Module 5: “Mainstreaming of Open Science”

Recommendations for implementing an OS Award in CIVIS
and for supporting the Research Assessment Reform

The key objective of Module 5 in RIS4CIVIS was to implement a common CIVIS approach to Open Science (OS). Module 5 worked on four case studies, and the current set of recommendations cover the last two cases:

1. **Common CIVIS OS knowledge base** – the creation of a CIVIS virtual space to include trusted information related to OS policies and practices (e.g., trainings, templates, case studies etc.).
2. **CIVIS training programs in OS** – adapting European recommendations and training programs on OS to the needs of the CIVIS academic community.
3. **The CIVIS OS Award** – constantly mapping the OS landscape in CIVIS needs to be joined with showcasing some of the best applications of OS, with an increased visibility in the case of a CIVIS OS award.
4. **Pilot case study on research assessment** – testing the use of new metrics in research assessment process (possible link with Module 4 and the HRS4R award).

Promoting OS practices and reaching different stakeholders is a long-term commitment, which requires constant effort at the alliance level. The last two case studies are meant to help in fostering this cultural change: first by raising the awareness of the CIVIS community (hence
the crucial role of establishing an OS Award), and second by connecting the current debates about research assessment reform with trainings and career development programs. Module 5 recommends lines of actions that are built on the four case studies, but at the same time take into account the current European developments, which are relevant for the last two cases (e.g., OS awards in other alliances; CoARA etc.).

**Open Science Award**

The aim of this Award is to recognise and reward Open Science initiatives across CIVIS. The focus is on initiatives, projects, or research endeavours undertaken to promote and advance Open Science principles within the scholarly community. Thus researchers, administrative and support staff, or professional services, either individually or as part of teams, are encouraged to highlight their contributions in areas such as open access publishing, data sharing, open educational resources, citizen science, open source software, or any other relevant field. Indicatively initiatives could be:

- Using alternative models of publication and peer review in the process of communication and dissemination of research results, contributing to a faster and more transparent spread of knowledge.¹
- Making the output of research, including publications, data, software, and other research materials freely accessible.
- Raising awareness of Open Science through trainings, events, life-long learning programmes, educational and research tools, etc.
- Using open collaborative methods and tools to increase efficiency and widen participation in research.

Participation of citizens (public) in addressing real-world problems e.g. in formulating research questions, or participating in scientific experiments, in collecting and analyzing data, interpreting results, in order to develop technologies solve complex problems.

The award could be a financial grant for the research group, the institution or department of the winners and could be announced in an annual event to allow the winners to showcase their work. An Award committee could be established, comprising Open Science experts from every CIVIS member, to evaluate the alignment of the candidate projects and activities to the Open Science principles, as well as their impact to the CIVIS and to the general academic community.

Module 5 in RIS4CIVIS recommends this action as a way to raise awareness about Open Science practices, and for promoting other activities related to OS, such as trainings.

**Research Assessment Reform**

According to the report “Enabling open science and societal engagement in research,” created by the EU Directorate-General for Research and Innovation (DOI:10.2777/057047), “Universities and other research performing organisations should make reforms to criteria, metrics and processes supporting researchers’ recruitment and career progression in order to reward open science practices.” Moreover, the European Commission and Universities “should continue to make reforms to indicators, measures and processes utilised by them in project, programme, researcher and research unit evaluations to ensure these include assessment and evaluation of open science practices.” Hence it is recommended CIVIS to be aligned to such policies. In particular, CIVIS could adopt a set of criteria for reforming the research assessment process.

Indicatively, the established criteria concern the following domains of research processes and research outcomes:

- Publications (e.g., Publishing in Open Access and Self-archiving in Open Access repositories), including the development and curation of Research Datasets as well as open
source software and tools (e.g., open source collaboration software),
- the Implementation of Collaboration and Interdisciplinarity policies,
- the Implementation of Citizen Science policies (e.g. engaging citizens and societal groups in defining research topics, in collecting data, etc.),
- the Participation in national and international networks relating to Open Science,
- the Development of open research infrastructures,
- Teaching and Supervision of projects focusing on Open Science policies and supporting early stage researchers to adopt an OS approach,
- Sharing research results through non-academic dissemination channels,
- Translating research into a language suitable for public understanding,
- Contributing as editor or advisor for OS publications and contributing to peer-review processes including to open peer-review practices,
- Training other researchers in OS principles and methods as well as developing curricula and programs in OS/CS methods, including OS data management; developing or contributing to provide Open Educational Resources (OER) in specific domains.

An obstacle for creating uniform research assessment processes is the multilingual environment of CIVIS, which it should be taken into account in the process of the establishment of metrics and indicators that reify the defined criteria.

Concluding, it is recommended to follow the activities of the Coalition for Advancing Research Assessment (CoARA: https://coara.eu/) and adopt its principles. Moreover it is recommended to CIVIS members to participate actively in the CoARA working groups, according to their needs and expertise.