# Guide for Survey

## Detailed instructions for launching and conducting survey, and further integration of infrastructure data

This guide comprises detailed instructions for web based or mail based launching the questionnaire to the research community as well as gathering and necessary data processing and integration of all responses which should serve as main input for the selection and mapping of research infrastructures in Bosnia and Herzegovina. The main aim of the survey questionnaire is mapping the most important characteristics and development needs of the existing research infrastructures in Bosnia and Herzegovina.

**Key definitions:**

**Research Infrastructure (RI)** -According to the definition of European Commission, Research Infrastructures (RI) are facilities that provide resources and services for research communities to conduct research and foster innovation. They include:

* major scientific equipment or sets of instruments;
* collections, archives or scientific data;
* computing systems and communication networks;
* any other research and innovation infrastructure of a unique nature which is open to external users.

Research infrastructures can be centralised, that is, based in a single location. They can also be distributed or virtual, and can form mutually complementary wholes and networks.

**Unique Research Infrastructure**– facilities, research centres, and integrated complexes which have highly specialized equipment and instrumentation, offer specialized scientific service, are without analogue on a national level, and/or are a partnership structure of infrastructures, identified by the European Strategy.

**RI Roadmap** – a national strategic document, by which conditions are created to solve a specific problem,

which outlines a vision for development in the science and innovation area. It contains specific objectives

that must be achieved based on already implemented measures and instruments, provided in European

documents and strategies to support the development of research infrastructure.

**E-Infrastructure for scientific research** –provides computing services for the scientific community.

## Detailed instructions for completing the survey

The entire process of launching and conducting survey needs to be carried out in broad cooperation with the scientific and research community. Federal Ministry of Education and Science is responsible for lunching and gathering the information from the survey. The process of surveying need to be complemented with the integration of infrastructure data from other sources i.e. memberships in international research infrastrucutre organizations, research infrastructures on national level developed from domestic and EU funds etc.

The text below provides detailed instructions for completing survey questionnaire.

The survey questionnaire consists of 3 sections:

1. General information
2. Data on infrastructure and equipment
3. Information on Access, Collaboration and Networks

The questionnaire should be filled in for one research infrastructure and all data and descriptions should be given for the specific infrastructure that is the subject of the questionnaire. In the text below, detailed instructions for completing the questionnire are provided.

**Instructions for completing Part 1: General information: Tables 1.1., 1.2., 1.3., 1.4.**

In table 1.1., the main information about respondent should be filled in. The second table 1.2 refers to the general information about research infrastrucuture which is the main focus of the questionnaire.

In the field „Thematic categorisation of RI types by field of science“, research infrastructure should be grouped thematically. The ESFRI Roadmap 2016 sets the following 6 thematic areas:

1. energy;
2. environment;
3. health and food sciences;
4. physical sciences and engineering
5. social and cultural innovation;
6. e-infrastructures.

Research infrastructures should be linked to one of these defined categories.

In the next field „Type of RI“, there are four types of RI that are commonly distinguished:

1. single-site facilities;
2. distributed facilities;
3. mobile facilities;
4. virtual facilities.

Each research infrastructure should belong to one of these 4 types.

In table 1.3. a detailed description of research infrastructure (general information on research infrastructure) and it’s main purpose and objectives should be provided.

In table 1.4. specific research services provided to users and external researchers should be specified and explained. It is necessary to list the services available to researchers that the research infrastructure offers.

**Instructions for completing Table 2.1:**

In table 2.1., the total value of research equipment used within the research infrastructure should be entered. It is important to enter two types of values: the purchase value and the current value which take into account the depreciation of equipment.

**Instructions for completing Table 2.2:**

In Table 2.2, only capital research equipment at purchase price higher than EUR 50,000 should be listed.

In the column „The source of funds for the purchase of equipment” funding source should be entered. If there are two or more funding sources, each one should be indicated with the participation share. One of the following funding sources should be inserted:

* Own funds
* Resources of Federal Ministry of Education and Science
* Resources of other ministries
* Resources of public funds from Bosnia and Herzegovina
* Donations
* Funds from international projects
* Funds / donations from abroad
* Other sources - specify which!

**Instructions for section 3: Information on Access, Collaboration and Impact**

The section 3 consists of 4 open questions and sub-questions and it requires the information on access, collaboration and impact of research infrastructure.

**Instructions for completing section 3.1.**

Within the section 3.1 short description of access policy and procedures for users of research infrastructure should be provided. If there is no official access policy, please describe internal procedures that are being used. In addition, the estimated number of users of research infrastructure should be also inserted since that it is very important information for determining the importance of the selected research infrastructure for the research community at the national and international level. In 3.1.1 all external organizations and institutions that used research equipment provided by research infrastructure so far should be listed.

**Instructions for completing section 3.2.**

Recognition of research infrastructure and scientific impact on the international level should be emphasized within the sections 3.2 and 3.3 of this questionnaire. This information is of particular interest for determining the relevance of research infrastructure on an international level.

Information on cooperation with other research institutions is important for determining the relevance of research infrastructure as well as the level of interaction with other actors in the research community. In section 3.2, all international research projects, partnerships or agreements that the research infrastructure has been involved in the last 10 years should be listed. Please note that only research projects that included the use of research equipment should be inserted. In 3.2.1 the information on the potential integration into international or pan-European research infrastructures should be provided if there is any.

**Instructions for completing section 3.3.**

The section 3.3 refers to the engagement in reseach projects (H2020, FP7, other programmes) which aimed at the establishment of research infrastructures on a national or international level.

**Instructions for completing section 3.4.**

The last section (3.4.) refers to future plan of RI management. The respondent needs to briefly specify the future investment, integration into wider RI and other relevant information considered as important.