On the way to EOSC

Milica Ševkušić Institute of Technical Sciences of SASA

Research infrastructures and services: Open Science practice University of Latvia, Riga, 5 November 2019

European Open Science Cloud

- A European Commission initiative aimed at developing an infrastructure providing Open Science-related services;
- Bridging fragmentation by joining together the existing (EUDAT CDI, EGI and INDIGO-DataCloud; more than 300 data centres and 18 pan-European infrastructures) and emerging infrastructures;
- Federated infrastructure that will enable researchers to find, access and reuse, as well as to deposit, analyze and share research data;
- Mainly funded by EC through FP7 and H2020.



Fragmentation vs. seamless access



Source: EOSC Strategic Implementation Roadmap2018-2020 May 2018, https://ec.europa.eu/research/openscience/pdf/eosc_strategic_implementation_roadmap_short.pdf



EOSC projects									NI4O ExPa	IOS-Europe - National Initiatives for Open Science in Europe PaNDS - EOSC Photon and Neutron Data Services											
									EOSC-Nordic												
					EOSC-pillar - Coordination and Harmonisation of National Inititiative										atives, Infrastructures and Data services in C				_		
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eln	einfraCentral - European E-Infrastructure Services Gateway									0 0											
EOS	EOSCpilot – The European Open Science Cloud for Research Pilot Project																				
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				EOSC-hub	- Integrating	and manag	ging services	for the Euro	opean Op	en Science Cloud		1									
				OpenAIRE-	Advance - O	penAIRE Ad	Ivancing Op	en Scholarshi	p												
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		ENVRI-FAIR - ENVironmental Research Infrastructures building Fair services Accessit SSHOC - Social Sciences & Humanities Open Cloud											le for socie	ty, Innovatio	n and Rese	arch					
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EOSC governance



EOSC Portal

- launched on 23 November 2018
- "a universal entry point to the services, data and resources that researchers need to perform their science in a collaborative, open and cost-efficient way for the benefit of society and the public";
- jointly developed and maintained by the eInfraCentral (731049), EOSC-hub (777536), EOSCpilot (739563) and OpenAIRE-Advance (246686) projects, funded under the Horizon 2020;

ACCESS EOSC SERVICES & RESOURCES



NETWORKING



COMPUTE





STORAGE

SHARING & DISCOVERY









DATA MANAGEMENT

PROCESSING & ANALYSIS

SECURITY & OPERATIONS

TRAINING & SUPPORT

https://www.eosc-portal.eu/

Federated model



OpenAIRE and EOSC

- Collaboration between Open-AIRE and other EOSC-related projects towards;
- a common catalogue of e-infrastructure services (from data generation to accessibility, use and reuse of scientific information);
- Single sign-on across platforms through an Authentication and Authorisation Infrastructure (AAI).
- White Paper "<u>Common Vision, Service Provision, and Role in the EOSC</u> <u>Governance</u>", EOSC-hub and OpenAIRE-Advance White Paper (Joint Activity Milestone 3.3)

OpenAIRE's contribution to EOSC

- Fostering the culture of FAIR data and data management;
- Developing skills relevant for EOSC exploitation;
- Supporting the transition to a new paradigm in research through a network of NOADs;
- Supporting open scholarly communication;
- OpenAIRE services (dashboards, usage statistics, compatibility guidelines, etc.) will be accessible in the EOSC Portal;
- OpenAIRE Research Graph will be a crucial EOSC resource;
- OpenAIRE will feed the EOSC Portal with information about various policy matters and initiatives at the national level;
- Open scholarly communication.

On the way to EOSC: recommendations for institutions

- Adopt a policy (OpenAIRE Guidelines);
- Set up mechanisms to monitor the implementation of the policy;
- Make OA mandatory;
- Incentivize OS practices;
- Make your infrastructure OpenAIRE compliant.

On the way to EOSC: recommendations for researchers

- Deposit publications, data and other research outputs in repositories;
- Give priority to (institutional) research infrastructures instead of social networking sites;
- Understand and implement FAIR principles;
- Register an ORCID iD;
- Cultivate openness.

Serbia on the way to EOSC

What we have

- National OS policy (OA mandatory for publications and recommended for data);
- An increasing number of institutional policies;
- OpenAIRE NOAD;
- <u>NI4OS project</u>;
- Open Science Portal (<u>http://open.ac.rs/</u>), in Serbian;
- Underdeveloped repository network but <u>recent developments are promising</u>;
- A huge number of non-APC OA journals, many of which are registered with DOAJ;
- An OpenAIRE compliant publishing platform (<u>SCIndeks</u>);
- Scattered data-related initiatives (a major problem);
- Non-existent (or non-identified?) citizen science initiatives;
- A research evaluations system that relies heavily on impact factors.





Policy and repository landscape in Serbia after the adoption of the Open Science platform

Infrastructure and 'false friends' Functionality, relationships, interoperability





Social networking sites for researchers

- Not harvestable (not willing to share data);
- Have embedded metadata that can be imported in reference managers (manually, one by one);
- Visible in Google and Google Scholar;
- The content is not curated (no quality control);
- No long-term preservation policy;
- Possible copyright issues.

OpenAIRE Research Graph

- Discovery platform
- CRIS system
- Adding value (validation, deduplication, metadata enrichment)
- Aggregating metadata from <u>16,445</u> content providers (repositories, OA journals, hybrid repositories, aggregators, registries, CRIS)
- Mostly via OAI-PMH, but also FTP(S), SFTP, and RESTful API etc.

CRIS

- Uses a data model relying on a set of basic entities defined by the Common European Research Information Format (CERIF) model maintained by euroCRIS
- Interoperable both internally and externally (OAI-PMH)
- Tendency towards greater integration with institutional repositories (e.g. Dspace CRIS)
- **OpenAIRE Guidelines for CRIS Managers** (January 2019)
- Problem: in-house solutions non-compliant with standards

Questions?

biblioteka@itn.sanu.ac.rs