

# Governance and Financial Schemes for the EOSC

## *Report from the OSPP*

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# Outline

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- EOSC
  - Policy context
  - New HLEG on EOSC
  - EOSC Summit
  - WP 2018-2020
- Open Science Policy Platform
  - Mandate, Composition, Working Groups, Relationships with other groups
- OSPP EOSC Working Group
  - Main highlights from the report on the Governance and Financial Schemes
  - Main links to the EOSC Summit input papers

# EOSC: The Policy Context

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# EU Open Science Policy: 5 Priority Areas

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1. Foster open science
2. Remove barriers to open science
3. Develop research & infrastructure for open science
4. Mainstream open science access to research results
5. Embed open science in society

# European Open Science Cloud

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Federated, globally accessible, multidisciplinary environment  
where researchers, innovators, companies and citizens  
can publish, find, use and reuse  
each other's data, tools, publications and other outputs  
for research, innovation and educational purposes

*From OSPP EOSC WG report, adapted from HLEG on EOSC definition*

# COM 2016/178 - European Cloud Initiative: 3 pillars (19 April 2016)

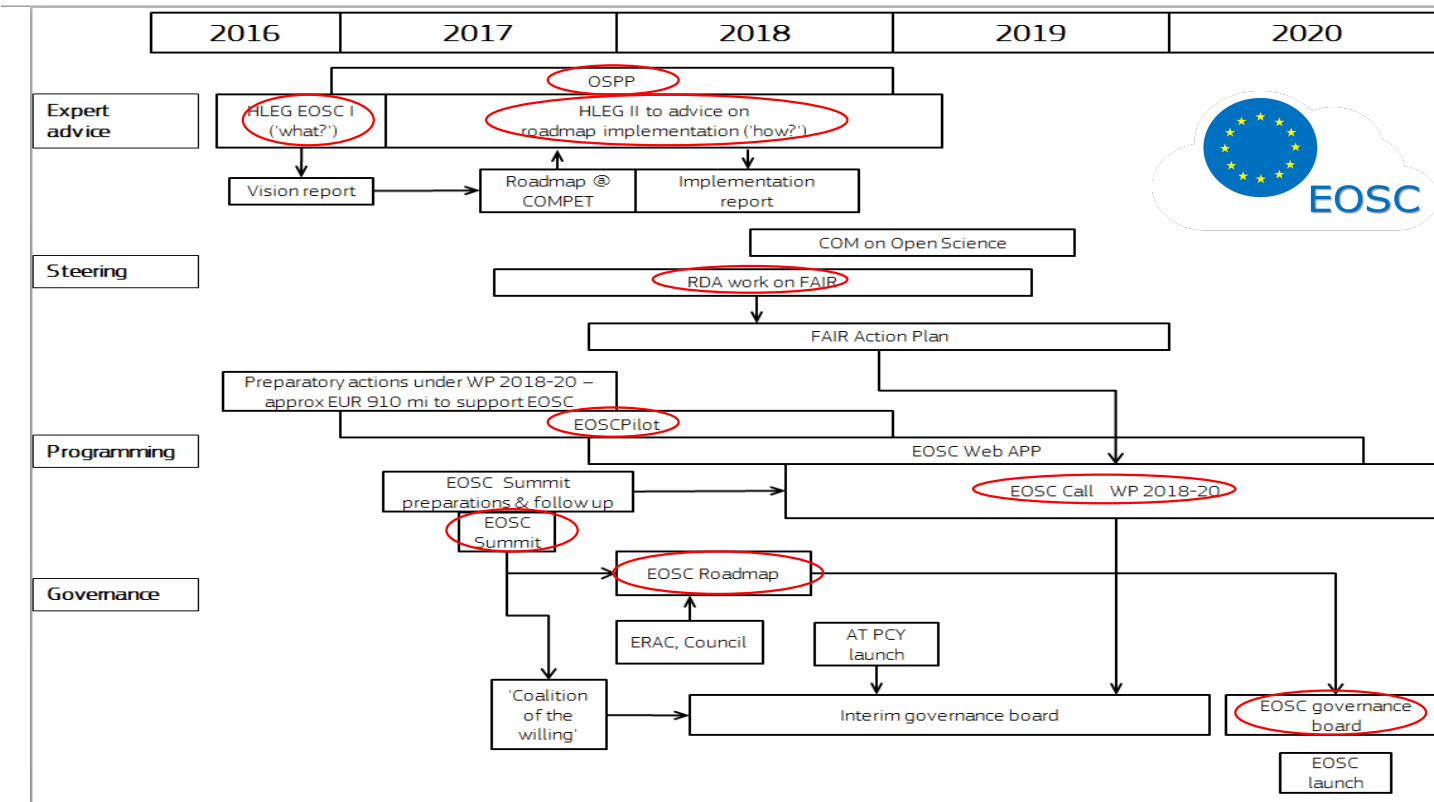
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- European Open Science Cloud (EOSC)
  - Integration and consolidation of e-infrastructures
  - Federation of existing research infrastructures and scientific clouds
  - Development of cloud-based services for Open Science
  - Connection of ESFRIs to the EOSC
- European Data Infrastructure (EDI)
  - Development and deployment of large-scale European HPC, data and network infrastructure
- Widening access and building trust
  - Government, SMEs, industry, citizens

<https://ec.europa.eu/digital-single-market/en/%20european-cloud-initiative>

*Slide courtesy of EC DG RTD A.6*

# A Multi-Stakeholder Approach



Slide courtesy of EC DG RTD A.6

# Commission High Level Expert Group European Open Science Cloud (HLEG EOSC 2017-18)

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- Launch on 12 June 2017. First meeting: end of June 2017
- Mission: advise on practical implementation (governance, funding, legal, organisational aspects)
- Chair: Silvana Muscella
- e-IRG delegate **Toivo Räm** is member of this group
- 10 members – 8 EU and 2 non-EU observers (USA/AUS)
- Soon to be published in the Commission transparency register
- 4 meetings, (co-located) workshop(s), several external presentations, extensive community engagement
- Final report expected by end of 2018

<https://ec.europa.eu/research/openscience/index.cfm?pg=open-science-cloud-hleg>

*Slide courtesy of EC DG RTD A.6*

# EOSC Summit: 12 June 2017



- 5 sessions
  1. Data culture, data stewardship, practical and policy tools
  2. Adoption and implementation of FAIR data principles
  3. Research data infrastructures and services
  4. Sustainable funding and governance
  5. High-performance computing, big data & super-connectivity
- Participation
  - In person: around 120, invitation-only
  - Remote:
    - Streaming: <https://webcast.ec.europa.eu/european-open-science-cloud-summit>
    - Follow/contribute via Twitter: #EOSCSummit

*Slide courtesy of EC DG RTD A.6*

# EOSC Summit: 5 Input Papers



## SESSION 1: DATA CULTURE, DATA STEWARDSHIP, PRACTICAL AND POLICY TOOLS

### INPUT PAPER

**European Open Science Cloud (EOSC) Summit**  
12 June 2017 | Charlemagne Building | Brussels



## SESSION 2: ADOPTION AND IMPLEMENTATION OF FAIR DATA PRINCIPLES

### INPUT PAPER

**European Open Science Cloud (EOSC) Summit**  
12 June 2017 | Charlemagne Building | Brussels



## SESSION 3: RESEARCH DATA INFRASTRUCTURES AND SERVICES

### INPUT PAPER

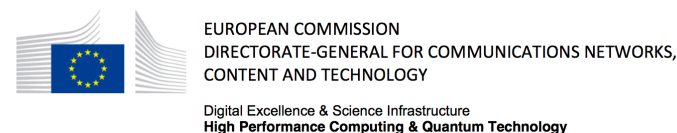
**European Open Science Cloud (EOSC) Summit**  
12 June 2017 | Charlemagne Building | Brussels



## SESSION 4: SUSTAINABLE FUNDING & GOVERNANCE

### INPUT PAPER

**European Open Science Cloud (EOSC) Summit**  
12 June 2017 | Charlemagne Building | Brussels



## SESSION 5: HIGH-PERFORMANCE COMPUTING, BIG DATA AND SUPER CONNECTIVITY

### INPUT PAPER

**European Open Science Cloud (EOSC) Summit**  
12 June 2017 | Charlemagne Building | Brussels

to be published on the event website (likely today)

# Work Programme: 2018-2020

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- One or more new topics for EOSC very probably included in next WP
  - Additional funding may be provided by the EC for the EOSC, especially to support setup of the governance, federation, coordination activities across Member States and others
- Options for these actions, with different sets of instruments, under discussion
- RI Programme Committee
  - Initially planned mid-June postponed to last week of June to allow fine tuning of EOSC related actions with outcome of EOSC Summit
- **e-IRG activities** will be taken into account within the governance framework

*Slide courtesy of EC DG RTD A.6*

# What is the OSPP (Open Science Policy Platform)

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# Open Science Policy Platform (OSPP)

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- High-Level Advisory Group
- Members
  - Selected via an open call
  - Representing organisations from pre-defined stakeholder categories
- Announced 26<sup>th</sup> May 2016
- Start of operation: Sep 2016
  - Held 3 face-2-face meetings
  - Next meeting: 13 October 2017
- 25 members from the following stakeholder categories
  1. Universities
  2. Research organisations
  3. Academies / learned societies
  4. Funding organisations
  5. Citizen Science organisation
  6. Publishers
  7. Open Science Platforms
  8. Libraries
- List of members
  - <https://ec.europa.eu/research/openscienc e/index.cfm?pg=open-science-policy-platform>

# OSPP Mandate

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- **Advise the Commission** on open science policy
- Function as a **dynamic, stakeholder-driven mechanism**
- Support **policy formulation** by providing recommendations
- Support **policy implementation** (best practices, guidelines, uptake)

# Open Science: Priorities for a System Change

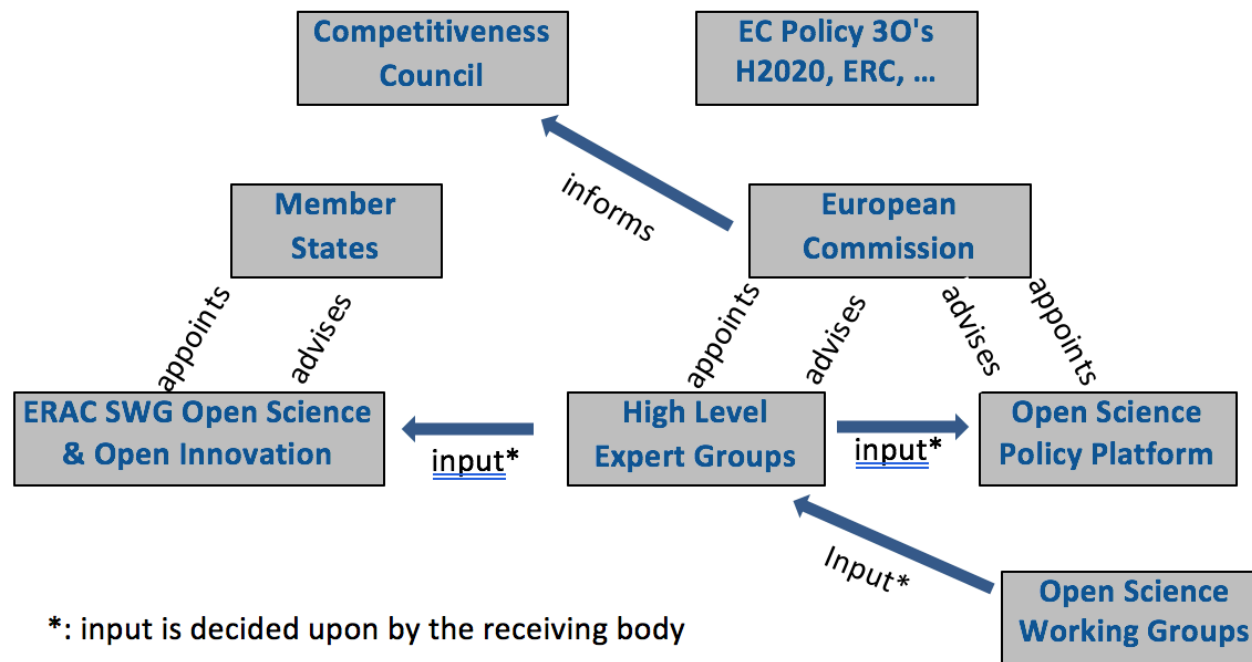
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1. Reward system \*\*
2. Measuring quality and impact: altmetrics \*\*
3. Changing business models for publishing
4. FAIR open data
5. European Open Science Cloud \*
6. Research integrity
7. Citizen Science \*
8. Open education and skills \*\*

\* active OSPP Working Group

\*\* newly created OSPP Working Group

# Relationship between OSPP, HLEGs and EC



*Slide courtesy of EC DG RTD A.6*

# OSPP EOSC Working Group: Composition

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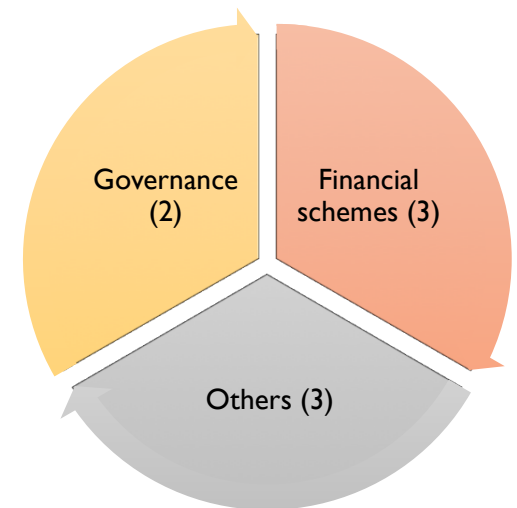
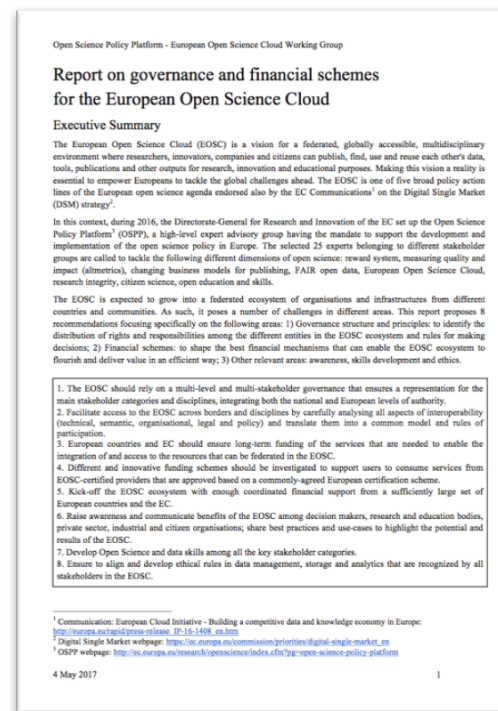
- Internal WG part of the OSPP
- Composed of volunteering OSPP members
- It can invite external experts
- Coordinating group
  - Sergio Andreozzi (Chair)
  - Kristiina Hormia-Poutanen (Co-Chair)
  - John Wood (Champion)
- Start: Jan 2017
- Members (from OSPP)
  1. Sergio Andreozzi
  2. Kristiina Hormia-Poutanen
  3. John Wood
  4. Paul Ayris
  5. Steve Cotter
  6. Natalia Manola
  7. Eva Méndez
  8. Karel Luyben
  9. Christophe Rossel
  10. Michela Vignoli

# OSPP EOSC Report

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# First output of the OSPP EOSC WG

- **Governance structure and principles**
  - to identify the distribution of rights and responsibilities among the different entities in the EOSC ecosystem and rules for making decisions
- **Financial schemes**
  - to shape the best financial mechanisms that can enable the EOSC ecosystem to flourish and deliver value in an efficient way



Latest version: 5 May 2017  
Adopted by the OSPP and presented  
at the Competitiveness Council

# Recommendation I

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*The EOSC should rely on  
**a multi-level and multi-stakeholder governance**  
that ensures a representation  
for the main stakeholder categories and disciplines,  
integrating both the national and European  
levels of authority*

# Recommendation I: Additional Info

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- EOSC:
  - Set of interrelated systems, federation of commons
- Multi-stakeholder
  - RIs (including e-Infras), researchers, policy makers, funders, private sector, ...
- Multi-level
  - Integrating from local to global
  - National + European levels
- Not a unitary system
  - Different governance structures for different functional areas
- Incremental approach

# A Little Digression:

## Internet Governance - Main Functional Areas

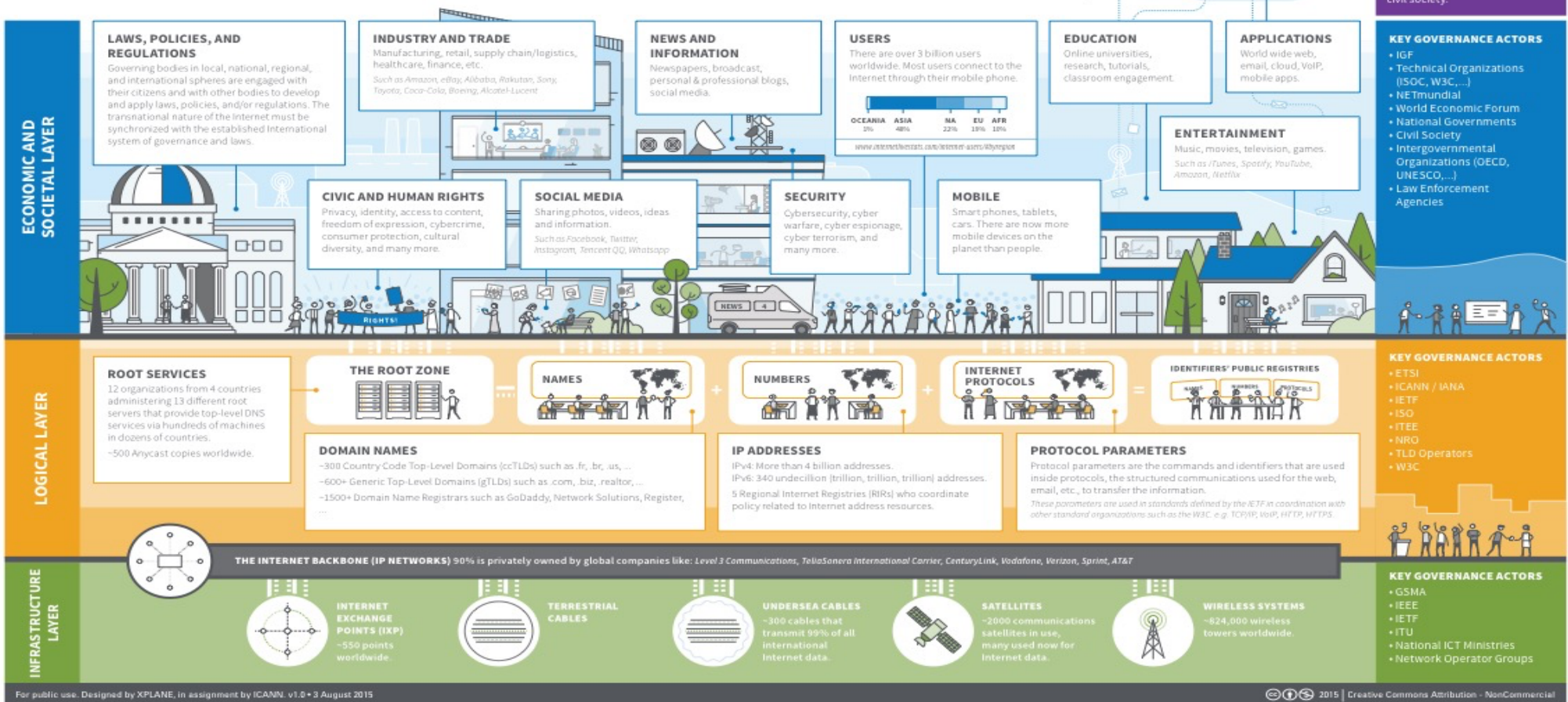
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1. Control of critical Internet resources
  - Globally unique virtual identifiers
  - DNS
2. Setting Internet standards
  - Common rules/protocols to ensure global interop.
3. Access and interconnection coordination
  - How various networks conjoin to collectively form the global Internet
  - Rules to regulate access (e.g. net neutrality)
4. Cyber-security governance
  - Securing the essential shared infrastructures (e.g. routing, authentication systems)
  - Responding to Internet security problems (e.g. DDoS)
5. The policy role of information intermediaries
  - Formulation of subscriber privacy rules
  - Responding to government censorship
6. Architecture-based IPR enforcement
  - Copyright enforcement
  - IPR embedded within Internet governance infrastructure

<https://www.cigionline.org/publications/multi-stakeholderism-anatomy-inchoate-global-institution>

# THE THREE LAYERS OF DIGITAL GOVERNANCE

No one person, government, organization, or company governs the digital infrastructure, economy, or society. Digital governance is achieved through the collaborations of Multistakeholder experts acting through polycentric communities, institutions, and platforms across national, regional, and global spheres. Digital Governance may be stratified into three layers to address infrastructure, economic, and societal issues with solutions. For a map of Digital Governance Issues and Solutions across all three layers, visit <https://map.netmundial.org>



# EOSCpilot contribution on Governance

- Established a Governance Development Forum (EGDF)
  - Platform for information, dialogue and development of the EOSC governance
  - Join at: <https://eoscpiilot.eu/about/governance>
- Developing an EOSC Governance Framework



## Notes from the EOSCpilot Governance Development Forum in Helsinki, 9 May 2017

### Introduction

Per Oster, EOSCpilot WP2 leader, CSC – IT Center for Science welcomed the participants and explained the main aim of the EOSCpilot Governance Development Forum (EGDF), which is to enable stakeholders to contribute to the European Open Science Cloud (EOSC) governance development. He highlighted in particular the science cases and interoperability as motivations for EOSC and EOSCpilot – there are national facilities and resources that need to be visible and used on the European level.

This EGDF “pop-up workshop”, organized in conjunction with the 6th ERIC network meeting, focused specifically on research infrastructure’s needs and expectations on EOSC. Two panels facilitated the discussion. The panelists represented a number of research infrastructures from various research domains.

Per opened up for a virtual follow-up meeting in the fall to continue the discussion on this topic. More material and input from stakeholders to the EOSC governance development can be found on the website: [eoscpiilot.eu](https://eoscpiilot.eu) (click “about” to find the EGDF space).

### First Panel discussion: Research Infrastructures expectations on the European Open Science Cloud

Panel chair: Per Oster, EOSCpilot WP2 leader, CSC – IT Center for Science  
Panelists: Francisca de Jong, CLARIN ERIC, Christine Kubiak, ECRIN ERIC, Niklas Blomberg, Elvir ERIC, Volker Röhling, ECCSEL, Francisco Colomer, JIVE, Sanna Sorvari, ACTRIS ESFRI

#### Panel topics

- Which kind of services would you expect the EOSC to provide?
- From the point of view of the users of your infrastructure / researchers that you Research Infrastructure represents, which kind of benefits do you expect EOSC providing them?
- What is characteristic of your Research Infrastructure that should be taken into account when designing EOSC?

Per Oster initiated the discussion by mentioning that the scope of EOSC is still quite unclear, and that research infrastructures’ concrete expectations on EOSC – what issues EOSC can solve, and what services to provide – will play an important role in helping defining what EOSC should become.

Francisco Colomer, JIVE, described that there is a transition going on in their research infrastructure from developing everything themselves for the astronomy community (tools etc.), to start outsourcing part of the work to be able to focus on their core services. EOSC could share part of this work, as cloud services for the astronomy community are much needed.

For the life science domain, the main benefit of EOSC is expertise, according to Niklas Blomberg, Elvir ERIC. More of the non-technical expertise is needed, for instance in developing ways to achieve mutual recognition, by simple standards, codes of conduct etc., with a set of shared basic rules. EOSC could be useful for this kind of work.

Sanna Sorvari, ACTRIS ESFRI, pointed out that they are interested in checking solutions (technical and non-technical) outside their own community, for instance on interoperability and workflows of data, where they can benefit a lot from collaborating with e-infrastructures. EOSC could help in getting

The European Open Science Cloud  
for Research Pilot Project  
[www.eoscpiilot.eu](https://eoscpiilot.eu)

[https://eoscpiilot.eu/sites/default/files/eoscpiilot\\_governance\\_development\\_forum\\_helsinki\\_9.5.2017.pdf](https://eoscpiilot.eu/sites/default/files/eoscpiilot_governance_development_forum_helsinki_9.5.2017.pdf)

## Recommendation 2

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Facilitate **access** to the EOSC  
**across borders and disciplines**  
by carefully analysing all aspects of **interoperability**  
(technical, semantic, organisational, legal and policy)  
and translate them into  
a **common model** and **rules of participation**

# Some references on Governance in the EOSC Summit input papers

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**[Common Governance framework]:** The EOSC governance framework will ensure accountability and transparency. It will be open by design and based on lessons learnt from successful models of federation and interoperability used in Europe and abroad. It will be co-designed and stakeholder driven;

**[Governance Board]:** The EOSC will need a governance board to coordinate joint efforts among all EOSC stakeholders endorsing these statements, and to reach practical agreements for implementation of the EOSC Roadmap. Initially, it will have an advisory role into the EC's decisions concerning the programming and towards the setting up of a fully-fledged governance model, by 2020. It will make best use of available outcomes of past and current EU funded projects (e.g. EOSCpilot, eInfraCentral, EINFRA-12 call) and independent expert studies;

EOSC Summit, Input paper no. 4

## Recommendation 3

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European countries and EC should ensure **long-term funding** of the **services** that are needed to **enable** the **integration of** and **access to** the resources that can be federated in the EOSC

# Recommendation 3: Additional info

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- Federation of systems: need shared services to work together
- Identify those services
- Fund them for the long-term (no project lifecycles)
- Consider what is available and align
- Evaluate and ensure quality

**[Implementation]:** The EOSC will be structured around nodes of pan-European relevance to be selected on the basis of criteria - to be defined by stakeholder driven governance mechanisms - based on organisational readiness and technical capacity to deliver EOSC main functionalities, including, provision of core common services, certification activities, joint-procurement initiatives, definition of Service Level Agreements (SLAs), identity provisioning and management, common cataloguing data and computing services.

EOSC Summit, Input paper no. 3

## Recommendation 4

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**Different and innovative funding schemes**  
should be investigated  
**to support users to consume services**  
from **EOSC-certified providers**  
that are approved based on  
a commonly-agreed European certification scheme

# Recommendation 4: Additional info

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- Different types of resources (e.g. rival vs non rival)
- Different business models to be explored
- Need incentives to open up infrastructures, data and services
- EOSC as vehicle to support trans-national/trans-discipline procurement

**[Funding]:** A co-funding mechanism for the EOSC will support joint working, pooling and mutualising resources, and building capacity for European research data. It will pilot innovative business models and support an integrated data and service platform for European research;

EOSC Summit, Input paper no. 4

# Conclusion

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- EOSC
  - From vision to implementation at a faster pace
- Governance
  - Multi-stakeholder, multi-level, not a unitary system
  - Roadmap in Autumn -> interim gov. board in 2018-2020 -> operational from 2020
- Financial schemes
  - Ensure quality of shared (core) services for the long-term
  - Develop innovative business models to open up data and services, to build capacity
- Engage to shape the future EOSC
  - Liaise with OSPP members, follow the EOSC Summit, engage with HLEG on EOSC, participate in EOSCpilot activities (e.g. EOSC Governance Development Forum), ...

# Thank you

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 [@digitalities](https://twitter.com/digitalities)