the mediators for enhancing students' knowledge and transferring the knowledge between academic and business sector. In this way research infrastructures contribute to development of the knowledge society.

2. Background information

In recent years, the Czech Republic has responded to the significantly growing importance of research infrastructures within ERA and worldwide. Taking into consideration that research infrastructures are principal cornerstone of the Czech R&D and innovation ecosystem and one of the major tools for strengthening the competitiveness of the Czech Republic, a number of steps aimed at providing the Czech research infrastructures with a stable legal and financial environment have been made.

In 2009 the **"Act No. 130/2002 Coll. on the Support of Research, Experimental Development and Innovation from Public Funds and on the Amendment to Some Related Acts"** established a brand new legal instrument for financing the research infrastructures of the Czech Republic from the state budget expenditures. The Ministry of Education, Youth and Sports (hereinafter referred to as "MEYS") has become the funding authority of **"large infrastructure for research, experimental development and innovation"**, which was defined as "*a unique research facility, including its acquisition and related investment costs and the costs of ensuring its activities that are essential for comprehensive research and development with heavy financial and technological demands and which is approved by the Government of the Czech Republic and established by one research organisation for the use of other research organisations*".

In 2016 an amendment to "Act No. 130/2002 Coll. on the Support of Research, Experimental Development and Innovation from Public Funds and on the Amendment to Some Related Acts" introduced a new denomination – **"large research infrastructure"** – and slightly altered its definition, however, without changing its basic meaning. The large research infrastructure has been defined as "*a research infrastructure[1], which is essential for comprehensive research*

[1] Article 2 Point 91 of the Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty stipulates that: "*Research infrastructure means facilities, resources and related services that are used by the scientific community to conduct research in their respective fields and covers scientific equipment or sets of instruments, knowledge-*

and development with heavy financial and technological demands, which is approved by the Government of the Czech Republic and established for use of other research organisations."

In 2010 the very 1st **Roadmap of the Czech Republic of Large Research Infrastructures** was issued by the MEYS following the structure of ESFRI Roadmap and early afterwards updated in 2011. The overall significance given to the Czech research infrastructures was also further emphasised as **individual proposals for large research infrastructures´ public funding have been submitted for the final adoption by the Government of the Czech Republic**. The MEYS, being the public authority responsible for large research infrastructures of the Czech Republic, also established an expert advisory board, the **Council for Large Research Infrastructures** that gathers the representatives of all relevant and interested stakeholders in the Czech Republic.

While the operational costs of large research infrastructures were covered in the recent years mainly by using the state budget expenditures on R&D, the investment costs for upgrading the existing facilities and/or construction of brand new ones have been funded predominantly (but not exclusively) by the instruments of **EU cohesion policy**. Investments in the technology devices of large research infrastructures situated in the regions outside Prague were made by using the support of the **Operational Programme Research and Development for Innovation** (managed by the MEYS). Minor investments in R&D facilities of large research infrastructures situated directly in Prague were made by raising the funds from the **Operational Programme Prague – Competitiveness** (implemented by the City of Prague).

In brief, over the last years the MEYS has gradually developed a specific funding framework for Czech research infrastructures as well as the national road-mapping procedures starting in 2009. These efforts and approaches have resulted (among others) also in intensive networking of Czech research infrastructures at the international level and joining a number of emerging ERIC (*European Research Infrastructure Consortium*) and other research infrastructures legal entities.[2]

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based resources such as collections, archives or structured scientific information, enabling information and communication technology-based infrastructures such as grid, computing, software and communication, or any other entity of a unique nature essential to conduct research. Such infrastructures may be "single-sited" or "distributed" (an organised network of resources) in accordance with Article 2(a) of Council Regulation (EC) No 723/2009 of 25 June 2009 on the Community legal framework for a European Research Infrastructure Consortium (ERIC)."

[2] Beyond the typology of "large research infrastructure", there is a specific kind of research infrastructures of the Czech Republic, which is primarily characterized by its different legal form – membership of the Czech Republic in international R&D organisations that are established and operated under the Public International Law. Besides membership in the UN (*United Nations*), NATO (*North Atlantic Treaty Organization*) and OECD (*Organisation for Economic Cooperation and Development*), which implement their internal R&D programmes, the Czech Republic is a Member State of the following 7 international R&D organisations: CERN (*European Organization for Nuclear Research*); EMBC (*European Molecular Biology Conference*); EMBL (*European Molecular Biology Laboratory, including ELIXIR*); ESA (*European Space Agency*); ESO (*European Southern Observatory, including European Extremely Large Telescope*); JINR (*Joint Institute of Nuclear Research*); and VKIFD (*Von Karman Institute for Fluid Dynamics*). Membership of the Czech Republic in the above-mentioned international R&D organisations is not subject to the current evaluation. The MEYS developed a particular methodology for assessing the benefits of the Czech Republic in international R&D organisations, which complements the evaluation methodology for large research infrastructures, but represents an individual and particular evaluation approach.

Following on the 1st phase (i.e. since 2009) of financing the large research infrastructures from the state budget expenditures on R&D and investments made by using the EU cohesion policy tools in the course of the period 2007-2015 a **comprehensive international evaluation of the Czech large research infrastructures was performed in 2014**. All large research infrastructures regardless of their previous main funding source (i.e. state budget expenditures on R&D or EU structural funds) and their current state-of-play (i.e. preparatory, implementation, operation or decommissioning phase) were subject to this assessment.

The evaluation was made by an international committee in accordance with the methodology that had been inspired by ESFRI evaluation procedures. Its main outcome was identification of **58 large research infrastructures** recommended by the international evaluation committee for funding and divided in 4 performance-related groups indicating the priority for funding in the direct proportion to quality-differentiated outputs of the evaluation. In consequence, the outcomes and recommendations made by the international evaluation committee served the MEYS and the Government of the Czech Republic as an independent expert basis for:

- Preparation of the **"Roadmap of the Czech Republic of Large Infrastructures for Research, Experimental Development and Innovation for the years 2016-2022"** published in 2015;

- Adoption of the (1) **Resolution of the Government of the Czech Republic** of 15 June 2015 No. 482 and (2) Resolution of the Government of the Czech Republic of 21 December 2015 No. 1066 **on funding the large research infrastructures in the years 2016+**;

- Policy decision making on **funding mechanism** of large research infrastructures combining the state budget expenditures on R&D **(≈ operational costs)** with the European Structural and Investment Funds **(≈ investment costs)** raised within the implementation framework of the Operational Programme Research, Development and Innovation;

- Declaring **political and financial commitment to pan-European research infrastructures** (with involvement of the Czech facilities) submitted for the ESFRI Roadmap update 2016;

- **Joining the emerging ERIC** and other legal platforms within which pan-European research infrastructures and other international research infrastructures are operated.

3. Objectives of the evaluation

Strategy outlook presented in the "Roadmap of the Czech Republic of Large Infrastructures for Research, Experimental Development and Innovation for the years 2016-2022" anticipates that the **1st follow-up call for the roadmap update will be announced in 2016/2017** with the aim to provide to new successfully evaluated large research infrastructures´ concepts/projects **public funding in 2018 with the commitment for a 5-year period until 2022**. In this regard, it is supposed that new large research infrastructures´ concepts/projects, that will be successful in the evaluation process, will be included in the large research infrastructures roadmap and submitted for the approval by the Government of the Czech Republic on their public funding.

The assessment will be carried out on the basis of unified evaluation methodology providing the best possible foundation for the strategy decision making processes and contributing to increasing efficiency and investment planning on large research infrastructures (hereinafter referred also to as "RI" or "RIs") on the national level of the Czech Republic and level of ERA.

The **evaluation methodology** and the process itself has significant importance particularly for:

- Preparation of mid-term and long-term strategy outlook for defying RIs´ policy;
- Transition of RIs´ projects from preparation to construction/implementation phase;
- Preparation of state budget expenditures on R&D – chapter on RIs´ financing;
- Raising the European Structural and Investment Funds for RIs´ investments funding.

The ex-ante evaluation methodology thus forms the general framework for obtaining **expert basis for policy decision making on the RIs´ funding** in their transition from concepts/projects (≈ preparation phase) to their construction/implementation phase. In this regard, the ex-ante evaluation methodology aims to facilitate providing the funding for RIs of the Czech Republic that meet the criteria of exceptional quality and socio-economic impact.

4. Definition and characteristics of a large research infrastructure

The definition of a RI for the current evaluation is based on the above-mentioned definition of **"large research infrastructure"** stipulated in the framework of the "Act No. 130/2002 Coll. on the Support of Research, Experimental Development and Innovation from Public Funds and on the Amendment to Some Related Acts".

A RI may be established in any research field. A RI shall represent **exceptional and unique R&D capacity** or R&D virtual platform, usually having intensive knowledge and heavy technological and financial demands, and providing the research community with resources and services required to conduct comprehensive and cutting-edge research and technology development. A RI may be established as **"single-sited", "distributed" or "virtual"**. A RI may be integrated in international networks and have various legal forms (including foreign and/or international ones). At the same time, a RI is, as a general rule, **established by a research organisation to be used also by other research performing organisations** and other users under defined and transparent terms and conditions stipulated by an **open access policy**. According to their specific nature RIs may be grouped as follows:

- RI located in the Czech Republic having significant international impact;

- RI located in the Czech Republic representing the Czech national "node" of a pan-European "distributed" research infrastructure;

- RI operated in the form of "access point" of the Czech R&D user community to a research infrastructure located abroad;

- RI of the Czech Republic located abroad.

A RI striving to receive financial support from public funds must comply with the above-stated definition of RI and other RI´s attributes, which are integrated into the evaluation process and included in the detailed evaluation criteria. These attributes are described within the so called "Evaluation form A/B" and comprise especially the following aspects:

1) <u>Stable and efficient management</u>

- A RI must have a sufficient, clear and fully transparent **governance and organisation** structure:

- In the case that the RI forms a part of a research organisation, the RI´s **position within the hosting institution** must be clearly defined and meet the requirements stated above.

- With the aim of guaranteeing an appropriate level of the RI´s quality **scientific board/ international advisory committee** shall be established to deal with these tasks. It shall develop a self-assessment of the RI and provide the RI with expert recommendations.

2) <u>Sustainable development strategy</u>

A RI must have a clearly developed strategy, including relevant balance sheets and studies:

- **Human resources development strategy**, including clear and transparent employment strategy, defined career procedures (rules) targeted at the professional development of employees, and participation in scientific education;

- **Technology development strategy**, including short-term annual budgeting horizon as well as a long-term outlook – in general based on the lifespan of key instrumentation (e.g. 2-3 years for ICT, 5 years for standard R&D equipment) and conceptual outlook for technologies for 10 years;

- **Feasibility strategy**, including description of possible threats to the feasibility of RI (e.g. demanding upgrades of technologies, ethical and/or legal issues, which may seriously affect the RI´s operation, etc.) and solutions how to face them efficiently.

- **Cooperation strategy with the public** (i.e. universities, public research institutes, other RIs) **and private R&D sector** (i.e. private research organisations, industry, businesses) both on the Czech national and international level (ERA and worldwide).

- **Analysis of the appropriateness of the RI for facing the societal and socio-economic challenges** reflected by the respective R&D sector.

3) User access strategy

Notwithstanding whether the RI operates in the national or international environment, it must have a clearly articulated and transparent strategy for providing access to the RI to various groups of users. A substantial part of RI´s users shall come from the areas beyond the hosting institution. A RI shall have defined:

- **Open access strategy**, including a clear definition of the RI´s open access arrangements and methods for capacity allocation on the basic of scientific excellence of proposals.

- **Access strategy for other users**, which use the RI´s capacities for collaborative and/or contractual R&D beyond the open access mode;

- Procedures dealing with **protection of intellectual property rights**, including strategy on dealing with the use of R&D results and open access to data issues.

4) Internal strategic research

A RI – unlike other kinds of research entities, which devote most of their activities to their own internal research – focuses a substantial portion of its internal research on:

- Research aiming at improvement of services to RI´s users;
- Research serving to capacity development of the RI itself;
- Support to user research, including direct involvement.

All these attributes shall be subject to the evaluation and must be verifiably documented by the applicant following the detailed instructions provided in the "Evaluation form A/B".

5. International evaluation committee

For the purpose of the assessment an **International Evaluation Committee** will be established by the MEYS and chaired by an impartial, renowned and internationally recognized expert on research infrastructures and R&D policy. All the other Members of International Evaluation Committee shall comply with the expert criteria too – in relation to the respective R&D field.

As a whole the International Evaluation Committee will be composed of a **Chair** (supervising the work of International Evaluation Committee) and **6 Scientific Panels**[3] consisting of at least 3 Members evaluating each coherent group of RIs´ concepts/projects:

[3] The research focus of a RI may include more research areas since the RI may be of inter-disciplinary nature. However, for the evaluation purposes a RI shall be assigned to the relevant most corresponding research area.

- **Physical sciences and engineering** (3-5 Members);
- **Energy** (3-5 Members);
- **Environment** (3-5 Members);
- **Health and food** (3-5 Members);
- **Social sciences and humanities** (3-5 Members);
- **E-infrastructures** (3-5 Members)**.**

Every Scientific Panel of the International Evaluation Committee will include also one Czech Member so that the Scientific Panel may be provided with the information on specifics of the research infrastructures landscape and research and innovation system of the Czech Republic. Chairs of the Scientific Panels of International Evaluation Committee shall always be foreign.

Absence of conflict of interest of the International Evaluation Committee Members and/or reviewers involved in the RIs´ concepts/projects evaluation process shall be sufficiently proved by an affirmation included in an Agreement to Complete a Job to be concluded with the MEYS. An International Evaluation Committee Member and/or reviewer shall not be:

- Employee of the RI and/or a close relative to an employee of the RI;
- Member of the RI´s scientific committee/international advisory board;
- Member of executive and/or management board of a legal entity that the Czech Republic and/or the hosting institution of the RI is a Member (e.g. ERIC, AISBL, GmbH, etc.) and the RI represents the Czech national "node" of the RI directed by this legal entity;
- Member of executive and/or management board of a legal entity that the Czech Republic is a Member (e.g. international R&D organisation) and the RI represents the "access point" of the Czech research community to this legal entity;
- Personally biased in any way.

6. Evaluation process

According to "Act No. 130/2002 Coll. on the Support of Research, Experimental Development and Innovation from Public Funds and on the Amendment to Some Related Acts" legislative responsibilities for the RIs´ evaluation have been assigned to the MEYS, which has been also charged with the concept of RIs´ public funding. Thus the MEYS organises and supervises the entire ex-ante RIs´ concepts/projects evaluation process, while administrative aspects of the evaluation are provided by **Department of Research and Development** of the MEYS, being responsible for the RIs agenda in line with the MEYS internal organisational chart.

Regarding the evaluation process itself, it is designed as a **2-stage evaluation procedure**. The 1st stage of the assessment is aimed at distinguishing the RIs´ concepts/projects, which fulfil the definition of a "large research infrastructure", from those that do not even meet the basic criteria of a "large research infrastructure". Applicants are expected to justify the fundamental characteristics of a "large research infrastructure" by using the **"Evaluation form A"**. The RIs´ concepts/projects that don´t comply with general features of a "large research infrastructure" will be excluded from the 2nd stage of evaluation. On the contrary, the RIs´ concepts/projects, which will fulfil the "large research infrastructure´s" definition, will proceed with the 2nd stage of evaluation and provide more detailed information on the RI´s concept/project by using the subsequent **"Evaluation form B"**.

Expert assessment of documentation describing the RI´s concept/project will be carried out by respective Scientific Panel of the International Evaluation Committee, which has the main responsibility for fulfilling the evaluation task. The overall documentation the Scientific Panel of the International Evaluation Committee will be provided with will consist of:

1) **"Evaluation form A"** (for the 1st stage of evaluation) and **"Evaluation form B"** (for the 2nd stage of evaluation) prepared by the applicant and describing the RI´s concept/project in accordance with the specific evaluation criteria stipulated by the MEYS within the ex-ante evaluation methodology and "Evaluation form A/B";

2) **3 external peer-reviews** (for the 2nd stage of evaluation) elaborated per each "Evaluation form B" (by reviewers contracted by the MEYS). The principal purpose of external peer-review will be to obtain additional expert opinions beyond the assessment performed by the Scientific Panels of International Evaluation Committee. The outcomes of the external peer-review will serve as an input for the evaluation process. Scientific Panels shall take into consideration the outcomes of external peer-review, but the external peer-review will be of consultative relevance and shall not be interpreted as having direct/straightforward implications on the overall evaluation results.

In order to enable the Scientific Panels of International Evaluation Committee to ask additional questions to applicants on issues that might not be clearly described in the documentation for evaluation, **interviews** will be arranged by the MEYS as a part of the evaluation procedure. An interview of the Scientific Panel with an applicant (3 representatives of the RI at the most) will last up to **60 minutes**. The topics to be addressed by the Scientific Panel of the International Evaluation Committee during the interview will be communicated to the representatives of the RI in advance, 7 calendar days before the interview at the latest.

Summary decision of each Scientific Panel of the International Evaluation Committee will be the result of the assessment process, which combines the results of 3 individual, but mutually inter-connected assessment procedures, but still leaving the main responsibility for the overall evaluation results on the Scientific Panels of International Evaluation Committee:

- **(1) Evaluation of the RI´s concept/project described within the "Evaluation form B" – to be conducted by the respective Scientific Panel of International Evaluation Committee;**

- **(2) External peer-review of the RI´s concept/project described within the "Evaluation form B" – to be conducted by 3 reviewers, who will be contracted by the MEYS;**

- **(3) Interview with the RI´s concept/project applicant – to be held by respective Scientific Panel of the International Evaluation Committee.**

The summary decision of each Scientific Panel of the International Evaluation Committee shall be based on a synthesis of the outputs of above-mentioned assessment processes as well as on deliberations of the International Evaluation Committee Scientific Panels. Final conclusions will be filled in the **"Consensus report"** stating the final overall evaluation results.

Should be the Scientific Board of International Evaluation Committee willing to visit a RI, which evaluation was accompanied by serious doubts and/or queries, the MEYS (in cooperation with the respective RI) will arrange the "on-site-visit" of the RI. The "on-site-visit" of a RI may form a part of a RI´s assessment procedure only if it is explicitly requested by the Scientific Board of International Evaluation Committee.

7. Evaluation criteria

Detailed evaluation criteria of the RIs´ concepts/projects are stipulated within the "Evaluation form A/B". Every evaluated feature is addressed by a set of defined questions. The "Evaluation form A/B" requires the applicant to address particularly the following issues:

- **Description of the RI;**
- **Importance of the RI;**
- **Cooperation of the RI;**
- **Use and outputs of the RI including its importance for development of new technologies;**
- **Benchmarking of the RI;**
- **Feasibility of the RI;**
- **Costs and budget of the RI;**
- **Portfolio of indicators of the RI;**
- **Other relevant information on the RI.**

Members of the International Evaluation Committee will comment on individual evaluation criteria by means of **verbal evaluation** that may include **recommendations** addressed to the applicant for the RI´s concept/project eventual implementation/operation phase. For selected issues **evaluation points** may be appended. In conclusion, Scientific Panel of the International Evaluation Committee will fill all the verbal evaluations (including the recommendations) and

evaluation points in the **"Consensus report"** and mark the RI´s concept/project in accordance with the overall evaluation scale indicating the science-based priority for public funding in the direct proportion to the quality-differentiated output of the evaluation.

8. Evaluation timetable

Each RI´s concept/project applying for the 2018 update of "Roadmap of the Czech Republic of Large Infrastructures for Research, Experimental Development and Innovation for the years 2016-2022" and financing from public funds in the years 2018-2022 is subject to the present ex-ante evaluation process and is expected to provide the MEYS with the information by using the "Evaluation form A/B" following the detailed instructions for filling these in. The indicative timetable for performing the assessment is mentioned bellow:

1. The call for submission of the **"Evaluation form A"** will be launched on **1st November 2016** and will remain open until **31st January 2017**.

2. Apart from providing the day-to-day guidance for filling the background materials for the RIs´ concepts/projects evaluation the MEYS will also organise **information days in Prague (8th November 2016) and in Brno (10th November 2016)** so that all queries and inquiries raised by the stakeholders are sufficiently answered.

3. Simultaneously to the call for submission of the "Evaluation form A", the International Evaluation Committee, including the Chair and 6 Scientific Panels, will be established by the MEYS so that all its Members have concluded agreements starting on 1st February 2017 and the assessment may be initiated in the **1st February week 2017**.

4. In **March 2017** there shall be the **1st in-person meeting of each of 6 Scientific Panels** of the International Evaluation Committee (to be held in Prague) in order to exchange the views on the "Evaluation forms A" and decide upon the RIs´ concepts/projects, which will be allowed to proceed with the 2nd stage of assessment.

5. The RIs´ concepts/projects successfully assessed in the 1st stage of the evaluation will be invited to submit the "Evaluation form B". The call for submission of the **"Evaluation form B"** will be launched on **1st April 2017** and will remain open until **30th April 2017.**

6. Beginning on 1st **May 2017** the MEYS will conduct the **external peer-review**, which will consist in contracting 3 reviewers for assessing each RI´s concept/project documentation. Outputs of external peer-review will be sent to the Members of International Evaluation Committee Scientific Panels on a continuous basis and no later than 30th May 2017.

7. In **June 2017** there shall be the **2nd in-person meeting of each of 6 Scientific Panels** of the International Evaluation Committee (to be held in Prague) in order to finalise the process of evaluation. Interviews of the Scientific Panels with applicants shall be organised on this occasion and Scientific Panels shall reach an agreement on the overall assessment results.

8. **Summary decision** of each Scientific Panel of the International Evaluation Committee will be expected no later than **15th July 2017** by providing the MEYS with a filled **"Consensus report"** per each evaluated RI´s concept/project.

9. Evaluation outcomes

An expected final output of the ex-ante RIs´ concepts/projects evaluation consists in a set of recommended RIs´ concepts/projects assessed by the International Evaluation Committee as facilities showing a high-quality in the Czech national, European and worldwide perspective according to the specific qualitative criteria stipulated by the ex-ante evaluation methodology. These RIs´ concepts/projects will be submitted for the approval of the Government of the Czech Republic for public funding in the years 2018-2022.

The International Evaluation Committee will divide the evaluated RIs´ concepts/projects into **5 performance-related groups** indicating the science-based priority for public funding in the direct proportion to the quality-differentiated outputs of their expert evaluation. This division will be made in accordance with the below-mentioned overall evaluation scale.

The evaluation exercise will primarily refer to the scientific quality of RIs´ concepts/projects. Funding of the RIs´ concepts/projects will be proposed by the MEYS and consequently decided by the Government of the Czech Republic. In this perspective, the outcomes of the ex-ante RIs´ concepts/projects evaluation will serve as the expert basis for:

1) **Political decision of the Government of the Czech Republic on public funding of new RIs´ concepts/projects in the years 2018-2022, both by using the state budget expenditures on R&D and European Structural and Investment Funds**.

2) **Update of the "Roadmap of the Czech Republic of Large Infrastructures for Research, Experimental Development and Innovation for the years 2016-2022" to be made in 2018.**

10. Evaluation scale

Evaluation scale	
5	The RI is of excellent quality compared to the leading actors worldwide with respect to its uniqueness, originality, importance and impact on the user community. The RI is highly relevant for the future development of research and innovation environment of the Czech Republic as well as inevitable for strengthening the competitiveness of the Czech Republic.
4	The RI shows very high quality and high potential, but doesn´t reach the top-class standards of international excellence with respect to the uniqueness, originality, importance and impact on the user community. However, the RI is still highly relevant for the future development of research and innovation environment of the Czech Republic, substantially contributing to strengthen the competitiveness of the Czech Republic.

3	The RI's quality and potential enable good quality services to be provided in the given sphere. The RI shows significant usage possibilities and is relevant for the future development of research and innovation environment of the Czech Republic. Nevertheless, the RI is not a crucial one for strengthening the competitiveness of the Czech Republic.
2	The RI's quality and potential enables it to contribute to provision of services in the given sphere. However, the RI has only minor user community, limited importance and thus also limited relevance for the future development of research and innovation environment of the Czech Republic.
1	The RI does not attain the level required for provision of relevant services at the national or international level and it lacks sufficient potential to become an important element in the future development of research and innovation environment of the Czech Republic.