



The EOSC Association on EOSC Sustainability and Future

PaNOSC Closing Event, 29-30 November 2022





Today's Topics

- Context: European Research Data Landscape
- Context Horizon Europe Co-programmed Partnership
 - Multi-Annual Roadmaps
- Working with the Ecosystem
- Policy Context: Tripartite Collaboration & ERA Actions
- Establishment of the Operational Body of EOSC-A: ESFRI RIs Working Group
- EOSC operations and evolution post-2027

European Research Data Landscape

DG RTD, September 2022

Prepared by:

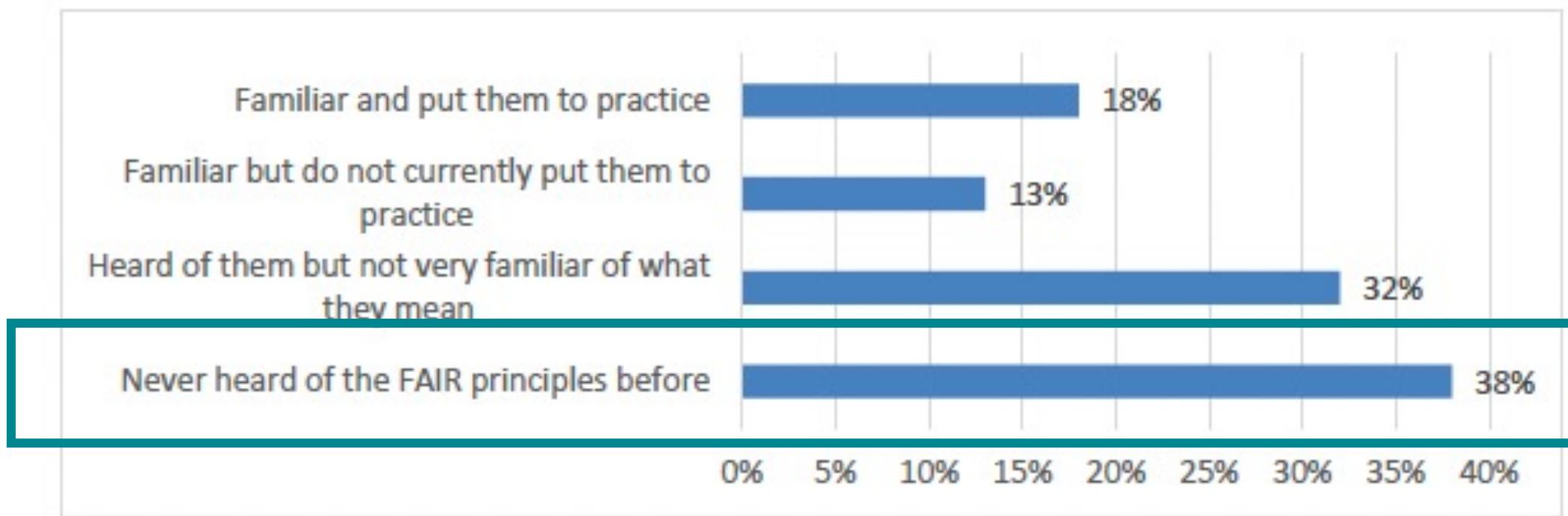
Visionary Analytics, DANS, DCC, EFIS Centre



Familiarity with FAIR Principles

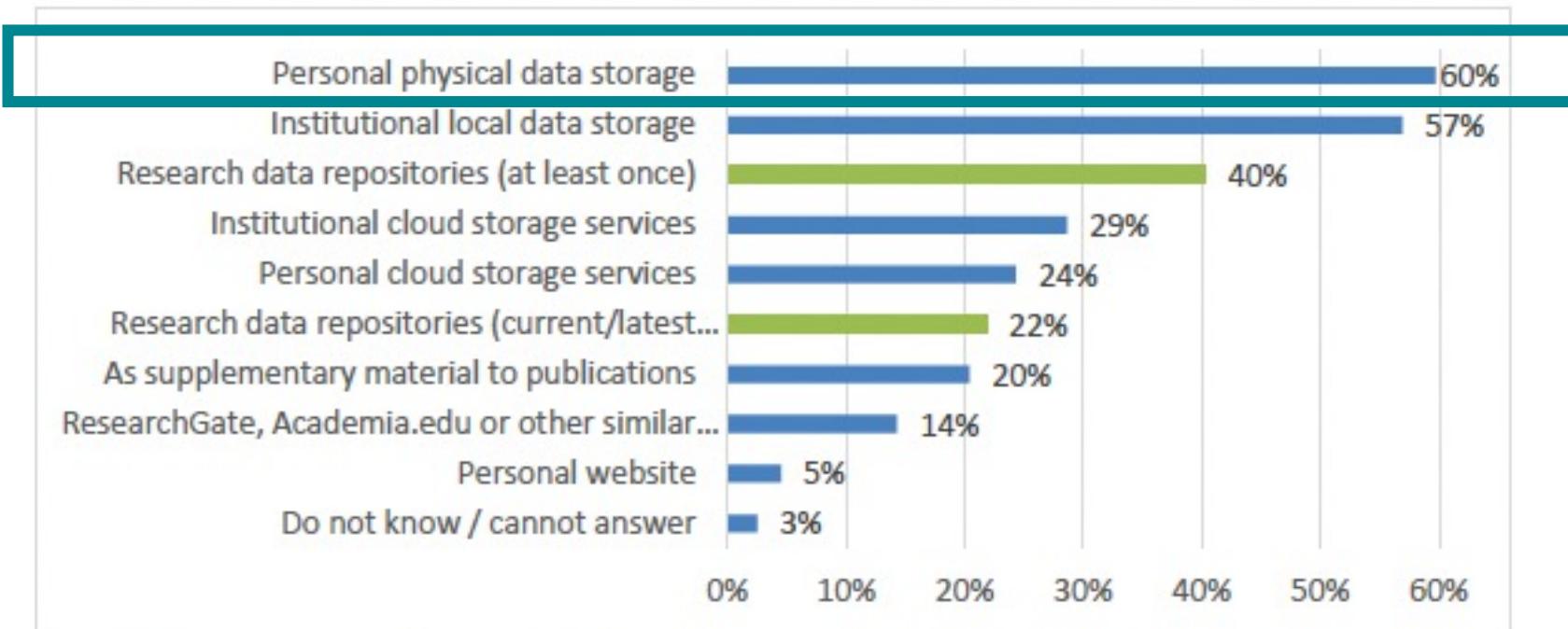
European Research Data Landscape, 2022

Figure 18. Familiarity with the FAIR principles in relation to the management and sharing of data



Source: authors' own elaboration, based on unweighted researchers' survey data, N=11,849.

European Research Data Landscape, 2022

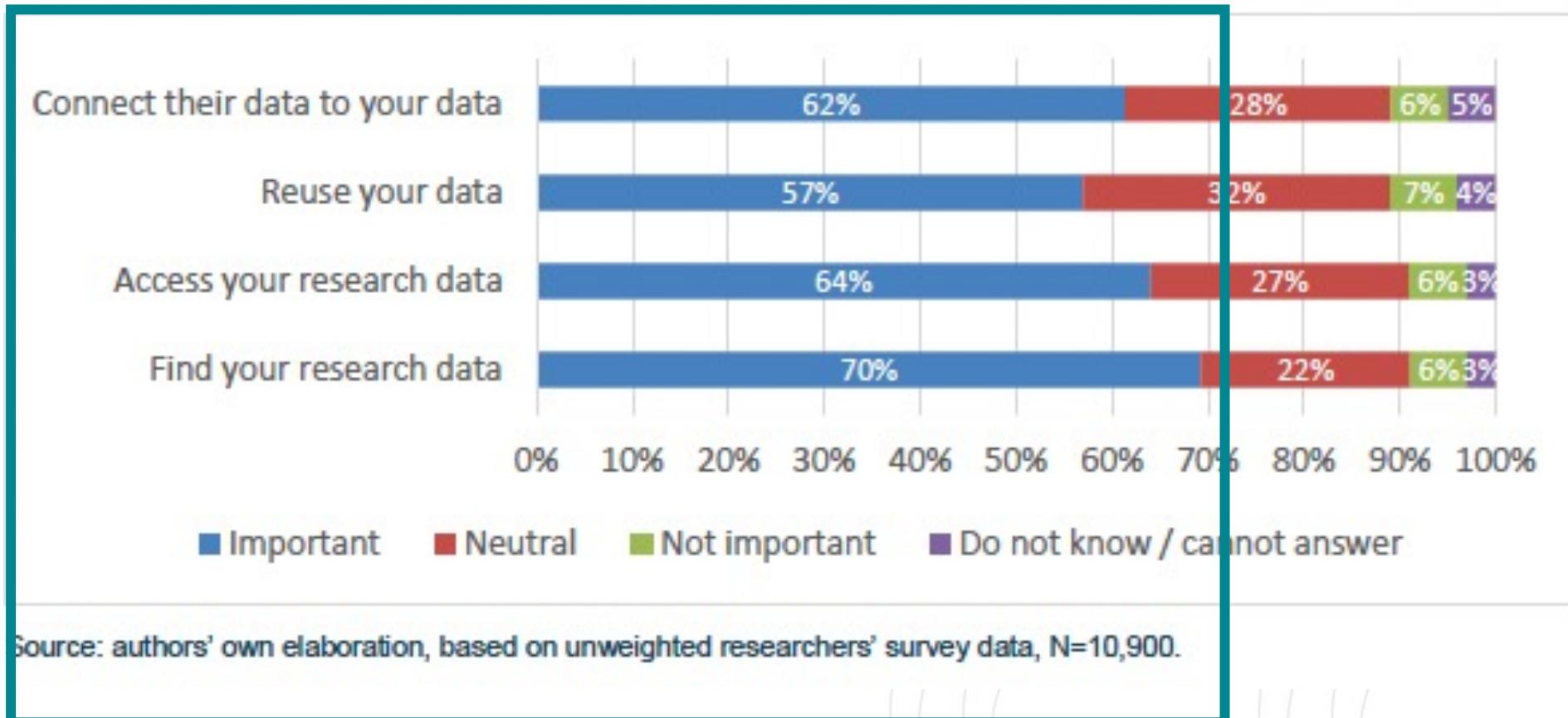
Figure 12. Locations in which respondents or their research teams stored usable data during their current/most recent research activity

Note: Multiple answers could be selected by a single respondent. Results from the question 'Have you ever stored your research data in a research data repository?' have also been integrated into the figure. Only researchers who did not select research data repositories in the question 'Where have you or your research team stored your usable data in your current / latest research activity?' were asked this question. Those who selected research data repositories were automatically considered as storing data in research data repositories. Source: authors' own elaboration, based on unweighted researchers' survey data. Total N=10,914.

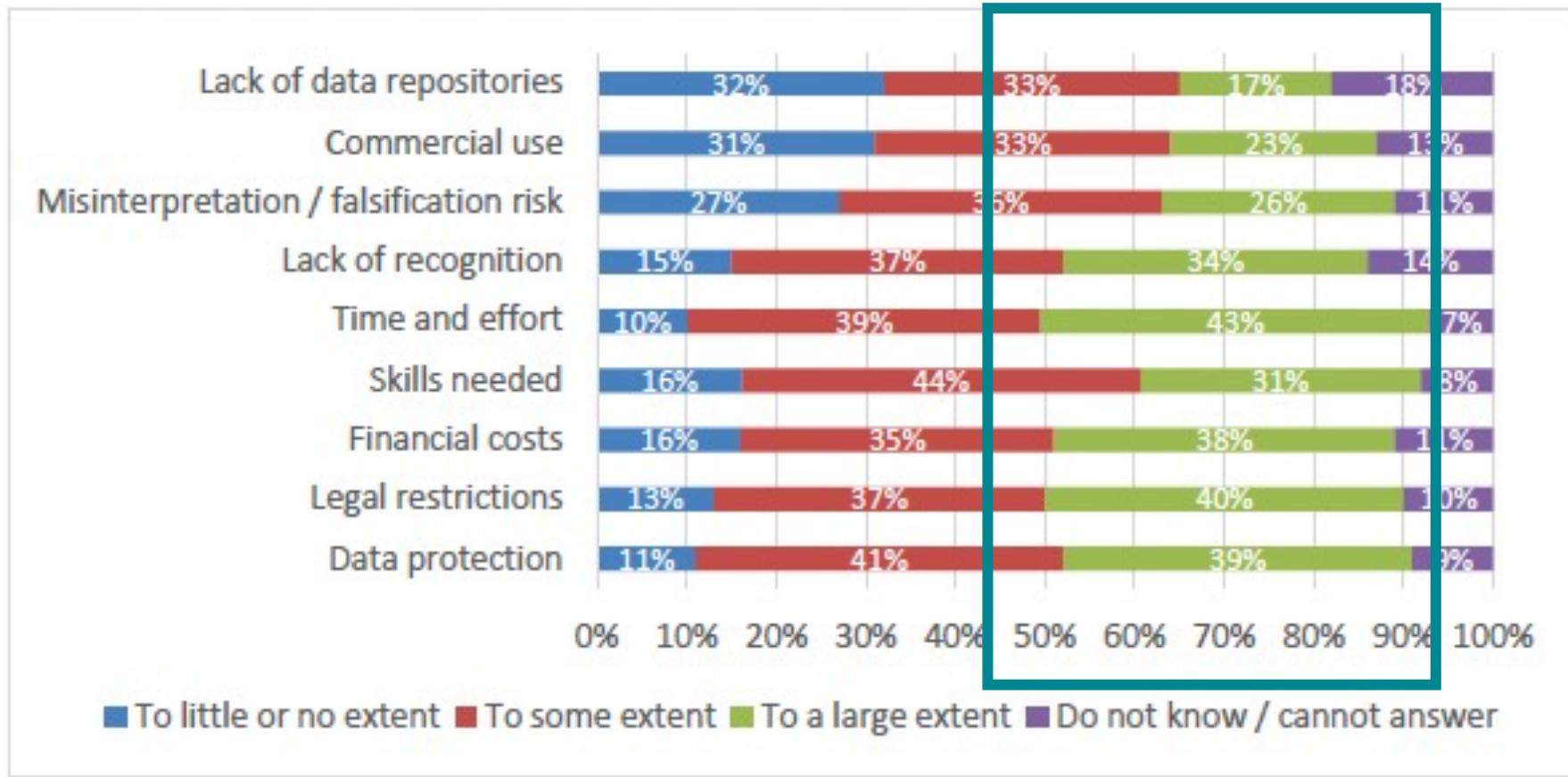
eosc Importance of FAIR data

European Research Data Landscape, 2022

Figure 19. Importance of findable, accessible, interoperable and reusable data



European Research Data Landscape, 2022

Figure 21. Obstacles to the management and sharing of research data

Source: authors' own elaboration, based on unweighted researchers' survey data, N=9,898 (selected at least one option).

Horizon Europe Co-Programmed EOSC Partnership

2021 - 2030

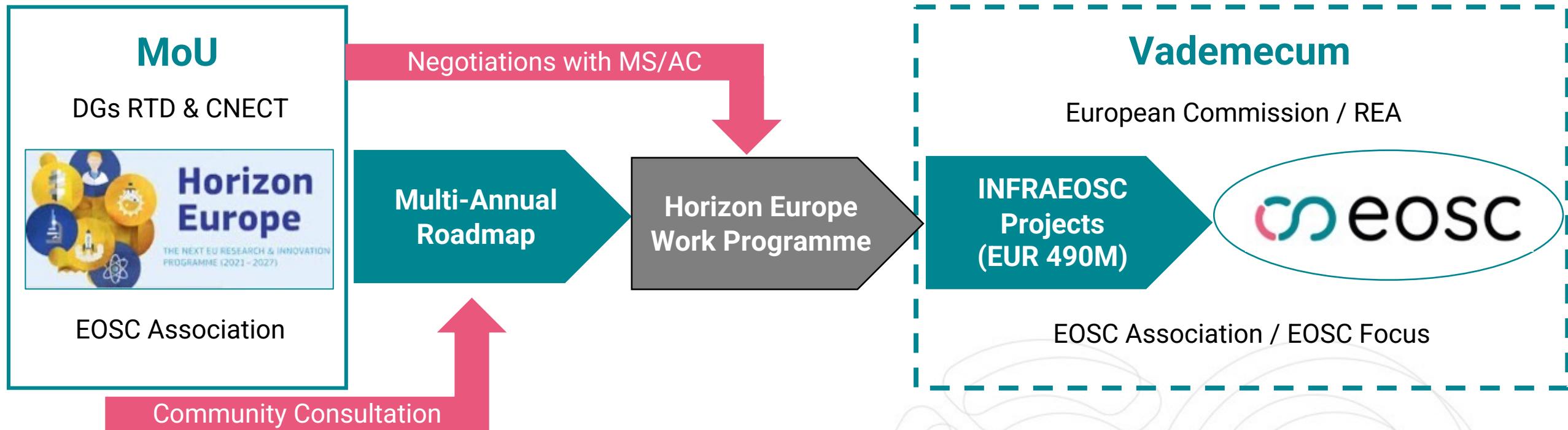


EOSC Content of the MoU (2021 – 2030)

- **The MoU is established between the Partners**
 - The EU represented by the Commission
 - The EOSC Association (“Partners other than the Union”), including its constituent entities (members)
- **The MoU is a contractual arrangement, not legally binding**
- **Scope & objectives**
 - To contribute to the objectives defined in the SRIA incl. the KPIs to measure progress
 - Expected financial and in-kind commitments by the partners (490 MEUR + 500 MEUR)
- **Governance: Partnership Board**
 - Composition: Representatives appointed by the Partners other than the Union, Commission officials and Representatives of the Steering Board
- **Commitments of the EC**
 - To duly take into account the input and advice from EOSC-A when defining call topics relative to the scope and objectives of the SRIA
- **Commitments of EOSC-A**
 - In-kind contributions
 - Monitoring and Reporting

SRIA 1.1 and MAR 2023-24

The Work Programme Design and Delivery Process



SRIA 1.1 and MAR 2023-24 / New Priorities

Key areas of emphasis alongside ongoing priorities like EOSC Core and Exchange

- Data quality
- Support for research software
- Infrastructure for sharing sensitive data
- Long-term data preservation
- Trusted Digital Repository networks



SRIA 1.1 and MAR 2023-24 / HE RI WP

From Sep 2022 DRAFT "Horizon Europe Work Programme 2023-2024"

INFRA-2023-EOSC-01	Type of Action	New Budget in MEUR	Old Budget in MEUR
 Build on the science cluster approach to ensure the uptake of EOSC by research infrastructures and research communities	RIA	25.00	24.00
 Development of community-based approaches for ensuring and improving the quality of scientific software and code	RIA	8.00	8.00
 Planning, tracking, and assessing scientific knowledge production	RIA	8.00	10.00
 Next generation services for operational and sustainable EOSC Core Infrastructure	RIA	10.00	10.00
 EOSC Architecture and Interoperability Framework	CSA	3.00	4.00
 Trusted environments for sensitive data management in EOSC	RIA	15.00	8.00
Total Budget		69.00	64.00



= MAR 2023-2024 related

"Old Budget"
from March 2022

EOSC SRIA 1.1 and MAR 2023-24 / HE RI WP

From Sep 2022 DRAFT "Horizon Europe Work Programme 2023-2024"

INFRA-2024-EOSC-01	Type of Action	New Budget in MEUR	Old Budget in MEUR
FAIR and open data sharing in support of the mission adaptation to climate change	RIA	16.00	8.00
Supporting the EOSC Partnership in further consolidating the coordination and sustainability of the EOSC ecosystem	CSA	4.00	3.00
Enabling a network of EOSC federated and trustworthy repositories and enhancing the framework of generic and discipline specific services for data and other research digital objects	CSA	5.00	5.00
Long-term access and preservation infrastructure development for EOSC, including data quality aspects	RIA	8.00	8.00
Innovative and customizable services for EOSC Exchange	RIA	28.00	7.00
Total Budget		61.00	31.00



= MAR 2023-2024 related

"Old Budget"
from March 2022

Multi-Annual Roadmap 2025 - 2027

Brainstorming has started!

Strategic Research and Innovation Agenda (SRIA)

of the
European Open Science Cloud (EOSC)

Version 1.1 – 1 November 2022

EUROPEAN PARTNERSHIP



eosc Work Plan 2023 / EOSC Partnership

Multi-Annual Roadmap 2025 – 2027 and SRIA 1.2

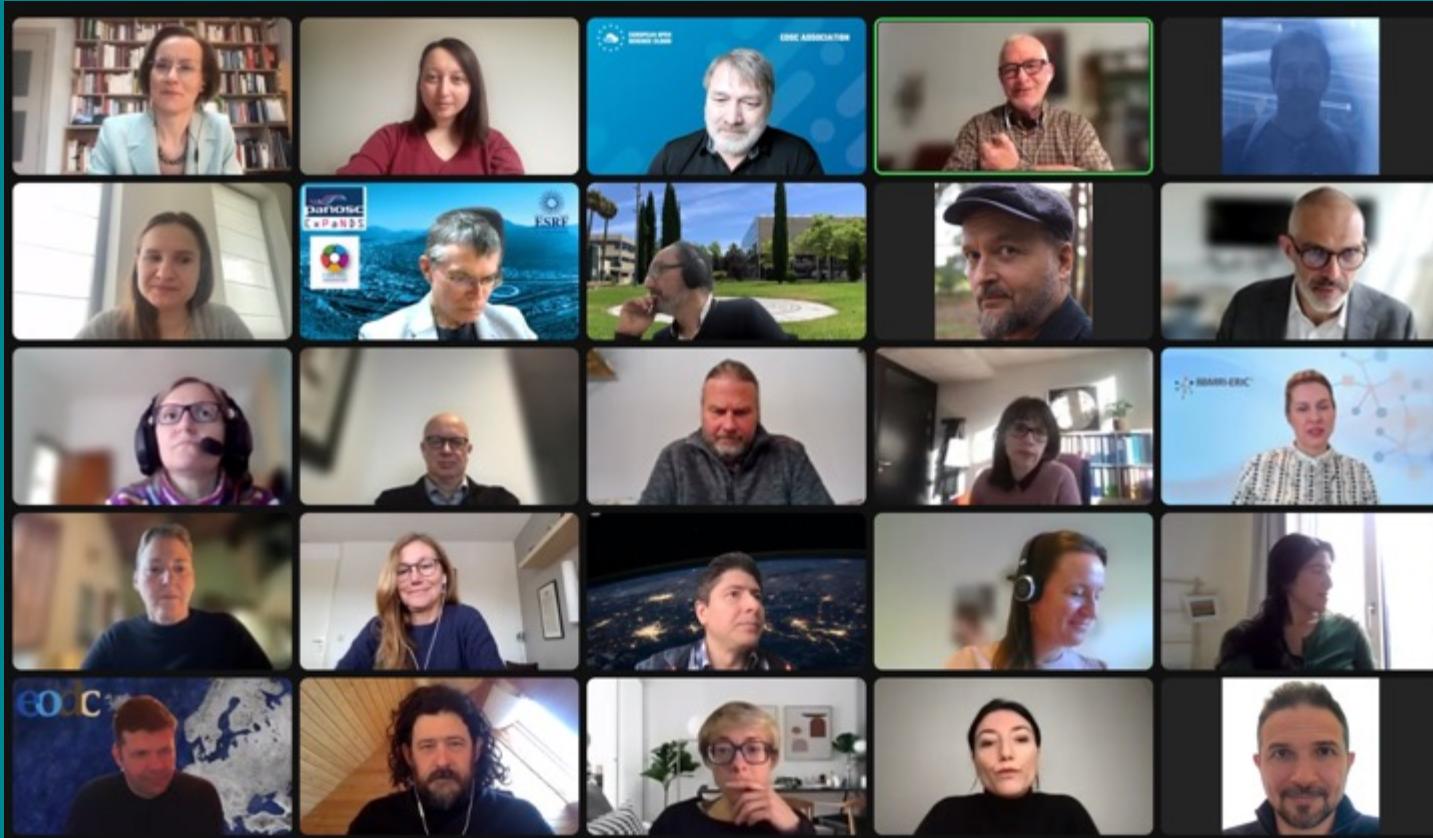
- 30.11.2022 TF invited to send in ideas / headlines
- 02.12.2022 EOSC-A Board brainstorms on possible 2025-2027 orientations
- 09.12.2022 First draft orientations sent to EC
- 19.12.2022 EOSC Partnership Board meeting / agreement of approach and timing for the updated SRIA 1.2 including the MAR 2025-2027
- February Consultation with further input by EC, Board, Task Forces
- March/April Consolidated version of the SRIA 1.2 for sharing with EC
- Before summer Draft final version for adoption by the Partnership Board

Horizon 2020 EOSC-related Projects

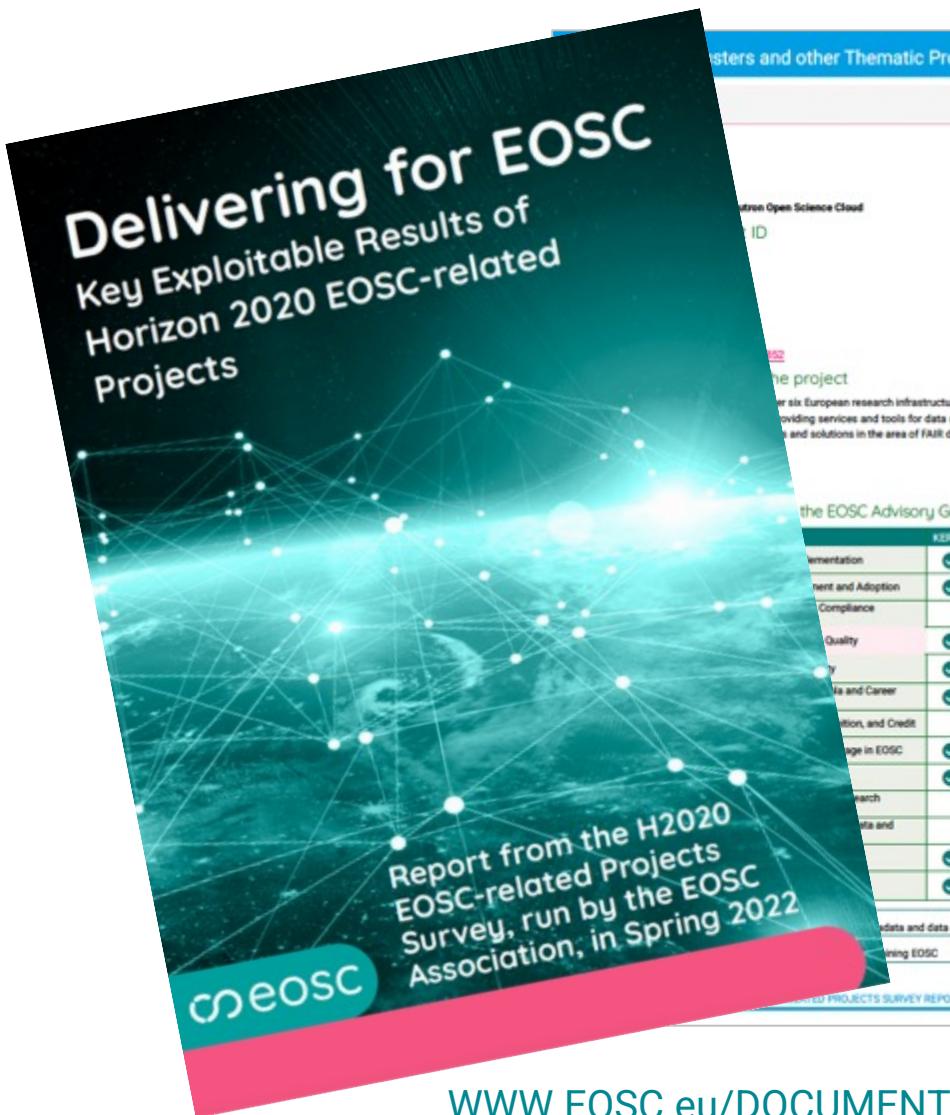
Key Exploitable Results

Objectives

- To support the realisation of the impact potential of on-going H2020 EOSC-related projects
- To capture your views on the EOSC-Association's role
- To promote a culture of collaboration among projects and with the Association



eoSC Delivering for EOSC Brochure



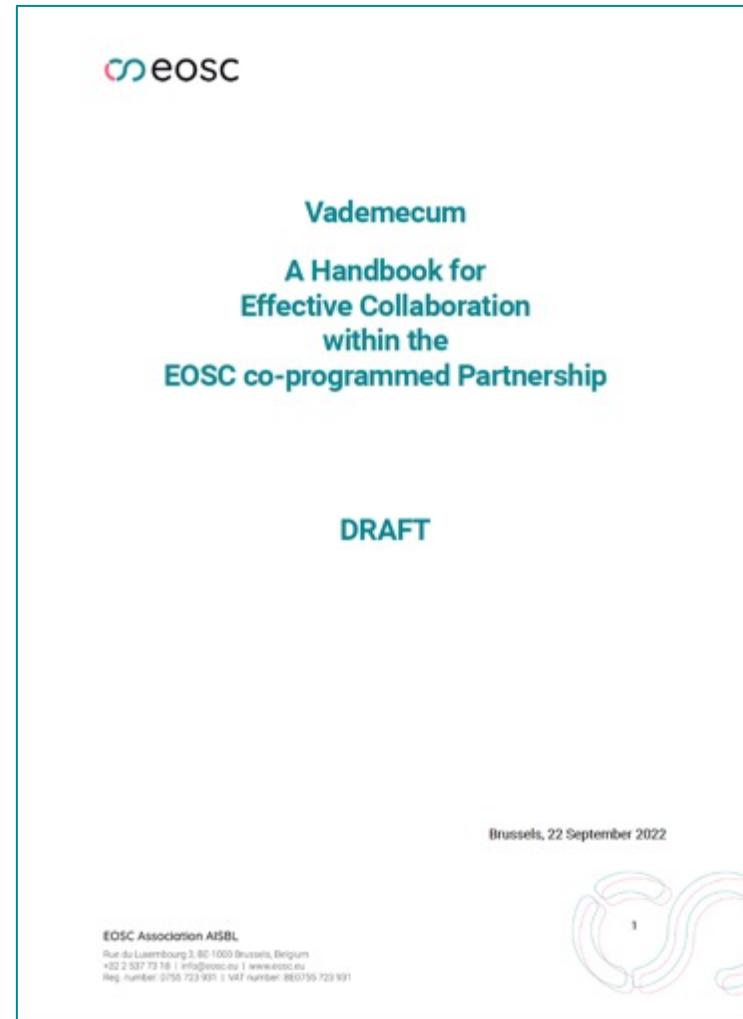
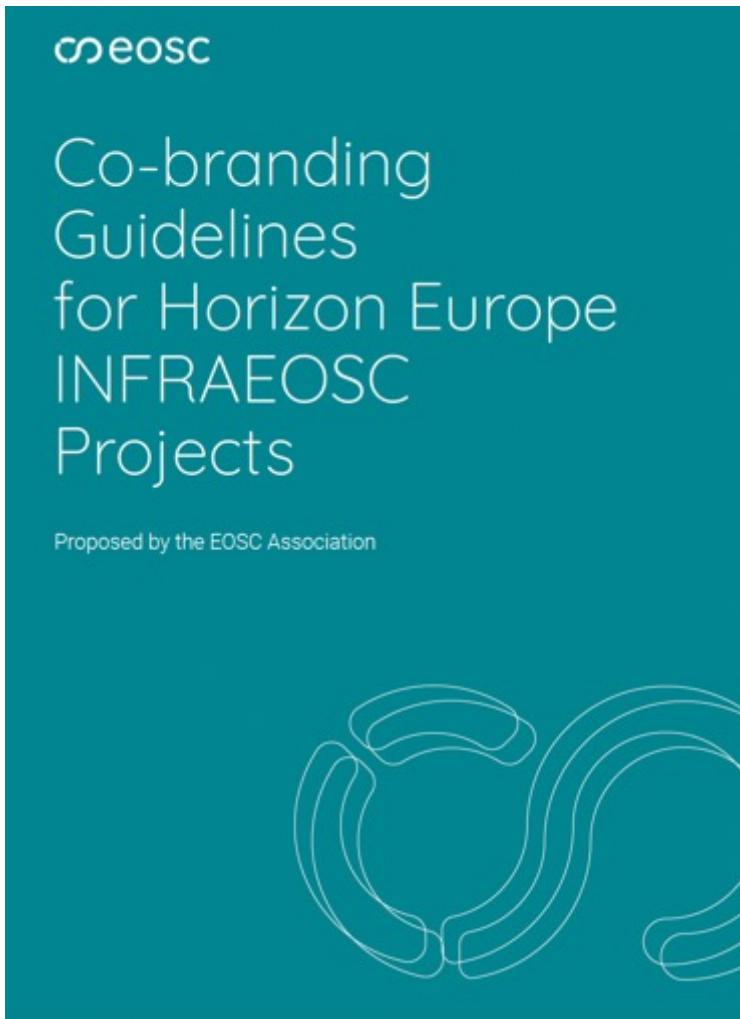
eosc Collaboration with HE INFRAEOSC Projects

Joint meeting in Brussels, 30 September 2022



eosc Co-branding Guidelines & Vademecum

Two Key Documents for Collaboration



EOSC 2021- INFRAEOSC Projects

AI4 | EOSC

EOSC | FAIR-EASE

EOSC | Focus

EOSC | cancer Skills
4 eosc

EOSC | RAISE

EOSC | FAIR-IMPACT

EOSC | FAIRCORE4EOSC

EOSC | EuroScienceGateway

eosc 2022- INFRAEOSC Projects

Still in Grant Preparation Phase

Acronym	Coordinator
GraspOS	Ioannidis Yannis
CRAFT-OA	BARGHEER Margo
Blue-Cloud 2026	MUSCELLA Silvana
AquaINFRA	HANSEN Henning Sten
RDA TIGER	ASMI Ari
SciLake	VERGOULIS Thanasis



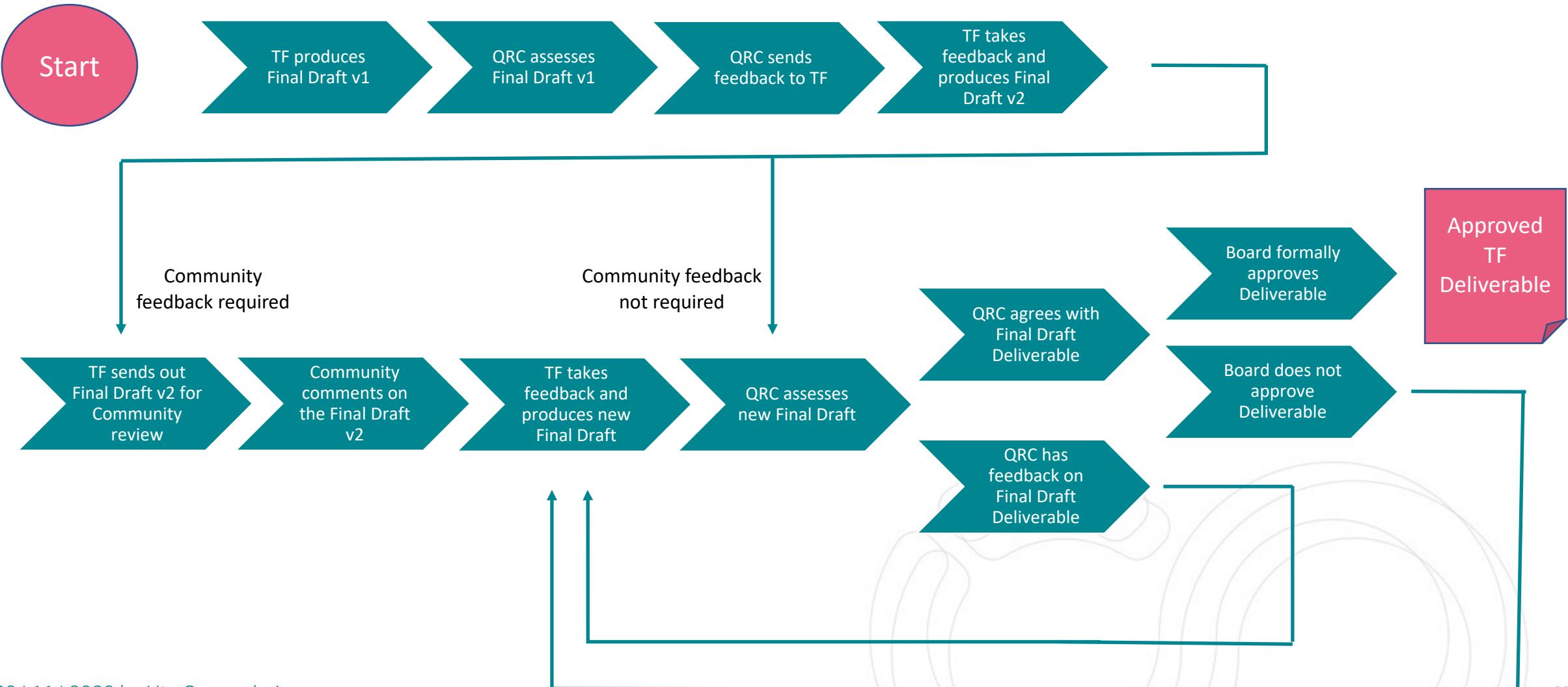
The 13 EOSC Task Forces - the Brain Trust of EOSC-A

- Supporting their work
- Quality Review Process
- Major Deliverables in the Pipeline
- EOSC-A Task Forces @ Symposium



TF Document Quality & Review Board Process

Process with optional Community feedback



EOSC Task Forces Productivity

CLOSED MEETINGS		PUBLIC SESSIONS	
▶ Monday 14 November, 15:00 – 16:30 CET		▶ Tuesday 15 November, 16:00 – 18:30 CET	
TASK FORCE Joint TF REA + AG data stewardship / upskilling session – closed meeting		TASK FORCE EOSC Association TF Infrastructure Software Quality – closed meeting	
▶ Tuesday 15 November, 20 - 21 & Wednesday 16 November 12:30 -14:00			
TASK FORCE EOSC-A TF SI Subtask Metadatastandards – closed meeting		▶ 14:30 – 16:00 EOSC AAI Implementation	

Day 2 Task Forces Breakout Sessions 9:00 – 10:30

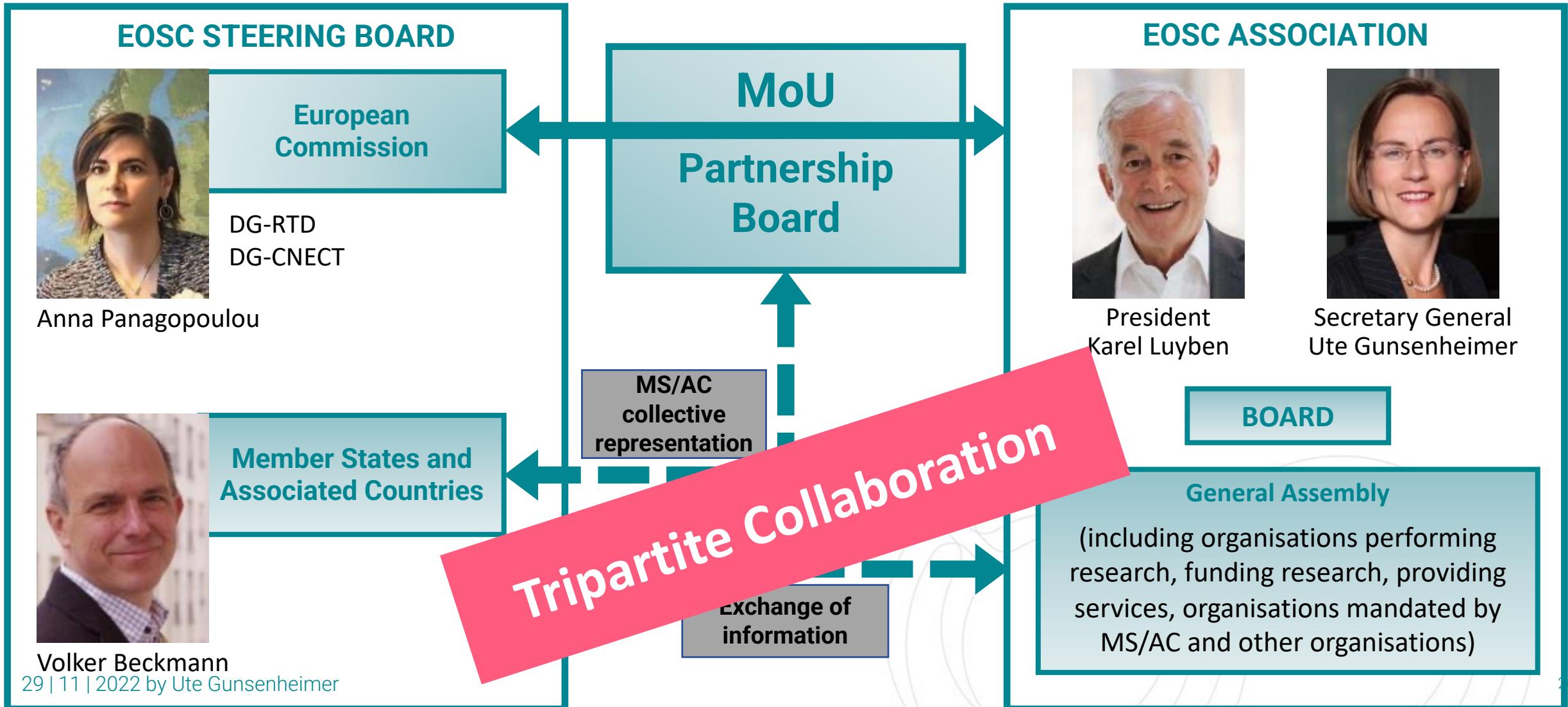
Task Force	Title
FAIR Metrics and Data Quality	Community-driven Governance of FAIRness Assessment
FAIR Metrics and Data Quality	FAIR Evaluation / Assessment Tools: Towards an "Apples to Apples" Comparisons
Fair Metrics and Data Quality	Towards a Data Quality Framework for EOSC
Financial Sustainability	Progress Report
	Discussion paper submitted
	Charter reviewed, but not in template
	2 Deliverables in the pipeline
Data Stewardship Curricula and Career Paths	2 Deliverables in the pipeline (24.11. and early December)
AAI Architecture	Architecture Report in the pipeline still for November
FAIR Metrics and Data Quality	Survey in the pipeline

Policy Context

Tripartite Collaboration & ERA Actions



Tripartite Collaboration



eosc 4. ERA Actions

Summer of Commitments



Member States' Commitment to 20 ERA Actions

Status: 23/09/2022

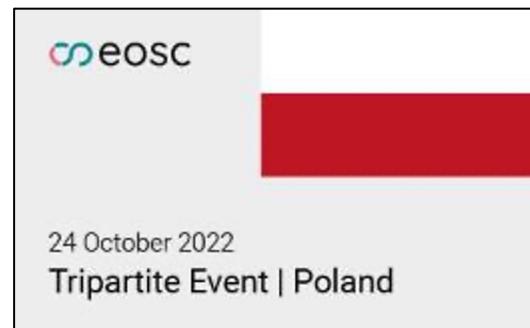
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	17	19	20	Total
Austria (AT)	1																		13
Belgium (BE)	1	1																	18
Bulgaria (BG)		1	1																7
Croatia (HR)		1	1																4
Cyprus (CY)	1		1																11
Czechia (CZ)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		18
Denmark (DK)								1											14
Estonia (EE)																			18
Finland (FI)		1	0		1	0									1	0	0	0	11
France (FR)																			17
Germany (DE)																			18
Greece (EL)		1	1																6
Hungary (HU)																			14
Ireland (IE)		1	1																9
Italy (IT)																			14
Latvia (LV)																			8
Lithuania (LT)																			14
Luxembourg (LU)																			0
Malta (MT)																			5
Netherlands (NL)																			16
Poland (PL)			1																11
Portugal (PT)																			18
Romania (RO)			1																8
Slovakia (SK)																			10
Slovenia (SI)																			13
Spain (ES)																			17
Sweden (SE)																			10
Total	24	13	22	25	18	15	18	24	19	23	17	21	16	17	15	10	16	9	2810

eosc Strengthening the Collaboration with ESFRI Forum

ICRI 2022



eosc Tripartite Events



eosc National Tripartite Event - Germany

Karlsruhe & Online, November 24th



 **120** Total number of participants

 **14** Total number of speakers & panellists
20|11|2022 by Ute Gunsenheimer



KEYNOTES / IMPULSE LECTURES

Mario Brandenburg (Parliamentary Secretary of State, Ministry of Research and Education)

Anna Panagopoulou (Director European Research Area and Innovation, European Commission)

Karel Luyben (EOSC-Association President)

Lars Bernard (Deputy Chair German Council for Scientific Information Infrastructures (RfII))

Kathrin Winkler (Deutsche Forschungsgemeinschaft (DFG, German Research Foundation))

NFDI SECTIONS IMPULSES

Michael Diepenbroek (Speaker)

Ulrich Sax (Deputy Speaker section-ELSA)

Brigitte Mathiak (Deputy Speaker section-metadata, Gesis)

Peter F. Pelz (Speaker section-edutrain)

Panel discussion

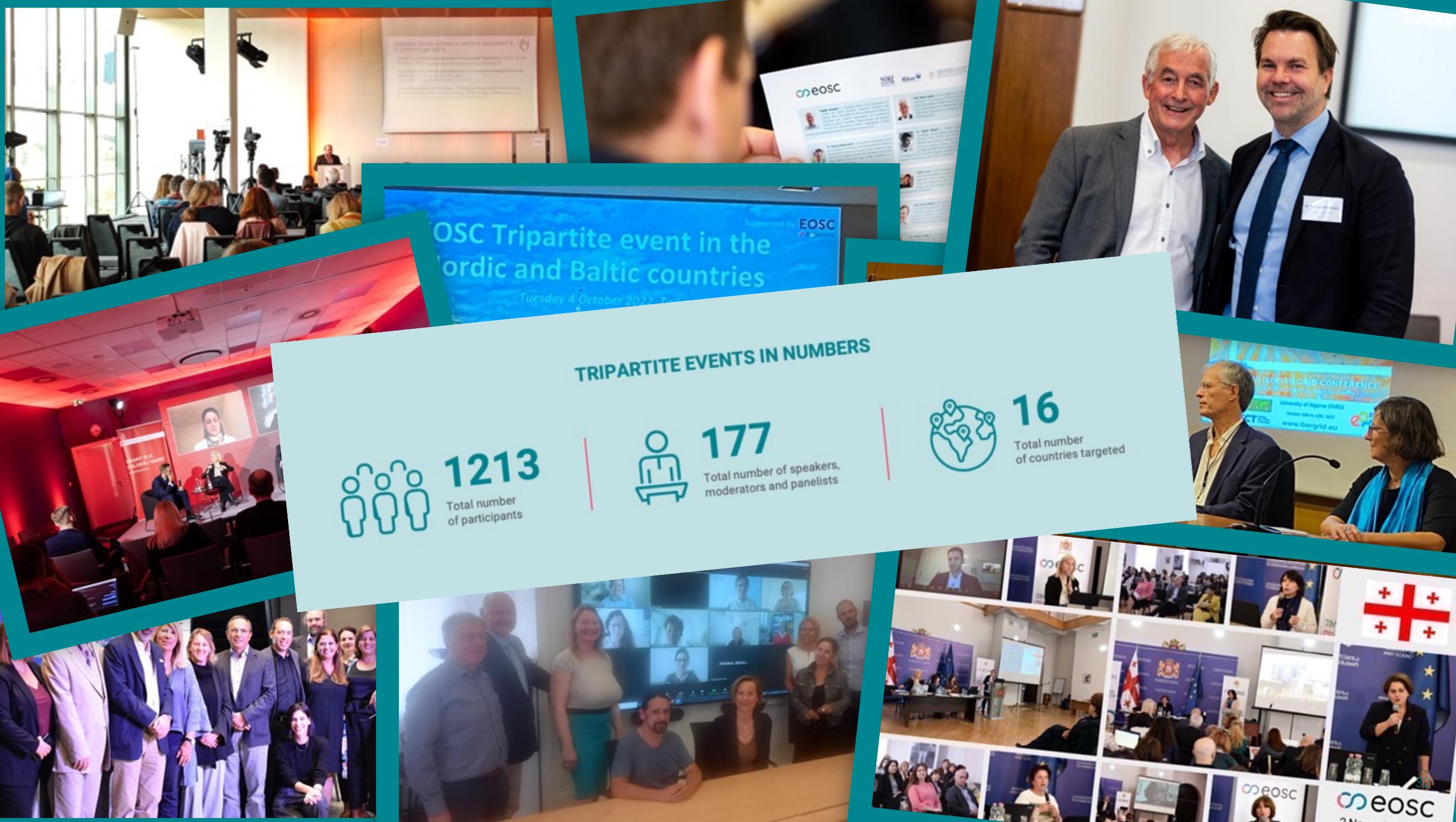
Ute Gunsenheimer (EOSC-Association Secretary General)

Raphael Ritz (Head of Data Division at the Max-Planck Computing and Data Facility (MPCDF), NFDI-Consortium FAIRmat, Head of RDA-DE, EOSC Task Force)

Roland Bertelmann (Head of Helmholtz Open Science Office, NFDI-Consortium NFDI4Earth)

Andrea Herdegen (BMBF/EOSC Steering-Board)

York Sure-Vetter (NFDI-Director)



Paper D: Establishment of Operational Body “ESFRI RI Working Group”

Suzanne Dumouchel, Director EOSC-A

Decision / Open Voting



Paper D: Establishment of an ESFRI RI's WG

Establishment of an ESFRI RI's Working Group as EOSC-A Operational Body

17

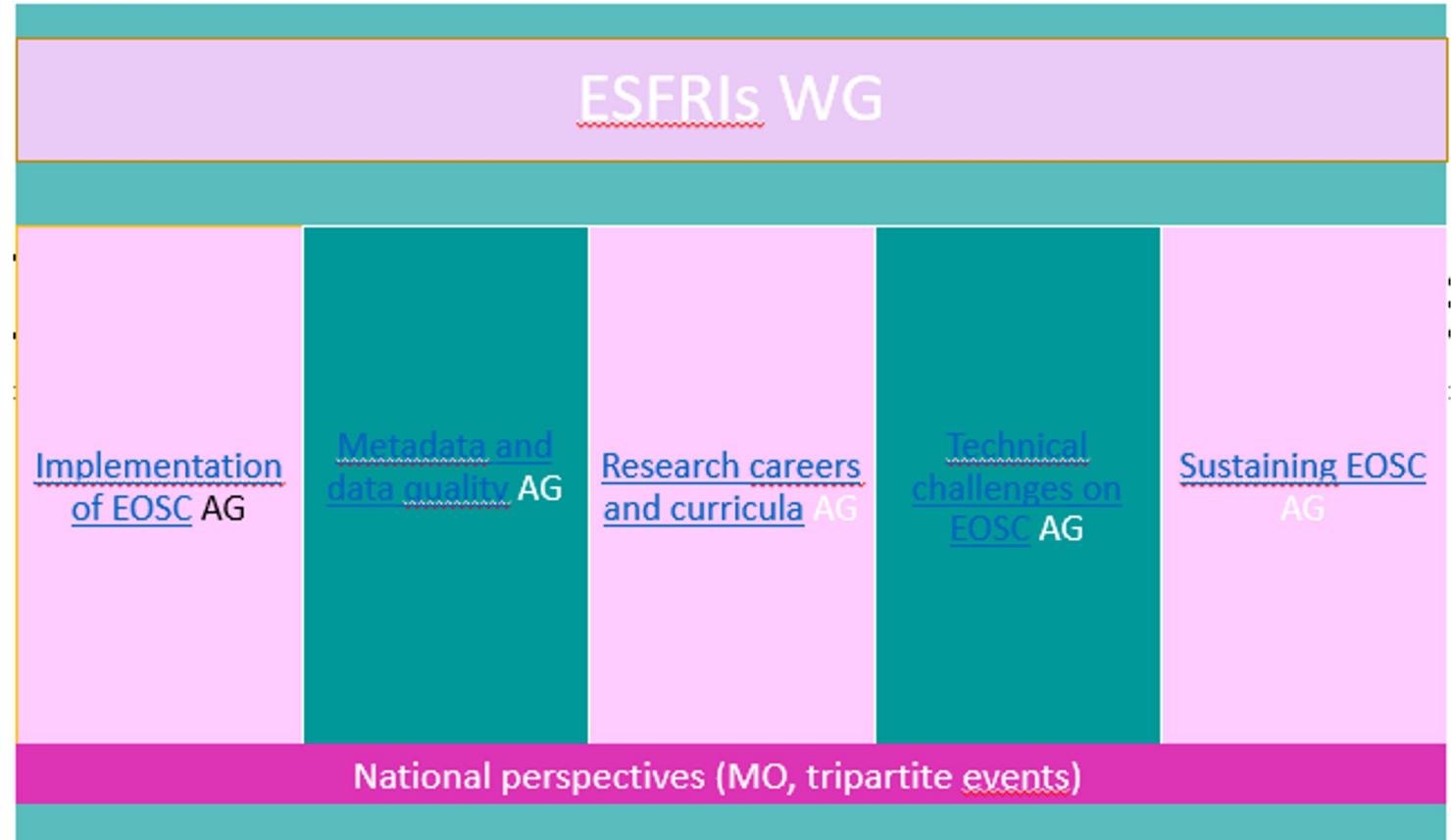
- Plus 3:**
- EBRAINS
 - FAIR
 - ELI ERIC

Organisation Acronym	EIRO Forum	ERIC	ESFRI	ENVRI-FAIR	EOSC-Life	ESCAPE	SSHOC	PaNOSC	EOSC Future	Approved
BBMRI-ERIC		ERIC	ESFRI		EOSC-Life				EOSC Future	Member
CERN	EIROforum		ESFRI			ESCAPE			EOSC Future	Mandated Member
CESSDA		ERIC	ESFRI				SSHOC		EOSC Future	Member
CLARIN		ERIC	ESFRI				SSHOC		EOSC Future	Member
DARIAH ERIC		ERIC	ESFRI				SSHOC		EOSC Future	Member
EATRIS		ERIC	ESFRI		EOSC-Life				EOSC Future	Observer
EMBL	EIROforum		ESFRI		EOSC-Life				EOSC Future	Member
ESRF	EIROforum		ESFRI					PaNOSC		Member
ESS		ERIC	ESFRI					PaNOSC		Member
ESS ERIC		ERIC	ESFRI				SSHOC			Observer
EURO-BIOIMAGING		ERIC	ESFRI		EOSC-Life					Member
ILL	EIROforum		ESFRI					PaNOSC	EOSC Future	Member
Instruct-ERIC		ERIC	ESFRI		EOSC-Life					Observer
LifeWatch ERIC		ERIC	ESFRI	ENVRI-FAIR					EOSC Future	Member
OPERAS			ESFRI							Member
PRACE			ESFRI							Member
XFEL	EIROforum		ESFRI					PaNOSC		Member

eosc Paper D: Establishment of an ESFRI RI's WG

Purpose of the Working Group

- Strengthen the role of scientific communities in EOSC
- Contribute to the engagement of researchers as future users of EOSC
- Contribute to the technical discussions related to specific disciplines in building EOSC



eosc Paper D: Establishment of an ESFRI RIs WG

Responsibilities

This preliminary list of the WG's responsibilities is proposed jointly by the EOSC-A Board and the representatives of the Science Cluster projects:

- Work towards an EOSC strategic plan for ESFRI RIs that can feed into the SRIA to highlight the community's needs.
- Synchronise with TF activities – especially the REA TF – to ensure uptake by the ESFRI RIs of the findings and recommendations coming from the TFs.
- Facilitate information sharing between the H2020 and HE projects and the ESFRI RIs.
- Contribute to EOSC-A's engagement with the community of researchers.
- Support emerging communities and ESFRI RIs that are not part of the SCs.
- Increase interdisciplinarity and interoperability between the ESFRI RIs in the EOSC context.
- Build or develop the link with potential data spaces and the EU Missions.

Position of EOSC according to the European Commission



Health



Industrial &
Manufacturing



Agriculture



Finance



Mobility



Green Deal



Energy



Public
Administration



Skills



EOSC: a crosscutting data space for Research and Innovation

“EOSC is the basis for a science, research and innovation data space that will bring together data resulting for research and deployment programmes and will be connected and articulated with the sectoral data spaces”

(European Data Strategy, COM(2020) 66 final)

eosc Linking EOSC-A ESFRI RIs WG with Science Cluster

Doodle out

Select your preferred times

We'll let you know when the organizer picks the best time

12 options



Order by

Date | **Most popular**

	WED	THU	THU	THU	THU
	25	26	26	26	26
	JAN	JAN	JAN	JAN	JAN
9:30 AM					
11:00 AM					

 You

<input type="checkbox"/>				
✓ 4	✓ 1	✓ 1	✓ 1	✓ 2

 Franciska de Jong

X	X	X	X	X
---	---	---	---	---

 Anca Hienola

✓	X	X	X	✓
---	---	---	---	---

 Giovanni Lamanna

✓	✓	✓	✓	✓
---	---	---	---	---

 Andy Gotz (ESRF)

✓	X	X	X	X
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EOSC Community Engagement Platform “EOSC Forum”

A tool to manage stakeholders engagement

The screenshot shows the EOSC Forum interface. On the left, a sidebar lists various channels and groups, including #EOSC News, #National Tripartite Events, Groups and 1on1, EOSC TF Support, TF Co-Chair Forum, HE Communication & Engag..., Mandated Organisations, HE Coordinators, EOSC-A Bylaws, Suzanne Dumouchel, Horizon Europe, EOSC Board, and EOSC Focus. The main area displays several news items and announcements:

- EOSC SYMPOSIUM 2022 NEW REGISTRATION DEADLINE!** (8 November 2022, 23:59 CET)
EXTENSION: Registration for EOSC Symposium 2022 will be open until...
Read the latest news on the EOSC-A November Newsletter
- EOSC Association November Newsletter**
Read the latest news on the EOSC-A November Newsletter
- REGISTRATION IS OPEN!** (Prague - 14-17 November)
Still few hours to register to the EOSC Symposium! #EOSCsymposium22
- REGISTRATION IS OPEN!** (Prague - 14-17 November)
Registration to EOSC Symposium is open
SAVE THE DATE
INTERNATIONAL CONFERENCE ON RESEARCH INFRASTRUCTURES AND SHARING SCIENTIFIC DATA GLOBALLY ...
- TF Co-Chair Meeting, 10 November / Notes and Action Points**
- Highlights from the call Wed 3 Nov 2022**
- HE Communication & ...**
- Share an update or ask a question**
- Ute Gunsenheimer in TF Co-Chair Forum** (yesterday at 5:14 PM)
TF Co-Chair Meeting, 10 November / Notes and Action Points
Dear Task Forces Co-Chairs,
Please find attached the notes from our yesterday's meeting. Key action points for you are:
 - Review the list of upcoming deliverables and let us know, if it is not
- EOSC Association news**
Giulia Lodi - last Wednesday at 12:02 PM
Read the latest news on the EOSC-A November Newsletter
- Iliris Liinamaa - 3 November - 14:48**
EXTENSION:
Registration for EOSC Symposium 2022 will be open until...

EOSC operations and evolution post-2027

For discussion in the EOSC Tripartite event on 14 November 2022



New process of strategic reflection

Why such a reflection now? - to allow the following timeline:

- 2023-2024: discussion and exploring retained options
- 2025: be ready to incorporate the best scenario into 'FP10'
- 2028: expected launch of 'FP10' incl. necessary EOSC Post-2027 provisions

Scope of reflection:

- Models for governing, operating, evolving and sustaining the EOSC Federation 'in the making'

First milestone:

- Tripartite discussion back-to-back with EOSC Symposium 2022
based on supporting paper jointly elaborated by EOSC Association and EC services

Where do we plan to be by 2027?

Open Science is increasingly ‘becoming the normal’ at European, national and institutional levels

- OS policies and investments are better aligned at European and national levels with demonstrated impact
- Open Science best practices, use cases and activities are catalogued and disseminated;
- A common Open Science monitoring mechanism is deployed, operated and feeds into the ERA Monitoring Mechanism; baselines and trends on investments, policies, digital research outputs, open science skills and infrastructure capacities related to EOSC are available

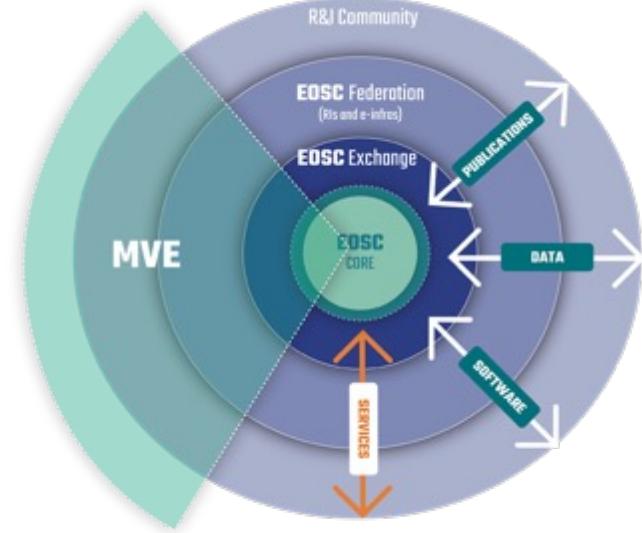
EOSC progressively enables a ‘Web of FAIR data for science’

- Policies are in place which require FAIR to be implemented including through Data Management Plans; DMPs are standardized across disciplines and can link to interconnected graph of science events
- FAIRification toolkits and quality description frameworks are available for further uptake by the research community
- ⁴²A network of EOSC-federated, trustworthy FAIR-enabling repositories is available

Where do we plan to be by 2027?

Minimum Viable EOSC operations to serve researchers in Europe are deployed and operated

- Known basic elements being prototyped include:
 - ✓ EOSC Rules of Participation
 - ✓ EOSC Authentication and Authorization Infrastructure
 - ✓ EOSC Policy on Persistent Identifiers and its compliance framework,
 - ✓ EOSC Interoperability Frameworks
 - ✓ EOSC common search and access engine for FAIR research objects,
 - ✓ EOSC monitoring and accounting modules
 - ✓ EOSC Security Coordination
- EC procurement for “Managed Services for the EOSC Platform”:
to build and deploy an operational, secure, cloud-based EOSC infrastructure, including a federated EOSC Core platform and EOSC Exchange, offering high quality professional services and superior user experience, for a large number of users, with functionalities available 24/7



EOSC is progressively connected to the wider public sector and the commercial sector through various data spaces

Indicative questions to support the strategic discussion

Where do we plan to be by 2027?

What governance do we need for the EOSC federation post-2027?

What funding sources and tools to cover what EOSC operations/development?

Do we need to evolve the current partnership in FP10?

What process and milestones in the period 2023-2024?

Feedback from the Tripartite discussion in Prague

- EOSC implementation steering by research projects is too fragmented
- In-kind contributions at national and institutional levels are massive but a complementary approach is needed once EOSC operations will have to be sustained
- There will be a need for financial contributions in a hybrid mode, at EU and MS levels
- Need for ‘game changer’ in 2027: will have to manage and sustain an operational EOSC capacity
- EOSC is unique and may well require novel approach in terms governance, financing and legal implementation
- Need to get feedback/reflections by the three parties on the current supporting paper early in 2023, also having in mind to reduce the range of options
- Identify a few scenarios of governance and funding models and develop related SWOT analyses
- Meet again at tripartite level in 2023 to decide on next steps

eosc Reflection of the Reflection Paper

Reflections on the Supporting Paper: EOSC operations and evolution post-2027

28.11.2022 EOSC-A General Assembly, presentation of the Supporting Paper and launch of consultation

15.12.2022 EOSC-SB meeting / invitation to share reflections in writing

End January Compilation of reflections

February EOSC-SB meeting / reflection session

Start work on SWOTs

Agree on the timeline

by Eastern Europe

Call for Action:

Send your Reflections by
email to info@eosc.eu by
02.01.2023

This is shared with the three parties

Possible indicative timeline

20.03. Draft SWOTs submitted for review to EOSC-SB

29.03. Deadline for providing feedback

06.04. Final SWOTs shared with Tripartite

07.-10.04. Easter break