

# EOSC

João Mendes Moreira



[2E13-6710-9928](#)



[0000-0002-9081-2728](#)

1. e-infras
2. Dados de investigação
  - a. FCT
  - b. País
  - c. Mundo
3. EOSC
4. EOSC-Synergy

1. **e-infras**
2. Dados de investigação
  - a. FCT
  - b. País
  - c. Mundo
3. EOSC
4. EOSC-Synergy

# e-Infras: visão global e integrada

## European Data Infrastructure



## e-INFRAS

### Computing



### Data



## European Open Science Cloud



## Network

1. e-infras
- 2. Dados de investigação**
  - a. FCT
  - b. País
  - c. Mundo
3. EOSC
4. EOSC-Synergy

# FCT: propostas de atividades

## Planeamento

- **Governança e Política** – Definição de um modelo de governança para a gestão de dados de investigação a nível nacional
- **Estudos e prospecções** - Inquérito
- **Casos de uso piloto** - Levantamento de requisitos e estudos preliminares para a realização de projetos piloto.
- **Sistema de Planos de Gestão de Dados** – Configuração, parametrização e descrição do funcionamento do serviço. Desenvolvimento de documentação de apoio.
- **Repositório de Dados de Investigação** – Definição de requisitos e escolha de software para o repositório de gestão de dados e respetiva instalação e configuração.

## Comunicação e disseminação



## Formação / Capacitação



# Nacional: rede de centros de excelência

## Coordenação

- CA@FCT, Articulação nacional, articulação internacional
- Policy making
- Monitorização e estatística
- Estudos e prospeção

## Serviços

- Capacitação (FOSTER PT)
- RCAAP (FCCN)
- GDI (FCCN)

## Infraestruturas (FCCN)

- Datacenter, Storage, Rede
- Computação para dados / administrativa
- PTCRIS (PIDs (ex: DOIs)
- AAI

## Internacional: Colaboração e alinhamento





1. e-infras
2. Dados de investigação
  - a. FCT
  - b. País
  - c. Mundo
3. **EOSC**
4. EOSC-Synergy



# State-of-play and means to realise the EOSC

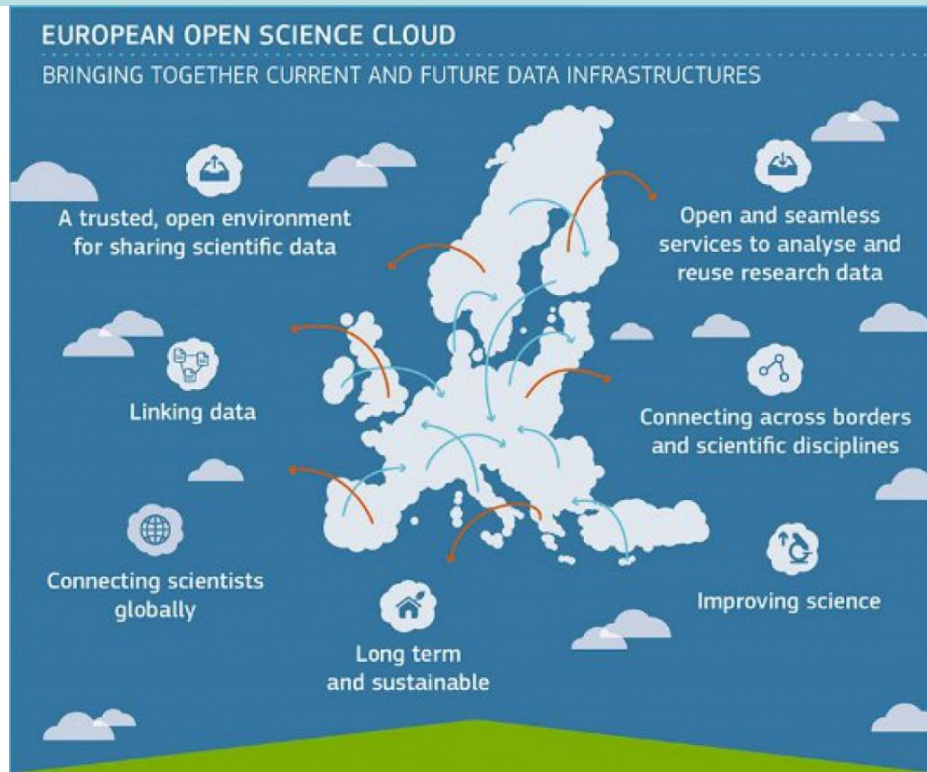
Brussels, 15 October 2019

European Commission, Directorate General Research & Innovation (DG RTD)  
Michel Schoupe, Senior expert, RTD.G4 Open Science

# Why the EOSC? What is EOSC?

Enabling the digital transformation of research: towards more of data-intensive, collaborative and cross-disciplinary science

EOSC will provide 2 million EU researchers and innovators with a service environment for research data management, analysis and re-use across disciplines, increasing the creativity, productivity and reproducibility of research



# EOSC achievements in 2016-2018



- Vision
- EOSC roadmap
- Political support
- Targeted resourcing
- Communities at work
- Prototype Portal
- Governance 2019-2020

a. Architecture

b. Data

c. Services

d. Access &  
Interface

e. Rules

f. Governance

The Vienna Declaration on the European Open Science Cloud

Vienna, 23 November 2018

e 2 0  
u 1 8  
• a t

# H2020 dedicated activities to prototype the EOSC

**Portal  
development**

INFRAEOSC-06-2019  
Enhancing the user experience

INFRAEOSC-03-2020  
Portal integration & consolidation

INFRAEOSC-01-2018  
Access to commercial services

INFRAEOSC-04-2018  
**Connecting ESFRI infrastructures**

INFRAEOSC-05-b-2018-2019  
**Coordination of national initiatives**

INFRAEOSC-02-2019  
Prototyping new services for new users

INFRAEOSC-07-2020  
Increasing the service offer

**New services  
new users**

INFRAEOSC-05-a-c-2018  
- EOSC coordination structure  
- **FAIR Data uptake** and compliance

**Governance  
and policy**



H2020  
INFRAEOSC Calls  
2018-2020  
> 250 Mio €

# EOSC governance in 2019-2020

Advise on / inform  
the implementation

Steer  
the implementation

Contribute to  
the implementation

## Stakeholder

Users, Service Providers,  
Public sector, Industry,  
SMEs, etc.

## Governance Board

MS/AC delegates and the  
European Commission

Proposes  
Monitors  
Reports

Endorses  
Orients

## Executive Board

European stakeholder organisations  
and individual experts)

Interacts

EU-funded projects

Nationally-funded projects  
and initiatives

Other projects and  
initiatives

Extended Coalition  
of Doers

## Working Groups

WG

WG

WG

WG

Supports

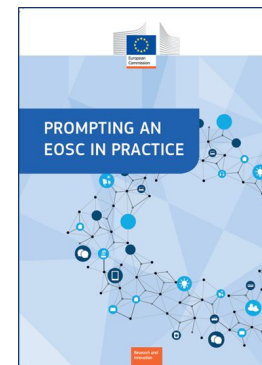
Supports

Supports/  
coordinates  
w.

EOSC Secretariat.eu  
Coordination and Support Action

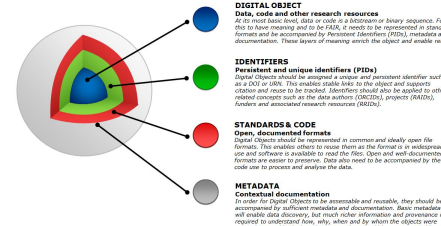
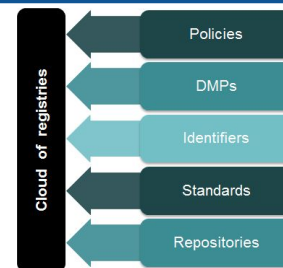
# Key issues by end of 2020

- ✓ **Governance model** and best-fit **legal vehicle** for after 2020
- ✓ **Financing model(s)** to sustain EOSC infrastructure and services in the long run
- ✓ **Rules of participation** that would govern future EOSC transactions
- ✓ Compatibility of EOSC-relevant **national initiatives**
- ✓ Evolution of the **EOSC Portal** and its interfaces, expansion of the **EOSC service offering** to the researchers
- ✓ **FAIR digital objects**: turning principles into practice
- ✓ Widening strategy for the **EOSC user base**,
- ✓ Role of the **private sector**
- ✓ EOSC in the **international context**



# Turning FAIR into reality – key concepts

- FAIR ecosystem:** FAIR requires an ecosystem of components, including policies, DMPs, PIDs, specifications and standards, repositories and registries of these components.
- FAIR Digital Objects:** FAIR requires a model for FAIR digital objects: outputs (data, software and other research resources) have appropriate PIDs, use standard formats, rich metadata, licenses.



## Recommendation 4: Interoperability frameworks

*Develop interoperability frameworks for FAIR sharing within disciplines and for interdisciplinary research.*

*Research communities need to be supported to develop interoperability frameworks that define their practices for data sharing, data formats, metadata standards, tools and infrastructure.*

*To support interdisciplinary research, these interoperability frameworks should be articulated in common ways and adopt global standards where relevant. Intelligent crosswalks, brokering mechanisms and semantic technologies should all be explored to break down silos.*



1. e-infras
2. Dados de investigação
  - a. FCT
  - b. País
  - c. Mundo
3. EOSC
4. **EOSC-Synergy**



## Project Vision

EOSC Synergy will expand the **Capacity** and **Capabilities** of EOSC by leveraging the experience, effort and resources of national publicly-funded digital infrastructures in a coherent way, therefore acting also as an incentive for national resource providers.



**Portugal, Spain, Germany, Poland, Czech Republic, Slovakia, Netherlands, United Kingdom and France**

# EOSC Synergy - Key Ideas



## Building Capacity

Enlarging EOSC with a **critical mass of computing and storage resources** in such a way that resources can be seamlessly exploited via **federation services**.

## Developing Capability

Promoting EOSC adoption by the **research communities** by expanding and building **knowledge on common interfaces, standards and best practices**.

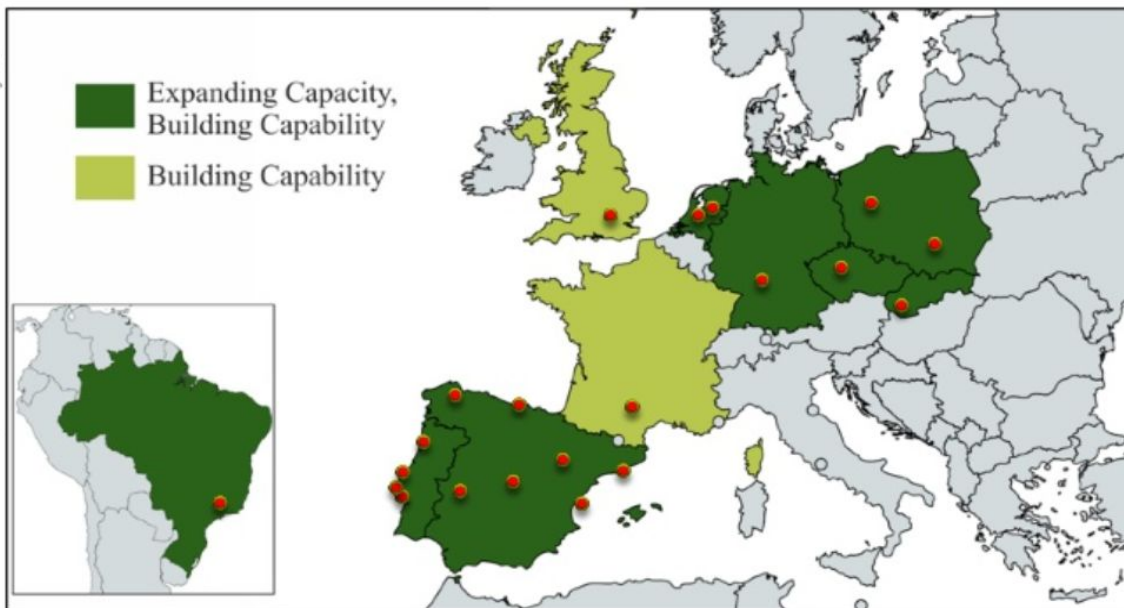
## Software Quality as a Service

Increasing EOSC adoption and facilitating the **on-boarding** of providers.

# EOSC Synergy - Project Consortium



LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



UNIVERSITAT POLITÈCNICA DE VALÈNCIA



Barcelona Supercomputing Center  
Centro Nacional de Supercomputación

# EOSC Synergy - Our Collaboration

## Work Package 5 - Alignment of National Policies and Practices



Harmonization and development of policies and best practices for resource provisioning and allocation compatible with EOSC in the participating countries.



- Landscape Analysis;
- Gap Analysis and Recommendations;
- National and International Liaisons.

Inquérito  
infraestruturas

**Thank you for your attention**

1. e-infras
2. Dados de investigação
  - a. FCT
  - b. País
  - c. Mundo
3. EOSC
4. **EOSC-Synergy**

1. e-infras
2. Dados de investigação
  - a. FCT
  - b. País
  - c. Mundo
3. EOSC
4. EOSC-Synergy
5. **Forum Infraestruturas**



## Contactos e/ou Agradecimentos *(opcional)*