Charter of the Working Group on Education and Human Resources

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1 Introduction

One of the main pillars of implementing the European Open Science Cloud (EOSC) in the Czech Republic is the establishment of a national repository platform (NRP) for scientific data. This platform is intended to serve as one of the fundamental elements of the infrastructure for scientific data in the Czech Republic, along with an environment for storing unstructured data, a computational environment, and a collaboration environment.

For the effective implementation of EOSC in the Czech Republic and to ensure its utilization, it is essential to provide a sustainable educational framework and enable individuals and institutions to develop competencies necessary for the management and sharing of research data. The Working Group on Education in Research Data has defined two main areas of interest:

- 1) Education and support for researchers
- 2) Education for "data support" (data steward, data curator)



Figure 1: Framework of EOSC ecosystem actors (Manola et al. 2021: 17)

One part of the activities of the Education Working Group will focus on expanding competencies in the field of management and sharing of research data for both beginning and practicing researchers. The second part will address the issue of human resources, new job positions, study programs, and courses for so-called "data stewards" and "data curators" (see Fig. 1), i.e., workers who will assist researchers in working with data. On the other hand, the area of "data science" (data analysts and scientists) is from the perspective of this working group's work a distinct area of research and is not the primary target area for the activities of this WG.

2 Goals

2.1 Education and Support for Researchers

Based on European standards and examples of good practice from foreign institutions, it is necessary to identify the skills in working with research data that researchers should have, and then focus on the development of these competencies. These competencies are expected to comprise both a general foundation that every research worker should master (e.g., preparation of a data management plan) and a field-specific extension reflecting differences between disciplinary specifics (e.g., secure handling of personal data, ethical issues, etc.).

The working group will focus particularly on these areas:

- National standards
 - Recommendations and national standards for preparing changes in relation to the introduction of research data management issues into the practice of universities and institutions
- E-learning course
 - Mapping existing online courses in the field of working with research data, both general and field-specific (e.g., CESSDA course for researchers in social sciences)
 - o Identifying opportunities for the development of online education
- Educational materials
 - Collaboration with the education working group at WG-RDM.cz, which is dedicated to the preparation of educational materials for researchers
 - Involvement of non-academic staff in the educational process through the preparation of know-how for helpdesks, i.e., permanent and ongoing support, at institutions
- Education of PhD students and early career researchers
 - Proposal for implementing systematic education of postgraduate students and early career researchers in the field of management and sharing of research data

2.2 Education for "Data Support"

The goal of this activity is to prepare a proposal for a concept of a comprehensive study program for so-called "data stewards," i.e., workers who assist scientists with the management of research data. In addition to preparing the content of such a course, it is also necessary to ensure the personnel for teaching the proposed study programs.

An equally important part of this WG's work is also the preparation of a proposal for implementing the position of "data steward" into the structure of a research institution. For this purpose, examples of good practice at foreign institutions, which already have experience with this or a similar position (e.g., Utrecht University, University of Cambridge, or TU Delft), will be analyzed, and a feasibility study will be prepared for sustainable human resource development at the national and institutional level.

3 Membership and Operation

The WG is open to individuals interested in membership with experience in the development and support of working with scientific data. The number of members of the working group is not limited. Typically, members are experts working at universities and research institutions. The WG actively cooperates with relevant projects in the Czech Republic, the EU, and worldwide. The aim is to acquire an expert group representing to the maximum extent entities working with research data in the Czech Republic.

The WG is particularly suitable for senior staff responsible for developing the area of data policy at the workplace, experts already working in this field, and those assigned to various job positions in the organizational structure of the institution.

It is also necessary to involve academic and researchers: developing both formal and informal education. An interest in the development of human resources and a willingness to collaborate are important. This work must be based not only on the current shortage of relevant experts but also predict their need in a timeframe corresponding to the parameters of specialized study programs. As part of this activity, elements of formal education in the structure of microcredits not yet fully implemented in the Czech Republic will also be examined.