

# **European Open Science Cloud Its Community and Governance**

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**OPEN SCIENCE WORKSHOP Ljubljana, 23 January 2020** 

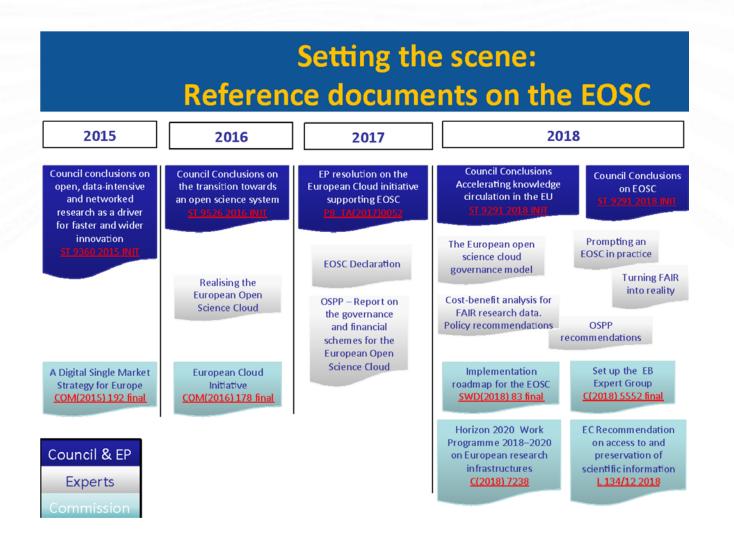




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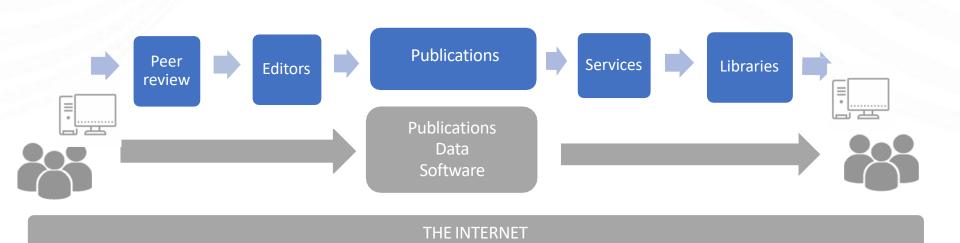
# Four years of EOSC in documents & projects





# The opportunity

Harness the power of the web to connect research communities, collaborate and share quicker and more easily



# **Gutenberg to Berners-Lee science**



# Why the EOSC?

Enable Open Science and the digital transformation of science

Empower 1.7 million European researchers to reap the benefits of data-driven science

Build an open research data commons in Europe widely inclusive of all disciplines and Member States, sustainable in the long-term

Give Europe a global lead in research data management; help developing an internet of FAIR digital objects

Reduce fragmentation by federating existing Research Infrastructures (including e-Infrastructures)

Enable interdisciplinary research to address societal challenges

Enable the Digital Single Market and stimulate the emergence of a competitive EU cloud sector



# What is the EOSC?

A trusted and open virtual environment for the scientific community with seamless access to services (with highest TRLs) addressing the whole research data life cycle:

Federating core services to federate and connect existing or planned RIs Services to make data FAIR, store them, ensure their long-term preservation Services to find, access, combine, analyse and process data Protected, personalized work environment

FAIR competition, no lock-in by individual service providers

Free at the point of use for the researchers

User-oriented and inclusive (across borders and disciplines)

Accessible through a non-exclusive, simple, universal gateway

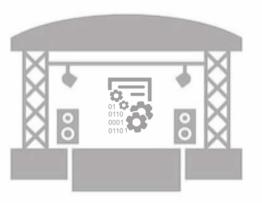
Governed by a minimal set of Rules of Participation

Steered by a governance based on increasing mutuality



# An open festival for science

- Virtual space where science producers and science consumers come together
- Inclusive to people of all backgrounds and cultures
- An open-ended range of content and services
- Quality mark « Data made in Europe »



A platform for European research



# **Grow in stages...**

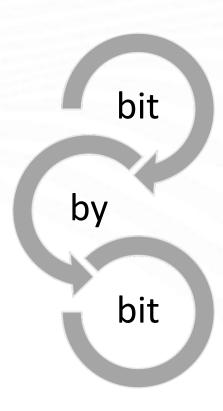
- Underlying infrastructure needs to be developed, owned and operated publicly
- Extend to engage with private initiatives
- All must adhere to Rules and uphold common values
- Be a living, breathing system that adapts to changes





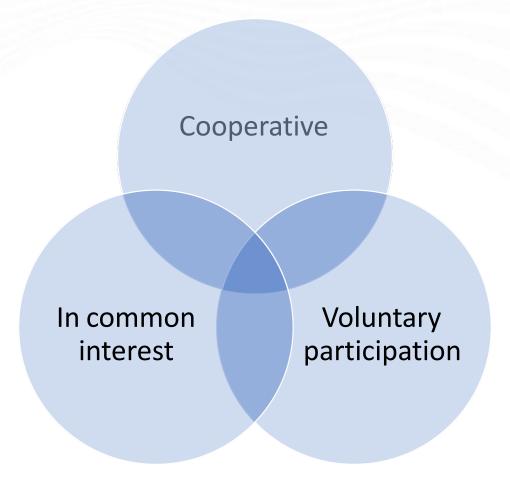
# **Design principles**

- Co-creation
- Research-led
- Community-driven
- Flexible by design
- Extensible / scalable
- Incremental and iterative
- Hands-on and participatory
- Continuous engagement, consultation & user testing





# **Driving principles for implementation**



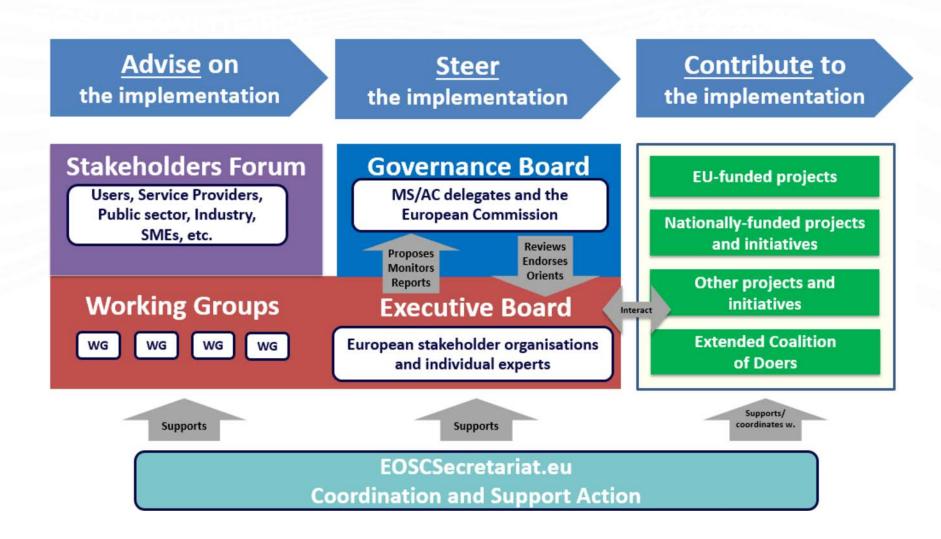


# **Decision making process**

- Openness processes open to all interested and informed parties
- Broad consensus allow for all views to be considered, such that agreement can be found across a range of interests
- Transparency stakeholders will provide public notice of proposed development activities and conditions for participation. Easily accessible records of decisions.
- Balance activities will not be exclusively dominated by any particular person, organisation or interest group
- **Due process** decisions will be made with equity and fairness among contributors. Periodic reviews and updating will be well defined.



# **EOSC** governance structure





# **Governance Board**

- Representatives from all 28 member states and 10 associated countries
- Chaired by Hans Josef Linkens, BMBF, Germany
- Forming sub-groups to feed strategic inputs into EOSC Exec Board and Working Groups

https://ec.europa.eu/research/openscience/pdf/ec\_rtd eosc-governance-board 062019.pdf



# **Executive Board**

- Karel Luyben &
   Cathrin Stöver as Co Chairs
- 8 representatives of stakeholder groups







CATHRIN STÖVER



JEAN-FRANCOIS



JUAN BICARREGUI



JAN HRUSAK



SARAH IONES



LIDIA BORRELL-DAMIÁN



RUPERT LÜCK

3 independent experts

https://www.eoscsecretariat.eu/eoscgovernance/eosc-executive-board



NATALIA MANOLA



JOHN WOMERSLEY



RON DEKKER

# **Communications**

- Must be 2-way...
- Engage, don't just broadcast!





# **Communications & engagement**

- Strong and consistent communication strategy
- Messaging in different 'languages' to speak to all stakeholders
- Use of the existing communications channels to reach scale
- Need to develop a collectively-owned EOSC brand
- Critically important to engage with stakeholders at all times
- Continual testing and feedback loop to support adoption
- Set up a co-owned sub-group between EB/GB to manage this

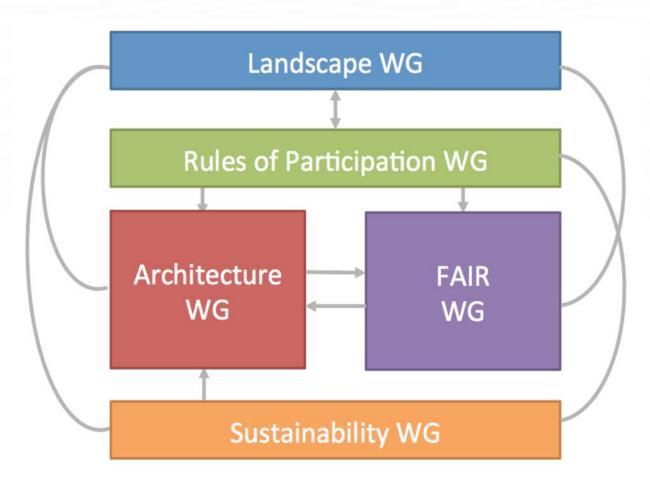


# Key documents and links

- EOSC Strategic Implementation Plan
  - https://www.eoscsecretariat.eu/eosc-governance/eoscexecutive-board
- EOSC Work Plan
  - <a href="https://op.europa.eu/en/publication-detail/-/publication/3c379ccc-ee2c-11e9-a32c-01aa75ed71a1/language-en/format-PDF/source-106858146">https://op.europa.eu/en/publication-detail/-/publication/3c379ccc-ee2c-11e9-a32c-01aa75ed71a1/language-en/format-PDF/source-106858146</a>
- Working Group remits
  - <a href="https://www.eoscsecretariat.eu/eosc-working-groups">https://www.eoscsecretariat.eu/eosc-working-groups</a>
- Blog
  - https://www.eoscsecretariat.eu/news-events-opinion



# **EOSC Exec Board Working Groups**



https://www.eoscsecretariat.eu/eosc-working-groups





Chair: Jan Hrusak Independent Expert

### **WHAT**

Provide options for progressive convergence and alignment of structures and initiatives in Europe to facilitate the EOSC

### HOW

- Build on outcomes of EOSC-related H2020 projects and input from member states
- Map EOSC-relevant national infrastructures and spending
- 3. Take stock of federation constraints and opportunities at the various architectural levels

### WHY

#### Consolidate the existing landscape

- National research infrastructures, e-Infrastructures and open science policies
- ESFRI RIs, cluster projects, thematic initiatives and clouds
- Propose mechanisms and best practices for national and regional alignment
- 5. Analyse member state preparedness for financial resources, political stability and infrastructural planning

Q3 2019

Initial mapping based on existing EOSC-related projects and national initiatives

Q4 2019

Final mapping with input of INFRAEOSC-5B cluster projects

Q3 2020

Report on EOSC readiness of the Member States and RIs (joint output)





Chair: Juan Bicarregui **RDA** representative

### **WHAT**

Recommend rules of participation which define rights, obligations and accountability to govern EOSC users, providers and operators. Identify common requirements.

### **HOW**

Identification of different rules taking into account:

- Differing roles and services
- Scientific disciplines
- Preparedness of infrastructures, services and member states

### WHY

Guarantee open, secure and costeffective federated EOSC with services of documented quality

### **Assessable Quality**

- The growing range of EOSC users and providers
- Changing needs and practices including regulations

Q3 2019 Objectives of the RoP

Q4 2019 Proposal for an initial set of EOSC Rules of **Participation** 

testing & iterating

Q4 2020 Revised proposal for EOSC RoP for application after 2020





Chair: Jean-François Abramatic **Independent Expert** 

### WHAT

Propose a technical framework to enable and sustain an evolving EOSC, including an interoperability layer to build the federation of systems

### WHY

Define the interoperability layer necessary for seamless operation of the **EOSC** federation core

### Identify the federated core of EOSC

### **HOW**

Review current offerings and define

- EOSC core services and their interfaces
- 2. EOSC OS APIs for reuse by thematic services
- EOSC portal components and catalogues

- EOSC data description standards
- Other standards and best practices
- Converge towards globally-accepted frameworks

#### Q4 2019

Initial EOSC federating core Registry of data infrastructure Updated EOSC catalogue of services and portal

#### Q2 2020

Preliminary connection of most EOSC infra & services EOSC catalogue of datasets

#### Q3 2020

Interoperability framework (joint)

### Q4 2020 PID policy

(joint)





Chair: Sarah Jones Independent Expert

### **WHAT**

Provide recommendations on the implementation of FAIR, including corresponding requirements for services, in order to foster cross-disciplinary interoperability

### HOW

- 1. Data standards & sharing agreements
- 2. Upscale best-practice solutions
- 3. EOSC Interoperability Framework
- 4. Identify service requirements for FAIR

### WHY

Connect people, data and service via standards

Be the glue



- 5. Persistent Identifier Policy for EOSC
- Frameworks to assess FAIR data and certify services that enable FAIR
- 7. Converge towards globally-accepted frameworks

**Q2 2019** 2019 Annual FAIR work plan Q4 2019
PID policy defined
Outline metrics for
FAIR data & service
certification

**Q1 2020** 2020 Annual FAIR work plan

testing & iterating

Q3 2020 EOSC Interoperability Framework Q4 2020
Updated PID policy
Updated FAIR metrics

& service certification



Co-Chair: Rupert Lueck EMBL representative







### **WHAT**

Provide strategic, legal and financing recommendations for an operational, scalable and sustainable EOSC federation after 2020

### WHY

A clear understanding of key strategic, financial and legal aspects is essential for the second phase of the EOSC implementation

#### **Towards a sustainable EOSC**

### **HOW**

- Analyse business models and implications on legal entity, costs, regulations, financial strategies, supporting NDI alignment
- 2. Map potential legal entities, taking into account national and European legislation
- Examine options for a governance framework to oversee EOSC operations and development
- Analyse regulatory/policy environments and assess impact of proposed structures and funding streams at national & European level

Q1 2020

Initial analysis of alternative business model scenarios and potential future legal models Q2 2020

Refined business model options and future legal models Q3 2020

Recommendations on strategic and financing orientations and organisational settings for the future of the EOSC, post 2020



# MVP by end 2020

- Agreed and tested Rules of Participation
- Analysis of the existing national infrastructures and policies
- Financing model, legal entity and post 2020 governance structure
- Functioning federated core & initial services
- Catalogues of EOSC data and services
- EOSC Interoperability Framework
- Persistent Identifier policy
- Metrics for FAIR data and repository certification



# Work plan

Iteration and testing built into plan

Initial / outline outputs → TEST → Updated / final

Agree versions for implementation post 2020

	Landscape (Jan Hrušák)	Sustainability (Rupert & Stephan)	Architecture (JF Abramatic)	FAIR (Sarah Jones)	Rules of Participation (Juan Bicarregui)
Q2 2019 Apr-Jun				Annual FAIR workplan	
Q3 2019 Jul-Sep	Initial landscape mapping				Initial EOSC Rules of Participation
Q4 2019			Outline PID	) policy	
Oct-Dec	Final landscape mapping		Initial federating core Registry of infrastructure Updated catalogue & Portal	Outline FAIR metrics & repository certification	
Q1 2020 Jan-Mar				Annual FAIR workplan	
Q2 2020 Apr-Jun			Preliminary connection of infrastructures and services EOSC Catalogue of datasets		
Q3 2020 Jul-Sep	Report on EOSC readiness		EOSC Interoperability framework (joint output)		
		Strategic & financing options post 2020			Final EOSC Rules of Participation
Q4 2020			Updated PID policy		
Oct-Dec				Updated FAIR metrics &	
				repository certification	



# **Working Group formation**

- Nominations by Governance Board (all)
- Nominations by Executive Board (FAIR WG)
- Nominations by H2020 projects (Architecture)
- Open calls to engage wider stakeholders (Architecture, FAIR and Rules of Participation)
- WGs may call in Experts, H2020 projects and commission consultancy reports where needed



# WGs by numbers

Experts represent 20 of the EU Member States and Associated Countries

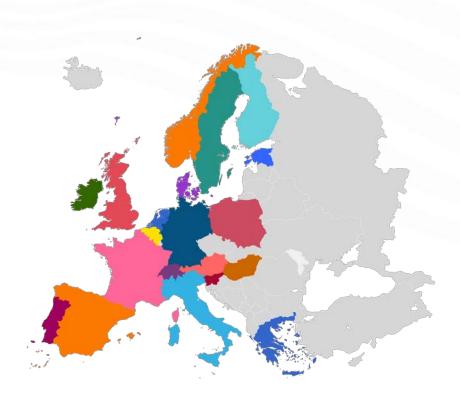
Landscape
11 male
5 female

**RoP**5 male
7 female

Architecture 27 male 2 female **FAIR**15 male
11 female

Sustainability
10 male
8 female







# Co-creation opportunities

### 1. Co-creation budget

EOSCSecretariat.eu retains a high degree of flexibility in its roll-out plan by adopting a co-creation approach and providing budget for all upcoming, foreseen and unforeseen, activities and actions related to the work of the EOSC Secretariat to support the EOSC Governance.

### 2. Who can apply for co-creation activities?

- ✓ Individuals or natural persons residing in the Member States of the European Union (EU), including their outermost regions and the associated countries (AC)
- ✓ Applicants who are not receiving support from other instruments (EU or national Research Infrastructure projects) for the proposed activities, and are not being funded from other sources for an identical activity

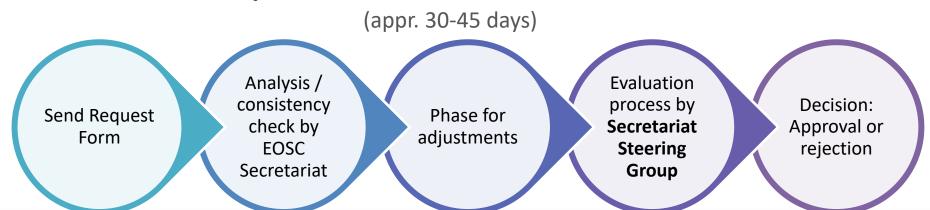


# Co-creation budget and request form

### 3. What are the application and evaluation criteria?

- Eligibility according to H2020 criteria
- ✓ Activities and actions which are related to the work of the EOSC Secretariat to support the EOSC Governance, in particular the activities of the Executive Board Working Groups, the Governance Board Sub-Groups and the Stakeholder Forum
- ✓ Added value to existing EOSC activities
- ✓ Quantified benefits for the EOSC/KPIs and the corresponding outcome

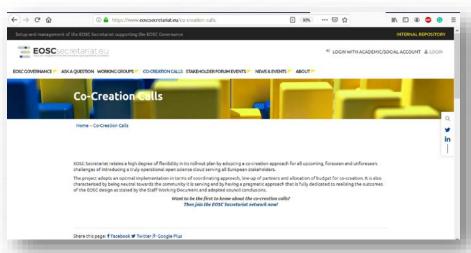
### 4. Process of the request





# Co-creation budget and request form

## 5. Where to apply



https://www.eoscsecretariat.eu/co-creation-calls

> For any questions, please contact cocreation@eoscsecretariat.eu

6. The request form



### What can you do?

Register to our newsletter and keep abreast of needs and opportunities

# Let's get this show on the road!





# Thanks for listening!

**Questions?** 

