

# **Pilotní ověření návrhu nové metodiky hodnocení výzkumných organizací**

## ***Pilot Test of New Evaluation Methodology of Research Organisations***

**Samostatný doplňující dokument 1:  
Průvodce pro hodnocené výzkumné organizace**

***Background document 1:  
Submission Guidelines for Evaluated  
Research Organisations***

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# R&D Evaluation Methodology and Funding Principles

Second pilot testing - Submission Guidelines for the evaluated research organisations



evropský  
sociální  
fond v ČR



EVROPSKÁ UNIE



MINISTERSTVO ŠKOLSTVÍ,  
MLÁDEŽE A TĚLOVÝCHOVY



OP Vzdělávání  
pro konkurenceschopnost

INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

## R&D Evaluation Methodology and Funding Principles

Second pilot testing - Submission Guidelines for the evaluated research organisations

February 27, 2015

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## 1. Introduction

This document contains the guidelines for the submission of information that is needed for the implementation of the new Evaluation Methodology by the evaluated research organisations. **This document was adapted by the IPN Metodika team specifically for the second pilot testing of the suggested Evaluation Methodology.**

The objective of these guidelines is to support the submission process by ensuring a correct understanding of the information that is requested, and to be fully transparent on the reasons why data are requested and how they will inform the evaluation.

The guidelines complement the Evaluation Protocol where the Evaluation Methodology and its processes are described. In the current phase of the study, this is entailed in the First Interim Report.

### 1.1 Phases and processes for the evaluation

The evaluation takes place in 4 phases, i.e.

- Phase 1 – Registration of the EvU and RU(s)
- Phase 2 – Submission of the self-assessment
- Phase 3 – Implementation of the panel evaluation, which will take place in three steps:
  - Panel meeting for the calibration exercise defining the field-specific and RO type-specific interpretation of the assessment criteria
  - Remote peer review of the submitted most outstanding outputs and remote assessment of the RU based on the submitted information
  - Panel meeting for the final assessment of the Research Unit's performance against the 5 main criteria
- Phase 4 – Finalisation of the evaluation results: the evaluation panels will draft their evaluation report on the RU, setting grades and submitting explanatory statements for their grading against the 5 main criteria as well as drawing conclusions and formulating recommendations. In a second stage, the evaluation panels will also submit evaluation reports at the levels of EvUs. The evaluation report will be sent to the EvU for its comments and feedback on the Evaluation Methodology.

The evaluation reports as well as self-assessment reports will not be made public.

### 1.2 Structure of the guidelines

These guidelines for the evaluated research organisations are structured in the following way:

- Chapter 2 contains guidelines for the registration of EvUs and RU(s) to the evaluation process.
- Chapter 3 contains guidelines for the submission of information about the EvU and the RU(s), including the submission of the 'most outstanding' research outputs, self-assessment information, and any other data needed for the evaluation.

## 2. Guidelines for registration to the evaluation

This chapter sets out the guidelines for the registration of Evaluation Units and Research Units to the evaluation. The key terms in the evaluation methodology are:

- An **Evaluated Unit** (EvU) is a research organisation, except for the public HEIs where the Evaluated Unit is a Faculty or Institute or any other organisational unit at that level such as Centres.
- A **Research Unit**(RU) includes all individual researchers in an EvU that conduct research in a single scientific field. Researchers need to be assigned to research units in their major field of research; each researcher can be assigned only to one research unit in an evaluated unit.

### 2.1.1 Contact details for EvU/RU

The submission of information for assessment is about more than the transfer of data. Self-assessment by the RUs is a **crucial** part of the evaluation.

For this purpose, the EvUs should set up a structure (a committee) that coordinates and ensures the quality of the data collection and self-assessment process, for the EvU components and the RU components.

The responsible researchers and representatives of the research organisation's management will also act as contact persons for the Evaluation Management Team and the Evaluation Panels if issues arise with the accuracy of the data or the panels have additional questions on the activities of the RUs and its outputs.

Contact details should be provided for:

#### Q001 - Contact person for the Evaluated Unit

#### Q002 - Contact person for the Research Unit

#### Q003 - Organigram

An organizational chart, as of December 31, 2014, of the EvU should be provided and positioning of individual RUs inside EvU should be shown. Please enter all information in English.

### 2.1.2 Type of research organisation

#### Q004 - Type of the Research Organisation

The EvU is expected to position itself in the RD&I system by applying for the category of research organisation that best describes its key function and main area of activity.

This information is fundamental for the evaluation panel to take into account the mission of the research organisation, based on the outcomes of the calibration exercise. It will also have its effects on the criteria applied for the performance-based component of the institutional funding for research organisations.

The types of RO defined for the evaluation are:

- **Scientific Research Organisations** include the HEIs, university hospitals and the Academy of Sciences research institutes - and possibly other research institutes. They are research organisations that have as primary function to conduct scientific research and teach future researchers, to the benefit of the *research community*



- **Research and Technology Organisations (RTOs)** are research organisations that have as primary function to provide knowledge and technology transfer services, to the benefit of the *industry sector*. Examples are the Research Centre Řež, the Aerospace Research and Test Establishment, and the Research Institute of Building Materials
- **Public Service Research Organisations** are research organisations that have as primary function to deliver knowledge transfer services, to the benefit of the *public sector or society*. Examples are the Research Institute for Labour and Social Affairs, the Centre for Higher Education Studies, the Institute for International Relations, the Czech Metrology Institute
- **National Resource/Infrastructure Research Organisations** provide infrastructure, to the benefit of the *research community*. Examples are CESNET, the National Library of the Czech Republic.

### 2.1.3 Registration of the Research Unit(s)

#### Q005 - Registration of the Research Unit(s)

Research Unit(s) (RUs) are registered for assessment to a specific **subject panel**.

At the launch of the evaluation, the Evaluation Protocol will contain the list of subject panels, their allocation in disciplinary areas and coverage of fields and sub-fields

The minimum threshold for the registration of a **Research Unit** is **50 research outputs** within one field of research over the evaluated period. An EvU can register more than one Research Unit only if each of these Research Units has produced a minimum of 50 research outputs in the field during the evaluation period. For the case of interdisciplinary RU<sup>1</sup>, see below (Q007).

There is no maximum threshold. An EvU where all of the research is conducted in one field of research can register only one RU.

The types of research outputs that are eligible for this count-out are the scholarly outputs, the non-traditional scholarly outputs and the IPR-related outputs.

**For the second pilot testing the EvU will be allowed to decide whether it desires to include in the evaluation also an RU having less than 50 research outputs. The EvU management has to add an explanatory text giving arguments for the decision.**

### 2.1.4 Suggestions / oppositions to panel members / referees for the RU(s) evaluation

#### Q006 - Suggestions / oppositions to panel members / referees for the RU(s) evaluation

You can provide suggestions or oppose to certain people to be part of the panels of the evaluation. These suggestions will be taken into account by main panel chair.

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<sup>1</sup> Inter-disciplinary Research Unit conducts at least 30% of its research activities **across disciplinary areas**

### 2.1.5 Request for registration of an Interdisciplinary Research Unit

#### Q007 - Interdisciplinary Research Unit

The evaluation system allows for the registration of Interdisciplinary Research Units, under specific conditions. A Research Unit can apply for the status of Interdisciplinary Research Unit in case it conducts at least 30% of its research activities **across disciplinary areas** (see chapter 5 for the list of disciplinary areas). In order to qualify for this status, it will need to demonstrate true interdisciplinarity, by means of research outputs/bibliometrics, the scientific background of its researchers or the presence of interdisciplinarity in their strategic statements (research strategies / priorities). The main panel will decide on the approval of an Interdisciplinary Research Unit.

This question consists of three sub-questions:

Q007a - Explain the presence of interdisciplinarity in your research statement/strategy. Maximum 500 words.

Q007b –List major interdisciplinary research outputs in the corresponding fields. Maximum 10 outputs.

Q007c - Attach concise CV of principle scientists with scientific background in the corresponding fields. Maximum 10 principle scientists.

### 2.1.6 Request for registration of a RU with a cross-referral

#### Q008 - Research Unit with a cross-referral

Research Units can also indicate their interdisciplinary activities *within* a disciplinary area. They can recommend cross-referrals for their assessment among subject panels only if at least 30% of their activities take place across fields **within one disciplinary area** (see chapter 5 for the list of disciplinary areas). In order to qualify for this status, it will need to demonstrate true inter-disciplinarity, by means of research outputs/bibliometrics, the scientific background of its researchers or the presence of interdisciplinarity in their strategic statements (research strategies / priorities). The Main Panel will decide on the approval of an Interdisciplinary Research Unit.

This question consists of three sub-questions:

Q008a - Explain the presence of interdisciplinarity in your research statement/strategy. Maximum 500 words.

Q008b – List major interdisciplinary research outputs in the corresponding fields. Maximum 10 outputs.

Q008c - Attach concise CV of principle scientists with scientific background in the corresponding fields. Maximum 10 principle scientists.

### 2.1.7 Statement about the accurateness of the information and the willingness to deliver any proof, upon request.

The signature of this statement is mandatory for participation in the evaluation

### 3. Submission guidelines

This section provides information on definitions and clarifies some aspects of the submission process, indicating how the information will be used by the evaluation panels. Data are collected yearly, covering the evaluation period. For example, if the national evaluation takes place every 5 years, data are to be provided up to the end of the previous year and for the four preceding years.

In order to reduce the burden on RUs, the evaluation management team will support the EvUs and RUs with data that is available in the national RD&I IS (IS VaVaI). The process for the submission of information takes place in **three major steps** as follows:

	Tasks of the EvU	Tasks of the evaluation management team
	↓	<i>Delivery of the list of researchers in the EvU available in the RD&amp;I IS</i>
<b>Step 1: Completion of the RU registration</b>	<ul style="list-style-type: none"> <li>• Identification of the researchers included in the Research Unit (s)</li> <li>• Return of completed list of researchers in the different RUs</li> </ul>	
	○	<i>Based on the data in the validated form:</i> <ul style="list-style-type: none"> <li>• Delivery of list of research outputs as resulting in the RD&amp;I IS</li> <li>• Delivery of national (competitive) funding data</li> </ul>
<b>Step 2: Selection of the most outstanding research outputs</b>	<ul style="list-style-type: none"> <li>• Validation and submission of the full list of research outputs</li> <li>• Submission of the selected most outstanding research outputs</li> </ul>	
<b>Step 3: The collection and submission of information</b>	<ul style="list-style-type: none"> <li>• Step 3a: Collection of the information at the level of the EvU</li> <li>• Step 3b: Collection of the information and self-assessment at the level of RU</li> <li>• Step 3c: Submission of the information</li> </ul>	

We describe this in further detail in the sections, below.

A help desk will be available to support the submission of the information.

### 3.1 Step 1 – Completion of the RU registration

#### List of researchers in the Research Unit(s)

The evaluation management team provides the list of researchers affiliated to the EvU based on data in the RD&I IS in the period 2009-13. The EvU validates this list and indicates to which RU the researchers belong. **If the EvU management decides that RU(s) is (are) not identical with the internal organizational structure of the EvU it has to provide an explanation why it decided to do so.**

The list of researchers included in the Research Unit and their Unique Identifiers is the key for delivery of support to the submission of information. Based on this list, the national RD&I IS can provide the EvUs with information on

- All research outputs by researchers in the Research Unit during the evaluation period
- Competitive funding attained from national public sources by the researchers in the Research Unit (Principal Investigators)

### 3.2 Step 2 – Submission of the ‘most outstanding’ research outputs

#### ‘Most outstanding’ of the Research Unit

The evaluation management team provides the EvU with the list of the researchers’ outputs registered in the RD&I IS for each RU in the period 2009-13. The RU validates the list, selects and submits the **most outstanding** research outputs for peer review. These outputs will form the basis of the assessment of the RU against the criterion of Research Excellence.

The RU are expected to select research outputs where

- RU researchers are among the **main** authors, preferably the main author(s)
- The publication is based on research conducted mainly in the research organisation
- The authors must include permanent researchers that are employed by the EvU (so, not PhD students or visiting researchers only)

The **scholarly and non-scholarly outputs** are eligible for submissions that are defined in [www.vyzkum.cz/frontClanek.aspx?idsekce=1395](http://www.vyzkum.cz/frontClanek.aspx?idsekce=1395).

A short narrative (250 to 500 words) should be submitted clearly explaining why RU considers the outputs excellent in the context of its research activity, objectives and achievements. All submissions need to be provided in electronic format. In exceptional cases, e.g. large books, a hard copy needs to be provided. This will be returned after the completion of pilot testing.

Each Research Unit will submit for review a number of research outputs that accounts for **minimum 1% and maximum 2%** of the total number of outputs by the researchers in the Research Unit over the evaluation period - **but no less than 3 and no more than 20 items.**

### 3.3 Step 3 – The submission of information

#### Data on Personnel and Institutional Funding at the EvU and RU level

These data set the basis for the identification of data on research personnel and institutional funding at the EvU and RU level. The sum of the data at RU level is expected to be the equivalent of the total at EvU level (100%). All data in this form excludes those visiting professors and researchers who are not part of the permanent staff of the RU. In case the EvU is constituted by only one RU, only this information must be provided.

#### Research staff – HC and FTE

##### Q009 - Higher Education Institutions (HEIs)

##### Headcounts (HC)

Please provide Headcount data on the staff<sup>2</sup> of Evaluated Unit and all Research Units for each of the following categories (these categories match the definitions used by the Czech Statistical Office in the comprehensive statistical survey on R&D):

- **Researchers:** professionals engaged in the conception or generation of new knowledge, products, processes, methods and systems or managing of such projects. This category involves professors, associate professors, assistant professors, instructors, scientific workers;
  - **Engineers and technicians and equivalent staff (referred to as “technicians”):** persons who participate in R&D activities by performing scientific and technical tasks involving the application of concepts and operational methods (usually under the supervision of researchers)<sup>3</sup>;
  - **Other supporting staff (referred to as “other personnel”):** skilled and unskilled craftsmen, secretarial and clerical staff participating in R&D activities or directly associated with such activities; included are also managers and office staff who provide direct support for R&D<sup>4</sup>.
- Please provide the breakdown for the following staff categories, in Headcounts, at the end of years 2010, 2011, 2012, 2013, and 2014:

English	Czech	EvU	RU1	RU2	RU <sub>n</sub>
<b>Professors</b>	Profesoři				
<b>Associate professors</b>	Docenti				
<b>Assistant professors</b>	Odborní asistenti				
<b>Instructors</b>	Asistenti				

<sup>2</sup>Categorisation reflects the definition of academic staff, set by the Act No. 111/1998 Coll. on higher education institutions, which also set the base for reporting on university staff in annual reports. This includes the employees carrying out teaching, scholarly, scientific and research work, development, innovation, artistic and other creative activities.

<sup>3</sup> See “VTR 5-01 (b)” form table 125 on line 04.

<sup>4</sup> See “VTR 5-01 (b)” form table 125 on line 05

<b>Scientific workers (not academic staff defined by the Act No. 111/1998 Coll.)</b>	Vědeční pracovníci (kteří nejsou akademickými pracovníky dle § 70 zákona č. 111/1998 Sb., o vysokých školách)				
<b>Technicians</b>	Techničtí a odborní pracovníci				
<b>Other personnel</b>	Ostatní zaměstnanci				

- How many PhD students have a work contract (in HC)?

### Full Time Equivalent (FTE)

- Please provide the breakdown of Researchers for the following staff categories, in Full Time Employee equivalents (FTE). For faculty (i.e. professors, associate professors, assistant professors, and instructors) the “FTE for research” is calculated as real full-time equivalent divided by two. For scientific workers “FTE for research” equals real full-time equivalent.
- Please provide the breakdown for the following staff categories, in full-time equivalent at the end of years 2010, 2011, 2012, 2013, and 2014:

English	Czech	EvU	RU1	RU2	RUn
<b>Professors</b>	Profesoři				
<b>Associate professors</b>	Docenti				
<b>Assistant professors</b>	Odborní asistenti				
<b>Instructors</b>	Asistenti				
<b>Scientific workers (not academic staff defined by the Act No. 111/1998 Coll.)</b>	Vědeční pracovníci (kteří nejsou akademickými pracovníky dle § 70 zákona č. 111/1998 Sb., o vysokých školách)				

- How many PhD students in the above mentioned categories have a work contract (in FTE)?

## Q010– Czech Academy of Sciences Research Institutes (ASCR)

### Headcounts (HC)

Please provide Headcount data on the staff of Evaluated Unit and all Research Units for each of the following categories (these categories match the definitions used by the Czech Statistical Office in the comprehensive statistical survey on R&D):

- **Researchers:** professionals engaged in the conception or generation of new knowledge, products, processes, methods and systems or managing of such projects. This category (výzkumní pracovníci) involves: senior scientists, scientists, associate scientists and postdoctoral fellows;
- **Engineers and technicians and equivalent staff (referred to as “technicians”):** persons who participate in R&D activities by performing scientific and technical tasks involving the application of concepts and

## Guidelines for the evaluated research organisations (pilot testing)

operational methods (usually under the supervision of researchers). This category involves: research assistants, graduate students, assistants;

- **Other supporting staff (referred to as “other personnel”):** skilled and unskilled craftsmen, secretarial and clerical staff participating in R&D activities or directly associated with such activities; included are also managers and office staff who provide direct support for R&D.
- Please provide the breakdown for the following staff categories<sup>5</sup>, in Headcounts at the end of years 2010, 2011, 2012, 2013, and 2014:

English	Czech	EvU	RU1	RU2	RUn
<b>Senior scientists</b>	Vedoucí vědeckí pracovníci (5) <sup>6</sup>				
<b>Scientists</b>	Vědeckí pracovníci (4)				
<b>Associate scientists</b>	Vědeckí asistenti (3b)				
<b>Postdoctoral fellows</b>	Postdoktorandi (3a)				
<b>Graduate students</b>	Doktorandi (2)				
<b>Research assistants</b>	Odborní pracovníci výzkumu a vývoje (1)				
<b>Assistants</b>	Odborní pracovníci s VŠ, odborní pracovníci se SŠ a VOŠ, odborní pracovníci VaV se SŠ a VO				
<b>Other personnel</b>	Technicko-hospodářští pracovníci, dělníci, provozní pracovníci				

### Full Time Employees (FTE)

- Please provide the same breakdown of Researchers for the following staff categories, in Full Time Employee equivalents (FTEs) at the end of years 2010, 2011, 2012, 2013, and 2014.

<sup>5</sup> Career structure for employees with university degree in the ASCR, where researchers are considered employees in degrees 3a, 3b, 4 and 5.

<sup>6</sup> Number corresponds to qualification degree („kvalifikační stupeň“) in the internal regulation of ASCR Nr. 5/2008

English	Czech	EvU	RU1	RU2	RUn
<b>Senior scientists</b>	Vedoucí vědeckí pracovníci (5) <sup>7</sup>				
<b>Scientists</b>	Vědeckí pracovníci (4)				
<b>Associate scientists</b>	Vědeckí asistenti (3b)				
<b>Postdoctoral fellows</b>	Postdoktorandi (3a)				

- How many PhD students have a work contract (in FTE)?

## Q011 - Other research organisations

### Headcounts (HC)

Please provide Headcount data on the staff of Evaluated unit and all Research Units for each of the following categories (these categories match the definitions used by the Czech Statistical Office in the comprehensive statistical survey on R&D), at the end of years 2010, 2011, 2012, 2013, and 2014:

- **Researchers:** professionals engaged in the conception or generation of new knowledge, products, processes, methods and systems or managing of such projects;
- **Engineers and technicians and equivalent staff (referred to as “technicians”):** persons who participate in R&D activities by performing scientific and technical tasks involving the application of concepts and operational methods (usually under the supervision of researchers);
- **Other supporting staff (referred to as “other personnel”):** skilled and unskilled craftsmen, secretarial and clerical staff participating in R&D activities or directly associated with such activities; included are also managers and office staff who provide direct support for R&D.

English	Czech	EvU	RU1	RU2	RUn
<b>Researchers</b>	Vědeckí pracovníci				
<b>Technicians</b>	Techničtí a odborní pracovníci				
<b>Other personnel</b>	Ostatní zaměstnanci				

- How many PhD students have a work contract (in HC)?

### Full Time Employees (FTE)

- Please provide FTE data for research on the staff of the Research Unit for the category researchers at the end of years 2010, 2011, 2012, 2013, and 2014:

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<sup>7</sup> Number corresponds to qualification degree („kvalifikační stupeň“) in the internal regulation of ASCR Nr. 5/2008



English	Czech	EvU	RU1	RU2	RUn
Researchers	Vědeční pracovníci				

- How many PhD students have a work contract (in FTE)?

## Human resource management

### Q012 - Career development

#### Q013 - Career development of PhDs and post-docs (only for those Research Units that in practice teach or train PhDs)

These questions ask for a statement on the policy in the EvU in relation to career development of researchers in general. It will provide background information to the evaluation panels on how the EvU management develops and maintains structures and practices that foster good research in the field and helps early-career researchers to make their way into the profession to become gradually independent.

Please provide convincing evidence, e.g. reference to a directive, rule or regulation or to a similar document that governs the process in question.

Question Q012 consists of 4 sub-questions:

Q012a - Is there an appraisal and monitoring system in place? Do you have a competency framework for different job roles?

Q012b - How often is employee performance reviewed? How often do employees provide feedback on potential concerns, issues, challenges related to their jobs?

Q012c - What are the promotion criteria? Are there individual targets set? How else do you tackle the career development of your employees?

Q012d - How does the Evaluated Unit develop and maintain structures and practices that foster good research?

Question Q013 consists of 4 sub-questions:

Q013a - What are the objectives and outcomes of the PhD programme (in particular mission of the programme and career destination of PhD-graduates)?

Q013b - How does the EvU help early-career researchers to make their way into the profession?

Q013c - Supervision: what are the rights and obligations of both supervisors and PhD candidates?

Q013d - What are the educational components for the training of PhDs?

## Background information on the Evaluated Unit

This background information is important for the evaluation panels to understand the context of the EvU and its RUs. Please answer carefully!

### Concise activity report

#### Q014 - Description of research activities, objectives and achievements over the evaluated period of the EvU

Provide a description of research activities, objectives and achievements over the past 5 years 2010-14 of the EvU and highlight the role and contribution of individual RU(s). If suitable structure fully according to RU(s) with a short introduction for the whole EvU. Extent 1000 to 5000 words.

### Fields and foci of research

#### Q015 - Fields and foci of research of the EvU

Describe the main fields and foci of research at the Evaluated Unit. If suitable structure fully according to RU(s) with a short introduction for the whole EvU. In case the research carried out is clearly specialised, describe each field separately. Describe the role of multidisciplinary or interdisciplinarity and the role of basic and applied research. Extent 500 to 1000 words.

### Peer-reviewed journal published in the field

#### Q016 - Peer-reviewed journals published by the EvU

If the EvU or a component of it publishes its own peer-reviewed journal(s) in the field, please provide the following information: What is the name of the journal? When was it established? What is its scientific focus? What is the language for publication? Is it listed in an international journal database? If yes, which one?

## The Research Environment of the EvU and individual RUs

### Age of the researchers

#### Q017 - Age of the researchers

Excluding PhD students, please provide a breakdown of active researchers by age group as of December 31, 2014:

Age	EvU	RU1	RUn
Less than 30			
30-39			
40-49			
50-59			
60-69			
70 and more			

### Inbreeding

This question aims at understanding the openness of the EvU and individual RU(s) to researchers, theories and methods in other research organisations. The question is to what extent the Evaluated Unit and Research Unit(s) are made up of researchers who received their PhD or degree training in the same research organisation.

### **Q018 - Inbreeding**

Please provide the number and percentage of researchers that carried out their PhD training within the Research Organization.

### **Q019 - Eventual clarifications or notes on trends in the evaluated period**

Additional comments and clarifications can be given here on the trends in the evaluated period. Maximum 250 words.

## **PhD student enrolment, awarded and trained in the EvU**

Only Evaluated Units that train PhDs need to answer the following questions.

### **Higher Education Institutions (HEIs)**

#### **Q020 - PhD student overall enrolment in each year**

Please provide the total number of doctoral students enrolled in each year at the EvU during the period 2010-14. Provide the figures using the following breakdown: male enrolled / female enrolled / total number of enrolled / number of students trained within individual RUs.

#### **Q021 - Newly enrolled PhD students in each year**

Please provide figures on the number of PhDs that were newly enrolled by the EvU in each year during the period 2010-14 (include also those that are trained outside EvU). Please give also the number of PhDs that were newly trained within individual RUs.

#### **Q022 - PhDs awarded in each year**

Please provide figures on the number of PhDs that were awarded by the EvU in each year during the period 2010-14 (including PhDs trained outside EvU). Please provide also figures on the number of PhDs that were successfully completed within individual RUs.

### **Q023 - Eventual clarifications or notes on trends in the evaluated period**

Additional comments and clarifications can be given here on the trends in the evaluated period.

### **Other research organisations**

#### **Q024 - PhDs trained in each year**

Please provide figures on the number of PhD students who did a substantial part of their thesis work (>50%) at the EvU during the period 2010-14. Provide the figures using the following breakdown: male / female / total / number of students trained within individual RUs.

#### **Q025 - Newly trained PhD students in each year**

Please provide figures on the number of PhDs that were newly trained by the EvU and individual RUs during the period 2010-14.

#### **Q026 - PhD studies successfully completed in each year**

Please provide figures on the number of PhDs that were successfully completed within the EvU and individual RUs during the period 2010-14.

### **Q027 - Eventual clarifications or notes on trends in the evaluated period**

Additional comments and clarifications can be given here on the trends in the evaluated period.

## **Institutional funding for research on the level of EvU**

### **Q028 - Institutional funding for research in the period 2010-14**

The word 'institutional' means that the funding is not given to carry out specific 'projects'. 'Funding for research' refers to the 'institutional funding for the long-term development of research organisations'. Please verify data supplied from the R&D IS.

Add separately the amount of **other** institutional funding. 'Other funding' can comprise funding for teaching in universities, acquisition of equipment, etc.

### **Q029 - Eventual clarifications or notes on trends in the evaluated period 2010-14**

Additional comments and clarifications can be given here on the trends in the evaluated period.

## **Research Infrastructure on the level of EvU**

### **Q030 - Shared/collaborative use of infrastructure**

Please list maximum 10 key pieces of research infrastructure and indicate for which ones there was a shared or collaborative use. Minimum threshold of 25000 € for Physical Sciences and Engineering and Technologies, and no limit for Social Sciences and Humanities.

- Name of equipment, description, cost at the date of purchase, year of purchase, shared/collaborative use, comment

### **Q031 - Other national research infrastructures from the Czech roadmap of RI (non-competitive access)**

Please list whether you have used research infrastructures of other Czech research organisations. Maximum 10 cases.

- Name, Owner, Purpose of the use for your research

### **Q032 - Other research infrastructures (competitive access)**

Please list whether you have used major national and international research infrastructures, awarded after competitive review by panel of experts? Maximum 10 cases

- Name of the RI, Owner, Time awarded, Total value of time awarded, Purpose of the use for research

### **Q033 - Research infrastructure self-assessment**

Please make an overall comment on the adequacy of your infrastructure and facilities, including buildings, equipment and other physical infrastructure, relating it to the research needs of the Evaluated Unit. Maximum 500 words.

### **Research strategy**

This information will be used to assess whether there is shared plan for guiding the research of the EvU and whether strategic, long-term research plans been defined and, if so, how does the EvU seek to realize those plans. If suitable structure according to RU(s) with a short introduction for the whole EvU. Please provide the internal document approved by the relevant body.

#### **Q034 - Research Strategy of the Evaluated Unit for the period 2015-19**

A research programme typically describes the Evaluated Unit's research objectives that basically should cover the following topics:

- Research plan description: What are the key research objectives and means to achieve these objectives? Have you defined performance indicators to measure progress?
- Development needs: Is there need for new knowledge, facilities; is the present level of funding sufficient for attaining the objectives laid down?
- Use of resources: What is the intended use of resources (human, financial, equipment) in the light of the strengths and weaknesses in the SWOT analysis and how does the RU intends to combat the weaknesses and exploit the strengths?
- The strategy in the context: Do the strategies of State and the Institution/Unit support each other? How do you take into account the possible ethical questions within research?

Extent up to 2500 words.

## **Membership of the national & global research community on the level of RU**

This form collects the data for the period 2010-2014 necessary to understand what the main channels through which the RU interacts with the national and international scientific community are. The data also focuses on whether the professors and leading researchers at the RU are active in international societies and the most relevant research projects that have been carried out jointly with other institutions or abroad. Finally this form also collects data on major international conferences.

### **National research presence and collaboration of RU**

#### **Q035 - National collaborations and partnerships**

List the most important national collaboration partners of the RU (max 50% of total FTE for research, no more than 20 items). Collaborator refers to a research organisation or a research team with whom the cooperation has either generated or is expected to generate a research output or outcome, e.g. key joint publications, researcher training, adoption and use of new technologies or new approaches. Types of collaboration include e.g. joint projects, researcher mobility, use of resources and/or creation of outputs.

- Name of organisation, contact person, joint research outputs, type of collaboration

#### **Q036 - Describe the most important outcomes of these collaborations and partnerships**

Describe here e.g. key joint publications, researcher training, adoption and use of new technologies or new approaches. Maximum 250 words

### **National reputation and esteem of RU**

#### **Q037 - The most significant scientific prizes, honours and scientific positions of trust awarded to researchers in the RU**

- Name of the prize or position, organization awarding the prize, name of the researcher (max 50% of total FTE for research, no more than 20 items)

#### **Q038 - The most important memberships of scientific advisory boards in academia among the researchers in the RU.**

- Type of membership, name of organization, name of researcher (max 50% of total FTE for research, no more than 20 items)

### **International research presence and collaboration of RU**

#### **Q039 - Collaborations with institutions in other countries**

List the most important international collaboration partners of the RU (max 50% of total FTE for research, no more than 20 items). Collaborator refers to a research organisation or a research team with whom the cooperation has either generated or is expected to generate a research output or outcome, e.g. key joint publications, researcher training, adoption and use of new technologies or new approaches. Types of collaboration include e.g. joint projects, researcher mobility, and use of resources and/or creation of outputs.

- Name of organisation, contact person, joint research outputs, type of collaboration

### **Qo40 - Describe the most important outcomes of these collaborations and partnerships**

Describe here e.g. key joint publications, researcher training, adoption and use of new technologies or new approaches. Maximum 250 words

### **Qo41 - Study visits coming from abroad in the period 2010-14**

State whether you had any researchers from abroad coming to the Research Unit on study-visits during the evaluation period.

- Name, affiliation, country, category, total months:
  - 'mature' researchers for at least 2 months,
  - postdocs for at least 3 months,
  - PhD students visiting for at least 3 months,
  - PhD students enrolled and/or trained in RU for a substantial part of the PhD project and defending their PhD in CR or defending in both countries ("cothesis / these en cotutelle").

Please add a concise description of objective and results for each item. Maximum 250 words.

### **Qo42 - Study visits from the Research Unit to institutions abroad in the period 2010-14**

State whether any of the staff and PhD students in the Research Unit conducted study-visits to research and/or technological institutions outside the Czech Republic?

- Name, affiliation, country, category, total months, :
  - 'mature' researchers for at least 2 months,
  - postdocs for at least 3 months,
  - PhD students visiting for at least 3 months,
  - PhD students enrolled and/or trained in RU for a substantial part of the PhD project and defending their PhD in CR and another country ("cothesis / these en cotutelle").

Please add a concise description of objective and results for each item. Maximum 250 words

## **International reputation and esteem of RU**

### **Qo43 - Membership in editorial boards**

Please list membership of editorial boards of journals indexed by Thomson-ISI, Scopus, ERIH or Engineering Village.

- Type of membership, title of the journal, name of the researcher, period of the membership. Maximum 50% of total FTE, no more than 20 items.

### **Qo44 - International conferences**

Please list the most important international conferences where the Research Unit was the main organiser.

- Title of the conference, dates, number of participants, short description. Maximum 10.

## Overall Research Performance on the level of RU

### The research output, including productivity of RU

#### Q045 - Research output in the period 2009-13

The evaluation management team will provide the RU with data on the research outputs produced over the years, based on the data stored in the national RD&I IS (in Czech RIV). The response to this question will be provided by a summary table also.

The RU should validate the data on outputs which correspond to RIV categorization.

The information on the research output of RU, validated by the RU, will be processed from a bibliometric perspective and provided to the evaluation panels as a Bibliometric Data Report.

#### Q046 - Value of the RU activities for the advancement of research (self-assessment)

Describe in maximum 500 words how the research activities in your RU have constituted or led to advancements of research in your field.

Topics can include: major scientific breakthroughs, research leading to the development of new or improved concepts, methods, standards, industrial and utility designs, pilot plants, proven technologies, prototypes, software, new or improved processes, products, artistic outputs, research enabling an improved access to information or knowledge etc.

### The RU competitiveness in research

Data related to the RU's capacity to attract external funding inform the evaluation panels not only on the RU's competitiveness in its field, but also on the value of the research for society and its alignment with policy priorities.

Any funding data needs to be reported in millions of Czech crown (CZK), non-adjusted for inflation (quantities 'as they are' or 'as they were' in the past).

(If you need to convert from other currencies please use the annual exchange rate for the year where the funding was obtained. In projects longer than a year but paid in tranches, you can do the conversion of the full amount at the exchange rate of the first year for simplicity, or calculate a simple or weighted average).

#### Q047 - National competitive funding ('targeted' funding) in the period 2010-14

The study team will provide the RU with data on the funding received over the years from national public sources, based on the data stored in the national RD&I IS. That file will also include a summary table as the one shown in the submission form.

#### Q048 - International funding from EU programs in the period 2010-14

Competitive project funding from FP7 (indicate separately ERC grants). Give also funding from EU structural funds operational programs.



### **Q049 - International competitive funding from other public sources in the period 2010-14**

Competitive project funding “from other foreign public sources” include, for example, foreign funding agencies, foreign ministries, embassies, and related organisations

### **Q050 - Income from contract research in the period 2010-14**

Contract research funding has defined objectives, but is obtained directly, i.e. not in response to an open call for projects, and the conditions of the work to be carried out are set directly between the RU and the client. VAT (DPH) should not be included in the reported incomes from contract research. Provide the total income per year (2010 – 2014). The following categories are distinguished in the table: contract research from industry, contract research from ministries, contract research from other public sector institutions (in the Czech Republic), contract research from international public bodies, other contract research.

### **Q051 - Income from the commercialisation of research outputs in the period 2010-14**

This includes, for example, sales and licensing income from patents, plant varieties (Zodru) and animal breeds (Zplem), sales of software, prototypes and similar. Limit the number of reported items to 50 % of FTE for research, no more than 20.

### **Q052 - Explain reasons for any change trends observed in the data**

Additional comments and clarifications can be given here on the trends in the evaluated period. Maximum 250 words

## **Competitive positioning of the RU (self-assessment)**

*Self-assessment is an important part of the evaluation. Please answer carefully!*

### **Q053 - Competitive positioning in the national context**

Is the RU research focus unique in the country or are there competing actors in this specific field? Who are they? Is there a strategy/motivation/possibility to cooperate with these competing actors aiming to strengthen the research field? Or is there a strategy to dissociate and strengthen the own research profile? Maximum 500 words.

### **Q054 - Competitive positioning in the international context**

Evaluate the Unit in relation to its leading competitors. How does the RU perceive itself in the international context? What is the “niche” of the RU in the global research environment? What characteristic features distinguish the RU from its international competitors? What are the most relevant competitors (university departments or other research organisations) of the RU in the international context? Maximum 500 words.

## Societal relevance of the research on the level of RU

### Knowledge and technology transfer activities of RU

#### Q055 - Collaborations with non-academic societal actors during the period 2010-14

List the most important collaborations with non-academic societal actors. Types of collaboration include e.g. joint projects, researcher mobility, and use of resources and/or creation of outputs.

Name of institution, type of organisation, contact person, description of collaboration (up to 50 words). Please provide convincing evidence. Maximum 50 % of FTE for research, no more than 20 items.

#### Q056 - Participation in incubators and clusters during the period 2010-14

List the most important cases of participation in incubators or clusters during the assessment period

- Name, contact person, description of participation (up to 50 words). Please provide convincing evidence. Maximum 50 % of FTE for research, no more than 20 items.

#### Q057 - Participation in advisory boards during the period 2010-14

List the most important memberships of advisory boards outside academia among the researchers in the RU. (e.g. for government, foundations, charities, NGOs, or industry)

Name, contact person, description of participation (up to 50 words). Please provide convincing evidence. Maximum 50 % of FTE for research, no more than 20 items.

### Spin-off companies of RU

#### Q058 - Spin-off creation during the period 2010-14

List the spin-off companies launched by the RU during the assessment period.

Name, date, present turnover (estimate), present profitability (estimate), number of employees. Please provide convincing evidence.

### Self-assessment on societal relevance of RU

*Self-assessment is an important part of the evaluation. Please answer carefully!*

#### Q059 - General statement

Describe how the RU activities promote and support the activities of other societal actors, e.g. industry of SMEs, schools, citizen associations, ministries or governmental agencies. What are the main channels used (joint projects, conferences, articles in sector journals, use of the general or social media, publications for the broader public etc.)? Maximum 500 words.

#### Q060 - Societal value of activities

Please provide up to 3 specific examples illustrating the value of the RU activities for society. The following is a list of potential topics. This list is not

comprehensive. RUs should feel free to report other relevant impacts. Maximum 500 words

- **Economic impacts**- Impacts where the beneficiaries may include businesses, either new or established, or other types of organisation which undertake activity that may create wealth. Please provide convincing evidence.
  - o *A business or sector has adopted a new or significantly improved technology or process; A new business sector or activity has been created; The performance of existing businesses has been improved (e.g. turnover of the spin-off); Industry or other organisations have invested in their own R&D; Highly skilled people have taken up specialist roles in companies or other organisations; Jobs have been created or protected; Social enterprise initiatives have been induced*
- **Impacts on practitioners and services** - Impacts where beneficiaries may include organisations or individuals involved in the development of and delivery of professional services. Please provide convincing evidence.
  - o *Information from practitioners on how research findings are applied in practice Changes to professional standards, guidelines or training Evidence of adoption of best practice*
- **Impacts on public policy and services** - Impacts where the beneficiaries are usually government, public sector, and charity organisations and societies, either as a whole or groups of individuals in society, through the implementation of policies. Please provide convincing evidence.
  - o *Documented evidence of stimulated policy debate Documented evidence of changes to public policy/legislation/regulations/guidelines Documented impact of influence on policy and/or advisory committees The quality, accessibility or cost-effectiveness of a public service has been improved Changes to education or the school curriculum have been informed by research Risks to national security have been reduced International development has been informed by research*
- **Impacts on society, culture and creativity** - Impacts where the beneficiaries are individuals, groups of individuals, organisations or communities whose knowledge, behaviours or practices have been influenced. Please provide convincing evidence.
  - o *Public understanding has improved through their collaborative involvement with research Critical reviews in the media Public debate has been stimulated Measures of improved social equality, welfare or inclusion have been induced Documented shift in public attitude Creating, inspiring and supporting new forms of artistic, literary, linguistic, social, economic, religious, and other expression beyond the academia*
- **Health and welfare impacts** - Impacts where the beneficiaries are individuals and groups (both human and animals) whose quality of life has been enhanced (or potential harm mitigated). Please provide convincing evidence.
  - o *Measures of improved clinical outcomes, public behaviour or health services Documented changes to clinical and public health guidelines Documented changes to animal welfare codes or guidelines Evidence of enhanced awareness of health risks and benefits by consumers Evidence of enhancement of patient experience*
- **Impacts on the environment** - Impacts where the key beneficiaries are the natural environment and/or the built environment, together with societies,

individuals or groups of individuals who benefit as a result. Please provide convincing evidence.

- *Sales of new products, or improvements in existing products, that bring quantifiable environmental benefits Evidence of generic environmental impact across a sector, confirmed by independent knowledge body Traceable reference to the influence of research in planning decision outcomes The management of an environmental risk or hazard has changed*

### **SWOT analysis for RU**

Please provide an evaluation of the Research Unit's scientific strengths, weaknesses, opportunities and threats. Maximum 500 words.

Analyse the Research Unit's scientific expertise and achievements, funding, facilities, organisation and management. What are the major internal Strengths and Weaknesses as well as external Threats and Opportunities in the Research Unit's activities and research environment?

In addition to strengths and weaknesses it is also very important to assess what the present strengths or developable strengths enable in the future and what kinds of threats are related to the weaknesses.

<i>Strengths</i>	<i>Weaknesses</i>
<i>Opportunities</i>	<i>Threats</i>

#### 4. List of abbreviations

EM	Evaluation Methodology
EvU	Evaluated Unit
FoS	Field of Science
FTE	Full Time Equivalents
IPR	Intellectual Property Right
HC	Headcounts
HEI(s)	Higher Education Institute(s)
PRFS	Performance-based Research Funding System
R&D	Research and Development
RD&I	Research, Development and Innovation
RD&I IS	RD&I Information System
REF	Research Excellence Framework (UK)
RI	Research Infrastructure
RO(s)	Research Organisation(s)
RU	Research Unit)
RTO(s)	Research and Technology Organisation(s)

## 5. Structure of disciplinary areas and fields

<b>Major area</b>	<b>Field</b>
<b>1. Physical Sciences</b>	1.1 Mathematics
	1.3 Physical sciences
	1.4 Chemical sciences
	1.5 Earth and related environmental sciences
	1.6 Biological sciences
	1.7 Other natural sciences
	<b>2. Engineering and Technology</b>
2.2 Electrical engineering, electronic engineering, information engineering	
1.2 Computer and information sciences	
2.3 Mechanical engineering	
2.4 Chemical engineering	
2.5 Materials engineering	
2.6 Medical engineering	
2.7 Environmental engineering	
2.8 Environmental biotechnology	
2.9 Industrial Biotechnology	
2.10 Nano-technology	
2.11 Other engineering and technologies	
<b>3. Medical and Health Sciences</b>	3.1 Basic medicine
	3.2 Clinical medicine
	3.3 Health sciences
	3.4 Health biotechnology
	3.5 Other medical sciences
<b>4. Agricultural Sciences</b>	4.1 Agriculture, forestry, and fisheries
	4.2 Animal and dairy science
	4.3 Veterinary science
	4.4 Agricultural biotechnology
	4.5 Other agricultural sciences
<b>5. Social Sciences</b>	5.1 Psychology
	5.2 Economics and business
	5.3 Educational sciences
	5.4 Sociology
	5.5 Law
	5.6 Political Science
	5.7 Social and economic geography
	5.8 Media and communications
	5.9 Other social sciences
<b>6. Humanities</b>	6.1 History and archaeology
	6.2 Languages and literature
	6.3 Philosophy, ethics and religion
	6.4 Art (arts, history of arts, performing arts, music)
	6.5 Other humanities

Based on and elaborated from OECD. Revised Field of Science and Technology (FoS) classification in the Frascati manual, version 26-Feb-2007, DSTI/EAS/STP/NESTI (2006)19/FINAL.

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## NIFU

Nordic Institute for Studies in  
Innovation, Research and Education



### Modifications:

- 
- Individuální projekty
  - národní pro oblast terciárního vzdělávání, výzkumu, vývoje a inovací

**Pilotní ověření návrhu nové metodiky hodnocení výzkumných organizací**  
**Samostatný doplňující dokument 1**  
***Průvodce pro hodnocené výzkumné organizace***

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Vydává Ministerstvo školství, mládeže a tělovýchovy, Karmelitská 7, Praha 1

Individuální projekt národní pro oblast terciárního vzdělávání, výzkumu a vývoje:  
Efektivní systém hodnocení a financování výzkumu, vývoje a inovací (IPN Metodika)

[www.metodika.reformy-msmt.cz](http://www.metodika.reformy-msmt.cz)

Praha 2015