Update on current overall EOSC developments

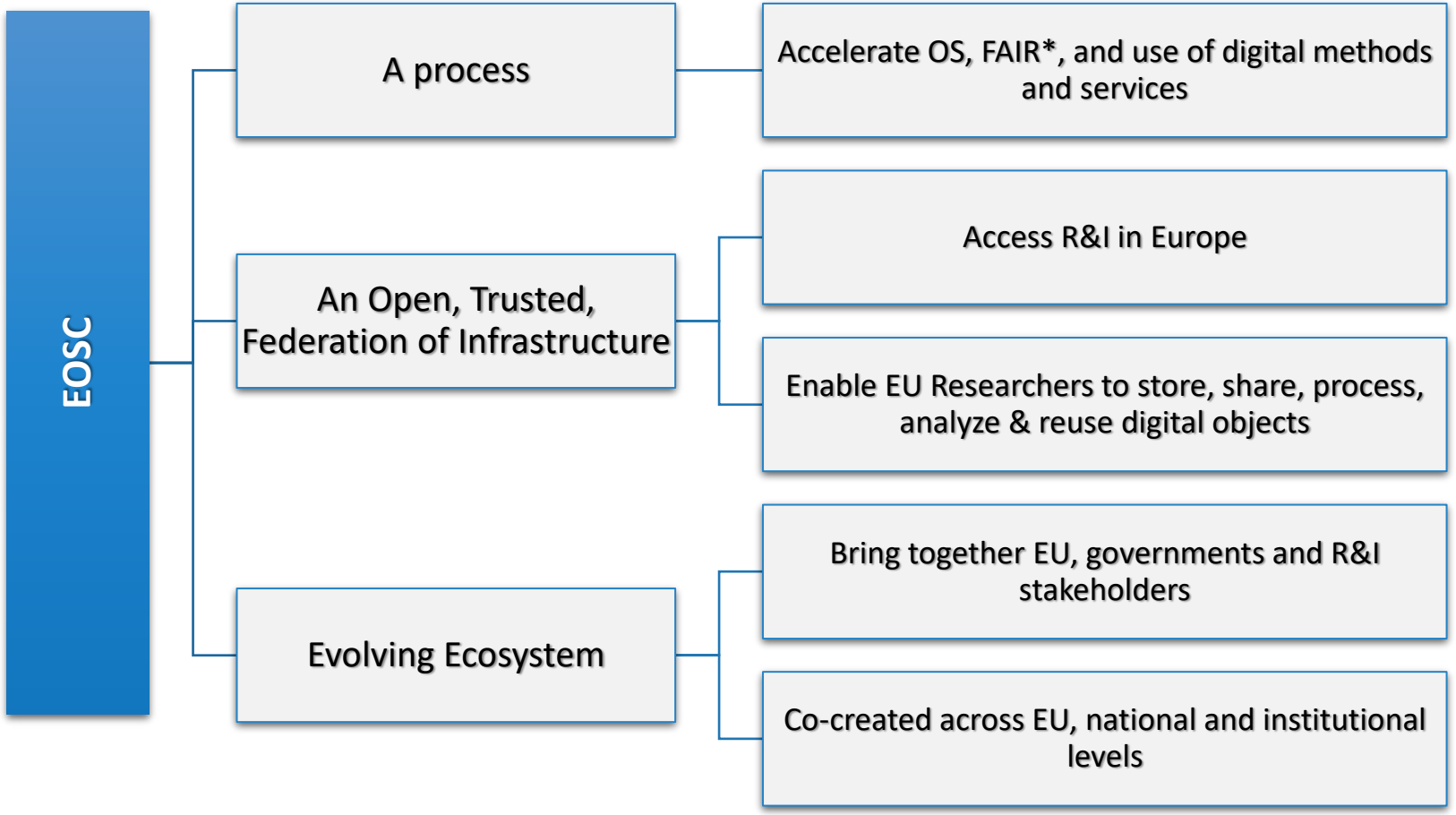
Dr. Ilias Papastamatiou

GRNET S.A.

National Infrastructures for Research and Technology

What is EOSC

EOSC took shape in 2015 to federate existing research data infrastructures to support and develop open science and open innovation.



*Findability, Accessibility, Interoperability, and Reuse

EOSC Policy Development

EOSC in Policy Documents

- **EC Digital Single market Strategy** 2/2015
- **European Cloud Initiative** 4/2016
- **EOSC Declaration** 6/2017
- **EOSC Implementation Roadmap** 3/2018 & 7/2019
- **European Data Strategy** 2/ 2020
- **ERA Communication** 9/2020
  ERA Policy Agenda 11/2021
- EOSC Partnership
  Draft partnership proposal 5 2020
  Memorandum of understanding 6 2021

European Data Strategy

- by 2025 deploy EOSC operations to serve EU researchers.
- from 2024 open up, connect and articulate EOSC beyond the research communities, with the wider public sector and the private sector.

European Research Area

- One of the 14 actions introduced in the ERA Communication consists of ensuring an EOSC that is offering a web of FAIR data and related services.
- One of the 20 actions introduced in the ERA Policy Agenda consists of Enable Open Science, including EOSC

EOSC Partnership

- The partnership aims to deploy and consolidate by 2030 an open, trusted virtual environment to enable European researchers to store, share and reuse research data across borders and disciplines.

EOSC Governance

Interim EOSC Governance 2019-2020

Governing bodies

EOSC Governance Board

- representatives from EU countries, countries associated with Horizon 2020 and the Commission
- ensures effective supervision of the EOSC implementation.

EOSC Executive Board

- representatives from the research and e-infrastructures communities.
- ensures the implementation and accountability.

EOSC Stakeholder Forum

- organised by the EOSCsecretariat is formed by representatives from a wider range of actors, tasked to provide input and recommendations through events and online consultation mechanisms.

Working Groups

- **Landscape**
- **FAIR**
- **Architecture**
- **Rules of participation**
- **Skills and Training**
- **Sustainability**

EOSC Governance

Current EOSC Governance 2021 and beyond

EOSC Association

- Established in July 2020 as a not-for-profit international association
- Crucial role in gathering EOSC stakeholders
- Aims to serve the EOSC community, promote EOSC, and enable EU Open Science
- SRIA sets out the elements needed to implement the EOSC Partnership
- The EOSC Partnership aims to create a growing ecosystem, bringing together relevant European initiatives around the FAIR data economy
- Official webpage: https://www.eosc.eu/

Governance of the Partnership

eosc

General Assembly (GA)	Board of Directors	Secretary General	Advisory Groups
• Is the supreme authority of the Association.	• The President is the Chair of the Board. • The Board is appointed by Delegates of the GA	• The Secretary General is entrusted with the day-to-day management of the Association, leads the Secretariat.	• Working groups and task forces to address issues or concerns relating to the mission and operations of the Association.

EOSC Governance

Current EOSC Governance 2021 and beyond

✓ Membership Categories

Members	Observers	Mandated Organisations
• Must de a legal entity. • Cannot be a department of national goverments 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.**	• Must de a legal entity. • Cannot be a department of national goverments and ministries. • **May be established outside this area.**	• 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.

Members and Observers categories

- Research funding organisation
- Research performing organisation
- Service providing organisation
- Other organisation

EOSC Association is counting more than 230 members and 20 Mandated Organizations. Info for joining here

Advisory Groups

Current EOSC Governance 2021 and beyond

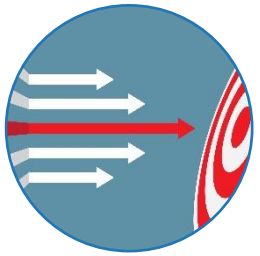
Implementation of EOSC	Metadata and data quality	Research careers and curricula	Technical challenges on EOSC	Sustaining EOSC
• PID policy and implementation (charter) • Researcher engagement and adoption (charter) • Rules of Participation (RoP) compliance monitoring (charter)	• FAIR metrics and data quality (charter) • Semantic interoperability (charter)	• Data stewardship curricula and career paths (charter) • Research careers, recognition and credit (charter) • Upskilling countries to engage in EOSC (charter)	• AI Architecture (charter) • Infrastructure for quality research software (charter) • Technical interoperability of data and services (charter)	• Defining funding models for EOSC (charter) • Long-term data preservation (charter)

TF draft charters on the links
TF kick-off meetings during October 2021

Advisory Groups

Current EOSC Governance 2021 and beyond

Help steer the implementation of EOSC



Groups should liaise with EOSC projects and offer feedback and advice

Identify strategic gaps and areas for investment to input to SRIA

Each working group focuses on a set of topics, covered by a Task Force

EOSC Association Stakeholder Registry: https://www.eosc.eu/eosc-association-stakeholder-registry

SRIA

EOSC Strategic Research and Innovation Agenda (SRIA)

- Define the general framework for future research, development and innovation activities in relation to the EOSC.
- SRIA is of interest to all the individuals and organisations interested in or impacted by EOSC, both now and within the timeframe of Horizon Europe.
- The current version of the SRIA was finalised in early 2021. Updates are envisaged in 2022 and beyond to set the strategic priorities for 2023 onwards.

SRIA: https://www.eosc.eu/sites/default/files/SRIA_2022_01.pdf

SRIA

SRIA Objectives - Categories

- 3 General Objectives (GOs)
- 10 specific objectives (SOs)
- 14 The operational objectives (OOs)

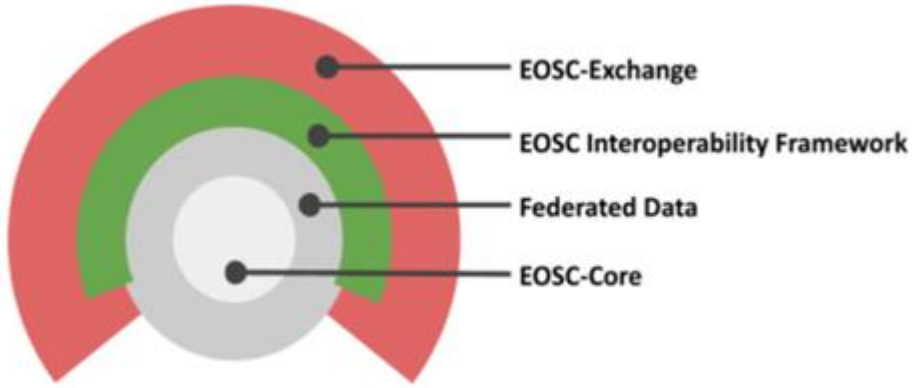
SRIA's General Objectives - GOs

- **GO1** Ensure that Open Science practices and skills are rewarded and taught, becoming the 'new normal';
- **GO2** Enable the definition and adoption of standards, and the development of tools and services, to allow researchers to find, access, reuse and combine results;
- **GO3** Establish a sustainable and federated infrastructure enabling open sharing of scientific results.

SRIA

MVE- Minimum Viable EOSC

- **EOSC-Core:** comprise the enabling services required to operate the EOSC.
- **Federated data:** enable greater discovery and reuse of data residing in multiple institutional, domain specific and national repositories.
- **EOSC Interoperability Framework:** provide the guidelines, specifications, standards and APIs for the composition of EOSC services and resources.
- **EOSC Exchange:** comprise the services storing and exploiting FAIR data and encouraging its reuse.



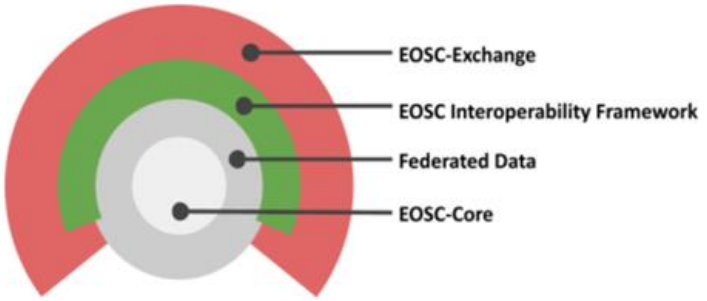
SRIA:
https://www.eosc.eu/sites/default/files/SRIA_2022_01.pdf

SRIA

3 phases of EOSC implementation

Stage 1 (2021-2022):	Stage 2 (2023-2024):	Stage 3 (2025-2027 and beyond)
• Functional federation of infrastructures Enabling the EOSC Core • Provide necessary core functions of the MVE that allow federation of existing and future infrastructures	• Expansion and building the core data infrastructure to support the full lifecyle of scientific research in key thematic areas.	• Expansion to develop impact from Open Science Deployment of federated research infrastructures with functionality that allows multiple European research communities to deliver impactful Open Science.

MVE- Minimum Viable EOSC



SRIA

EOSC Strategic Research and Innovation Agenda (SRIA)

SRIA Structure

- Section 1 - New ways of science
- Section 2 - EOSC in the making
- Section 3 - Strategic objectives of the European Open Science Cloud
- Section 4 - Guiding principles
- Section 5 - Implementation challenges
- Section 6 - Boundary conditions
- Section 7 - Expected impacts
- **Section 8 - Roadmap**
- Section 9 - Conclusions

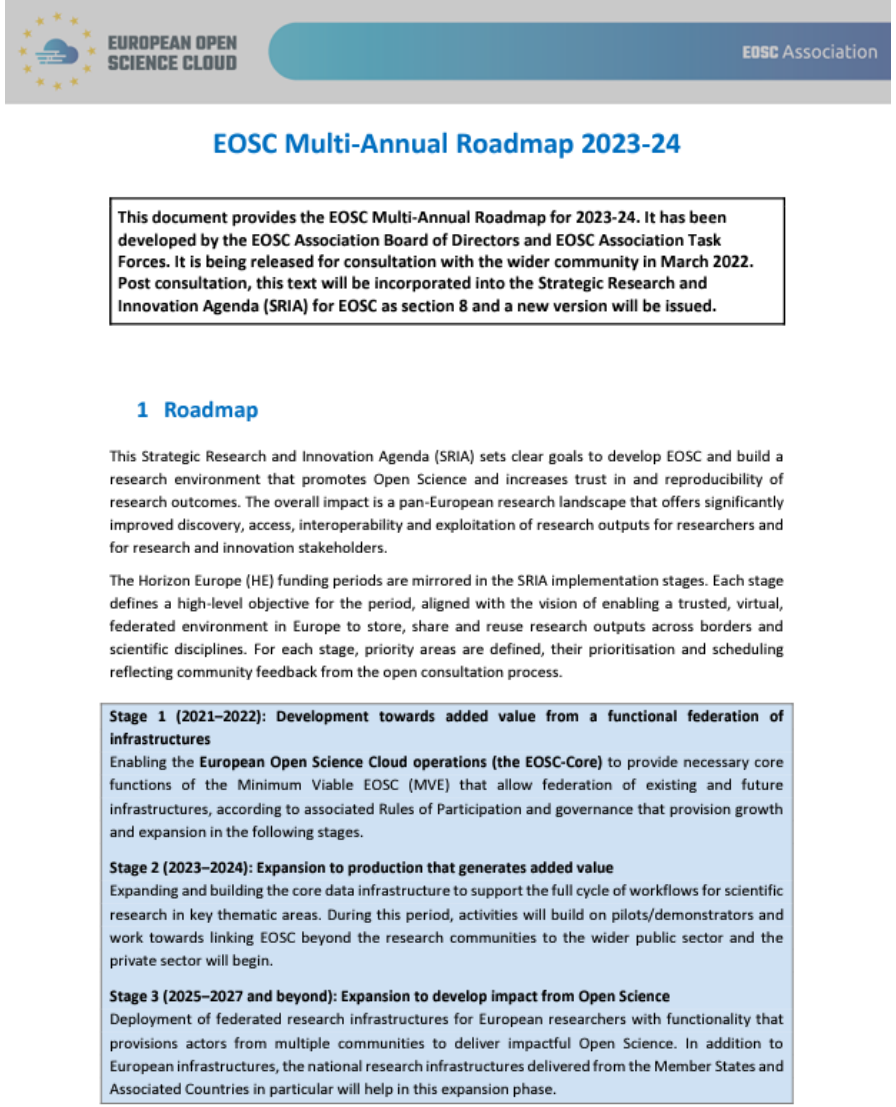
SRIA: https://www.eosc.eu/sites/default/files/SRIA_2022_01.pdf

MAR

MAR: EOSC Multi-Annual Roadmap 2023-2024

- **Work plan for 2023-2024**, includes activities planned at the first stage and those forthcoming under the Horizon Europe INFRAEOSC Work Programme.
- MAR has been drafted by the **EOSC Association** Board of Directors in collaboration with the **EOSC-A Task Forces**.
- The content has also been shaped by a **community consultation** held in March 2022
- The roadmap provides a **framework of priorities** with derived activities and indicators for the second stage of activities.

MAR: https://www.eosc.eu/multi-annual-roadmap-mar-consultation



EUROPEAN OPEN SCIENCE CLOUD

EOSC Association

EOSC Multi-Annual Roadmap 2023-24

This document provides the EOSC Multi-Annual Roadmap for 2023-24. It has been developed by the EOSC Association Board of Directors and EOSC Association Task Forces. It is being released for consultation with the wider community in March 2022. Post consultation, this text will be incorporated into the Strategic Research and Innovation Agenda (SRIA) for EOSC as section 8 and a new version will be issued.

1 Roadmap

This Strategic Research and Innovation Agenda (SRIA) sets clear goals to develop EOSC and build a research environment that promotes Open Science and increases trust in and reproducibility of research outcomes. The overall impact is a pan-European research landscape that offers significantly improved discovery, access, interoperability and exploitation of research outputs for researchers and for research and innovation stakeholders.

The Horizon Europe (HE) funding periods are mirrored in the SRIA implementation stages. Each stage defines a high-level objective for the period, aligned with the vision of enabling a trusted, virtual, federated environment in Europe to store, share and reuse research outputs across borders and scientific disciplines. For each stage, priority areas are defined, their prioritisation and scheduling reflecting community feedback from the open consultation process.

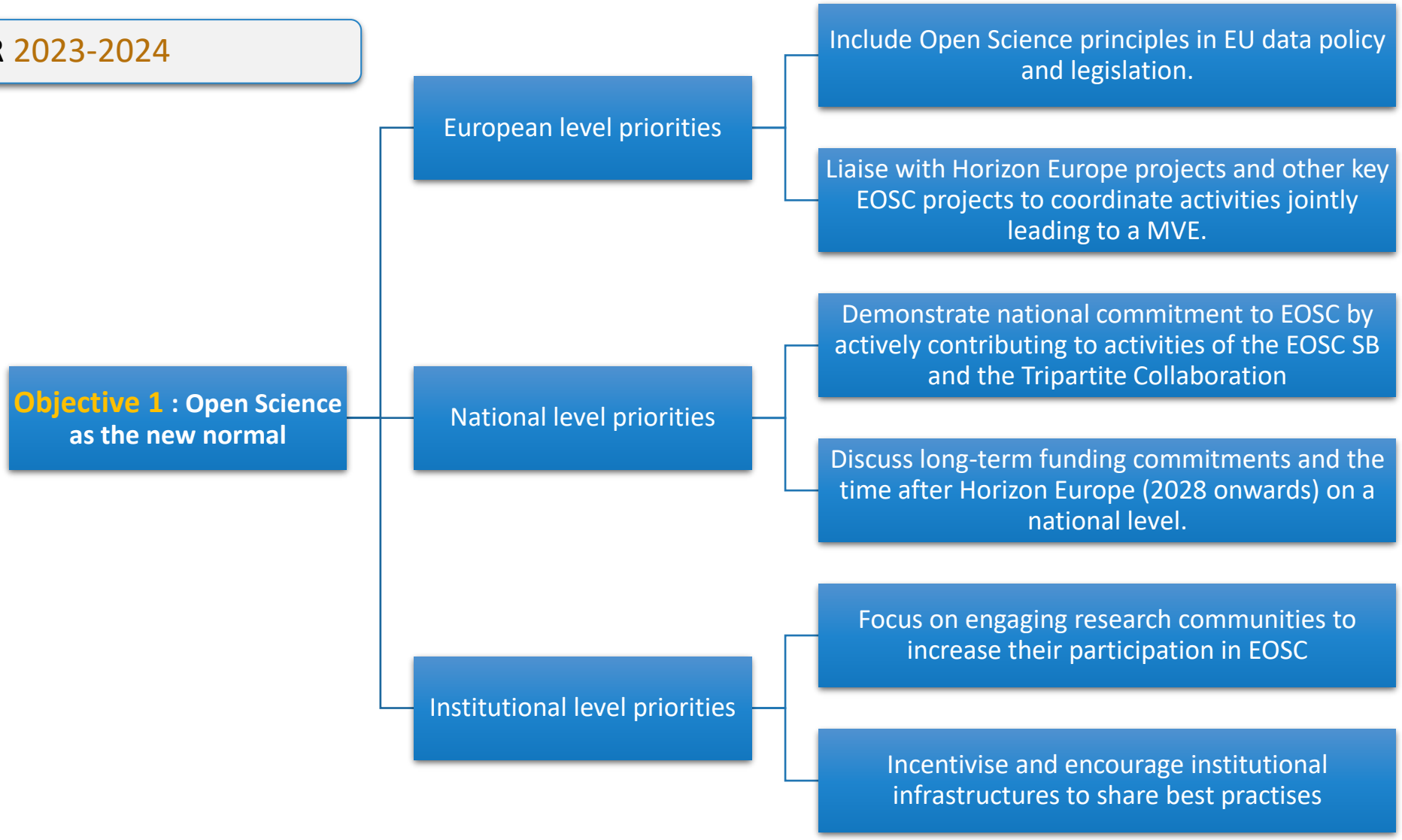
Stage 1 (2021–2022): Development towards added value from a functional federation of infrastructures
Enabling the **European Open Science Cloud operations (the EOSC-Core)** to provide necessary core functions of the Minimum Viable EOSC (MVE) that allow federation of existing and future infrastructures, according to associated Rules of Participation and governance that provision growth and expansion in the following stages.

Stage 2 (2023–2024): Expansion to production that generates added value
Expanding and building the core data infrastructure to support the full cycle of workflows for scientific research in key thematic areas. During this period, activities will build on pilots/demonstrators and work towards linking EOSC beyond the research communities to the wider public sector and the private sector will begin.

Stage 3 (2025–2027 and beyond): Expansion to develop impact from Open Science
Deployment of federated research infrastructures for European researchers with functionality that provisions actors from multiple communities to deliver impactful Open Science. In addition to European infrastructures, the national research infrastructures delivered from the Member States and Associated Countries in particular will help in this expansion phase.

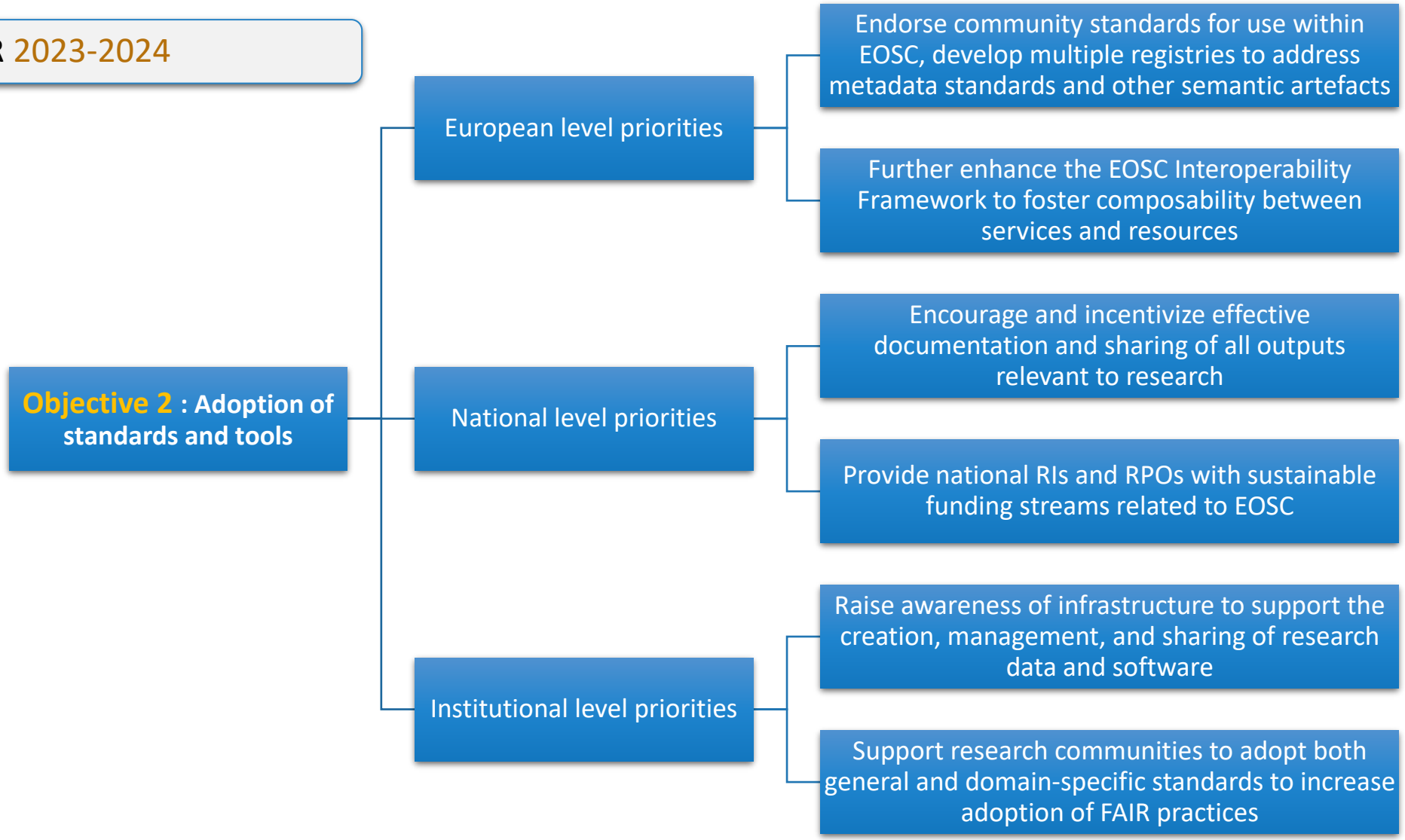
MAR

Objectives MAR 2023-2024



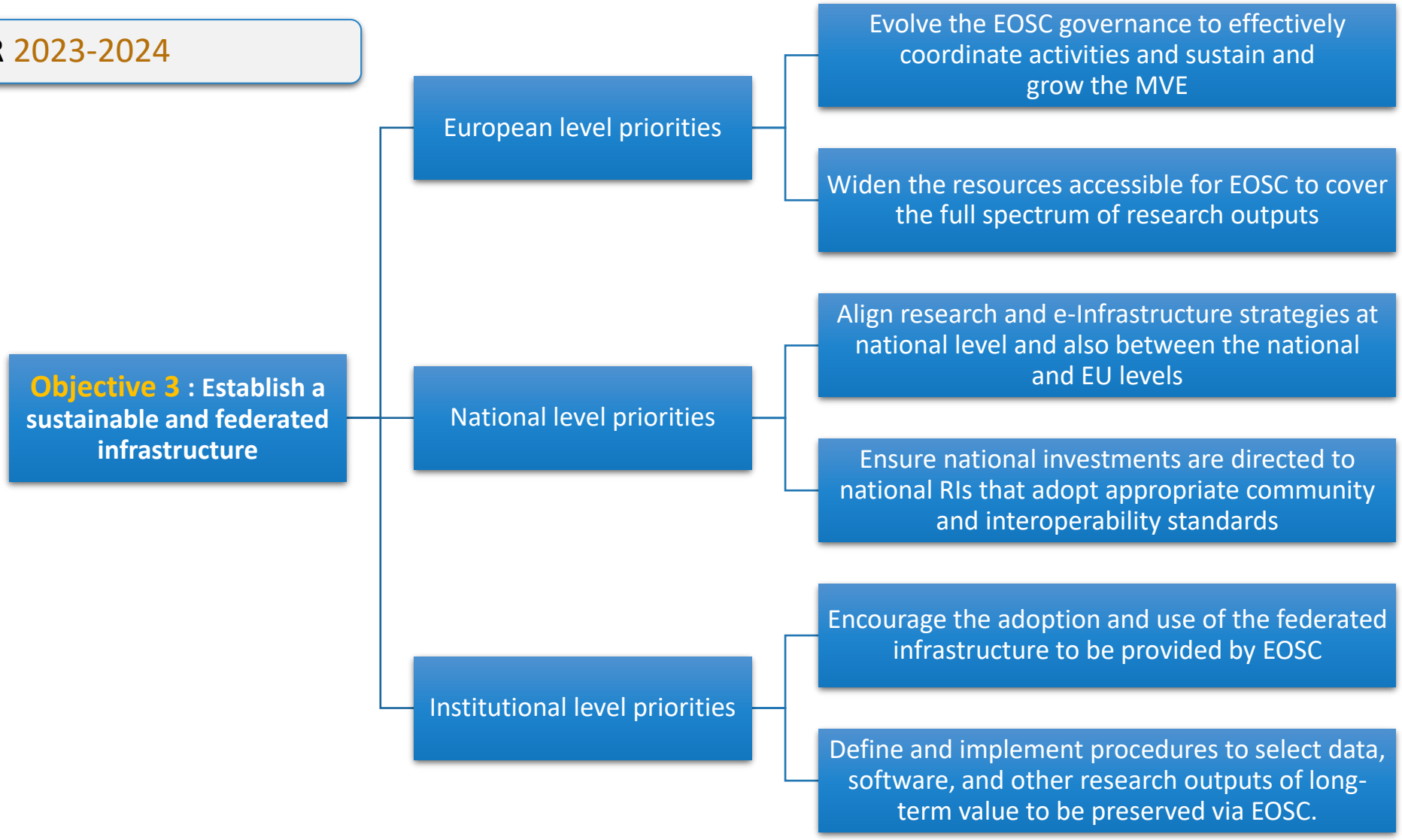
MAR

Objectives MAR 2023-2024



MAR

Objectives MAR 2023-2024



NI4OS-Europe support to EOSC governance

11 NOSCIs already established
4 NOSCIs in the course of establishment

- **NOSCI** is a coalition of national organizations that have a prominent role and interest in the EOSC with main objective to promote synergies at national level for optimize the participation into EOSC, support its governance and deploy National OS Policies.

Liaison & collaboration

- Support to national representatives in the EOSC GB & EB and now in SB
- Input to all EOSC strategic documents (Fair Lady, SRIA, etc)
- Participation in the EOSC Task Forces and now in the Advisory bodies
- EOSC inclusion beyond MS & AC: Kosovo and Ukraine

NI4OS-Europe region in EOSC-A

- 6 Mandated organizations
- 12 Members
- 6 Observers
- 12 Countries Engaged in EOSC-A

NI4OS-Europe NOSCIs Toolbox

Toolbox for the establishment of NOSCIs

- Blueprint (NI4OS-Europe D2.2)
- Checklist - Workflows for setting up NOSCI
- Checklist - Indicators for the NOSCI's establishment
- Operational aspects
- Training & support events

D2.2 National OSC initiatives model

Workflows for setting up NOSCI

Incentives & Rewards for supporting Open Research Data Management and FAIR

Indicators for the NOSCIs establishment

How to support EOSC – Incentives List

ORDM & FAIR Guidelines and Incentives

Thank you

Any Questions?

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