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**The experience from the EOSC HLEG  
and the EOSCpilot open consultation**

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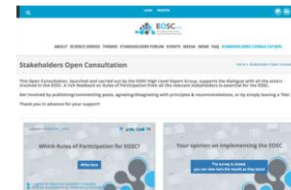
*Chair, 2<sup>nd</sup> EOSC HLEG (2017-2018)*

**EOSC**pilot

The European Open Science  
Cloud for Research Pilot Project

[www.eoscpiot.eu](http://www.eoscpiot.eu)

- The **EOSCpilot.eu project** (closing early 2019) supports the 1st phase of development of the European Open Science Cloud (EOSC). Specific goals:
  - Propose a Governance Framework
  - Develop a total of 15 Science Demonstrators
  - Engage with a broad range of stakeholders
- The **2<sup>nd</sup> EOSC HLEG** (10 members chosen by the EC from 8 EU countries + Australia + the U.S.) received its mandate from the EC (DG RTD) to:
  - Support the Rules of Participation of EOSC
  - Advise the EC on actions around governance & financing aspects
  - Elaborate & take forward stakeholders' agreed conclusions from the EOSC summit
- An **open consultation** on the Rules of Participation, that will support the final report (Nov 2018) has been carried out



EOSC open consultation

**Lessons Learned** that are relevant in the context of RIs are on: Data Quality, QoS, Shared Security model, business model & user experience

# Why is EOSC relevant

- Integrate & consolidate e-Infrastructure platforms
- Federate existing research infrastructures
- Support the development of cloud-based services for Open Science
- Greater knowledge exchange by learning & taking up shared best practices
- Increased sharing of resources among researchers
- Showcase Best Practices for cross-use in Research Infrastructures

How can EOSC Interlink People, Data, Services, Training, Publications, Projects and Organisations? **Opportunities for RIs** to influence

# Data Quality

- A central point of discussion in the interim EOSC report
- Two mechanisms are envisaged as central to the purpose:
  - **FAIR principles** and related to the minimum amount of metadata
  - Related to **peer-review and collective filtering** provided by users.

**38.9%**

**Top 3 recommendation**  
for Implementation


**52.9%**

**strongly agree**



## Open Consultation Feedback:

- “FAIR principles must be used as a mechanism to ensure appropriate data quality”
- “Fit-for-purpose is another good approach: downstream users can decide if they believe the data is useful (e.g. Yelp/TripAdvisor-type reviews provided by users)”



Build a **workforce** able to execute the vision of EOSC ensuring data stewards, data & infrastructure technologists & scientific data experts trained & supported

# Quality of Service (QoS)


- In current activities in the field of EOSC, Quality of Service (QoS) standards around data and the other relevant services are at the centre of technical discussions and are clearly high in the priorities of the governing policy debates.

**Over 25%**  
**Top 3 recommendation**  
for Implementation

## Open Consultation Feedback:

- “Service providers should adhere to the quality guidelines that are being developed within EOSC”
- “Services that provide “Excellence-based access” should operate with transparent expert peer-review”
- “Users must be able to make informed choices based on quality, performance and capacity. It is therefore extremely important to build trust with users”

Vast majority votes  
(52.9 agree, 35.3%  
strongly agree)




Define an **EOSC QoS standards**, separate for all elements of the ecosystem (data, data access services, SW etc) to develop a trustable ecosystem

# Security model

- Another crucial passage that emerged from the work conducted by the EOSC HLEG is that organisations, and therefore RIs, will need to operate within the framework of a **shared security model**, although ultimate legal responsibility on access control will remain with the entity that is legally responsible that the data is properly restricted.

## Open Consultation Feedback:

- “Data security as considered here is fundamentally at odds with the FAIR principles.”
- “The dynamics of changing the data due to new scientific evidence should be considered by data security managers together with FAIR principles.”
- “A strong synergy should also be developed with the cybersecurity competence centres that will operate in Europe from 2019.”



While rapid FAIR roll-out is expected, researchers still look for pragmatic answers to practical problems raised by security issues, which should be addressed at EOSC Governance level

Strong debate  
around FAIR /  
OPEN data





# RIs vs the EOSC business model

- From a policy point of view it will be of particular relevance the final definition of the **business model** that ensures long-term sustainability of the entire EOSC and for this the RIs will have to play a proactive role in the imminent future, as they will be working in a federated environment as far as data consumption from the researchers is concerned.

- Open issue: What is the role of the private sector to access research data as a means of funding the EOSC?

**25.6%**

**Top 3 recommendation**  
for Implementation

**95.3%**

Votes (54.1 agree,  
41.2% strongly agree)



## Open Consultation Feedback:

- “Business model of the EOSC needs to be structured around data, not primarily infrastructure”
- “It is important, though, to ensure that EOSC coins do not encourage the development of several providers offering more or less the exact same services.”
- “A closer analysis is needed of where the operating and updating costs are really needed in order to allow optimal use and exploitation of the data.”

Promote the development of services as independent, interoperable & exchangeable building blocks to foster future accreditation of innovative or efficient alternatives

# User experience

- It is of paramount importance for the future of the RI ecosystem, that the implementation phase that will start with the launch of EOSC, next November 2018, will keep the **researcher at the centre** of the practical details of implementation: Ultimately, the **user experience** that will be delivered will determine the level of success of the entire initiative.


- Incentives & Rewards** for researchers who publish their data.

## Open Consultation Feedback:

- “It is crucial that representatives of (early-career and senior) researchers are actively involved in the development, implementation, and governance of EOSC and are members of the advisory body of EOSC”.
- “The development of a common set of career-enhancing incentives and mechanisms is strongly encouraged, including measures to evaluate open science activities”.
- “Early-career and senior researchers themselves will ultimately be content producers and content users of EOSC and as such need to be consulted as early as possible in the development process of EOSC”.

**48.8%**  
top 3 recommendation  
for Engagement

**55.6%**  
of voters  
strongly agree



Create career-enhancing incentives for researchers who open the science that they produce as indicated in OSPP



# Key findings in EOSCpilot impacting RIs

- Set of **policy recommendations** for the procurement of EOSC services, from the perspective of **Research Infrastructures** (*ref. D3.3-White paper 3*).
- Principles and mechanisms that enable EOSC to provide **research and data interoperability** across research communities including RIs (*ref. D6.2 and D6.6*).
- Competency and capacity framework for assessing services, and providing appropriate skills training (*ref. D7.3*) targeting RIs.

Close cooperation amongst RIs & e-Infrastructures in EOSC will increase the capability of RIs to combine & integrate data & resources in a common & regulated environment: A common **position statement**?

# Concluding remarks

- ❧ RIs are expected to play a **central role in EOSC** where cross-use of Research Infrastructures best practices is demonstrated: An outcome to be closely monitored by **Funding Agencies**.
- ❧ The launch of EOSC in November will leave **room for manoeuvring** around some of the key ingredients defining EOSC: A not-to-be-missed opportunity.
- ❧ Key Success Factor of the EOSC is the **User Experience**, which has to be organically approached, together with the element of access to reputable & trusted data through **peer review**.
- ❧ Flexible **business models** and **rewarding schemes**, to be field-validated.

Thank you, questions?



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# BACKUP MATERIAL



# Overall stats & main results of the open consultation

## Implementation:

- +Top rated:** Define EOSC interoperability standards so that services can be interconnected and federated. The interoperability layer should be as effective as possible and be based on existing open standards. 53.5%
- Least rated:** Resource allocation, particularly for early stage pilots, needs to be dynamic and amenable to change even at short notice. 4.7%

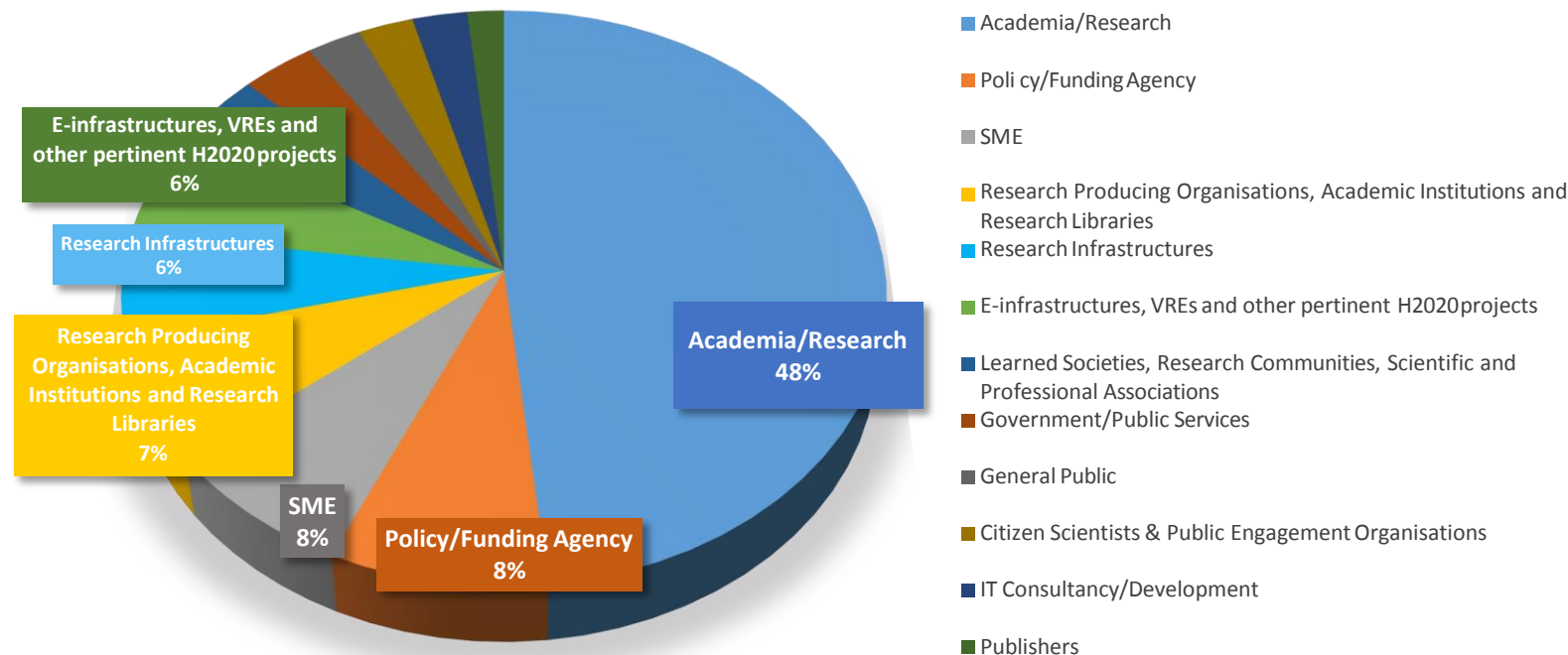
## Engagement:

- +Top rated:** Create career-enhancing incentives for researchers who open the science that they produce as also indicated by the OSPP, e.g., who lodge high quality, curated data in trusted repositories, share data services to their peers, or develop open source software and services, and make the EOSC a portal to those incentives. 50.6%
- Least rated:** EOSC should take international developments into account and should be connectable to international frameworks (e.g. the AOSP ICT Infrastructure Framework). 4.8%

## Steering:

- +Top rated:** Ensure that the WGs and the other advisory structures well cover for the Executive Board the latest scientific and organizational trends and novel ideas for the necessary decisions in those areas. 30.6%
- Least rated:** Harness inputs and pledges of the coalition of doers and support their activities in the context of EOSC implementation. 18.1%

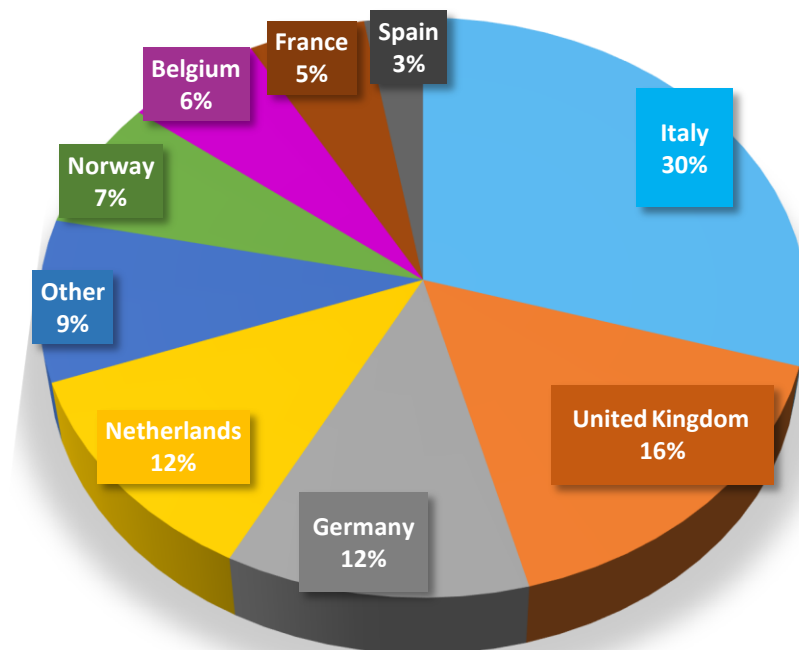
# Overall stats & main results of the open consultation - 1 of 2



As expected, Academia/Research is the most present community. Stakeholders involved include private organisations, e-Infrastructures, projects & individuals



# Overall stats & main results of the open consultation - 2 of 2



European-wide responses – stakeholders from 18 EU Member States

# Follow-up questions

- Q1/ What could be expected from the RIs to contribute to a successful launch of the EOSC?
- Q2/ How could we incentivise engagement from data providers and data consumers in a cross-domain, cross-national scenario?
- ...