Co-funded by the Erasmus+ Programme of the European Union

MINERVA 2019-2023
Strengthening Research Management and Open Science Capacities of HEIs in Moldova and Armenia

IN-DEPTH ANALYSIS ON OPEN SCIENCE INFRASTRUCTURE AND POLICIES

Report - analyses level: University

Partner University Number -

Evaluation period: 15 January 2019 – 15 January 2021

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QUESTIONNAIRE
on current Open Science infrastructure and policies

Introduction

The designed questionnaire is a data collection tool aims to draw a complete picture of the different elements of the Open Science (OS) in Moldova and Armenia. The questionnaire will reflect the following issues:

1) Existing national legislatives and institutional incentives related to the implementation of open science principles in research and education;
2) Current open science practice and the registry of institutional open science repositories and related information infrastructures;
3) Mapping the situation regarding the awareness and knowledge of open science principles within academic community;
4) Prerequisites for building technical solutions for open science at universities.

1.A. Country where your organization is based:

1.B. Existing national legislatives related to the implementation of open science principles:

2.A. Name of organization:

2.B. Existing institutional bylaws/ incentives related to the implementation of open science principles:

3	**How would you describe the main profile of your organization?**
	The ones that fund research (funders - national, international, private, policymakers, etc.)
	The ones that perform research - CREATE (e.g. universities, research institutes, individual researchers, research communities, citizen scientists, data enthusiasts, etc.)
	The ones that perform research - SUPPORT (e.g. research infrastructures, e-infrastructures, service providers, libraries, etc.)
	The ones that “consume” research (e.g. research-intensive SMEs, citizens, etc.)

	OS facilitators (European, regional or national initiatives and individuals supporting OS)

If an organisation has multiple roles, please fill out the survey for each of your roles.

4.	**Which scientific domain does your organization belong/support/fund?**
	Natural Sciences
	Engineering and Technology
	Information and Communication Technology
	Medical and Health Sciences
	Agricultural Sciences
	Social Sciences
	Humanities
	None / not applicable

5.	**What is your position within the organization?**
	Manager
	Senior researcher
	Research support staff
	Librarian
	Junior researcher
	Other: Head of IT department

6. What is the total number of researchers (full-time equivalent, FTE), including doctoral candidates, working at your organisation?

1-50	51-100	101-200	201-300	301-500	>500

7. What are you supporting/funding?

Human resources	Projects	Hardware	Software	Operations	Infrastructures	Other:

8.	**What conditions should an e-infrastructure or research infrastructure meet in order to be supported/funded by your organization? Check all that apply**
	No condition
	Discipline of users
	Excellence based
	Affiliation of users

	Technology readiness of the proposal
	Other:

9.	**Do you have a roadmap of the infrastructures you already support or you want to maintain?**
	Yes
	No
	I don't know

A roadmap is a strategic plan that defines a goal or desired outcome and includes the major steps or milestones needed to reach it. The term infrastructure refers to research infrastructures and e-infrastructures.

10.	**How do you invest in user support? Check all that apply**
	Funding staff who provides support
	Through an EC funding for infrastructure
	Through an EC funding
	We do not invest in user support
	Other:

Explanation: *User support means guidance and assistance to relevant users. In case of funders, users are institutions, in case of service providers users are service users, in case of libraries users are researchers and other library users, etc.*

11.	**Is your organization performing research assessment for any of the following purposes:**
	Careers in research
	Performance evaluation of research units and/or allocation of funding
	Not applicable
	Don't know

12. Does your organization impose internal rules regarding the following aspects?

	Mandatory for all	**Mandatory for some projects/groups**	**Encouraged but optional**	**No regulation**	**Not applicable**
Publication repositories					
Open data					
Data management plans					
Data protection in research data					
Publishing platforms					

PIDs (persistent identifiers, e.g. DOI, ORCID...)					
Long-term availability of research data					
Article/Book Processing Charges (APC/BPC)					
Open-source software					
Open education resources					
Open practices (methodologies, peer review, metrics, citations, etc.)					
FAIR (Findable, Accessible, Interoperable, Reusable)					
Intellectual property rights and copyright (IPR)					

13. Does your organization provide support and training in the following areas?

	Yes	**No, but planned**	**No, not planned**	**Other**	**Don't know**
Repositories					
Research data (publishing of open data, FAIR, RDM plans, data protection, data curation, long-term preservation)					
Publishing platforms					
PIDs (persistent identifiers, e.g. DOI, ORCID...)					
Licenses					
Intellectual property rights and copyright (IPR)					
Article/Book Processing Charges (APC/BPC)					
Open-source software					
Open education resources					
Open practices (methodologies, peer review, metrics, citations, etc.)					

14.	**How does your organization provide support and training? Check all that apply**
	Website with resources and relevant information and Frequently Asked Questions
	Employment of experts for this purpose
	Communication activities
	Other:

15.	**Who are the target groups for the training? Check all that apply**
	Researchers and academic staff
	Students
	Librarians
	Research infrastructures providers
	SMEs
	Other:

16. What types of research outputs does your organization hold and create and who are intellectual property owners?

	Authors	**Institution**	**Funder**	**Government**	**Joint ownership**	**None**	**Don't know**
Publications							
Data							
Patents							
Reports							
Studies and trials							
Technical guidelines							
Grey literature							

17. Open Science-related infrastructure used by your organization:

	Already have inhouse	**Already have outsourced**	**Plans to have inhouse**	**Plans to have outsourced**	**No plans to setup**	**Don't know**
Institutional repository						
Institutional data repository						
Shared repository (multiple organizations in the same country)						
Journal/monographs/conference publishing system						
CRIS (or CRIS-like) system						

Repository must support Dublic Core *and* OAI-PMH.

CRIS - Current Research Information System

18. If your organization has an institutional repository, provide its URL.

19. If your organization has a data repository, provide its URL..

20.	**How familiar are you with the concept of FAIR (Findable, Accessible, Interoperable, Reusable) regarding data?**
	Very familiar
	Familiar
	Not very familiar
	Not familiar at all

In order to be put in service of OS, research data must be easy to find, identify and contextualize. In 2016, the FAIR guiding principles for research data were published and they have since become the staple of all policy recommendations. In brief, FAIR means that research data must be supplied with rich metadata and persistent identifiers, deposited on a searchable platform that has open protocols for access and sharing, and assigned a license that clearly defines usage rights.

21.	**What kind of digital objects do you use persistent identifiers for? Check all that apply**
	Scientific publications
	Datasets
	Files without metadata
	Files containing metadata
	Software
	Methods
	Protocols
	Metadata records
	Semantic artefacts (vocabularies, data models, concepts)
	Other:

22.	**Which identifiers are used in your community for these digital objects? Check all that apply**
	DOI
	URN

	Handle
	ARK
	PURL
	None
	Other:

23. Are versioning and changes in data objects in your organization clearly documented?			
Yes	Partly	No	Don't know

24. In your opinion, what particular areas of training, support or advice, researchers and support staff need in relation to making data FAIR?			
	Much needed	**Somewhat needed**	**Not needed**
Stewardship of FAIR outputs (data, software)			
Training others (including doctoral candidates)			
Data analytics and statistical techniques			
Finding and reusing data			
Finding FAIR data repositories			
Raising awareness about FAIR principles			
Data wrangling			
Citing and acknowledging contributions			
Using or developing tools/services			
Sharing data (ethics, data protection)			
Costing and resourcing RDM in proposals			
Documenting data or code to make it FAIR			

RDM: Research Data Management (see: https://www.jisc.ac.uk/guides/how-and-why-you-should-manage-your-research-data)

25.	**How familiar are you with EOSC (European Open Science Cloud)?**
	Very familiar
	Familiar
	Not very familiar
	Not familiar at all

The EOSC (https://www.eosc-portal.eu/) is a data infrastructure to support and develop open science and open innovation in Europe. It will federate existing resources across national data centres, European e-infrastructures and research infrastructures and provide common services to all users.

26. What kind of infrastructure would be the most useful for your research/work and how intensively would you use it?

	1-3 months	4-6 months	7-9 months	10-12 months	We wouldn't use	Don't know
High-performance computing clusters						
High-throughput computing clusters						
Big data clusters (Hadoop-like clusters)						
Cloud virtual machines						
Single server						

27. Apart from the services you already have, which additional services would benefit the users in your organization?

Examples: repository software, data anonymization tools, DMP tools, publishing platforms, VPN, etc.

28. What do you expect from EOSC?