



**EUROPEAN OPEN
SCIENCE CLOUD**

EOSC a web of FAIR data

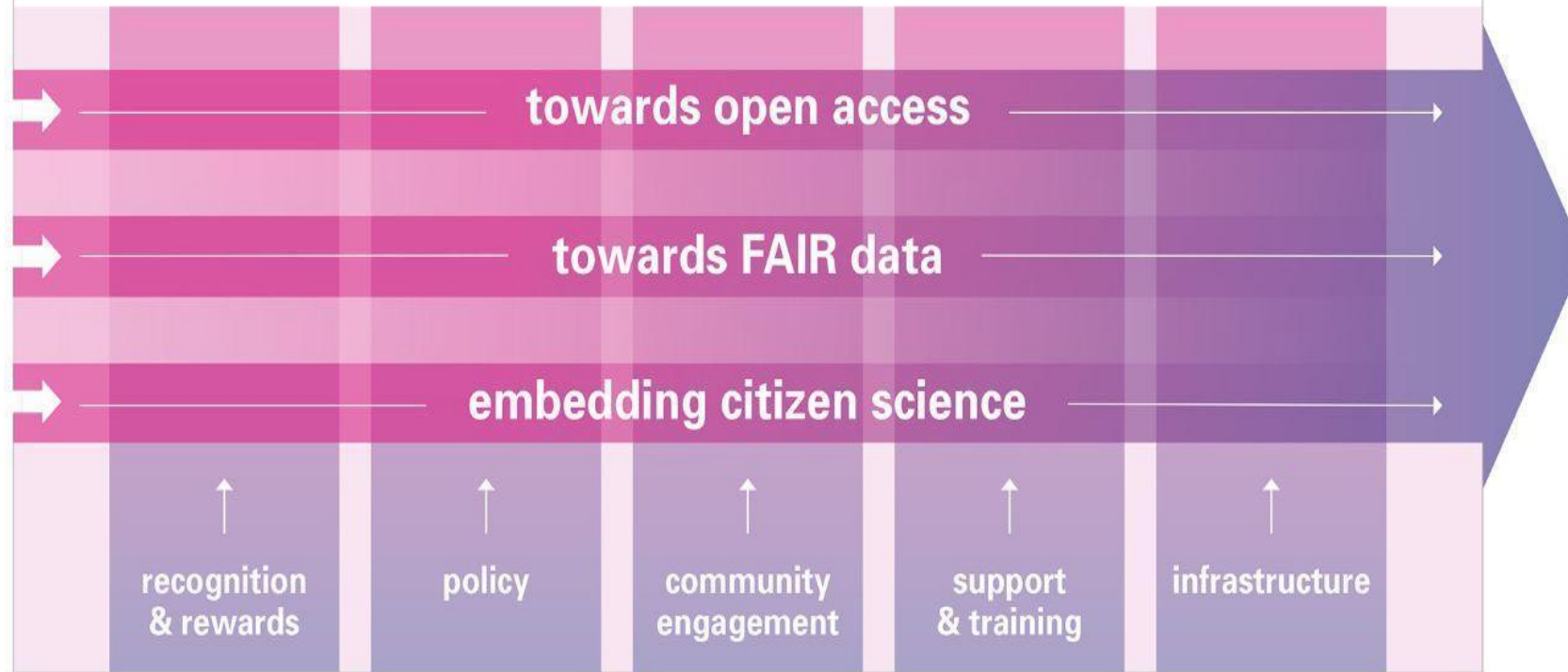
Karel Luyben

President EOSC Association



open science

"science as is"

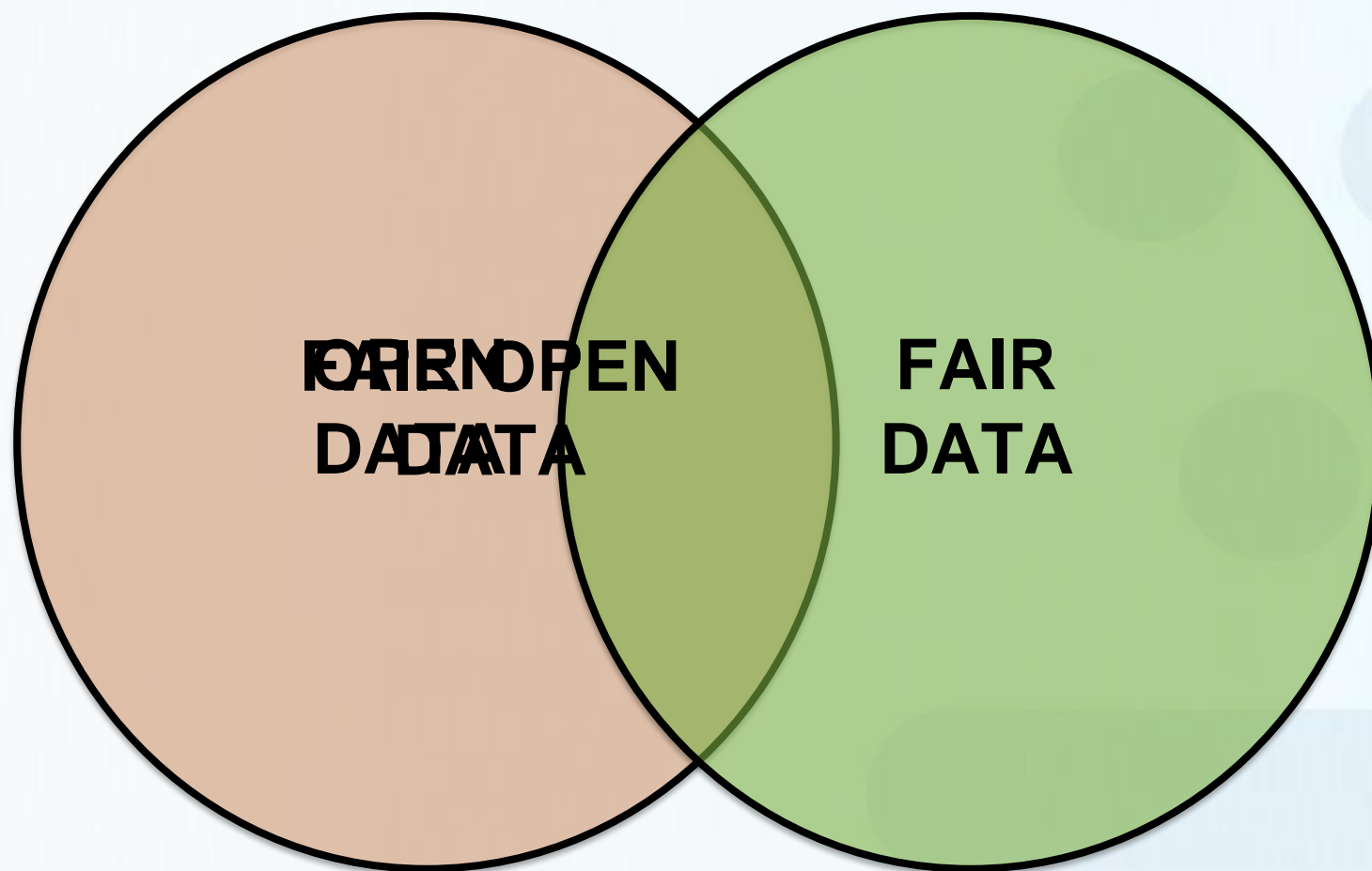


"science as will be"

engagement, coordination and support



OPEN DATA and/or FAIR DATA

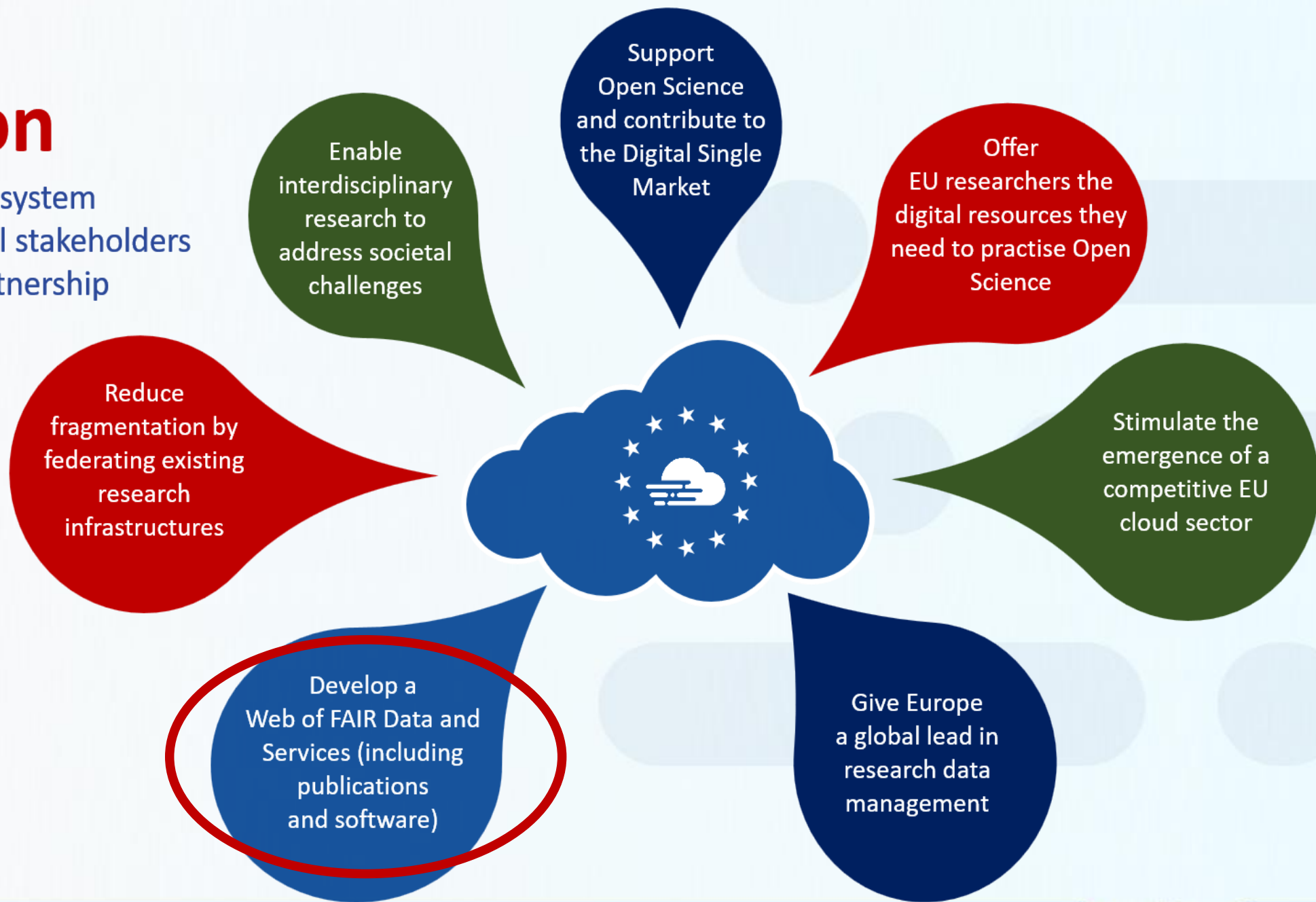


FAIR \equiv
Findable
Accessible
Interoperable
Reusable

Towards “as FAIR as possible” and “as open as possible”

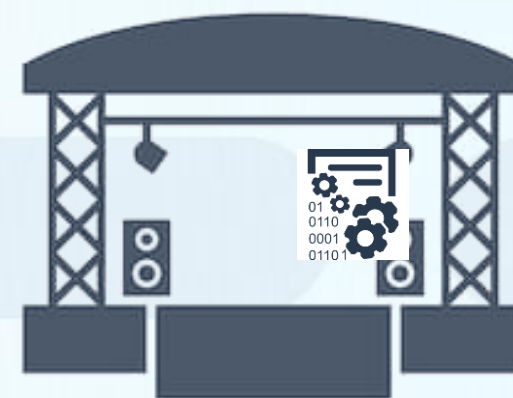
The Vision

Building the EOSC ecosystem
collaboratively with all stakeholders
through the EOSC Partnership



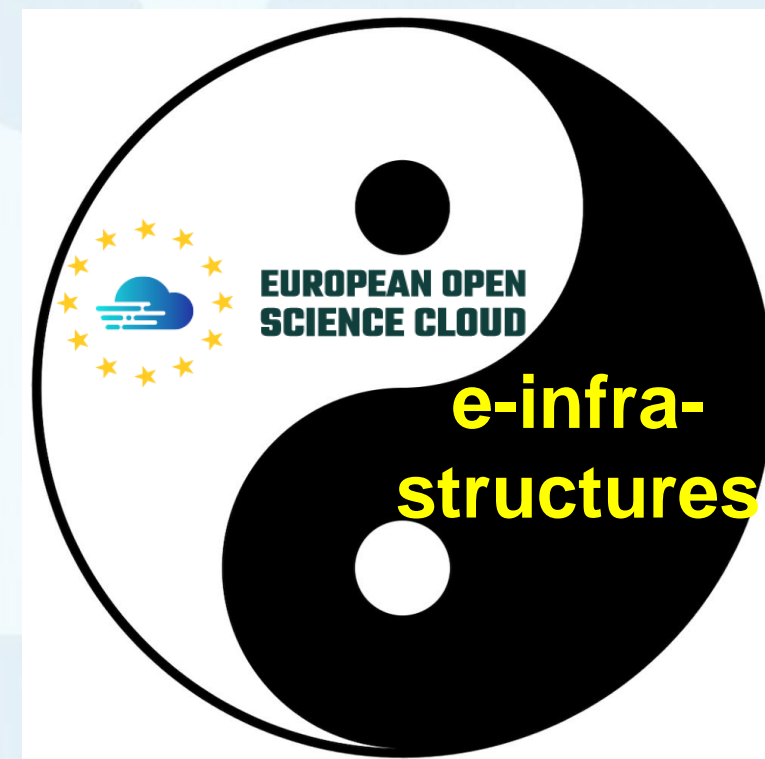
“A web of scientific insight”

- **Web of FAIR Data and related Services**
- **Federation of relevant existing and future data sources**
- **Virtual space where science producers and consumers come together**
- **An open-ended range of content and services**
- **Meeting all European data requirements**
- **In interaction with other regions of the world**



Twinning the data- to the e-infrastructures

EOSC is a data-infrastructure and could be seen as a twin sister (or brother) of the European e-infra-structure organisations (yin/yang). The last offering the store, compute and connect services used by EOSC to offer the servicing of data and creating interoperability. The combination forms the EOSC-ecosystem



Guiding principles for EOSC

The **overarching** principle for developing EOSC is that research has to be at the centre of the EOSC initiative.

- **Multi-stakeholderism**
EOSC will succeed if and only if it follows a multi-stakeholder approach;
- **Openness**
EOSC will ensure research artefacts be ‘as open as possible, as closed as necessary’;
- **FAIR principles**
EOSC research artefacts need to be findable, accessible, interoperable and reusable;
- **Federation of infrastructures**
EOSC will federate existing and upcoming data- and e-infrastructures;
- **Machine-actionable**
EOSC will strike the right balance between machines and people in delivering the services that will serve the needs of European scientists.



EOSC Association

**An Exciting
Journey**



EOSC Association: Mission

Advancing the European Open Science Cloud to accelerate the creation of new knowledge, inspire education, spur innovation and promote accessibility and transparency

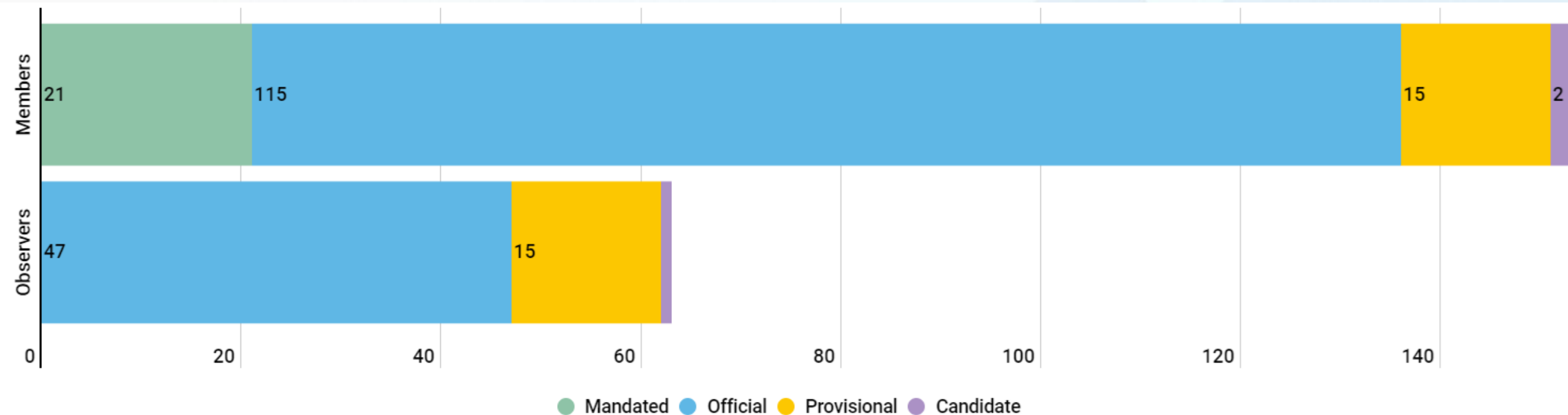
- To provide a single voice for advocacy and representation for the broader EOSC stakeholder community in Europe
- To promote the alignment of European Union research policy and priorities with activities coordinated by the Association (SRIA)
- To ultimately enable seamless access to data through interoperable services that address the entire research data life cycle, from discovery to storage, management, analysis and re-use across borders and scientific disciplines



EOSC Association: Milestones

- **Four founding members (CESAER, GEANT, GARR, CSIC)**
- **Was incorporated as AISBL on Wednesday 29th July 2020**
- **Obtained Royal Decree on Friday 11th September 2020**
- **First General Assembly on 17-12-2020 elected President and Board**
- **Research Performing; Research Funding and Service Proving organisations**
- **Now ~ 150 members and ~ 60 observers (62% - 8% - 30%) (May 2021)**
- **A European Co-programmed Partnership, between the EC and the EOSC Association, MoU to be signed 23 June 2021**
- **Joining the EOSC Association = Joining the EOSC Partnership!**

EOSC Association: Membership



As of the May 2021

Members: 153

Observers: 63

Board of Directors

Karel Luyben, CESAER (President)

Klaus Tochtermann, ZBW; 3-year

Marialuisa Lavitrano, University Milano – Bicocca;
3-year

Suzanne Dumouchel, CNRS; 3-year

Sarah Jones, GÉANT; 2-year

Ignacio Blanquer, UPV; 2-year

Ronan Byrne, HEAnet; 1-year

Bob Jones, CERN; 1-year

Wilhelm Widmark, University of Stockholm; 1-year





Task Force topics within Advisory Groups



Suzanne
Dumouchel

Implementation of EOSC

- Rules of Participation compliance monitoring
- PID policy and implementation
- Researcher engagement and adoption



Ignacio
Blanquer

Technical challenges on EOSC

- Technical interoperability of data and services
- Infrastructure for quality research software
- AAI Architecture

Metadata and data quality

- Semantic interoperability
- FAIR metrics and data quality

Research careers and curricula

- Data stewardship curricula and career paths
- Research careers, recognition and credit
- Upskilling countries to engage in EOSC

Sustaining EOSC

- Defining funding models for EOSC
- Long-term data preservation



Sarah
Jones



Wilhelm
Widmark



Bob
Jones



Tasks for EOSC Association to see to:

- Develop and govern federating core
- Manage the AAI
- Manage PID policies
- Manage compliance framework
- Manage trusted certification
- Outreach to stakeholders
- Monitor services and transactions
- Manage the 'EOSC' trademark(s)
- Contribute to Horizon EU policy

Position of EOSC according to the European Commission

From EC slides

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

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



Health



Industrial &
Manufacturing



Agriculture



Finance



Mobility



Green Deal



Energy



Public
Administration



Skills



EOSC: a crosscutting data space for Research and Innovation

Grand Challenges for delivering EOSC

Technical

- Create in the long run truly broad multidisciplinary interoperability
- For the short term this means: optimal Authentication and Authorisation Infrastructure (AAI); stepwise growing interoperability

Social

- Getting the noses in the same direction
- Combining local and regional initiatives towards a true Open Science Commons with global convergence on standards in support of the implementation



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SCIENCE CLOUD**

THANKS



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