

EGI/EOSC/ICDI

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C3SN, 04/07/2023

EGI – Attività recenti

- **EGI Council, Madrid 31 Maggio 2023**

- Shift in funding model: contribution from projects overheads going to zero, funding of core activities must come from service provisioning
 - e.g. EOSC procurements → A possible extension of EGI-ACE will be with a contract if the EGI Foundation bid will be accepted in EOSC procurement LOT 2.
 - EGI Core services and activities in July-December 2023 will not be funded, minimum operational services on a best-effort basis
 - Discussion on the **strategy and funding of EGI Core Activities in 2024-2026**
 - reduce the scope and therefore the cost of Core services, by supporting certain platform services entirely from projects instead from EGI Foundation funding
 - Nevertheless, proposal to increase service FTEs by ~50%
 - To be matched by fee increase. Various scenarios presented, depending on fraction of EOSC procurement that will be won
 - INFN feedback (shared by many): rather than increasing fees, one should prioritise the services and possibly consolidate the activities (NB: INFN fee ~100kEUR)
 - Management to prepare a budget plan by the next council meeting (~November)
- Discussion on legal entity (EDIC)

EGI – Attività recenti

- **EGI EB → Tommaso?**
- **Rappresentante INFN (A. D’Orazio) in EGI Advisory Board non più disponibile.** Non è stato possibile individuare un sostituto.
 - Nuove nomine: Isabel Campos/CSIC, Maria Girone/CERN, Jorge Gomez/LIP
 - Possibile aggiungere persona INFN in un secondo tempo
- **EGI conference, Poznan, 19-23 giugno 2023**
 - Luciano ha partecipato in rappresentanza di INFN al panel "Requirements and state of the art for data, HTC, HPC and Cloud federation in Europe" nella plenary "The computing and data continuum in Europe: state of the art and the user community perspective"
 - Ha raccontato a grandi linee quanto stiamo facendo con i progetti PNRR e come stiamo implementando il continuum, in particolare le HPC bubbles e i servizi edge verso i supercomputer con DataCloud/DataLake come glue. Dettagli tecnici presentati da Giacinto nella sessione successiva*
 - discussione a margine della presentazione di Thomas Geenen (ECMWF) nella stessa plenary su bridge verso i supercomputer di EuroHPC (Lumi; Leonardo?)

* INFN-Cloud: a national distributed and federated cloud infrastructure supporting scientific communities

EOSC – Attività recenti

- **General Assembly #6, Bruxelles 22-23 Maggio 2023**

- Focusing on the "Pathway to the Future of EOSC"
- Assessment of membership fee model
 - Various proposals, based on GDP, annual budget, turnover, FTE, #staff
 - INFN strongly supporting current model, any change would imply a proper re-weighting of votes (impossible, given the EOSC Articles of Association)
 - Vote: keep flat fee, 10kEUR per participant (168), 2kEUR per observer (81)
- Review of by-laws, to be approved at the next general assembly
- Definition of multi-annual roadmap (MAR) 2025-2027, following results from survey (in backup slides)
 - Important, as it is used to shape call topics for the next Horizon Europe Work Programme.
- Future of EOSC and discussion tables

Future of EOSC



Ten things EOSC is not

- ... a cloud infrastructure
- ... synonymous to Open Science
- ... the EOSC Portal
- ... the EOSC Association
- ... owning the data it will help to provide access to
- ... a new research data repository or data management system
- ... a new pan-European e-infrastructure
- ... substitution of any existing data- or (e-)infrastructures
- ... engaging directly with individual researchers
- ... in competition with anything or anybody



“A web of scientific insight”

- Web of FAIR Data and related Services
- Federation of relevant existing and future data sources
- Virtual space where science producers and consumers come together
- An open-ended range of content and services
- Based on the FAIR principles
- Meeting all European data requirements
- In interaction with other regions of the world



Future of EOSC



Considerations for the 'EOSC

- Run operations
- Do development
- Have the operations run
- Have development done
- Set the rules of participation
- Suggest the optimal standards, tools and services
- Improve the interoperability
- FAIR police
- Interoperability police
- Seek alignment with other regions in the world
- Develop the federation model
- Be the entrusted legal also to run grants



Tasks on the way to create EOSC

Operational and development tasks in discussion with the EC

1. Deploying and operating the EOSC EU node
(Core, Exchange, FAIR Data Federation)
2. Maintaining and updating the EOSC EU node and expanding the EOSC federation
(with elements that are close to the 'market')
3. Enabling a 'web of FAIR data and services' for science
4. Develop, prototype and test new elements supporting the evolution of the EOSC Core and Exchange and the tools enabling the federation
(focus on elements that can be made ready for the 'market')
5. Enabling Open Science policies and the uptake of Open Science practices

Discussion tables

Topic
EOSC vision and roles
Engagement: Who is EOSC for? What is the role of intermediaries?
EOSC scope and technical implementation
EOSC relevant policies and strategic initiatives
Deploying and operating the EOSC EU node
Maintaining and updating the EOSC EU node and expanding the EOSC federation as a System of Systems
Develop, prototype and test new elements supporting the evolution of the EOSC Core and Exchange and the tools enabling the EOSC federation
Enabling a 'web of FAIR data and service' for science

Main outcomes:

- **Deploying and operating the EOSC EU node:**
 - The new technologies that are being created and implemented need to be continually tested to ensure EOSC is fit-for-purpose
- **Maintaining and updating the EOSC EU node and expanding the EOSC federation as a System of Systems:**
 - Encourage transition towards machine-actionable repositories by requirement in the EOSC Rules of Participation
- **Develop, prototype and test new elements supporting the evolution of the EOSC Core and Exchange and the tools enabling the EOSC federation:**
 - Develop a user driven mechanism to determine a selection of most needed horizontal and thematic services, which can serve (as a pilot) for the centrally financed service portfolio for the period after Horizon Europe
- **Enable a 'web of FAIR data and service' for science:**
 - Advance the technical specifications to support digital objects to be FAIR and evaluate viable options to adopt the concept of FAIR digital objects for operational data services

Conferenza tripartita

05 giu 2023



Italian•Tripartite•Assembly•on•the•European•Open•Science•Cloud

- L’**“Italian Tripartite Assembly on the European Open Science Cloud” ITAEOSC2023**, si è tenuta il **5 Giugno 2023** nella sala Convegni nella sede centrale del CNR a Roma
- L’evento è promosso da MUR nel quadro degli **eventi nazionali tripartiti dell’EOSC-Association, European Commission e EOSC Steering Board**.
- Il programma mette a fuoco le **iniziative, opportunità e necessità di collaborazione nazionale, europea e internazionale** per perseguire in modo coordinato la **transizione verso il paradigma Open Science e la costruzione dello European Open Science Cloud**.

Agenda

9:30 - 10:20 Access and check-in

MORNING SESSION

Chair: **Giorgio Rossi** (*Università degli Studi di Milano*) and **Marialuise Lavitrano** (*EOSC Association*)

- 10:30 - 10:40 Welcome from the National Research Council of Italy
President **Maria Chiara Carrozza**
- 10:40 - 11:00 The European Commission strategy for Open Science
Anna Panagopoulou (*European Commission*)
and **Javier Lopez Albacete** (*European Commission*) - [PRESENTATION](#)
- 11:00 - 11:20 Welcome from the Italian Ministry of University and Research
Chief of Staff **Marcella Panucci**
- 11:20 - 11:35 Policy contributions by the EOSC Steering Board
Giorgio Rossi (*Università degli Studi di Milano*) - [PRESENTATION](#)
- 11:35 - 11:50 The EOSC Association and its role in the Horizon Europe co-programmed EOSC Partnership
Marialuise Lavitrano (*EOSC Association*) and **Ute Günsheimer** (*EOSC Association*) - [PRESENTATION](#)
- 11:50 - 12:40 Round table of Doers: Open discussion on the ongoing and prospective actions towards the fulfilment of the National Plan for Open Science
Maria Chiara Carrozza (*CNR*), **Diego Bettoni** (*INFN*), **Carlo Doglioni** (*INGV*), **Maurizio Tira** (*GARR*), **Menico Rizzi** (*ANVUR*), **Stefano Ruffo** (*CRUI*)
- 12:40 - 13:20 Discussion
- 13:20 - 13:30 Summing up
- 13:30 - 14:40 Light lunch on site
kindly sponsored by Università degli Studi di Milano-Bicocca

AFTERNOON SESSION

Chair: **Donatella Castelli** (*CNR*) and **Roberto Cimino** (*MUR*)

- 14:40 - 14:50 Introduction to the afternoon section
Roberto Cimino (*MUR*)
- 14:50 - 15:10 The National Plan for Open Science: from principles to operation
Donatella Castelli (*CNR*) - [PRESENTATION](#)
- 15:10 - 15:30 From PNRR to Open Science
Michele Mazzola (*MUR*) - [PRESENTATION](#)
- 15:30 - 16:30 Good practices
 - FAIR Data Management, **Mario Locati** (*INGV*) - [PRESENTATION](#)
 - Data Steward @Unibo, **Francesca Masini** (*Università di Bologna*) - [PRESENTATION](#)
 - Virtual Laboratories, **Pasquale Pagano** (*CNR*) - [PRESENTATION](#)
 - Competence Center, **Emma Lazzeri** (*GARR*) - [PRESENTATION](#)
 - Open Science Monitoring, **Paola Galimberti** (*Università degli Studi di Milano*) - [PRESENTATION](#)
 - Open Science Support @INFN, **Concezio Bozzi** (*INFN*) - [PRESENTATION](#)
- 16:30 - 17:20 Discussion
- 17:20 - 17:30 Conclusions and further steps

Submitted posters will be available on interactive monitors in the digital gallery of the event venue for the entire duration of the event. - [POSTERS](#)

Executive Summary

openscience@lists.infn.it



INFN is active along all the PNSA's Axes of Intervention

1. Access to scientific publications
 - **Since 2007:** Italian coordinator of scoap3.org, oa2020.org, scienceeurope.org, coalition-s.org
2. Research data
 - Open data policies for all four experiments at CERN LHC, OPERA at Gran Sasso Nat Lab and others
 - First Italian standalone instance of ZENODO-INVENIO open source repositories (open to other communities) openaccessrepository.it
3. Research evaluation
 - Joining the EC Agreement on reforming RA and COARA
4. Open science, the scientific community and European participation
 - Proponent and co-coordinator of the Openscience working group <https://home.infn.it/conper/openscience.html> in CoPER (Board of the Presidents of Italy's RPO)
 - First National Conference December 2022 <https://agenda.infn.it/e/ConvegnoOpenscienceCoPER2022>
 - Member of EOSC, ICDI
 - Open science working group of nupecc.org for Long Range Plan
5. Opening of research data on Sars-Cov.2 and Covid-19
 - COVIDSTAT Open Data project <https://covid19.infn.it>

INFN has contributed to the “Next Step” (“Prossimi passi”) plan of the CoPER OS working group

- **DOI:** <https://doi.org/10.15161/oar.it/76963>

Lessons learned / Vision

- Data (and metadata) curation throughout entire data lifetime
 - Including processing capabilities and support to a national network of opensource interoperable repositories
- Data stewards needed
 - But they should be knowledgeable about the specific communities, their science, and their requirements
- Non-trivial projects, done so far on “voluntary” basis
 - European funding adequate
 - activities in the calls should be aligned with the needs of research infrastructures / researchers
 - Complementary funding needed at the national and institutional level

Discussione

- Partecipare a EGI/EOSC/ICDI ci da' **visibilità**
- EGI procura **fondi che superano ampiamente le fee**
- Abbiamo l'opportunità di influenzare gli sviluppi e **avvicinare gli obiettivi** alle nostre finalità
- Viene tuttavia richiesto un **impegno** che alla luce delle altre iniziative (PNRR) **potrebbe essere non sostenibile**

Backup

EGI – Attività recenti (I)

- **EGI Council online 10 Febbraio 2023** su
 - **EOSC procurement**
 - 3 lotti: services for the federated EOSC core platform, containers & VMs for EOSC exchange, data & data analytics platforms for EOSC exchange
 - Decisione C3SN di non partecipare a queste call
 - Tiziana comunica il 3 aprile che tutte le applicazioni partecipate da membri EGI sono state ammesse alla fase successiva
 - **Stato dei proposals 2023 coordinati da EGI** (HORIZON-INFRA-2023-EOSC-01-04, HORIZON-INFRA-2023-DEV-01-04, HORIZON-INFRA-2023-DEV-01-05) e su altri progetti partecipati.
 - Partecipazione INFN in presentazione di Luciano
 - INFN esclusa da EOSC-01-06, con qualche mal di pancia

EOSC – attività recenti (II)

- **Survey su MAR 2025-2027**

- Obiettivo 1: “Ensure that Open Science practices and skills are rewarded and taught, becoming the ‘new normal’”
 - promuovere figure già esistenti in domini specifici, oltre ai “data steward”;
 - preservare tutte le componenti del ciclo di vita del dato;
 - utilizzare fondi esterni per facilitare all’inizio
- Obiettivo 2: “Enable the definition of standards, and the development of tools and services, to allow researchers to find, access, reuse and combine results”
 - enfatizzare efforts e costi per federare dati delle diverse comunità;
 - interoperabilità punto cruciale;
 - repositories software non sono tutto, occorre preservare anche le configurazioni, l’environment e altre componenti (containers);
 - definire set di funzionalità minimo lasciando spazio alle comunità;
 - riutilizzare soluzioni già esistenti e non inventarne di nuove

EOSC – attività recenti (III)

- **Survey su MAR 2025-2027**

- Obiettivo 3: “Establish a sustainable and federated infrastructure enabling open sharing of scientific results”
 - verificare risultati del procurement attuale servizi core prima di procedere ulteriormente;
 - includere data-lake e rendere grandi moli di dati accessibili agli utenti EOSC;
 - includere servizi di processamento massivo dei dati;
 - non legarsi a AAI fornita da NRENs;
- **Commenti generali:**
 - creare infrastruttura distribuita/cloud per processamento e analisi;
 - facilitare l'accesso con finanziamenti opportuni;
 - seguire standard industriali per evoluzione AAI;
 - supportare l'evoluzione dei servizi core assieme alle comunità degli utenti

ICDI – Attività' recenti

- **EB esteso 21 Novembre 2022**

- Preparazione dell'EOSC GA #5
- Candidature italiane [CoARA](#) (Coalition for Advancing Research Assessment)
- Aggiornamento EOSC-A (ML Lavitrano)
- Report su statuto e procedura per elezione del presidente

- **EB 23 Gennaio 2023**

- Organizzazione della conferenza tripartita
- Presentazione piano di attività' ICDI e suddivisione del lavoro
 - Centro di competenza (sovrapposizione con Skill4EOSC)
 - Contributo al piano nazionale per la scienza aperta (PNSA)
 - ICDI come struttura trasversale per la coerenza dei progetti PNRR con i principi FAIR e la costruzione di EOSC
 - Coordinamento della partecipazione alle nuove call Horizon (?)

- **EB 4 aprile 2023**

- Organizzazione della **conferenza tripartita → 5 giugno a Roma**
- Commenti su survey EOSC (fee, by-laws, MAR)