

«Prompting an EOSC in Practice»

EOSC HLEG II (2017-2018) Members

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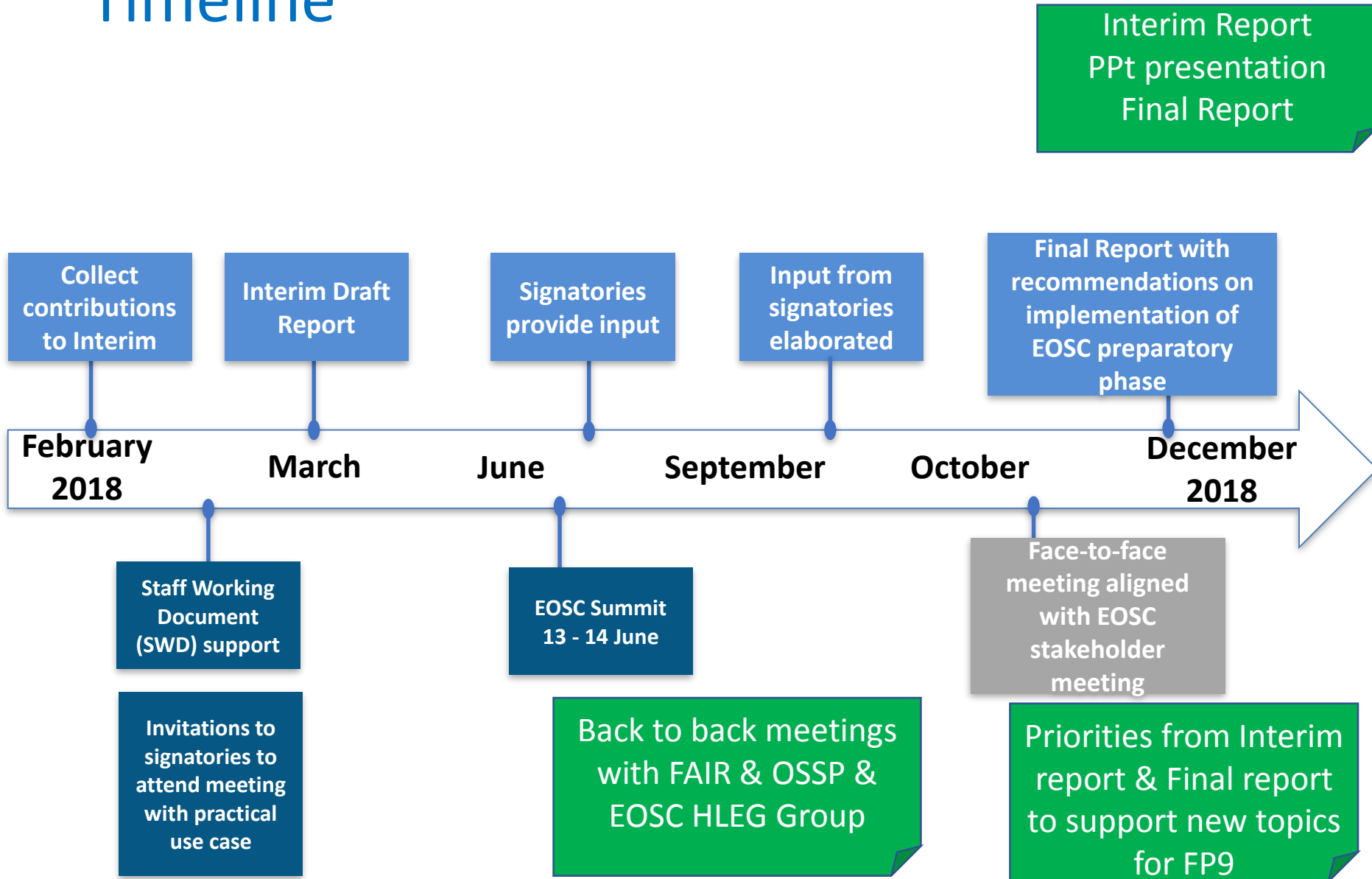
- Presentation of the Objectives of the Group
 - Support to Staff Working Document (SWD)
 - Animate the Signatories from the EOSC Summit
 - Potential new financing instruments for an EOSC Business Model
 - Objectives
 - ToC Interim Report - Publication March 2018
 - An EOSC in Practice Story Example
 - Draft List of Priorities
 - Timeline
 - Follow-Up EOSC Workshop for the Coalition of Doers /Signatories
- Save the Date 13° & 14° June 2018**

Objectives

The second Expert group's **Goal** [June 2017- Dec 2018] is to advise on practical implementation aspects of the EOSC, namely:

- Advice on the roadmap for the EOSC implementation Structure by end of 2018 notably on Governance & Financing aspects of the EOSC;
- Elaborate on the stakeholders' agreed conclusions from the signatories /endorsers from EOSC summit
- Collaborate with ongoing funded initiatives
- Ensure continued collaboration and exchange of content between the OSPP & FAIR Data

Timeline



EOSC Characteristics and Mission (1 of 2)

- EOSC starts with the observation that the current rate of progress, in both practices and infrastructure build-up, for the **generation, storage, and sharing** of scientific data, is very high; yet progress and initiatives are highly fragmented, across several dimensions (practices, disciplines, countries)
- EOSC aims to achieve this by means of
 - (i) cloud-based services for open science,
 - (ii) a **common gateway** giving consolidated access to existing e-infrastructures covering resources: cloud, access to content, compute, people, training...
 - (iii) guidelines and mechanisms for **metadata specification** and **data certification**

EOSC has a main goal to federate existing initiatives and structures within a single, consolidated and seamless gateway

EOSC Characteristics and Mission (2 of 2)

- EOSC is structured in six pillars, namely (i) user-centric services, (ii) mechanisms that define access to EOSC, (iii) tools for FAIR data management, (iv) defined rules of participation and compliance for actors, (v) an architecture to federate e-infrastructures, and (vi) a federative yet efficient governance structure.
- EOSC is a linchpin in the provision of European-funded research with **tools, mechanisms and incentives** for the spread of open science practices.
- EOSC is to promote the spread of **FAIR** (Findable, Accessible, Interoperable and Reusable) data.
- EOSC is to be "Human-Centric", i.e., designed to serve the individual researcher, across disciplines, starting with the European research community.
- EOSC aims to enlarge the scope and size of the community of European data experts.

EOSC is to define and implement incentives that drive researchers to publish, curate, certify, store and reuse data

EOSC Financial Instruments - Some Thoughts (1 of 2)

- Support the rapid acquisition and delivery of a variety of cloud services for investigators
- Allow International, National and private funding entities to maintain key electronic resources for the benefit of the scientific community
- Enable reuse *in situ* of high value scientific digital objects
- Ensure **sufficient commonality** to enable the reasonable ability to move digital objects between environments for **reuse elsewhere**, where there are unique capabilities elsewhere
- Maintain appropriate requirements on providers so that it is **simpler for investigators to utilize FAIR principles** for digital objects
- Limit the scope of the federation of scientific clouds to a reasonable number to help ensure that critical masses of digital objects exist in locations where they can be **aggregated** and **reused**

Federated environment, a decentralized business model in place to support the technical environment that will be developed

EOSC Financial Instruments - Some Thoughts (2 of 2)

- Recipients meet a set of technical and operational standards accessible to scientists outside the host institution across member states
- Business model is based on a certification programme for commercial & non-commercial providers & computing services meet EOSC defined standards
- Minimum requirements for commercial or non-commercial entities likely to include compute, storage, network capacity. Accessibility, interfaces and a willingness to accept cloud coins
- Cloud coins are euros functionally denominated vouchers distributed to investigators as part of grants or as supplementary awards
- Consider the options as part of the sustainability models in the EOSC In Practice Stories

A hybrid Business model where Users can have at their disposal a mix of conventional grants and cloud coin like environments

ToC Interim Report

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From SWD to advice on Implementation Structure

Business Models, Financial Instruments, Signatories

Section 7 –Aligned with FAIR Data & OSSP

Annex: EOSC Stories

EOSC HLEG contribute to the FAIR group on the FAIR principles

March 2018 Delivery Date

The HNSciCloud EOSC in Practice Story

Title	Sharing Open Science Services
Facilitating Entity	HNSciCloud

Dimension	Highlights
1. Research fields covered (cross-disciplinarity)	User cases from 7 ESFRI research Infrastructure
2. Recognition	<ul style="list-style-type: none"> Highlighted in an e-IRG publication Referenced by NIST/IEEE Joint Cloud Federation Working Group
3. Multiple Member State collaboration	10 research performing organisations hosted in 7 countries
4. Trusted services offer	Common hybrid science cloud platform for the European research community: <i>Compute and Storage</i> <i>Network Connectivity and Federated Identity Management</i> <i>Service Payment Models</i>
5. Certification	Cloud services compliant with international standards (ISO)
6. GDPR compliance	Compliant since October 2017
7. Sustainability model	Procuring organisations contribute financially to the consumption of commercial services for their sponsored end-users.
8. User experience	End-users from all diverse research disciplines are deploying their applications on this hybrid cloud platform.

P R I O R I T I E S	User-oriented	Multi-disciplinary	Cross-disciplinary	Trustworthy	Pan-European	Data reputation
	EOSC minimum viable ecosystem	EOSC-ready software should guarantee interoperability: adhere to standards	Respect FAIR principles; EOSC-aware software services security (European AAI policies)	Economically viable, Cloud coins as currency, sustained by Member States	Natively compliant & monitorable	GDPR compliant

Some Thoughts for discussion

Construct Capacity Building / **such that it** ensures a development of data skills (building upon OSSP report & 1° EOSC HLEG report recommendations)

To be carried out on a national level?

Interoperability of existing RIs within the EOSC could ensure a more consolidated **user-centred approach**

National Funding Streams should be analysed against the background of funding streams and analysis of national research data infrastructures

Thank you! Questions?

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