



Tecnologia para  
o conhecimento

# EOSC: O que é, desenvolvimentos recentes e o papel de Portugal

João Mendes Moreira



2E13-6710-9928



0000-0002-9081-2728

28.11.2025



# Síntese

- Visão
- E que é o EOSC?
- Desenvolvimentos recentes
  - Lançamento da federação EOSC
  - Interoperabilidade e Arquitetura Técnica
  - Projetos e Capacitação
  - EOSC NODEs
- O Papel da FCT|FCCN



# Visão



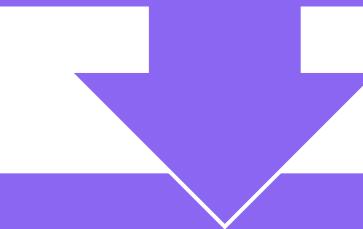
Estabelecer um sistema que permita aos investigadores Europeus **armazenar, partilhar, processar, analisar e reutilizar** resultados de investigação FAIR — como **dados de investigação, publicações e software** — entre disciplinas e fronteiras.





# Missão e Benefícios EOSC

**Missão:** tornar dados científicos  
acessíveis e reutilizáveis.



## Benefícios:

Acesso  
simplificado a  
dados e  
serviços.

Colaboração  
transdisciplinar.

Apoio à  
inovação e à  
ciência aberta.





Tecnologia para  
o conhecimento

# Desenvolvimentos recentes

---





# Lançamento da Federação EOSC

- **Novembro de 2025:** implementação de um modelo federado para a integração de serviços e dados.
- **Manual da Federação EOSC:** documento orientativo para adesão.
- **Meta:** possibilitar que países e organizações se tornem nós federados.
- **Vantagens:** governança definida e garantia de interoperabilidade.





# Lançamento da Federação EOSC



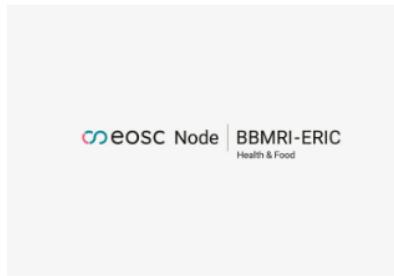


# Federação EOSC – Lançamento NOS

## National EOSC Nodes



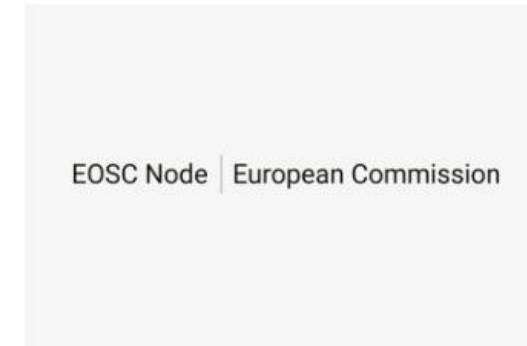
## Thematic EOSC Nodes



## e-Infrastructure EOSC Nodes

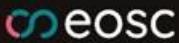


## EOSC Infrastructure Node

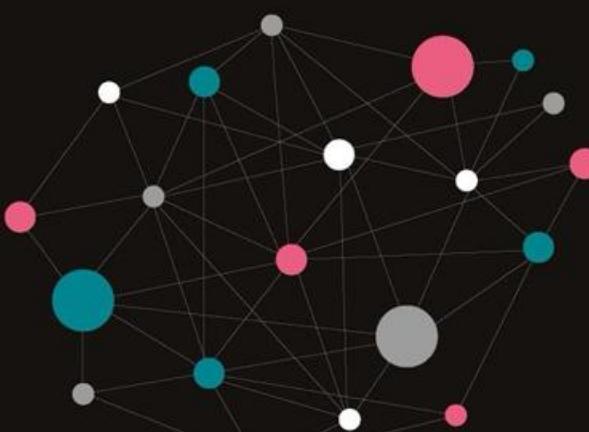




# Federação EOSC – Manual

 | Tripartite

# EOSC Federation Handbook



DOI 10.5281/zenodo.14999577

**Contents**

1	PURPOSE, EXPECTED OUTCOMES AND MEASURES OF SUCCESS	7
1.1	Purpose	7
1.2	Expected outcomes and measures of success	8
2	GOVERNANCE	10
2.1	Structure of the current (transitional) EOSC Federation governance	10
2.2	Responsibilities of the EOSC Federation bodies	12
3	OPERATIONAL STRUCTURE AND RESPONSIBILITIES	14
3.1	Operational tasks across the Federation	14
3.2	EOSC Nodes	15
3.2.1	Application process to become an EOSC Node	15
3.2.2	Operations	15
3.2.3	Roles for EOSC Nodes	16
3.2.4	Proposed timeline for an operational EOSC Federation	17
4	EOSC FEDERATION AND NODE ARCHITECTURE	18
4.1	EOSC Federation Architecture	18
4.2	EOSC Node Architecture	19
4.2.1	Node Core Capabilities	21
4.2.2	Node Resources	22
4.2.2.1	Node Semantic Capabilities	22
4.2.2.2	Node Exchange	23
4.3	EOSC Federating Capabilities	23
4.3.1	Federating Capabilities in the build up phase of the EOSC Federation	25
4.3.2	Extending the initial set of Federating Capabilities	26
4.4	The EOSC Interoperability Framework	26
4.5	EOSC Node Technical Operations	27
4.6	EOSC Node Cybersecurity	28
5	RESEARCH RESOURCES	30
5.1	Research Resources Categories	30
5.2	Research Resources	31
5.2.1	Research publications	31
5.2.2	Research data sources	31
5.2.2.1	FAIR data repositories	32
5.2.2.2	Research databases	33
5.2.3	Research Data	34
5.2.4	Research Software	34
5.2.5	Research Services	35
5.2.6	Research Training	36
5.2.6.1	Inclusion criteria for training resources	36
5.3	Research Interoperability guidelines	36
5.4	Scientific Competence Centres	37
5.5	Scientific Resource and Service Discovery	37
6	JOINING THE EOSC FEDERATION	38
6.1	Build up phase of the EOSC Federation	38
6.2	Applying to become an EOSC Node	38
6.3	Establishing an EOSC Node	39
6.4	Legal and organisational steps	40
6.5	Policies and procedural steps	40
6.6	Technical steps to set up an EOSC Node	40
7	ANNEX 1 - EOSC EU NODE FEDERATING CAPABILITIES	43
8	ANNEX 2 - RECOMMENDED GUIDELINES	50
9	ANNEX 3 - DEFINITIONS	51
10	HOW THE HANDBOOK WAS WRITTEN	53

The EOSC Federation Handbook has been written by a group of **volunteers**, who have been working together since March 2024 with the support of the EOSC Focus project.

The Handbook provides an overview of the organisational and operational structure, and technical characteristics, of the EOSC Federation

DOI [10.5281/zenodo.14999577](https://doi.org/10.5281/zenodo.14999577)

EOSC Federation Handbook

March 27, 2025

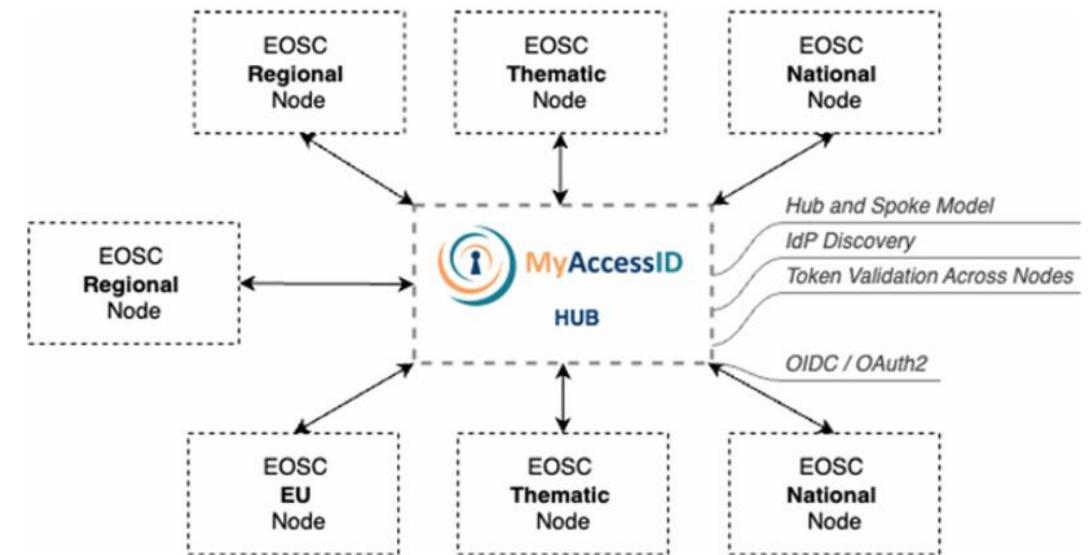
CC-BY-4.0 licence

**fccn** Serviços digitais para a Ciência e a Tecnologia

**fct** Fundação para a Ciência e a Tecnologia

# Interoperabilidade e Arquitetura Técnica

- AAI Architecture: autenticação e autorização seguras.
- Harmonização de APIs e metadados.
- Aplicação dos princípios FAIR.
- Desafios: integração entre disciplinas e segurança.





 eosc | Federation

# Open calls to grow the EOSC Federation

 eosc | Tripartite

Enrolment call of EOSC  
Tripartite Governance

 eosc | GRAVITY

Funded by  
the European Union

Preparatory grants  
under EOSC Gravity

 eosc | GRAVITY

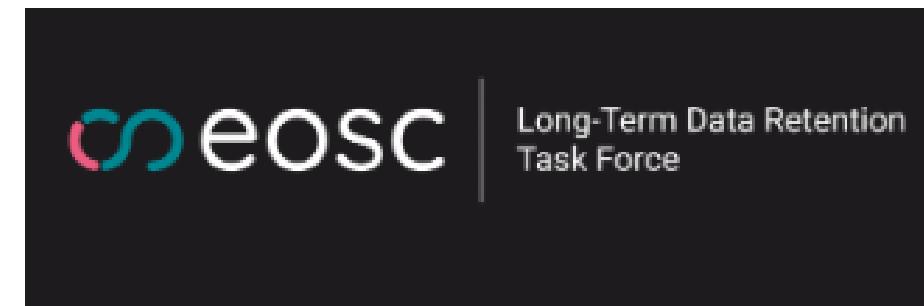
Funded by  
the European Union

Inter-project grants  
under EOSC Gravity

Submission deadline: 18 February 2026 (17:00 CET)



# EOSC – Task Forces





Tecnologia para  
o conhecimento

# EOSC NODEs

---

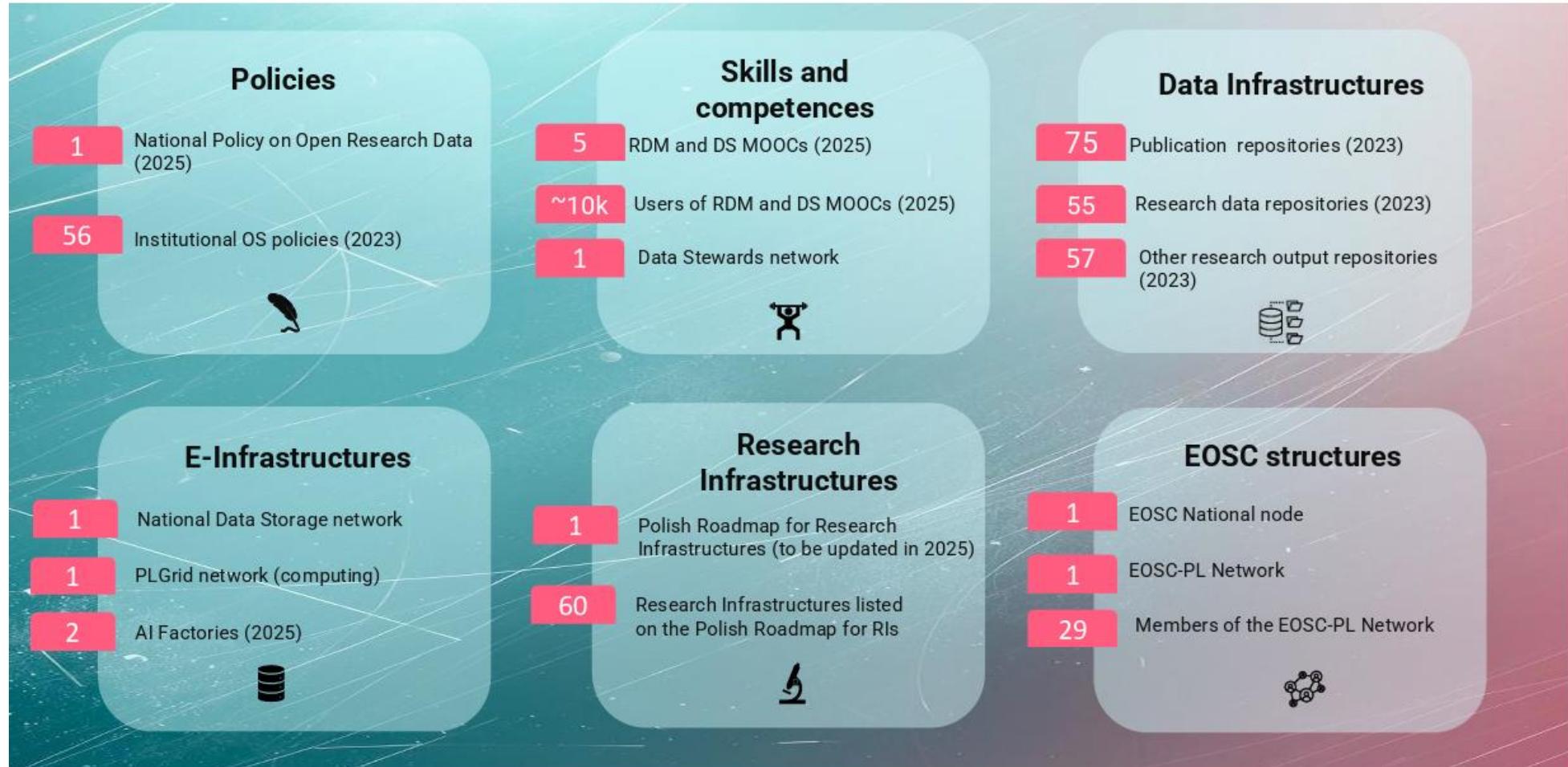




# Estado de arte NODEs – Polónia 1

eosC Node | Poland

## Poland at a glance





# Estado de arte NODEs – Polónia 2

eosC Node | Poland

## EOSC Node Poland / Overview

### Objectives:

1

#### Integration

Bring resources into the EOSC Federation

2

#### Standards

Ensure compliance with FAIR principles across all integrated services

4

#### Interoperability

Enable open science interoperability across platforms and services

3

#### Access

Provide federated (AAI) for a seamless user experience

5

#### Impact

Facilitate cross-border collaboration and efficient resource use for researchers

### Governance:

A coordinated federation:

- light central steering
- strong community execution

### Structure:

- Defined roles and responsibilities
- Steering group
- Regular weekly meetings
- Ad hoc Working Groups

### Use cases:

- Implementation of federating capabilities
- Designing and implementing research workflows based on resources across Federation

### Node's entry point:

- Discovery platform
- Federated AAI
- FAIR-by-design working space for researchers



UNIVERSITY OF WARSAW  
Interdisciplinary Centre for Mathematical  
and Computational Modelling  
icm.edu.pl



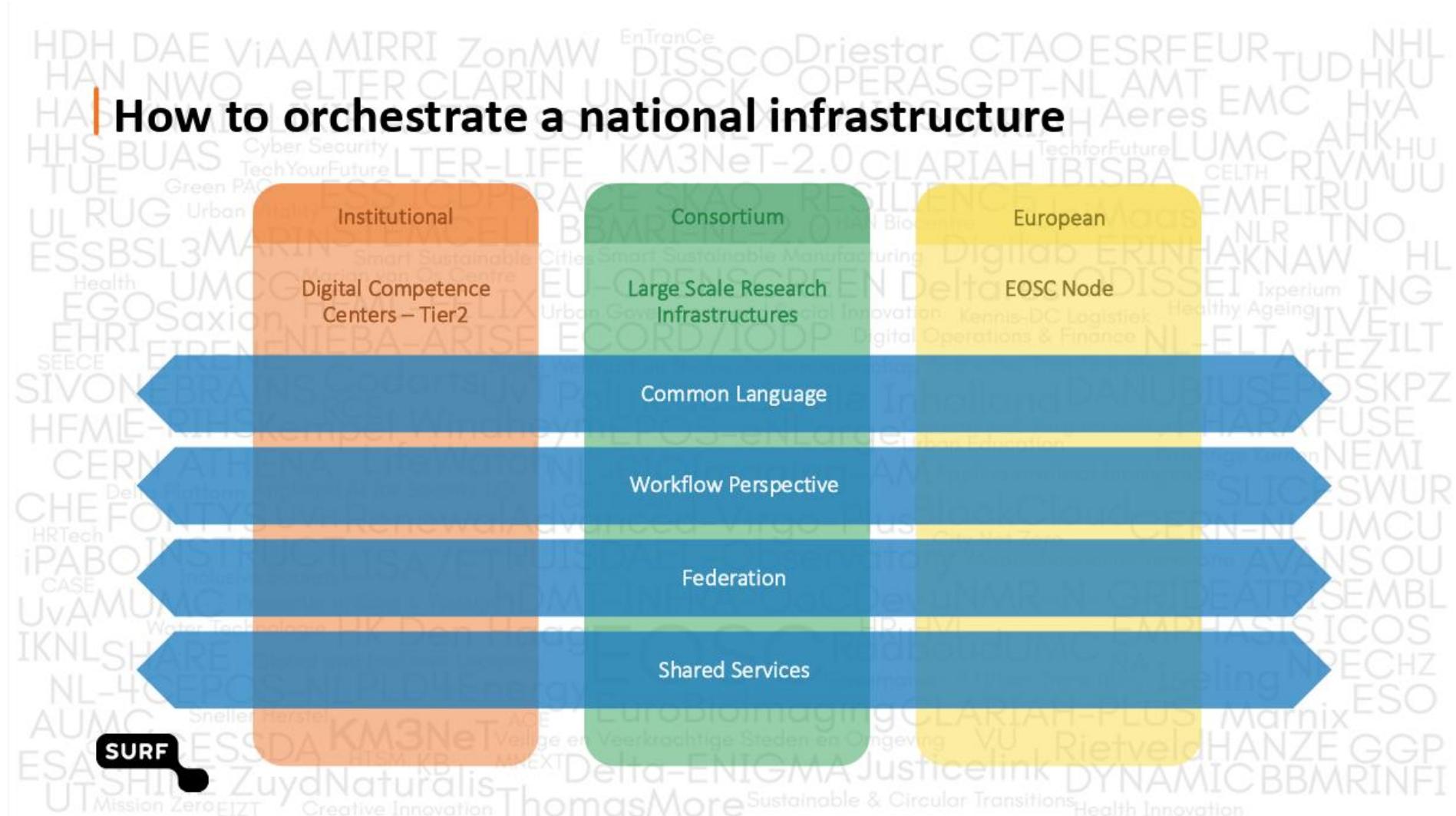
Institute of Oceanology  
Polish Academy of Sciences



NATIONAL SCIENCE CENTRE  
POLAND

3

# Estado de arte NODEs – Holanda 1





# Estado de arte NODEs – Holanda 2

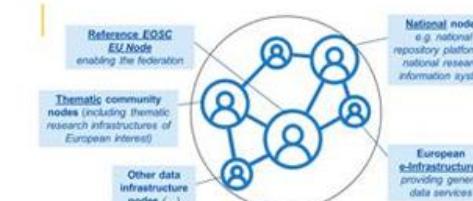


Ambition: Supporting research workflows by connecting data and services through EOSC nodes

European Research Infrastructure Consortium



European Data Spaces



EOSC Node | The Netherlands



Dutch Quantum Computer

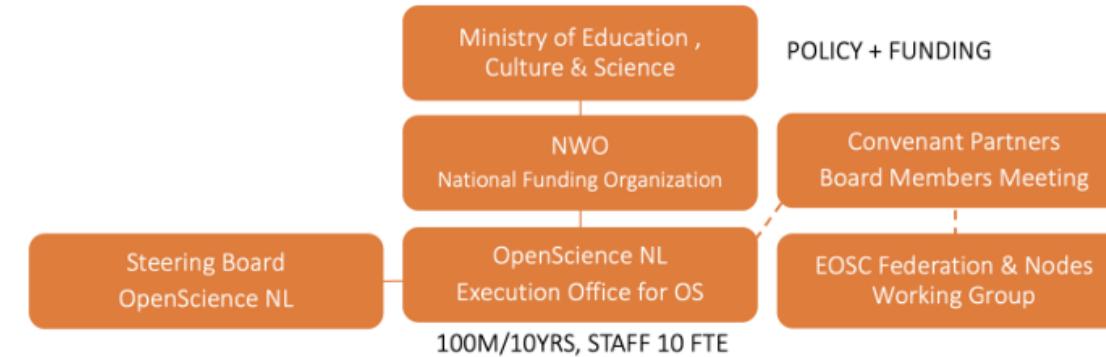


Dutch AI Factory

17

# Estado de arte NODEs – Holanda 3

## National WG EOSC nodes



- Explore scenarios for defining and setting up one or more EOSC pilot node(s)
- Develop a sustainable business model for the node(s)
- Explore which governance model fits the preferred scenarios
- Give advice to the Dutch representative(s) in the Tripartite Group
- Inform the Board Members Meeting about scenarios and business model.



Tecnologia para  
o conhecimento

# O papel da FCT|FCCN

---



# Participação Nacional



Fundação  
para a Ciência  
e a Tecnologia



## Organização mandatada



Representação dos interesses nacionais e  
coordenação de contribuições.

## Membro



Apoiar a missão da EOSC, aderir à sua governação e  
participar ativamente nas suas atividades.



INSTITUTO  
UNIVERSITÁRIO  
DE LISBOA

# Linhas de Ação FCT

Representação da  
FCT na parceria  
EOSC:

Foco nas funções de representação.

A FCT representa os interesses da República Portuguesa na EOSC-A, sendo que o faz através da FCT|FCCN.

A FCT enquanto  
Ponto de Contacto  
Nacional:

FCT deve assegurar o papel de Ponto de Contacto Nacional.

Aggrega informação proveniente do EOSC-A e da Comissão Europeia, de forma a servir a comunidade nacional.

Papel na  
concretização da  
parceria EOSC:

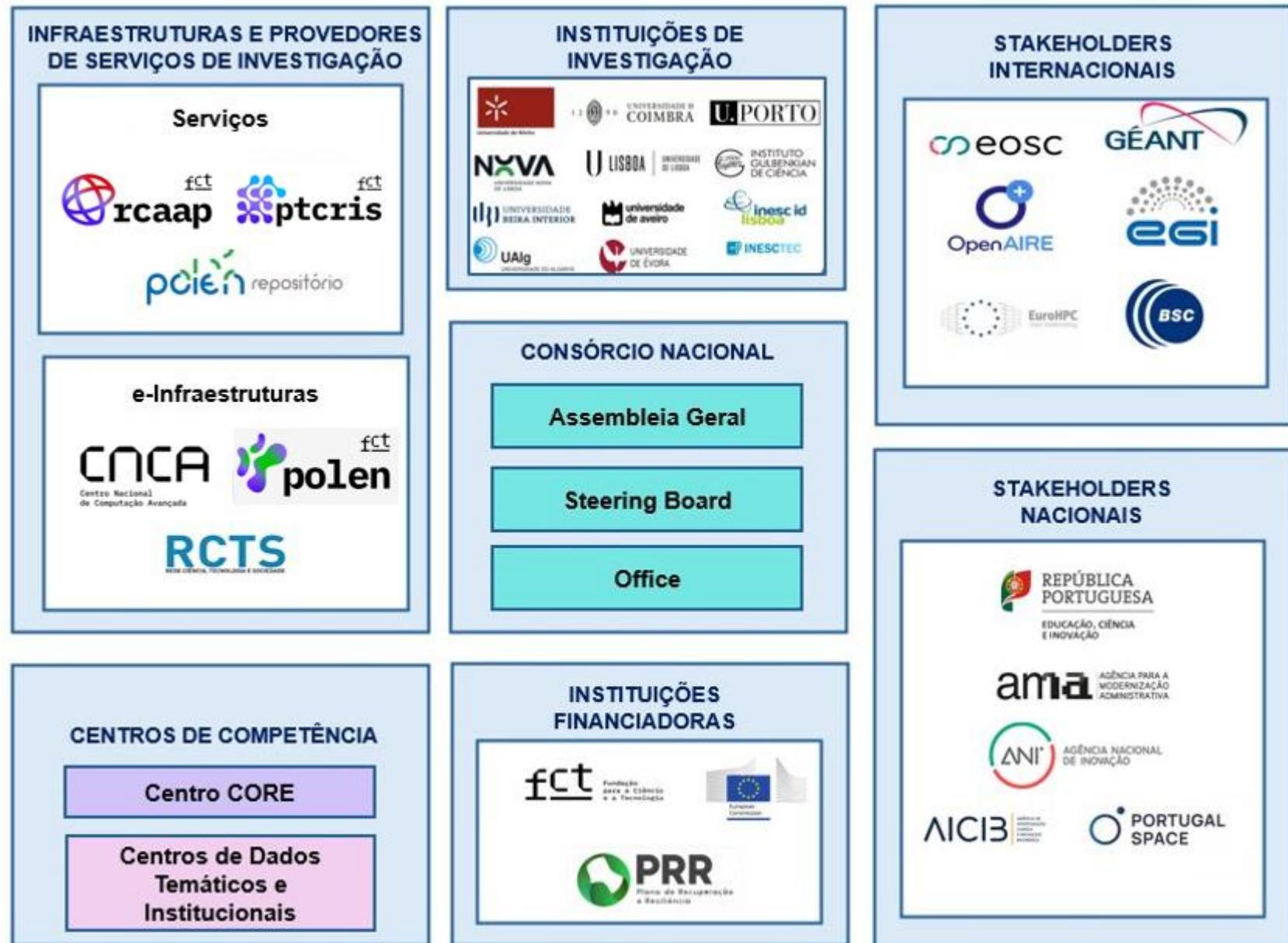
Coordenação de recursos existentes nas estruturas e redes nacionais

Estabelecer ligações com centros de competência

Suportar execução de atividades



# Potencial Governação Futura





Tecnologia para  
o conhecimento

# Obrigado.

Para informação completa sobre todos os serviços, consultar  
**fccn.pt** e **catálogo serviços**

[eosc@fccn.pt](mailto:eosc@fccn.pt)