European Open Science policy and the EOSC

Open Science in Transport: Challenges and Opportunities in a COVID-19 Era

@2021 TRB Annual Meeting

21 January 2021

Kostas Glinos

Head of Unit, Open Science

Directorate-General for Research and Innovation

European Commission

Science in transition

Open Science: sharing knowledge and tools as early as possible, between researchers and disciplines and also with society at large

EOSC:
European Open Science Cloud
or
European Open Science Commons

Citizen Engagement

Open Access

FAIR data

Trust in science

Research productivity

Reprodu-cibility of results

Infrastru-ctures, platforms and tools

Research integrity
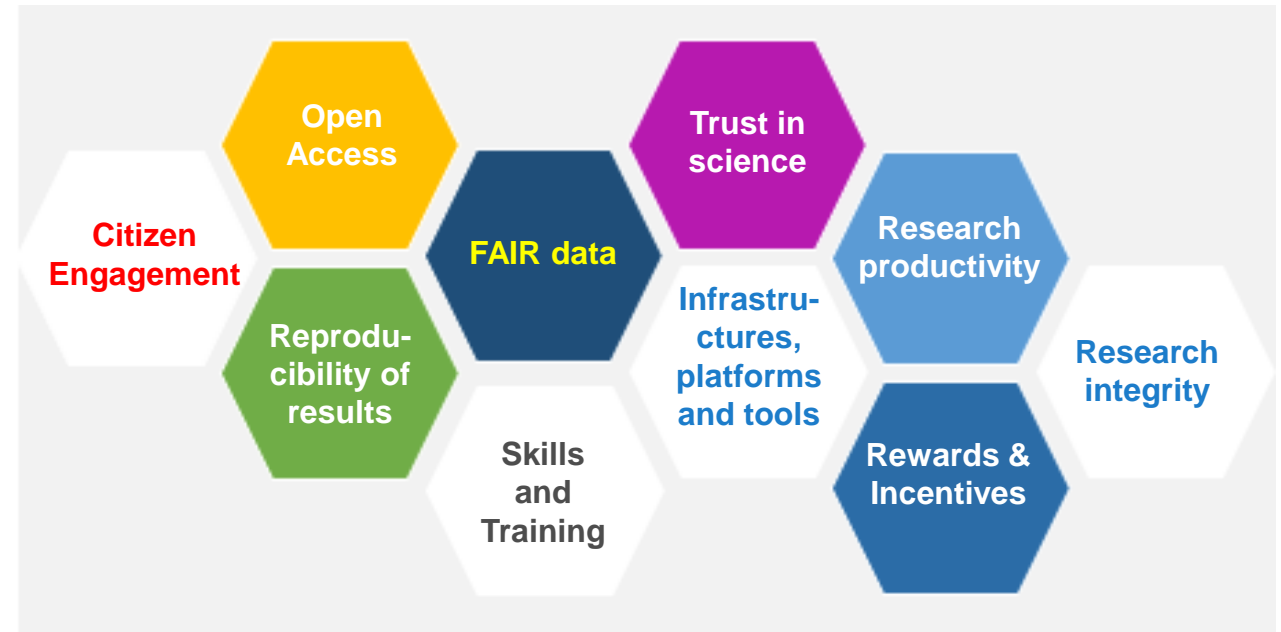
Skills and Training

Rewards & Incentives

Image from the RDA GORC Interest Group

What is EOSC?

- A trusted, **federated** and multi-provider **environment** where researchers **find, share and reuse research outputs** like publications, data and software

  - enables Open Science and FAIR data management

  - brings together institutional, national and European stakeholders, initiatives and infrastructures

  - cuts across borders and scientific disciplines

- A "**Web of FAIR Data and Services for Science**"

- **Benefits**: higher research productivity and efficiency, improved reproducibility, new insights from interdisciplinary research

"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)

EOSC Strategic Research and Innovation Agenda (SRIA)

Three Strategic Objectives

SO1. **Open Science practices** and skills are rewarded and taught, becoming 'the new normal'
  - ➢ <u>Scope</u>: EOSC underpins the reward of OS practices
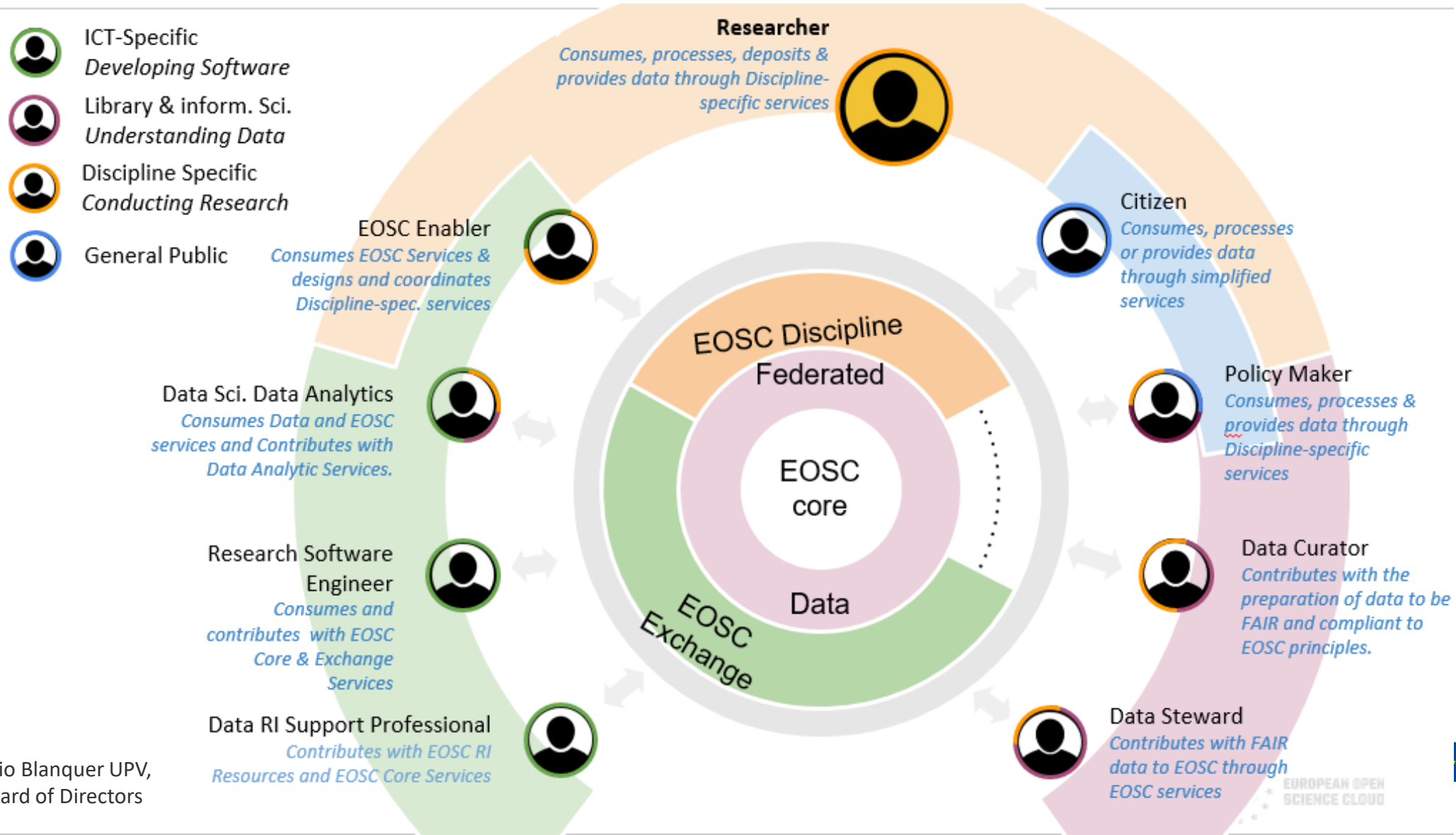
SO2. Sustainable and **federated infrastructures** enable open sharing of scientific results
  - ➢ <u>Scope</u>: **EOSC-Core**, federated data infrastructures and **EOSC-Exchange**

SO3. Standards, tools and services allow researchers to find, access, reuse and combine results
  - ➢ <u>Scope</u>: Practicing the **FAIR and Open principles** (all type of research artefacts in a digital form)
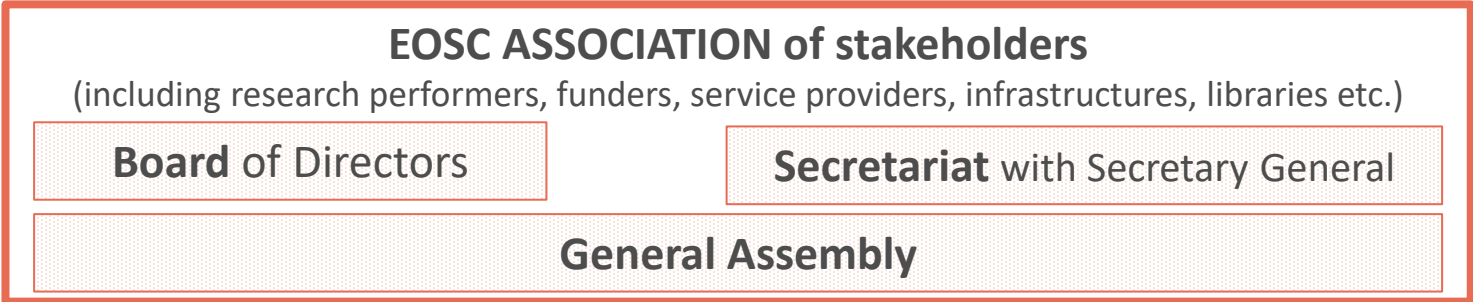
EOSC ecosystem

by Ignacio Blanquer UPV,
EOSC board of Directors

The EOSC Partnership

EOSC STEERING BOARD

European Commission	EU Member States and Associated Countries

Partnership Board

Strategic Research and Innovation Agenda

EOSC ASSOCIATION of stakeholders
(including research performers, funders, service providers, infrastructures, libraries etc.)

Board of Directors | **Secretariat** with Secretary General

General Assembly

HORIZON 2020 CONTRIBUTIONS TO BUILDING THE

Joint CNECT-RTD project meeting workshop

BUILDING TOGETHER AN EOSC GREATER THAN THE SUM OF ITS PARTS

European Commission

Key reports by the Interim EOSC Governance

✓ Landscape of EOSC-related infrastructures and initiatives

✓ Country sheets analysis of national policies, strategies, infrastructures and programmes

✓ FAIR metrics report - Validated metrics for FAIR data

✓ FAIR certification report - Schemes for certified data repositories

✓ EOSC Persistent IDentifiers (PID)

✓ EOSC Authentication & Authorization Infrastructure (AAI) Architecture

✓ Scholarly Infrastructures for Research Software

✓ Digital skills report - EOSC within national strategies for digital skills (Oct 2020)

✓ Rules of Participation - Eight rules stating standards & conduct required of EOSC users

✓ Solutions for a Sustainable EOSC (the "Iron Lady report")

European Commission

Open science in Horizon Europe: Research Data Management

- Manage data in line with **FAIR principles**

- Establish and update **Data Management Plan (DMP)**

- Deposit data in **repository** and **link data** to underlying publications (if the case).

- Ensure open access ASAP under CC BY or CC0 **licenses** or equivalent unless exceptions.

- If **open access not provided**, explanations in DMP

- **PIDs and metadata** FAIR with information on datasets (licensing terms, authors, project, link to related publication)

European Commission

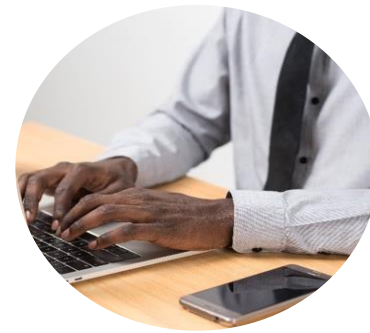# EOSC in the European Data Strategy

EDS 4 pillars →

common challenges
- data pooling/sharing
- interoperability
- governance
- cloud services

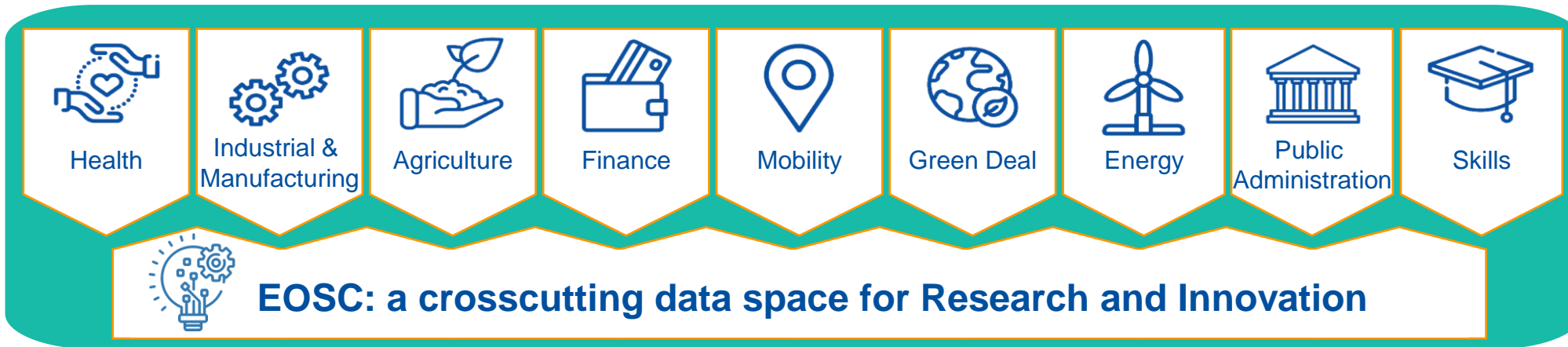**A governance framework:**
data access and use

Enablers

Competences

Rollout of common European data spaces

Health

Industrial & Manufacturing

Agriculture

Finance

Mobility

Green Deal

Energy

Public Administration

Skills

European data spaces

EOSC: a crosscutting data space for Research and Innovation

European Commission

Thank you