



OTVORENÉ DÁTA V EURÓPE A NA SLOVENSKU

Jitka Dobbersteinová, vzdelávací program Otvorená veda v praxi – Otvorené vedecké dáta, 17.10. – 19. 10. 2023



EURÓPSKA ÚNIA
Európske štrukturálne a investičné fondy
OP Integrovaná infraštruktúra 2014 – 2020



MINISTERSTVO
DOPRAVY A VÝSTAVBY
SLOVENSKEJ REPUBLIKY



MINISTERSTVO
ŠKOLSTVA, VEDY,
VÝSKUMU A ŠPORTU
SLOVENSKEJ REPUBLIKY





<https://data.europa.eu/en>

- [Európska dátová stratégia](#)
- Legislatíva:

[Smernica o otvorených dátach a ich opakovanom použití informácií verejného sektora](#)

[European Data Act \(jún 2023\)](#)

<https://www.eu-data-act.com/>

Legislatívne štúdie:



Study on EU copyright and related rights and access to and reuse of scientific publications, including open access

Exceptions and limitations, rights retention strategies and the secondary publication right

Independent Expert Report

Written by Dr Christina Angelopoulos

Research and Innovation



Study on EU copyright and related rights and access to and reuse of data

Independent Expert Report

Written by Martin R.F. Senftleben

Research and Innovation



Study on the Open Data Directive, Data Governance and Data Act and their possible impact on research

Independent Expert Report

Written by Mirelle van Eechoud

Research and Innovation



Study on the Digital Services Act and Digital Markets Act and their possible impact on research

Independent Expert Report

Written by Björn Lundqvist

Research and Innovation

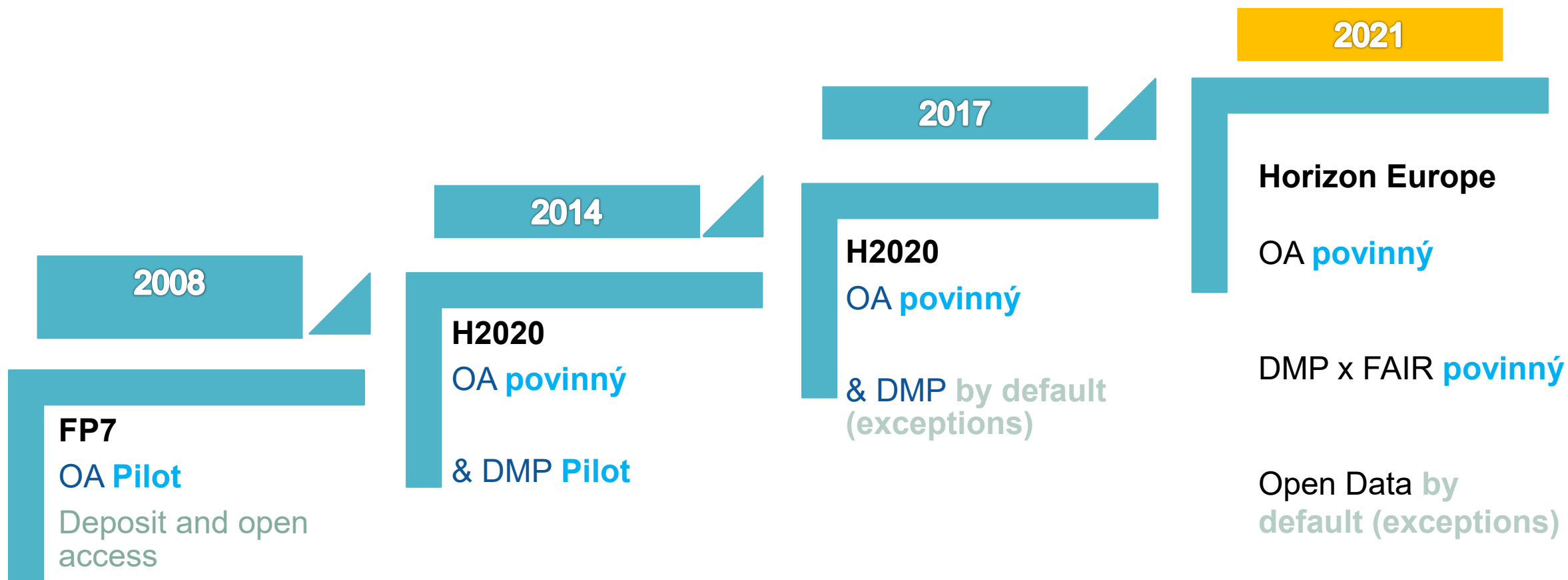
Otvorenosť vo vede ako „modus operandi“

- Otvorené zdieľanie výstupov vedy a výskumu:
 - všetky granty a schémy programu Horizon Europe (napr. European Research Council, Marie Skłodowska-Curie Actions)
 - publikovanie (open access) Zenodo, Open Research Europe
- Budovanie infraštruktúry EOSC
- Reforma hodnotenia vedy a výskumu
- Priniest vedu bližšie k občanom

<https://eraportal.sk>

ERA Actions	Outcomes
<p>1. Enable the open sharing of knowledge and the re-use of research outputs, including through the development of the European Open Science Cloud (EOSC)</p>	<ul style="list-style-type: none"> • Deploy Open Science principles and identify Open Science best practices • Deploy the core components and services of EOSC and federate existing data infrastructures in Europe, working towards the interoperability of research data • Establish a monitoring mechanism to collect data and benchmark investments, policies, digital research outputs, open science skills and infrastructure capacities related to EOSC
<p>2. Propose a EU copyright and data legislative and regulatory framework fit for research</p>	<ul style="list-style-type: none"> • Identify barriers and challenges to access and reuse of publicly funded R&I results and of publications and data for scientific purposes, and identify potential impacts on research, through an analysis of relevant provisions under EU copyright and data legislation and related regulatory frameworks, and of relevant institutional and national initiatives • Propose legislative and non-legislative measures to improve the current EU copyright and data legislative and regulatory frameworks
<p>3. Advance towards the reform of the Assessment System for research, researchers and institutions to improve their quality, performance and impact</p>	<ul style="list-style-type: none"> • Analysis of legal and administrative barriers at national and trans-national level for a modern research assessment system • Create a coalition of European research funders and research performers who agree on a new approach for research assessment, following wide and inclusive consultations at European and international level • Implementation plan of the coalition to roll-out the new approach, including pilots in different domains
<p>14. Bring Science closer to Citizens</p>	<ul style="list-style-type: none"> • Propose a policy coordination mechanism on public engagement practices, including citizen involvement in scientific processes

Granty: program Horizon Europe



Granty: program Horizon Europe

- Otvorené dáta a ich management priamo do metodológie výskumneho projektu (princípy FAIR)
- Šablóna plánu managementu dát (DMP): voliteľné
- Detailné informácie ako sa vedecké dáta budú opätovne využívať
- Trvalé identifikátory

Sprístupňovanie:

- autorské práva: licencie Creative Commons (CC BY/CC0)
- dôveryhodný repozitár
- metadáta s princípmi FAIR

Stupne zdieľania dát



NEZNAMENÁ TO, že poskytnete automaticky plný prístup k svojim vedeckým dátam!

“As open as possible, as closed as necessary”

OTVORENÝ

OBMEDZENÝ

ZATVORENÝ

Môže voľne využívať,
modifikovať a zdieľať
každý

<http://opendefinition.org>

Limituje, kto a ako môže používať dáta
a za akým účelom

- iba určitý dátový set
- iba určitá skupina používateľov
- iba určitý typ využitia
- ...

embargo/
uzamknutý

Akceptované náklady na management vedeckých dát



- zber a organizácia
- dokumentácia
- uchovanie a archivácia
- čistenie
- digitalizácia
- bezpečnosť

Manažment dát v grantoch programu Horizon Europe

- <https://erc.europa.eu/manage-your-project/open-science>
- [https://erc.europa.eu/sites/default/files/document/file/ERC info document-Open Research Data and Data Management Plans.pdf](https://erc.europa.eu/sites/default/files/document/file/ERC%20info%20document-Open%20Research%20Data%20and%20Data%20Management%20Plans.pdf)
- [https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/aga_en.pdf)
- <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/reference-documents;programCode=HORIZON?selectedProgrammePeriod=2021-2027&selectedProgramme=HORIZON>

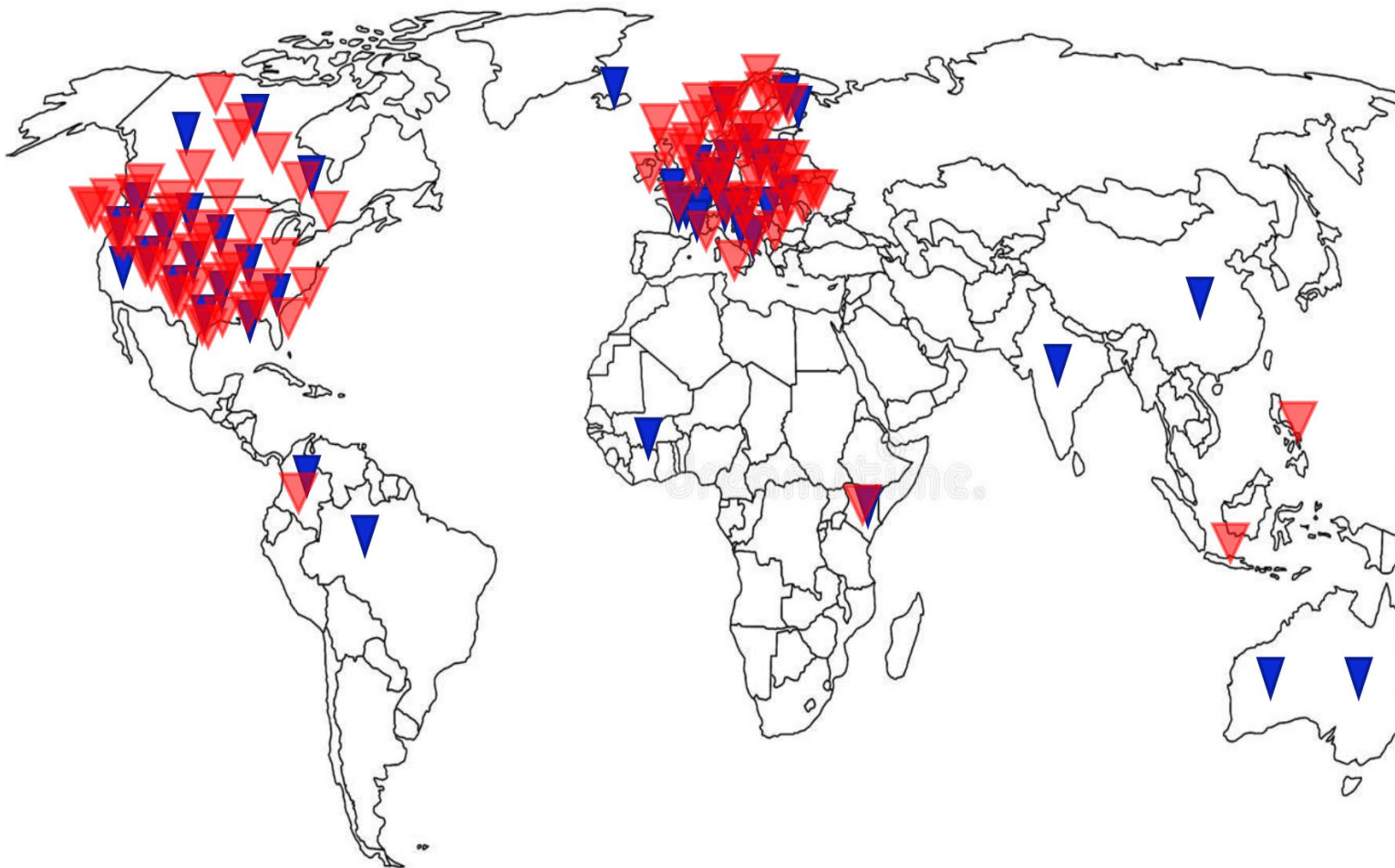


**EUROPEAN OPEN
SCIENCE CLOUD**

Európska infraštruktúra EOSC



1. Institutional climate data repositories - 101



- Australia (5)
- Belgium (2)
- Canada (6)
- Colombia (1)
- Cyprus (1)
- European Union (8)
- Finland (1)
- France (1)
- Germany (18)
- Ghana (1)
- India (1)
- Indonesia (1)
- International (8)
- Japan (1)
- Kenya (1)
- Luxembourg (1)
- Netherlands (4)
- Norway (1)
- Slovenia (1)
- Spain (2)
- Switzerland (1)
- United Kingdom (1)
- United States (34)

A wooden puzzle is shown against a white background. The puzzle pieces are made of light-colored wood with visible grain and knots. The words "BIG PICTURE" are cut into the center of the puzzle in a bold, white, sans-serif font. The letters are slightly raised and have a subtle shadow. The puzzle is partially assembled, with some pieces missing or slightly offset, creating a sense of incompleteness. The overall composition is centered and balanced.

BIG PICTURE

Become a Member

✓ Membership Categories

Members

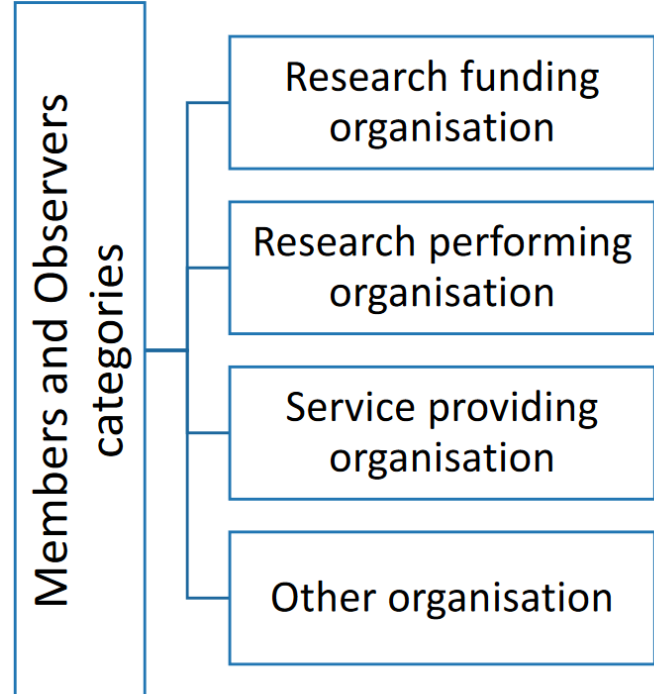
- Must be a legal entity.
- Cannot be a department of national governments and ministries.
- **Should have a presence in an EU MS or AC, or any other country associated with the EU Framework Programme for Research and Innovation.**
- **So far around 150 Members.**

Observers

- Must be a legal entity.
- Cannot be a department of national governments and ministries.
- **May be established outside this area.**
- **So far around 50 Observers.**

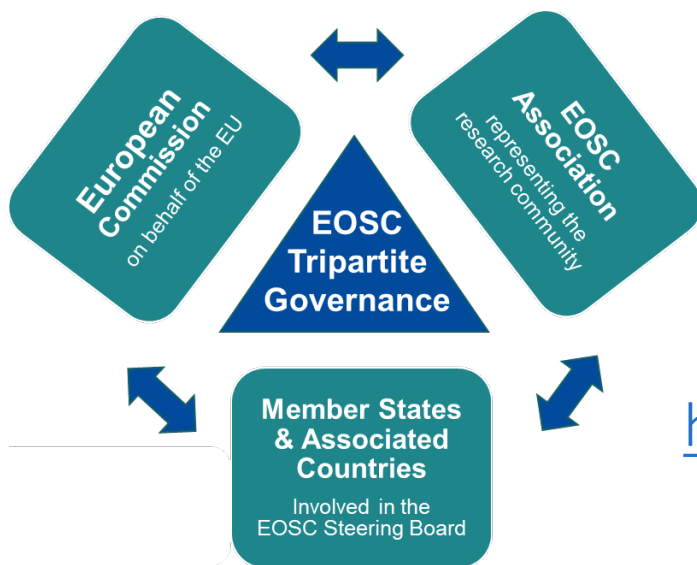
Mandated Organisations

- Each MS or AC that has one or more organisations that are Members of the Association may appoint one (1) Member to act as its Mandated Organisation, to represent national interests.
- **So far around 20 Mandated Organisations**





Spoločne budovaná iniciatíva



<https://eoscobservatory.eosc-portal.eu/home>



Courtesy of the EOSC Association



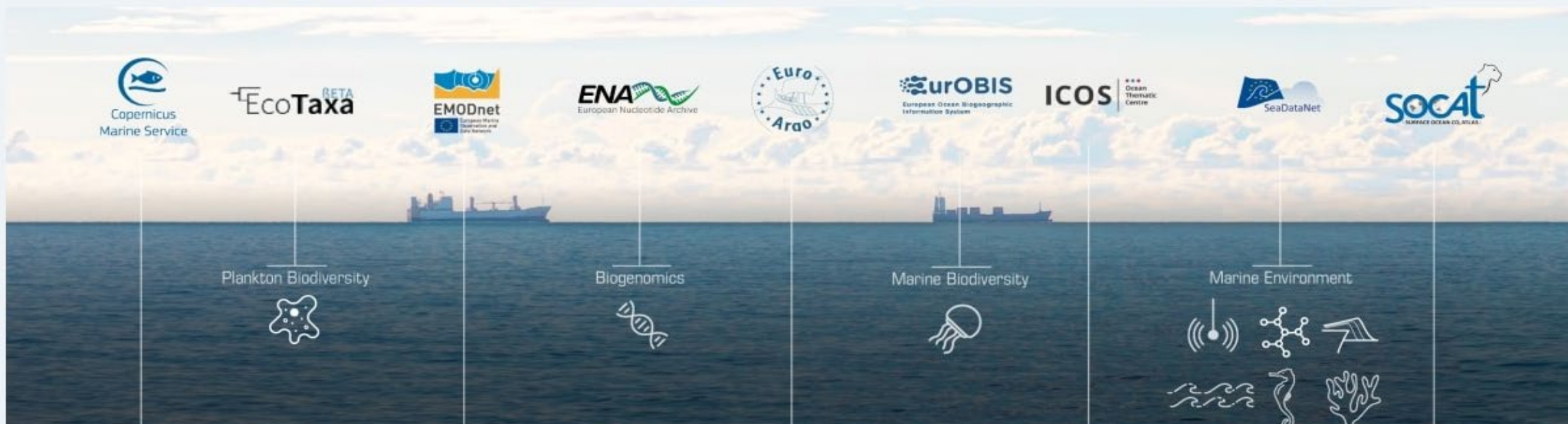
Home /

Data infrastructures

In the European landscape of marine and ocean data management **great progress has been made during three decades** with developing standards, services, and establishing dedicated infrastructures. These **infrastructures provide services for discovery and access to collected marine in-situ and remote sensing data and for ensuring long term stewardship**. This has resulted in **establishing leading European marine data management infrastructures** such as COPERNICUS C3S, COPERNICUS CMEMS, ELIXIR-ENA, EMODnet, Euro-Argo, Argo GDAC, EuroBioImaging, EurOBIS, ICOS-Marine and SeaDataNet. Datasets from these infrastructures are available via the [Blue-Cloud Data Discovery & Access Service](#).

Blue-Cloud federates these infrastructures to create a trusted virtual space where scientists can access the ocean data, tools, services and research outputs they need to perform research in a more efficient way.

The pilot Blue-Cloud project federates the following Blue Data Infrastructures. (BDIs):



Európska infraštruktúra EOSC

- EOSC portal a EOSC marketplace

<https://eosc-portal.eu/>

<https://marketplace.eosc-portal.eu/>




Browse EOSC Marketplace Resources

Search in catalogs

All catalogs



Exact match 

Show Advanced Search



ALL CATALOGS



PUBLICATIONS



DATA



SOFTWARE



SERVICES



DATA SOURCES



TRAININGS



INTEROPERABILITY
GUIDELINES



BUNDLES



OTHER

EOSC INTEROPERABILITY FRAMEWORK

4 základné vrstvy

- technická
- sémantická
- organizačná
- právna



Legal view

European Open Science Cloud Legal Framework & Policy

Organisational view

European Open Science Cloud Service

Interoperable EOSC Solution Technical application view

Human Interface

Machine to Machine Interface

Interoperable European Solution Service

Interoperable European Solution Component

Semantic view

Metadata

Semantic
Artefact

Metadata & Semantic
Mapping

Identifier Scheme

**FAIR Digital
Object**

EOSC Infrastructure enablers Technical view

Processing & Analysis Enablers	Data management Enablers	Networking Enablers
Data Source Enablers	Security & Operations Enablers	Storage Enablers
Training & Support Enablers	Legal Interoperability Enablers	Semantic Interoperability Enablers
Compute Enablers	Organisational Interoperability Enablers	EOSC Core Enablers

EOSC Technical Framework view

AAI Framework	Metadata Framework	License Framework
PID Framework	Semantic Framework	Security Framework
Service Management Framework	Data Access Framework	Open Metrics Framework
Open Science Policy Framework	Policy Framework Framework

Funding – EOSC Future

<https://eoscfuture.eu/about/>



[About +](#) [KERs +](#) [Data in Action +](#) [News](#) [Events](#) [Library](#) [Project results](#) [Contact +](#) [Funding +](#) [Portal !\[\]\(dfbd6b3763a6d1d9afaa974f64e2e4b5_img.jpg\)](#)

EOSC Future's Ambitions

The banner features the EOSC and FAIR-IMPACT logos at the top left. The main title '2nd Open Call for Support' is in large white font on a blue background. A yellow call-to-action bubble says 'APPLY till 1st November 17:00 CET'. A white bubble lists the target groups: 'National Level Initiatives', 'Research Performing Organisations', and 'Repositories and Data Service Providers'. The background illustration shows a woman with a book, a man with a book, a woman with a headset, and a person with a laptop. At the bottom, there are logos for the FAIR Implementation Team, FAIR-IMPACT.eu, and the European Union.

eosc | FAIR-IMPACT
Expanding FAIR solutions across EOSC

2nd Open Call for Support

**APPLY till
1st November 17:00 CET**

National Level Initiatives
Research Performing Organisations
Repositories and Data Service Providers

FAIR Implementation Team

FAIR-IMPACT.eu

Funded by the European Union

Zdroj: fair-impact.eu

Výzva zameraná na špecializované poradenstvo a individuálnu podporu

Výzva je vhodná pre začínajúcich alebo menej pokročilých žiadateľov v oblasti zavádzania princípov FAIR dát do praxe. Projekt FAIR-IMPACT poskytne úspešným uchádzačom špecializované poradenstvo a individuálnu podporu. **Úspešní žiadatelia za pomoci programových mentorov budú mať možnosť ohodnotiť ich súčasné schopnosti v danej oblasti (FAIR dát). Mentori a externí odborníci pomôžu s vypracovaním akčného plánu, ktorý dopomôže úspešným žiadateľom v procese zavádzania FAIR dát.**

<https://eraportal.sk/aktuality/projekt-fair-impact-otvoril-druhe-kolo-podpornej-vyzvy/?era=1>



Národný katalóg otvorených údajov

<https://data.gov.sk/>

Vyhláška č. 78/2020 o štandardoch pre informačné
technológie verejnej správy
§ 39 Otvorené údaje

Autorský zákon č.185/2015 Z.z., § 76 Verejná licencia



data.gov.sk
ústredný portál verejných služieb ľuďom

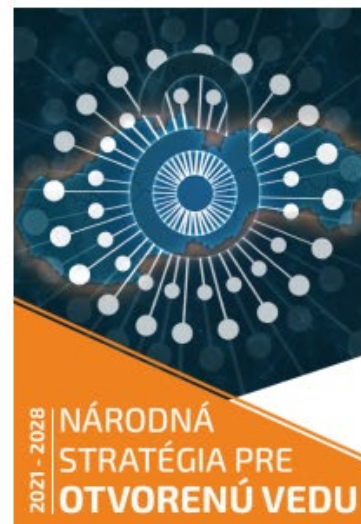


ČO MÔŽEME UROBIŤ MY?



<https://www.minedu.sk/otvorena-veda>

<https://www.sanger.ac.uk/wp-content/uploads/Data-Sharing-Policy-and-Guidelines-March-2023.pdf/>



**SPRINGER
NATURE**



Obrázky:

- <https://www.theflagshop.co.uk/european-union-flag.html>
- <https://www.123obec.sk/vsetkopreobec/eshop/0/0/5/129-Vlajka-zastava-SR-60x90>
- <https://www.dreamstime.com/complex-confusing-big-picture-learn-complicated-hard-difficult-concept-pictured-as-pieces-wooden-jigsaw-puzzle-creating-image164573155>
- <https://hangingtogether.org/metadata-for-research-data-management/>

Ďakujem
Otázky?