

# Common European Data Spaces and EOSC

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# What is a European common data space?

Defined as a federated data ecosystem based on shared policies and rules.

- Participants of such data spaces are enabled to access data in a secure, transparent, trusted, easy and unified fashion.
- Data holders are in control of who can have access to their data, for which purpose and under which conditions it can be used.
- From a technical perspective, a data space can be seen as a data integration concept which does not require common database schemas and physical data integration. It is rather based on distributed data stores and integration on an “as needed” basis.

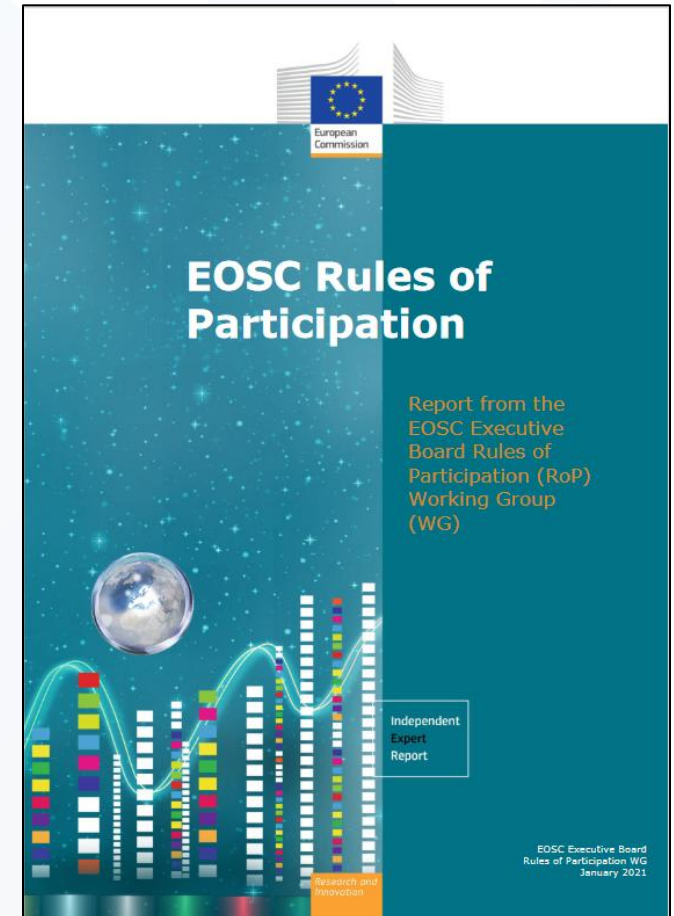
Source : Daniele Rizzi, Johan Bodenkamp (DGCNECT) Data spaces: Introducing the concept and relevance in today's world', data.europa academy webinar, 12 May 2023



# EOSC Rules of Participation (RoP)

Published January 2021

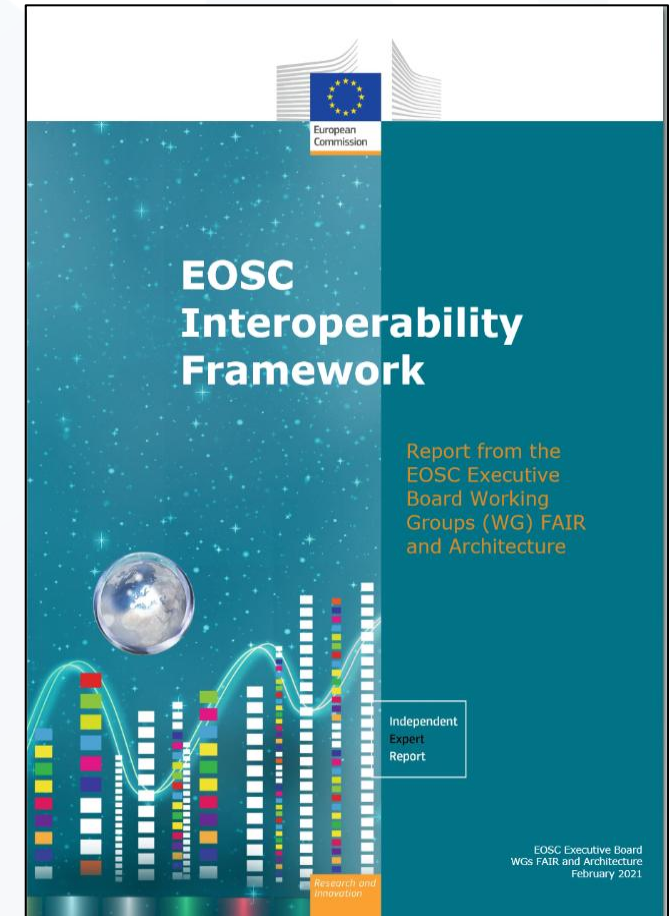
- State the standards and conduct required of EOSC participants
  - Openess
  - Alignment to FAIR principles
  - Alignment with Architecture & Interoperability guidelines
  - Ethical behavior & research integrity
- Develop quality, trust through transparency
- Minimise the need for regulation
- EOSC participants agree to adhere to the RoP.



# EOSC Interoperability Framework

Published February 2021

- Developed by the Interoperability Task Force of the EOSC Executive Board FAIR Working Group
- Recommendations on Legal, Organisational, Semantic & Technical (LOST) interoperability
- Analysis of minimal metadata models and crosswalks among them
- Recommendation of minimum metadata set to describe metadata records for FAIR digital objects
- Definition of the pathway and blueprint for other potential EOSC (node) operators to join the federation



# EOSC Federation handbook

Published March 2025

- Purpose, expected outcomes and measures of success
- Governance
- Operational structure and responsibilities (EOSC nodes)
- EOSC Federation and node architecture
  - EOSC Federation, EOSC node architectures, EOSC federating capabilities
  - *EOSC Interoperability Framework*
  - Technical operations
  - Cybersecurity
- Research resources
  - Resources categories, publications, data sources, data, software, services, interoperability guidelines, competence centres
- Joining the EOSC Federation
  - Legal & organisational steps, policies & procedural steps, technical steps



# The common European data spaces ecosystem



- Driven by stakeholders
- Rich pool of data of varying degree of openness
- Sectoral data governance (contracts, licences, access rights)
- Technical tools for data pooling and sharing

## Technical infrastructure for data spaces



Edge & cloud Services

Smart Middleware solutions

Marketplace

High-Performance Computing

AI on demand platform


AI Testing and Experimentation Facilities

# European common data spaces preparatory actions and deployment

- Health Data Space: [EHDS](#) pilot + [Xt-HER](#)
- Manufacturing Data Space: [Data Space 4.0](#)
- Agriculture Data Space: [AgriDataSpace](#)
- Finance Data Space: [EFDS](#)
- Mobility Data Space: [PrepDSpace4Mobility](#) + [Mobility DS](#)
- Green Deal Data Space: [GREAT](#) + [GreenDeal DS](#) + [SAGE](#)
- Energy Data Space: [Enershare](#) + [Synergies](#)
- Skills Data Space: [DS4Skills](#) + EDGE-Skills + DS4Skills-GO
- Language Data Space: [LDS](#) + [European Language Grid](#) + [ALT-EDIC](#)
- Cultural Heritage Data Space: [CEDS for Cultural Heritage](#) + 3DBigDataSpace + AI4Culture + [ECHOES](#)
- Media Data Space: [tems](#)
- Tourism Data Space: [DATES](#) + [DSFT](#)
- Smart Communities Data Space: [DS4SSCC](#)



# More information



## Focus

Project Number: 101058432    Start Date of Project: 01/06/2022    Duration: 36 months  
Funded by EC via HE call INFRA-2021-EOSC-01-02

### Deliverable 3.1

Technical Collaboration with other European Partnerships and relevant initiatives


Focus on Common European Data Spaces

|                         |   |
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**Deliverable Abstract**

This deliverable is a report on the technical collaboration of the EOSC Partnership with other European Partnerships and relevant initiatives. This first report is dedicated to the EOSC liaison with the Common European Data Spaces. The objective of this deliverable is to describe the Common European Data Spaces, their governance, scope, technical framework and to report on the actions and opportunities for mutual collaboration and cooperation in line with the objectives of the EOSC Partnership's Memorandum of Understanding.

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Published December 2023

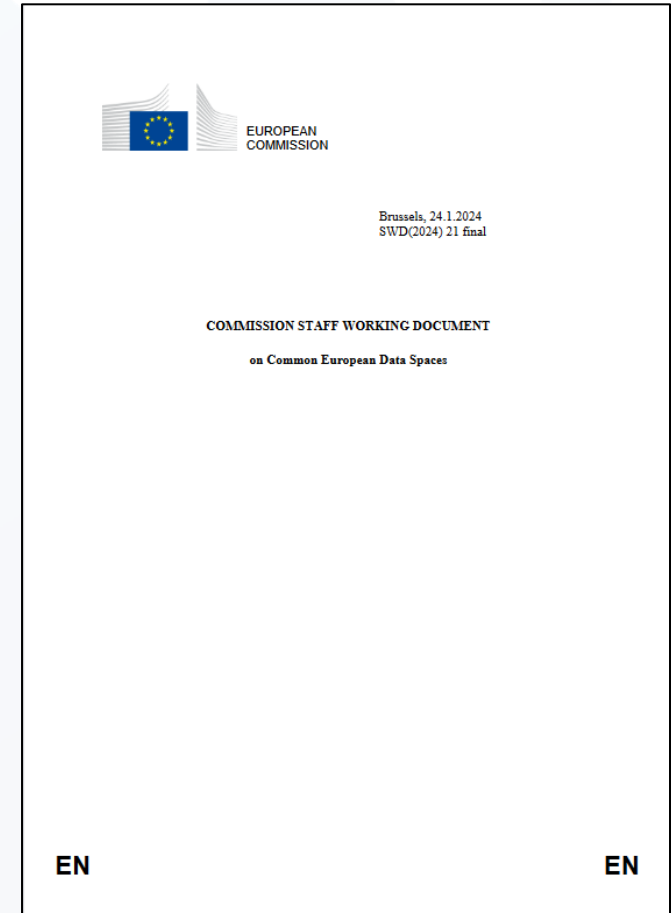
EOSC Focus deliverable on the data spaces

- EOSC liaison with the Common European Data Spaces
- Description of the Common European Data Spaces
  - Governance,
  - Scope,
  - Technical framework, etc.

## More information

### Published January 2024

- Second staff working document (SWD)
- Overview of the current status of the common European data spaces since first SWD (published February 2022)
  - Update on the enabling EU legislative framework for data spaces (entry into application of the Data Governance Act, adoption of the Data Act and adoption of the implementing act on high-value datasets).
  - State of play of data-space related EU support actions, including sector- and domain-specific initiatives, the Data Spaces Support Centre (DSSC) and smart open-source middleware (Simpl), as well as relevant European Digital Infrastructure Consortia (EDICs) and ongoing work on standards and interoperability.
  - Progress over the past two years and upcoming key milestones





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