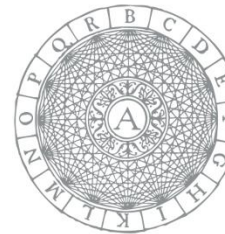


CORSI DI FORMAZIONE



**Consiglio Nazionale
delle Ricerche**
ILIESI

Politiche EU per Open Science e EOSC

Elena Giglia

Elena Giglia

elena.giglia@unito.it

 @egiglia



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In questo modulo impareremo:

1. Le politiche europee a sostegno della Open Science
2. EOSC, cos'è e cosa NON è
3. EOSC nodes

MESSAGGI CHIAVE

- EOSC is here to stay
- Cerchiamo di non perdere questo treno

Open Science

SINTESI DELLE POLITICHE EUROPEE

PERSPECTIVE ARTICLE [Provisionally accepted](#) [The full-text will be published soon](#) [Notify me](#)

Front. Big Data | doi: 10.3389/fdata.2019.00043

[Nov.2019]

Open science, open data and open scholarship: European policies to make science fit for the 21st century

Jean-Claude Burgelman^{1*}, Corina Pascu^{2*}, Katarzyna Szkuta¹, Rene Von Schomberg¹, Athanasios Karalopoulos¹, Konstantinos Repanas¹ and Michel Schouppe¹

RISCHI A ESSERE I PRIMI MA RISCHI
MAGGIORI A ESSERE ULTIMI

Transition to open science is a multidimensional and multistage process. There is value and risk of being a first mover, but there is higher risk of being a follower. The European Commission has taken

DA «PUBBLICARE» A
«CONDIVIDERE LA CONOSCENZA»

Open science (or in fact, open scholarship) has shifted the prime focus of researchers away from publishing toward knowledge sharing.

OPEN SCIENCE=SCIENZA PIÙ
EFFICIENTE, CREDIBILE, RISPONDENTE

Open science will make science more efficient, reliable, and responsive to societal challenges. The European Commission

Verso l'Open



POLITICHE NAZIONALI
SU TESTI E DATI
(RACCOMANDAZIONI
790/2018)

Council of the European Union

Brussels, 27 May 2016
(OR, en)

9526/16

RECH 208
TELECOM 100

OUTCOME OF PROCEEDINGS

From: General Secretariat of the Council
To: Delegations
No. prev. doc.: 8791/16 RECH 133 TELECOM 74
Subject: The transition towards an Open Science system
- Council conclusions (adopted on 27/05/2016)

OPEN ACCESS BY
DEFAULT IN 2020
(COMPETITIVENESS
COUNCIL 2016)

EUROPEAN COMMISSION

2018

Brussels, 25.4.2018
C(2018) 2375 final

COMMISSION RECOMMENDATION
of 25.4.2018
on access to and preservation of scientific information

26.6.2019 IT Gazzetta ufficiale dell'Unione europea L 172/56

DIRETTIVA (UE) 2019/1024 DEL PARLAMENTO EUROPEO E DEL CONSIGLIO
del 20 giugno 2019
sulla apertura dei dati e al riutilizzo dell'informazione del settore pubblico
(rifusione)

DATI DELLA RICERCA COME
DATI DEL SETTORE PUBBLICO
(DIRECTIVE 1024/2019) +
D.Lgs 200/2021

RIFORMA DELLA
VALUTAZIONE
(COUNCIL CONCLUSIONS
ON THE FUTURE
GOVERNANCE OF THE ERA
– COM 14308/21)

14308/21

Dec. 2021

RECH 538
COMPET 865

OUTCOME OF PROCEEDINGS

From: General Secretariat of the Council
On: 26 November 2021
To: Delegations
No. prev. doc.: 14126/21
Subject: Future governance of the European Research Area (ERA)
- Council conclusions (adopted on 26/11/2021)

STRATEGIA EUROPEA
PER I DATI
(COMMUNICATION
66/2020)

EUROPEAN COMMISSION

Brussels, 19.2.2020
COM(2020) 66 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

A European strategy for data

Verso l'Open Science

COUNCIL RECOMMENDATION PACT FOR RESEARCH AND INNOVATION (2021)

COUNCIL RECOMMENDATION (EU) 2021/2122
of 26 November 2021 Nov.2021
on a Pact for Research and Innovation in Europe

COUNCIL CONCLUSIONS ON RESEARCH ASSESSMENT AND THE IMPLEMENTATION OF OPEN SCIENCE JUNE 2022

COUNCIL CONCLUSIONS ON HIGH QUALITY, TRANSPARENT, OPEN, TRUSTWORTHY AND EQUITABLE SCHOLARLY PUBLISHING (MAY 2023)



June 2022

Brussels, 10 June 2022
(OR. en)

10126/22

RECH 371
TELECOM 267
COMPET 491
IND 227
MI 468
EDUC 245

OUTCOME OF PROCEEDINGS

From: General Secretariat of the Council
On: 10 June 2022
To: Delegations
No. prev. doc.: 9515/22
Subject: Research assessment and implementation of Open Science
- Council conclusions (adopted on 10 June 2022)



Brussels, 23 May 2023
(OR. en)

9616/23

RECH 190
EDUC 169
PI 77
DIGIT 96

OUTCOME OF PROCEEDINGS

From: General Secretariat of the Council
On: 23 May 2023
To: Delegations
No. prev. doc.: 8827/23
Subject: High-quality, transparent, open, trustworthy and equitable scholarly publishing
- Council conclusions (approved on 23 May 2023)

EMBRACING OPEN SCIENCE AS THE MODUS OPERANDI OF SCIENCE

Embracing open science as the *modus operandi* of research

Improving *the practice*

Providing immediate and unrestricted open access to scientific publications, research data, models, algorithms, software, protocols, notebooks, workflows, and all other research outputs

Research output management - publications, data, and other outputs - **in line with FAIR principles**

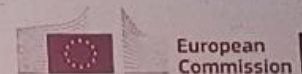
Early and open sharing of research, e.g.

- Pre-registration, registered reports, data deposition in shared repositories, pre-prints
- Ensuring verifiability and reproducibility of research outputs
- Open collaboration within science and with other knowledge producers/users, incl. citizens, civil society and end users

Developing *the enablers*

- **Incentives and rewards** to adopt open science practices, e.g. initiative for **Reforming Research Assessment**
- **Legislative and regulatory environment** for practicing open science
 - An EU data, copyright and digital legislative framework fit for research
 - Horizon Europe provisions on Open Access and Open Science practices
- **Open research infrastructures and skills** e.g.
 - European Open Science Cloud (EOSC) virtual research environment
 - Open Research Europe (ORE) open access publishing service
 - Support for skills and education for practicing open science & data-intensive research

Michael Arentoft at the Open Science Fair 2023



...why Open Science

Michael Arentoft at the Open Science Fair 2023

Why open science?

Improves research QUALITY: transparent, accessible, reusable methods and outputs - facilitate verifiability and reproducibility of research results - leading to higher robustness and reliability

Accelerates research EFFICIENCY: sharing and reuse of methods and outputs - enables researchers to build upon others' work more easily and quickly - leading to faster research progress

Enhances IMPACT of research: research methods and outputs visible and accessible to public and private sectors - facilitate their inclusiveness, valorisation and practical application - leading to enhanced trust in research and increased uptake and use of research outputs

IMPROVES
RESEARCH
QUALITY

ACCELERATES
RESEARCH
EFFICIENCY

ENHANCES
IMPACT
OF RESEARCH

European
Commission



Verso l'Open Science

European 2022 Research Area Policy Agenda

Overview
of actions for
the period
2022-2024

LE PRIME TRE AZIONI DELLA NUOVA EUROPEA
RESEARCH AREA (ERA) RIGUARDANO OPEN SCIENCE

of the
in Union

Brussels, 26 November 2021
(OR_en)

14308/21

RECH 538
COMPET 865

OUTCOME OF PROCEEDINGS

From: General Secretariat of the Council
On: 26 November 2021
To: Delegations **Dec. 2021**
No. prev. doc.: 14126/21
Subject: Future governance of the European Research Area (ERA)
- Council conclusions (adopted on 26/11/2021)

Priority Area: Deepening a truly functioning internal market for knowledge

ERA Actions

Outcomes

1. Enable the open sharing of knowledge and the re-use of research outputs, including through the development of the European Open Science Cloud (EOSC)

- Deploy Open Science principles and identify Open Science best practices
- Deploy the core components and services of EOSC and federate existing data infrastructures in Europe, working towards the interoperability of research data
- Establish a monitoring mechanism to collect data and benchmark investments, policies, digital research outputs, open science skills and infrastructure capacities related to EOSC

2. Propose a EU copyright and data legislative and regulatory framework fit for research

- Identify barriers and challenges to access and reuse of publicly funded R&I results and of publications and data for scientific purposes, and identify potential impacts on research, through an analysis of relevant provisions under EU copyright and data legislation and related regulatory frameworks, and of relevant institutional and national initiatives
- Propose legislative and non-legislative measures to improve the current EU copyright and data legislative and regulatory frameworks

3. Advance towards the reform of the Assessment System for research, researchers and institutions to improve their quality, performance and impact

- Analysis of legal and administrative barriers at national and trans-national level for a modern research assessment system
- Create a coalition of European research funders and research performers who agree on a new approach for research assessment, following wide and inclusive consultations at European and international level
- Implementation plan of the coalition to roll-out the new approach, including pilots in different domains

Verso l'Open Science / 3

COUNCIL RECOMMENDATION (EU) 2021/2122

of 26 November 2021 Nov.2021

on a Pact for Research and Innovation in Europe

RACCOMANDAZIONI DEL CONSIGLIO «PATTO PER RICERCA E INNOVAZIONE»

Working better

- (d) Free circulation: Free circulation of researchers and support staff, scientific knowledge and technology should be promoted, attracting talent and avoiding potential talent drain. This involves sharing scientific knowledge, data and tools as early as possible, in particular through open science practices, attractive and merit-based careers, the recognition of researchers' and support staff's skills throughout their careers, enhancing framework conditions for researchers' mobility, contributing to the circulation of researchers across the Union, encouraging exchanges between academia and industry (as well as other sectors), diffusing innovation and supporting open access to research infrastructures, technology infrastructures and their services;

Deepening a truly functioning internal market for knowledge

- (a) Open science: Support and reward a true open science culture across the Union, including mainstreaming open access to scholarly publications and research data (i.e. following the 'as open as possible, as closed as necessary' principle) and the diffusion and uptake of open science principles and practices, whilst considering differences between disciplines and cultural differences, including multilingualism, supporting the development of open science skills, and further developing and integrating the underpinning digital infrastructure and services;
- (b) Research infrastructures: Develop further the open access to, and better exploitation and connection of existing and new European and national research infrastructures, including e-infrastructures, in all the fields of science; exploit better their integrative function in the knowledge and innovation ecosystem and their potential in providing solutions to global challenges, in forming partnerships and pooling resources and connection to the European Open Science Cloud; improve their connection and interaction with technology infrastructures and industry to increase their impact; promote the creation of new infrastructural capacities on a European scale. Doing so will provide foundations for scientific excellence and help European science

Verso l'Open Science / 4

CONCLUSIONI DEL CONSIGLIO SULLA VALUTAZIONE

2. ACKNOWLEDGES that in order to accelerate the implementation and the impact of Open Science policies and practices across Europe, action has to be taken to move towards a renewed approach to research assessment, including incentive and reward schemes, to put in place a European approach in accordance with the Pact for Research and Innovation in Europe, and strengthen capacities for academic publishing and scholarly communication of all research outputs, and encourage where appropriate, the use of multilingualism for the purpose of wider communication of European research results;

RICONOSCE I DANNI DELL'ATTUALE SISTEMA SULLA QUALITÀ E INTEGRITÀ DELLA RICERCA

I. Reform of research assessment systems in Europe

3. ACKNOWLEDGES that research assessment systems should focus on quality and impact, and RECALLS that the current research assessment systems are nowadays to a great extent too focused on the use of some quantitative journal- and publication-based indicators and the evaluation of a narrow range of research outputs; CONSIDERS that such an approach may lead to negative biases in terms of research quality, reproducibility and integrity; STRESSES that research assessment should include other research outcomes and processes and promote early knowledge sharing and collaboration to accelerate the implementation of Open Science policies and practices;

OUTCOME OF PROCEEDINGS

From:	General Secretariat of the Council 10 June 2022 Delegations
c.:	9515/22 Research assessment and implementation of Open Science - Council conclusions (adopted on 10 June 2022)



8. SUGGESTS that the evolution of the research assessment systems in Europe should be guided by the following principles, while respecting the autonomy of research institutions and the freedom of scientific research, as well as the diversity of national and disciplinary contexts, and taking into account their consistency with international initiatives:

a. moving to a more balanced approach between the quantitative and the qualitative evaluation of research, by strengthening the qualitative research assessment indicators while developing the responsible use of quantitative indicators;

b. recognising all forms of research and innovation output and processes, including *inter alia*, datasets, software, codes, methodologies, protocols and patents, and not only publications; STRESSES that data should be findable, accessible, interoperable and re-usable, in line with the FAIR principles;

c. taking into consideration diverse career pathways and all research and innovation activities, including mentoring, leadership roles, entrepreneurship, data management, teaching, knowledge valorisation, industry-academia cooperation, support for evidence-informed policy making, interaction with society, including citizen science and public engagement;

d. taking into consideration the specificities of the various research disciplines, the range from basic to applied research, the stages of research careers and the missions of research institutions;

e. ensuring that ethics and integrity are accorded the highest priority and are not compromised by counter-incentives;

f. ensuring diversity, gender equality, and actively promoting women in science;



Council of the
European Union

June 2022

Brussels, 10 June 2022
(OR. en)

10126/22

RECH 371
TELECOM 267
COMPET 491
IND 227
MI 468
EDUC 245

OUTCOME OF PROCEEDINGS

From: General Secretariat of the Council
On: 10 June 2022
To: Delegations
No. prev. doc.: 9515/22
Subject: Research assessment and implementation of Open Science
- Council conclusions (adopted on 10 June 2022)

PRINCIPI
DELLA NUOVA
VALUTAZIONE

L'Europa si è posta il problema Open Access



**Open Science
Café**
Gabriella Leo, ott. 2023

Le azioni della
Commissione europea per
un'editoria accademica
aperta e di qualità

Gabriella Leo, European Commission - DG R&I,
Unit Open Science & Research Infrastructures
Introduce: **Elena Giglia**, Università di Torino





 Council of the
European Union

May 2023

Brussels, 23 May 2023
(OR. en)

9616/23

RECH 190
EDUC 169
PI 77
DIGIT 96

OUTCOME OF PROCEEDINGS

From: General Secretariat of the Council
On: 23 May 2023
To: Delegations
No. prev. doc.: 8827/23
Subject: High-quality, transparent, open, trustworthy and equitable scholarly publishing
- Council conclusions (approved on 23 May 2023)

Council calls for transparent, equitable, and open access to scholarly publications

Today the Council has adopted conclusions on the 'high quality, transparent, open, trustworthy and equitable scholarly publishing', in which it calls for immediate and unrestricted open access in publishing research involving public funds.



If we really believe in open science, we need to make sure that researchers can make their findings available and re-usable and that high-quality scientific articles are openly accessible to anyone that needs to read them. This should be particularly the case for research that benefits from public funding: what has been paid by all should be accessible to all.

— Mats Persson, Swedish Minister for Education, Ministry of Education and Research

The hazards of scholarly publishing

Scientific articles and other forms of scholarly publishing continue to be the primary means of disseminating research results and scientific findings. However, far from every article is available to other researchers or other interested readers.

The costs of paywalls to access and publish articles are becoming unsustainable and the publication channels for

Riconosce che la situazione attuale non è sostenibile

 Council of the European Union	Brussels, 23 May 2023 (OR, en)
May 23, 2023	9616/23
	RECH 190 EDUC 169 PI 77 DIGIT 96
OUTCOME OF PROCEEDINGS	
From:	General Secretariat of the Council
On:	23 May 2023
To:	Delegations
No. prev. doc.:	8827/23
Subject:	High-quality, transparent, open, trustworthy and equitable scholarly publishing - Council conclusions (approved on 23 May 2023)

5. NOTES that the current system of scholarly publishing is operated by various for-profit and not-for-profit organisations and RECOGNISES with concern that the increasing costs of paywalls for access to scientific publications and for scholarly publishing cause inequalities and are becoming unsustainable for public research funders and institutions accountable for the spending of public funds, decreasing funding available for research;

RICONOSCE CON PREOCCUPAZIONE CHE GLI ABBONAMENTI SONO DIVENTATI INSOSTENIBILI (E TOLGONO FONDI PUBBLICI ALLA RICERCA)

SIA ABBONAMENTI
SIA APC ESOSE NON
SONO SOSTENIBILI

7. STRESSES that it is essential to avoid situations where researchers are limited in their choice of publication channels due to financial capacities rather than quality criteria, and where access to research publications is restricted by paywalls; WELCOMES coordination within the EU and with global partners to support equity in scholarly publishing, taking account of the UNESCO Recommendation on Open Science⁶;

LE APC LIMITANO LA SCELTA DELLA SEDE IN CUI PUBBLICARE; GLI ABBONAMENTI CHIUDONO I RISULTATI E LI RENDONO INACCESSIBILI

Le Conclusioni del Consiglio (Maggio 2023)

Towards an open, equitable and sustainable scholarly publishing system

1. RECALLS that scholarly publishing, through journals, is currently the primary academic means of disseminating research results and new scientific knowledge; REITERATES the importance of accelerating the transition to open science to improve research quality, efficiency and impact by promoting transparency, accessibility, diversity, reusability, reproducibility and trustworthiness of research results, that open access to scholarly publications, including their reuse, is one of the core elements of an open science system, and that action is needed to ensure that scholarly publishing supports these aims;

AUTONOMIA E
INTEGRITÀ
+ TRASPARENZA

APERTURA=LA
NORMA, CON FONDI
PUBBLICI + PREZZI
COMMISURATI AI
SERVIZI

EMPHASISES that scholarly publishing should support essential principles of academic freedom, research integrity and scientific excellence, as well as maximum accessibility and reusability of research results, while also supporting research communities and their transdisciplinary collaboration, and UNDERLINES that the scientific practices for ensuring reproducibility, transparency, sharing, rigour and collaboration are important means of achieving a publishing system responsive to the challenges of democratic, modern and digitalised societies; HIGHLIGHTS that immediate and unrestricted open access should be the norm in publishing research involving public funds, with transparent pricing commensurate with the publication services and where costs are not covered by individual authors or readers;

May 2023

OUTCOME OF PROCEEDINGS

From: General Secretariat of the Council
On: 23 May 2023
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No. prev. doc.: 8827/23
Subject: High-quality, transparent, open, trustworthy and equitable scholarly publishing
- Council conclusions (approved on 23 May 2023)

IMPORTANZA DELLA
OPEN SCIENCE PER
QUALITÀ, EFFICIENZA
E IMPATTO +
RIPRODUCIBILITÀ E
RIUSO

Le Conclusioni del Consiglio (Maggio 2023)

...DISSEMINARE I RISULTATI DELLA RICERCA DOVREBBE ESSERE UNA PRECISA RESPONSABILITÀ DEGLI ENTI

	Council of the European Union
	Brussels, 23 May 2023 (OR. en)
	9616/23
	RECH 190 EDUC 169 PI 77 DIGIT 96
OUTCOME OF PROCEEDINGS	
From:	General Secretariat of the Council
On:	23 May 2023
To:	Delegations
No. prev. doc.:	8827/23
Subject:	High-quality, transparent, open, trustworthy and equitable scholarly publishing - Council conclusions (approved on 23 May 2023)

6. HIGHLIGHTS the importance of not-for-profit, scholarly open access publishing models that do not charge fees to authors or readers and where authors can publish their work without funding/institutional eligibility criteria; NOTES the variety of models that do not depend on article processing charges or similar per-unit charges and STRESSES the importance of supporting the development of such models led by public research organisations;

IL MODELLO DEVE
ESSERE NON PROFIT E
DEVE ESSERE
SOSTENUTO DAGLI ENTI
DI RICERCA

16. ENCOURAGES Member States and the Commission to invest in and foster interoperable, not-for-profit infrastructures for publishing based on open source software and open standards, in order to avoid the lock-in of services as well as proprietary systems, and to connect these infrastructures to the EOSC;

INCORAGGIA GLI STATI MEMBRI E LA COMMISSIONE A FINANZIARE LO SVILUPPO DI INFRASTRUTTURE NON PROFIT, OPEN SOURCE, CONNESSE A EOSC

EU data legislation

EU data legislation

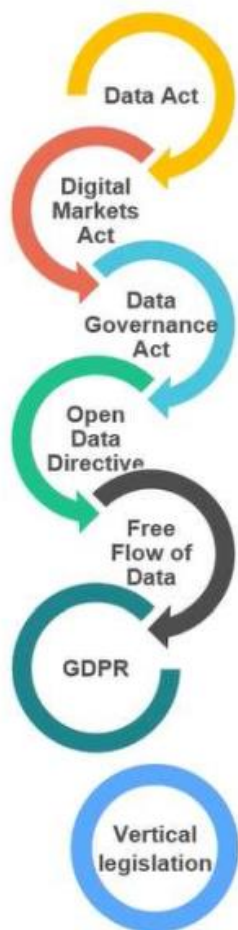
The European Open Science Cloud
(and its role in the EU strategy for data)

Javier Lopez Albacete,
Open Science and Research Infrastructures
DG research & Innovation, EC.

2024

13 March 2024
CERN

Source: DG CNECT



Aim	Data Covered	Regulated Actors
Ensure FAIRNESS in the allocation of data value among the actors of the data economy	Private sector data, personal and non-personal data, and co-generated (IoT) data	Businesses, public sector bodies, cloud and other data processing service providers
Tackle imbalances caused by the MARKET POWER of gatekeepers	Personal data and private sector data held by online platforms and originating from the users	Cloud and other data processing service providers, large data platforms
Ensure TRUST in data transactions	Public and private non-personal data, and personal data voluntarily made available by data holders	Data intermediation service providers, public sector bodies, (Recognised) Data Altruism Organisations
Promote use of OPEN DATA	Data in an open format that can be freely used, re-used and shared by anyone for any purpose	Public sector bodies, bodies governed by public law, public undertakings, universities
Ensure FREE FLOW OF DATA other than personal data within the Union	Non-personal data	Member States, competent authorities, professional users
Ensures a high-level of DATA PROTECTION and free flow of personal data in the Union	Personal data	Data controller, data processor, data subject, DPO, supervisory authorities, EDPB
Promote a competitive market according to SECTOR-SPECIFIC rules where necessary, e.g. automotive	Personal and non-personal data	Individuals and private and public sector bodies

In Italia

- Raccomandazione (UE) **2018/790** della Commissione Europea del 25 aprile 2018
Accesso all'informazione scientifica e sulla sua conservazione
[non vincolante]
- Direttiva (UE) **2019/1024** del Parlamento e del Consiglio Dell'UE del del 20 giugno 2019
Apertura dei dati e al riutilizzo dell'informazione del settore pubblico
[si limita a stabilire degli obiettivi]
- Regolamento (UE) **2023/138** della Commissione Europea del 21 dicembre 2022
Elenco di serie di dati di elevato valore e le relative modalità di pubblicazione e riutilizzo
[specifico e vincolante]

Il legislatore nazionale ha chiarito aspetti fondamentali (1 di 2)

La Direttiva UE 2019/1024 è stata recepita con il D.Lgs. 8 novembre 2021 n. 200 2023
che modifica il D.Lgs. 24 gennaio 2006 n. 36 definendo:

- **Titolare del dato:** *la pubblica amministrazione o l'organismo di diritto pubblico che ha originariamente formato per uso proprio o commissionato ad altro soggetto pubblico o privato il documento che rappresenta il dato, o che ne ha la disponibilità*
[art. 2, c. 1, lett. e]
- **Licenze:** *le pubbliche amministrazioni, gli organismi di diritto pubblico e le imprese pubbliche nonché le imprese private di cui all'articolo 1, comma 2-quater, adottano **licenze standard**, disponibili in formato digitale, per il riutilizzo dei propri documenti*
[art. 8, c. 1]
- **Licenza standard per il riutilizzo:** *il contratto, o altro strumento negoziale, ove possibile redatto in forma elettronica, compatibile con le licenze pubbliche standardizzate disponibili online, nel quale sono definite le **modalità di riutilizzo** in formato digitale dei documenti*
[art. 2, c. h]

Il legislatore nazionale ha chiarito aspetti fondamentali (2 di 2)

Con la modifica del D.Lgs. 24/01/2006 n.36 viene introdotto l'Art. 9-bis Dati della ricerca

- 1. I dati della ricerca sono riutilizzabili a fini commerciali o non commerciali conformemente a quanto previsto dal presente decreto legislativo, nel rispetto della disciplina sulla protezione dei dati personali, ove applicabile, degli interessi commerciali, nonché della normativa in materia di diritti di proprietà intellettuale ai sensi della legge 22/4/1941, n. 633, e dei diritti di proprietà industriale ai sensi del decreto legislativo 10/2/2005, n. 30.*
- 2. La previsione del comma 1 si applica nelle ipotesi in cui i dati siano il **risultato di attività di ricerca finanziata con fondi pubblici e quando gli stessi dati siano resi pubblici, anche attraverso l'archiviazione in una banca dati pubblica**, da ricercatori, organizzazioni che svolgono attività di ricerca e organizzazioni che finanziano la ricerca, tramite una banca dati gestita a livello istituzionale o su base tematica.*
- 3. I dati della ricerca di cui ai commi precedenti rispettano i requisiti di **reperibilità, accessibilità, interoperabilità e riutilizzabilità.***

2023

Integrated advice of the Open Science Policy Platform on 8 prioritised Open Science ambitions 2018

- Rewards and Incentives
- Research Indicators and Next-Generation Metrics
- Future of Scholarly Communication
- European Open Science Cloud
- FAIR Data
- Research Integrity
- Skills and Education
- Citizen Science

Open Science for its own sake has never been the goal. While a focus on Open Science as a mechanism must be emphasised in any transition, Open Science must ultimately be embedded as part of a larger more systemic effort to foster all practices and processes that enable the creation, contribution, discovery and reuse of research knowledge more reliably, effectively and equitably. Research cannot be 'excellent' without such attributes at its core.

2019

Future of Scholarly Publishing and Scholarly Communication

Report of the Expert Group to the European Commission

Amsterdam Call for Action on Open Science 2016

Removing barriers to open science

1. Change assessment, evaluation and reward systems in science
2. Facilitate text and data mining of content
3. Improve insight into IPR and issues such as privacy
4. Create transparency on the costs and conditions of academic communication 4

Developing research infrastructures

5. Introduce FAIR and secure data principles 16
6. Set up common e-infrastructures 18

Fostering and creating incentives for open science

7. Adopt open access principles. 22
8. Stimulate new publishing models for knowledge transfer. 23
9. Stimulate evidence-based research on innovations in open science. 26

Mainstreaming and further promoting open science policies

10. Develop, implement, monitor and refine open access plans 30

Stimulating and embedding open science in science and society

11. Involve researchers and new users in open science 32
12. Encourage stakeholders to share expertise and information on open science 34

2020

Reproducibility of scientific results in the EU

Scoping Report

December 2020

Providing researchers with the skills and competencies they need to practise Open Science

Open Science Skills Working Group Report

2017

June 2020

Progress on Open Science: Towards a Shared Research Knowledge System

Final Report of the Open Science Policy Platform

Evaluation of Research Careers fully acknowledging Open Science Practices

Rewards, incentives and/or recognition for researchers practicing Open Science

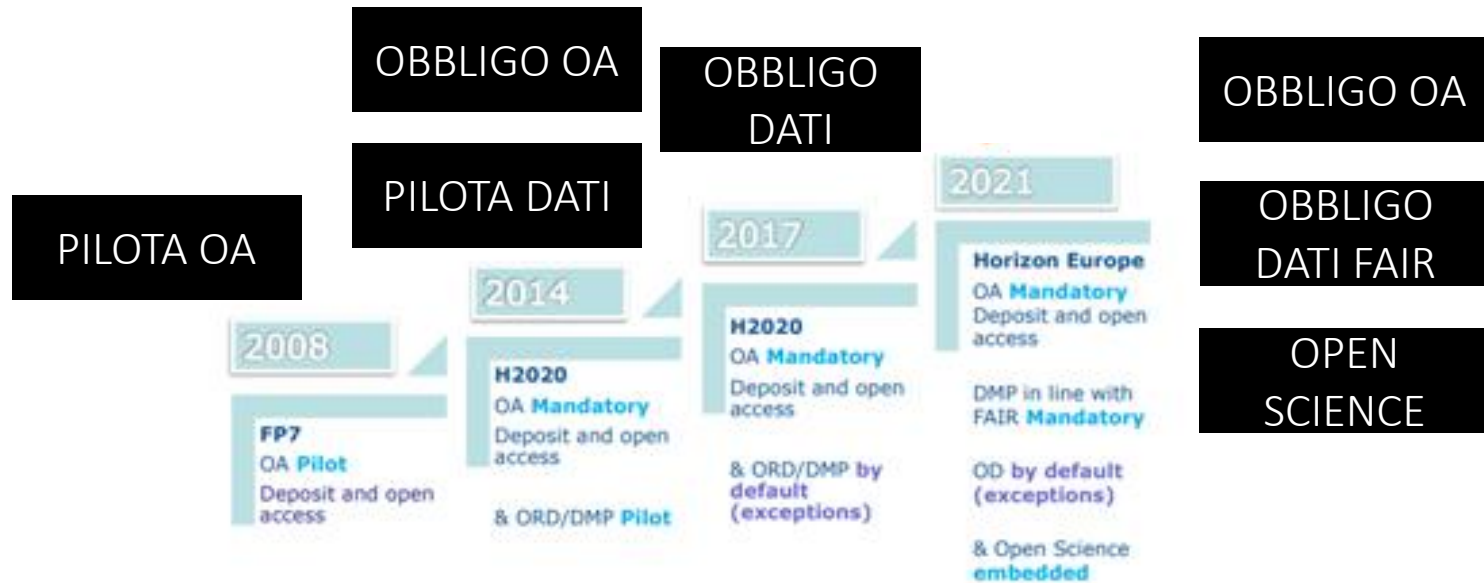
2017



EU come ente finanziatore

Il percorso

The European Commission and Open Science



Open Science in Horizon

Open science

Open science in Horizon Europe

Open science is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process. It has the potential to increase the quality and efficiency of research and accelerate the advancement of knowledge and innovation by sharing results, making them more reusable and improving their reproducibility. It entails the involvement of all relevant knowledge actors.

Horizon Europe moves beyond open access to open science for which it features a comprehensive policy implemented from the proposal stage to project reporting. The Horizon Europe Regulation sets the legal basis for the open science obligations and incentives that apply to Horizon Europe beneficiaries. The Annotated Grant Agreement provides guidance on how to comply with the open science obligations required in the Model Grant Agreement. **The present guide complements the information**

pro the In Horizon Europe, open science practices are considered in the evaluation of proposals, under 'excellence' and under the 'quality and efficiency of implementation'.¹⁷ There are mandatory open science practices, which are required for all projects through the Model Grant Agreement and/or through the work programme or call conditions, and recommended practices (all open science practices that are not mandatory). Recommended open science practices are incentivised through their the evaluation at the proposal stage. Proposers should be aware of both mandatory and recommended practices and integrate them into their proposals.

PRATICHE OPEN SCIENCE

VALUTATE SOTTO

«EXCELLENCE»

a) OBBLIGATORIE

b) RACCOMANDATE

DOVETE INTEGRARE

ENTRAMBE NELLA PROPOSTA

V.1 June 17 2021



Horizon Europe

Programme Guide

Horizon

PRATICHE OBBLIGATORIE E RACCOMANDATE – **IN SEDE DI PROPOSTA VIENE VALUTATO COME VENGONO ADOTTATE/ADATTATE**



Open Science in Horizon Europe

NELLA METODOLOGIA VANNO DESCRITTE ENTRAMBE:
1) COME SI SARÀ CONFORMI ALLE PRATICHE OBBLIGATORIE
2) COME SI ADOTTERANNO PRATICHE RACCOMANDATE



[e poi c'è EOSC!]

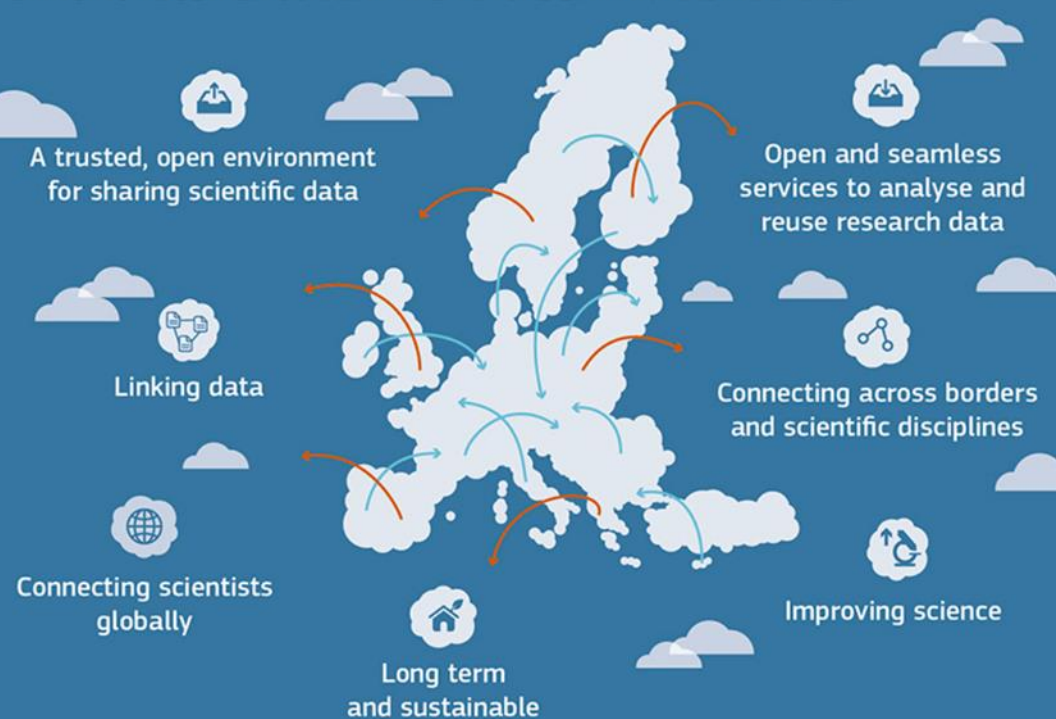
The Vienna

Vienna, 23 Novem

We, Ministers European Op

1. **Recall** the challenge of the European Open Science Cloud (EOSC) Declaration signed in Brussels on 10 July 2018.
2. **Reaffirm** the political commitment of the European Union and its Member States, sustainable and open by nature.
3. **Recognise** that the EOSC Declaration, by its nature, is an iterative and based on consensus among researchers, disciplines and Member States.
4. **Highlight** that the EOSC Declaration, by its nature, is an iterative and based on consensus among researchers, disciplines and Member States.
5. **Recall** that the

BRINGING TOGETHER CURRENT AND FUTURE DATA INFRASTRUCTURES



ACCESSO TRASPARENTE A DATI FAIR
«AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY»

9. **Call** for the European Open Science Cloud to provide all researchers in Europe with seamless access to an open-by-default, efficient and cross-disciplinary environment for storing, accessing, reusing and processing research data supported by FAIR data principles.

9. **Note** that the 2016 EOSC Summit (held on 17 June 2016) called for acceleration towards making the European Open Science Cloud a reality, hinting at the need to further strengthen the ongoing dialogue across institutions and with stakeholders, for a new governance framework to be launched in Vienna, on 23 November 2018.

Perché c'è EOSC: dati

...IL VALORE DEGLI OPEN DATA:
ATTIVARE IL POTENZIALE DEI DATI DELLA
RICERCA PER ACCELERARE PROGRESSO E
INNOVAZIONE

EOSC EOSC Strategy – Status Current Thinking

What

EOSC is a web of FAIR data and related services for research
Research data that is easy to find, access, interoperate and reuse (FAIR)
Trusted and sustainable research outputs are available within and across scientific disciplines

Why

Unlock the full potential of research data to accelerate discoveries and innovation

How

Access and interoperability of research data and results

- Define ownership, authorship and responsibility of data and research outputs
- Ensure long-term preservation of data throughout its lifecycle
- Enable the creation of standards for all research domains
- Make data machine-actionable
- Enable new scientific discovery methods and science disciplines
- Train researchers on adopting FAIR principles as an integral part in their activity

A sustainable coordinated infrastructure

- Establish and maintain a coordinated federated reference architecture
- Implement an operational infrastructure framework that is long term sustainable
- Ensure high quality of data and services
- Ensure secure access to data and services
- Define clear standards for API and interoperability of data and services
- Apply user friendly practices
- Inspire EOSC ambassadors to assist in on-boarding of researchers

Inspired people and robust governance

- Communicate an inspiring EOSC vision and strategy
- Implement an unambiguous and clearly mandated governance structure
- Establish a framework to engage human capital in institutions, countries and scientific communities
- Enable disciplinary and cross-disciplinary transnational research to find new insights from existing and new research data and outputs

[ACTION 1 OF THE ERA AGENDA]

• In particular ERA Action 1: **“Enable the open sharing of knowledge and the re-use of research outputs, including through the development of the EOSC”,** targeting to:

• Deploy Open Science principles and identify Open Science best practices

• Mainstreaming OS across nat'l programmes, catalogue of OS practices, tools and services, data scientists and data stewards, nat'l EOSC tripartite events ...

• Deploy the core components and services of EOSC and federate existing data infrastructures in Europe, working towards the interoperability of research data

• Horizon Europe support to EOSC Partnership, connection of nat'l/regional research infrastructures to EOSC federation, community frameworks for interoperability and quality control ...

• Establish a monitoring mechanism to collect data and benchmark investments, policies, digital research outputs, open science skills and infrastructure capacities related to EOSC

• Co-development of EOSC national surveys, roll-out of key layers of monitoring mechanism ...



eosc

Member States' Commitment to 20 ERA Actions
Status: 23/09/2022

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total	
Austria (AT)																						13
Belgium (BE)																						16
Bulgaria (BG)																						7
Croatia (HR)																						4
Cyprus (CY)																						11
Czechia (CZ)																						16
Denmark (DK)																						14
Estonia (EE)																						16
Finland (FI)																						11
France (FR)																						17
Germany (DE)																						16
Greece (EL)																						6
Hungary (HU)																						14
Ireland (IE)																						9
Italy (IT)																						14
Latvia (LV)																						8
Lithuania (LT)																						14
Luxembourg (LU)																						0
Malta (MT)																						5
Netherlands (NL)																						16
Poland (PL)																						11
Portugal (PT)																						16
Romania (RO)																						8
Slovakia (SK)																						10
Slovenia (SI)																						13
Spain (ES)																						17
Sweden (SE)																						10
Total	24	13	22	25	18	15	18	24	19	23	17	21	16	17	15	10	16	9	9	9	9	

28 | 11 | 2022 - EOSC Association

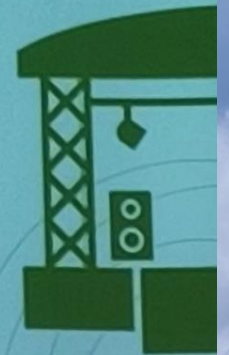
Cos'è EOSC?

EOSC

2023 Karel Luyben

“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



Cos'è EOSC?

2024

Launching and operating the EOSC EU Node

approach, milestones, and the role of the broader community

DG CNECT Unit C.1 Open Science and Digital Modelling

Peter Szegedi



EUROPEAN OPEN
SCIENCE CLOUD



What is EOSC



A process

- Accelerate Open Science, FAIR data management and use of digital methods and services
- Stimulate co-operation in science and research, new insights and innovations, higher research productivity and improved reproducibility in science.

An open, trusted, federation of infrastructure

- Access existing Research Infrastructures in Europe;
- Enable circa 2 million European researchers to store, share, process, analyze, and reuse research digital objects (e.g. data, publications and software)

An evolving ecosystem

- Bringing together the European Commission, the governments and the many R&I stakeholders involved in the European Research Area
- Co-created across European, national, and institutional levels

Cosa NON è EOSC

2023 Karel Luyben

EOSC is not ...

1. ...a cloud infrastructure

Despite the word "cloud" part of its name, EOSC is not a new cloud computing platform

2. ... a new research data repository or research data management system

The Federation of existing infrastructures, i.e. EOSC, is a new infrastructure which does not exist today

3. ... a new pan-European e-infrastructure

EOSC is not building a new e-infrastructure. EOSC is building i. the components to enable the federation of existing data, research and e- infrastructures nodes and ii. the additional services needed to enable the Web of FAIR data and related services.

4. ... synonymous of Open Science

EOSC is the enabler that will support the deployment of Open Science in Europe. EOSC does not substitute any existing Open Science networks.

5. ... the EOSC Association

The EOSC Association as representative of the various stakeholders in Europe is the legal entity established to work together with the European Commission to support the realisation of the EOSC strategy.

6. ... substituting any existing national, regional, pan-European, agnostic nor thematic Research Infrastructures or e-infrastructures

EOSC will enable the federation of existing data, research and e-infrastructures nodes. The new developments are focused on components enabling the federation and on the additional services needed to enable the Web of FAIR data and related services

7. ... the EOSC Portal

The EOSC Portal is one of the results of the EOSC Future EC funded project (2019-2023). The EOSC Portal is piloting the EOSC AAI and the idea of a European marketplace for services supporting researchers.

8. ... owning any data or services

EOSC is an enabler. The ownership of the federated elements (data, services, research infrastructures, e-infrastructures, etc.) will remain with the providers.

9. ... engaging directly individual researchers.

Individual researchers will benefit from EOSC through their existing channels (e.g. universities, research institutes, research infrastructures, associations, etc.) that will act as intermediaries.

[EOSC NON È UNA BIG BOX]

THE EUROPEAN OPEN SCIENCE CLOUD? SOME NUANCES AND DEFINITIONS

Imagine a federated, globally accessible environment where researchers, innovators, companies and citizens can publish, find and re-use each other's data and tools for research, innovation and educational purposes. Imagine that this all operates under well-defined and trusted conditions, supported by a sustainable and just value for money model. This is the environment that must be fostered in Europe and beyond to ensure that European research to knowledge creation, meet global challenges and fuel economic growth.

EOSC = AMBIENTE CHE FAVORISCE
LA OPEN SCIENCE E NON UN «OPEN
CLOUD» PER LA SCIENZA

EOSC NON È UN
REPOSITORY O UN
SERVIZIO «CLOUD»

SI RENDONO I DATI
FAIR IN MODO CHE I
SERVIZI IN EOSC
POSSANO TROVARLI
(«FINDABLE»)

NON SI FA
«UPLOAD» DEI DATI
DENTRO EOSC

OBJECTIVES

EOSC SRIA 1.0

Open Science practices and skills
are rewarded and taught, becoming
the 'new normal'

EOSC: federazione di «no

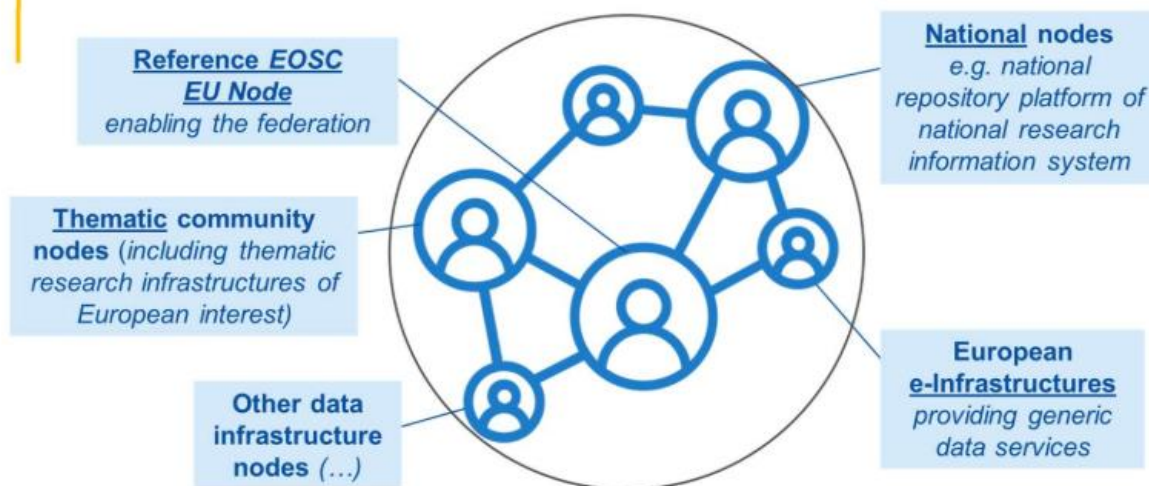
The European Open Science Cloud
(and its role in the EU strategy for data)

Javier Lopez Albacete,
Open Science and Research Infrastructures
DG research & Innovation, EC.

2024

13 March 2024
CERN

About the EOSC Federation and EOSC Nodes



EOSC policies and standards:**

A baseline should be defined to ensure that each node can have a minimum working set of features and supports a minimum set of policies. It is important to mandate compliance with protocols and standards, but to give freedom to each node on how to support them.

EOSC Federation*: Open and trusted federation of collaborative, autonomous infrastructures applying agreed, consensus-based EOSC policies and rules of participation, combined into a system of systems to enable European researchers to store, share, process, analyse, and reuse research digital objects (e.g. data, publications and software)

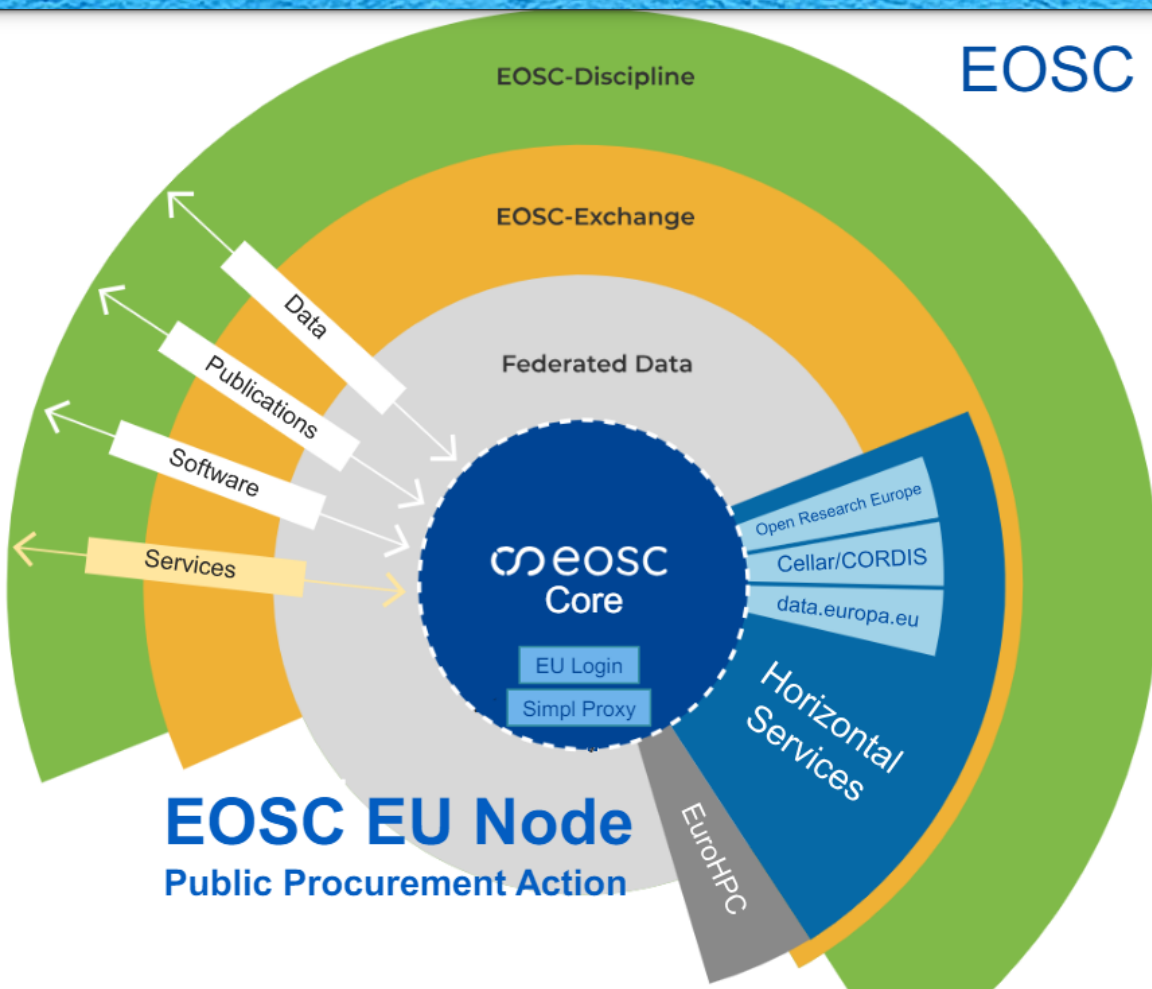
EOSC Node*: Data infrastructure system of variable nature (national, regional, institutional or thematic) with consensus-based policies, transparent ownership and clear responsibility, connected to the EOSC Federation to share information and resources within the EOSC community and to leverage common services

* Source: "EOSC operations and evolution post-2027" supporting document by the EOSC-SB Policy subgroup (November 2023)

** Source: GEANT and NREN's position on EOSC Nodes (October 2023)

EOSC EU node

EOSC EU Node Value Proposition



- **Facilitate** the creation of the “*Web of FAIR data and interoperable services*” (aka. EOSC Federation) under the Open Science Policy
- **Put** a “*seed in the ground*” by operationalizing the first recognised EOSC Node at the European level for the initial 3 years
- **Offer** “*core services*” for scientific research infrastructures to federate (single-sign-on, catalogues, knowledge graph, application workflow, monitoring, accounting, helpdesk) and common “*horizontal services*” for end-users to benefit from (compute, containers, data transfer, notebooks, file sharing, open research data)
- **Define** the *pathway and blueprint* (EOSC Interoperability Framework) for other potential EOSC Node operators to join the federation

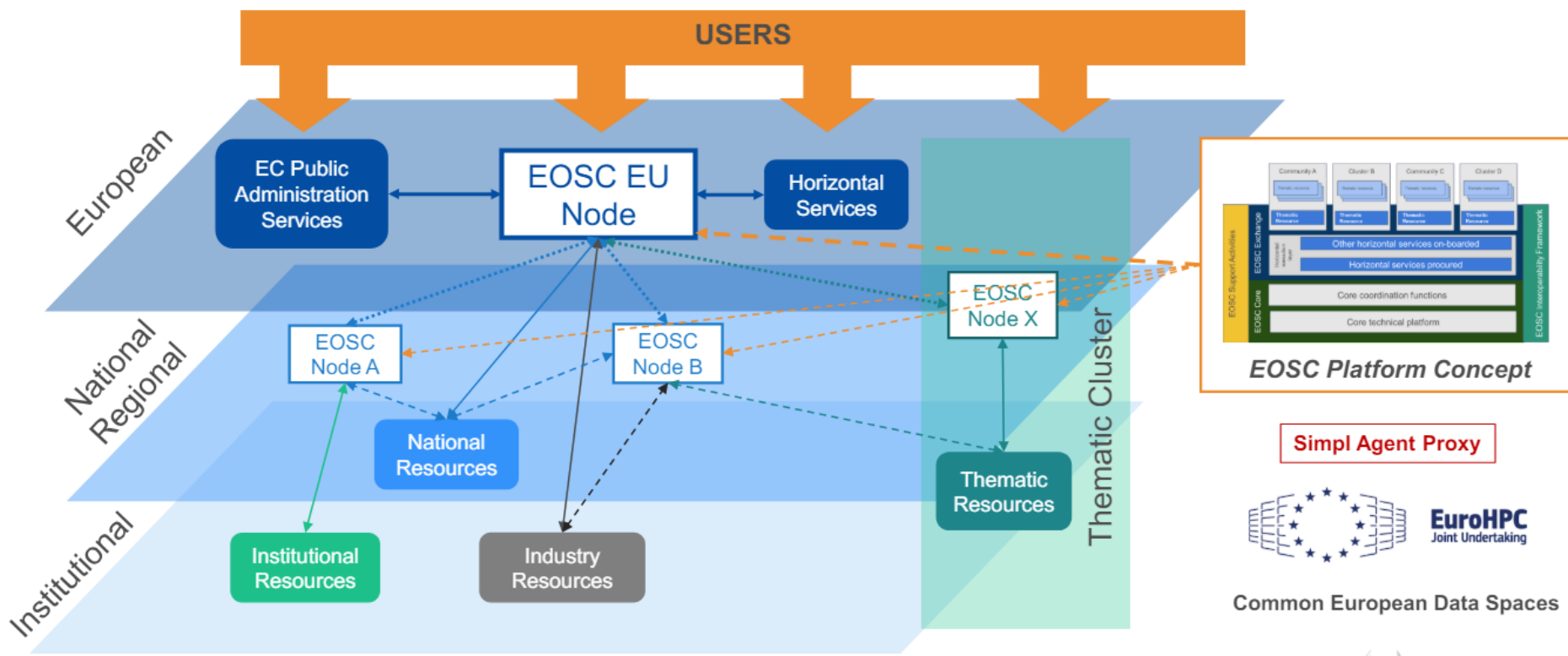
EOSC EU node

2024

Launching and operating the EOSC EU Node
approach, milestones, and the role of the broader community

DG CNECT Unit C.1 Open Science and Digital Modelling
Peter Szegedi

EOSC EU Node – Federation Approach



EOSC Federated "System of Systems"

EOSC: federazione di «no

The EOSC EU Node

- **Puts** a “seed in the ground” by operating 24/7 the first recognised EOSC Node at the European level for an initial period of 3 years.
 - European level **multi-disciplinary** and **multi-national** scientific data/service portfolio for all research users (eduGAIN) and citizen scientists (EU Login/eIDAS)
 - **Offers “federating capabilities”**:
 - Identity Management
 - Resource Catalogues and Registry services
 - Application Workflow Management
 - Service Monitoring and Accounting
 - Management System (incl. Helpdesk)
- and common “horizontal services” for end-users to benefit from (compute, containers, data transfer, notebooks, file sharing, open research data)
- **SIMPL Agent proxy** to connect to other Data Spaces
 - **32 Mio €** from RI WP 2022 to cover three years of operation

The European Open Science Cloud
(and its role in the EU strategy for data)

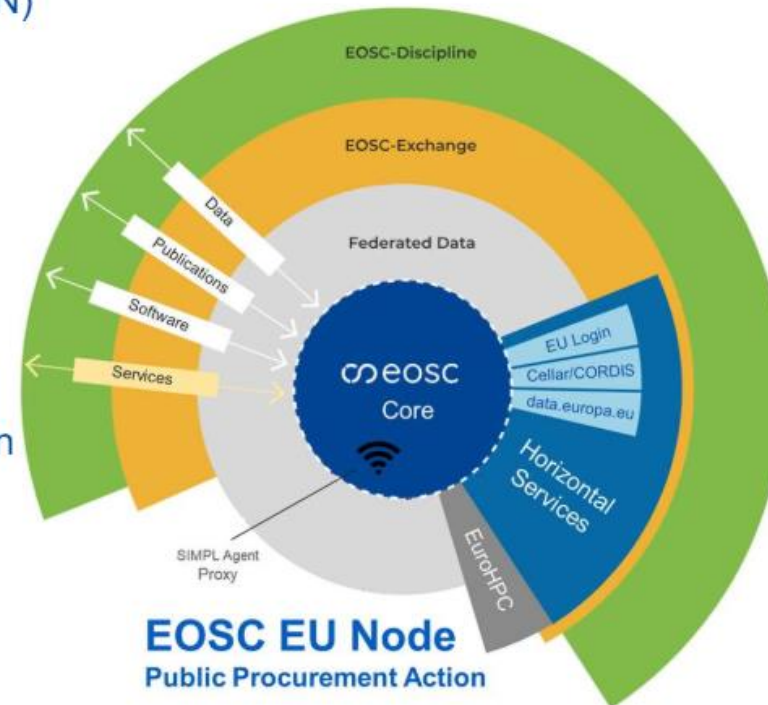
Javier Lopez Albacete,
Open Science and Research Infrastructures
DG research & Innovation, EC.

2024

13 March 2024

CERN

information system



EOSC: federazione di «no

The European Open Science Cloud
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DG research & Innovation, EC.

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13 March 2024

The **connections** in the Federation

To address the EOSC puzzle

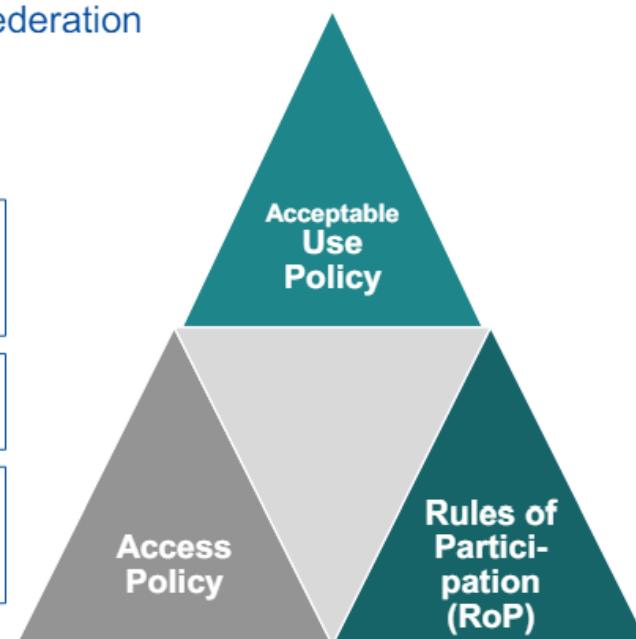
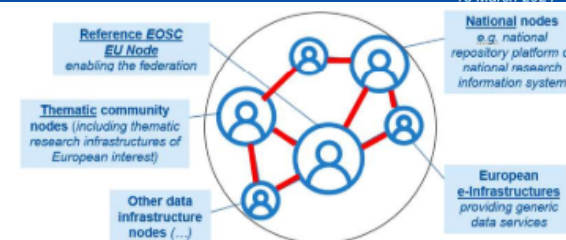
And cope with a vast quantity of infrastructure components of various scales and scopes, centralised or distributed, being generic, domain-specific or cross-disciplinary at institutional, national or European level.

- Minimal standards to be applied across the Federation (EOSC Interoperability Framework).
- Common policies and Rules of Participation applicable across the Federation
- A model to govern, enforce and evolve those policies.
- Trade-off between inclusiveness and quality of EOSC resources ?

The Use Policy affect **all users** (registered or anonymous) and defines what is acceptable use of EOSC. For example: lawful, respect of intellectual property, respect of security rules...

The Access Policy primarily regulates the use of resources (computing, data, network) and security rules **for registered users**.

The Rules of Participation affect all **resource providers / Node operators**. Define the **minimal standards** for any 3rd party service (ie: assets, support) provided within the Federation. Deeply related to onboarding.



EOSC: federazione di «no

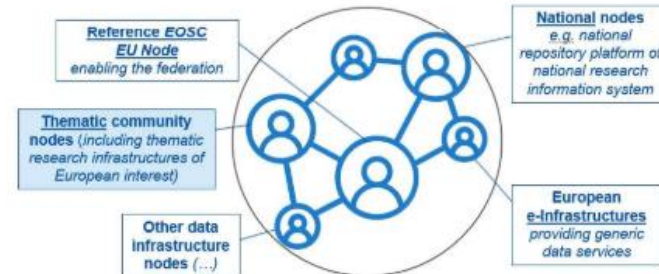
The European Open Science Cloud
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2024

13 March 2024

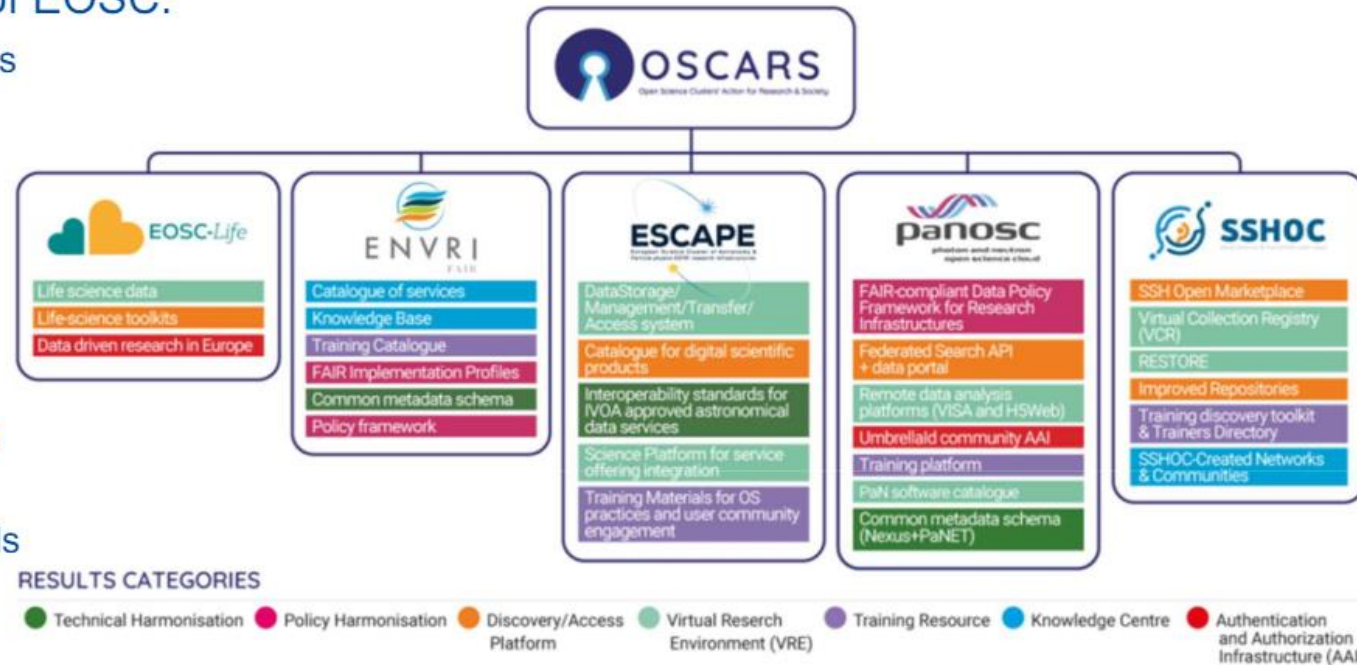
Thematic community Nodes: Some candidates



The Science Clusters approach:

Bottom-up implementation of the cross-border, cross-disciplinary model of EOSC:

- In H2020: from individual RIs to clustered RIs within 5 scientific domains (with EOSC onboarding)
- In HE: from a domain to a cross-domain approach with connection to the EOSC Federation
- **More than 40 RIs involved in the 5 Science Clusters**
- Need to act at different levels to address both specialization and generalization



EOSC pro



EOSC ▾

[Home](#) / [Activities](#) /

^ Lot 1 - Core Federation Services for the EOSC EU Node

The winner of the lot is the Open Science Agora Consortium.

The consortium is coordinated by Athena Research Center (ARC), and participated by EGI Foundation, OpenAIRE A.M.K.E and Netcompany Intrasoft SA. The subcontractors are: GÉANT Association, Greek Research & Technology Network (GRNET S.A.), and Scientific Compute and Competence Centre of University of Göttingen and the Max Planck Society (GWDG mbH). The underlying infrastructure providers are CESNET z. s. p. o, Interdisciplinary Centre for Mathematical and Computational Modelling (ICM) at University Warsaw, and GRNET S.A. offering their community and public cloud tenancies.

The consortium is going to provide professionally managed services for the core components of the EOSC EU Node including functions such as: the Web Portal Front Office, the Resource Catalogues and Registry Services, the Application Workflow Management engine, the Federated Identity Management and Single-Sign-On solution, the Monitoring and Accounting function, and the overall Service Management System and service integration.

European Commission announces results of the EOSC Procurement

28 November 2023

👁 3083 views • ⌚ 4 minutes



FASHI-CHOPSTIK HOLDER

1 X 3,00,-

EOSC procurement

2024

Launching and operating the EOSC EU Node
approach, milestones, and the role of the broader community

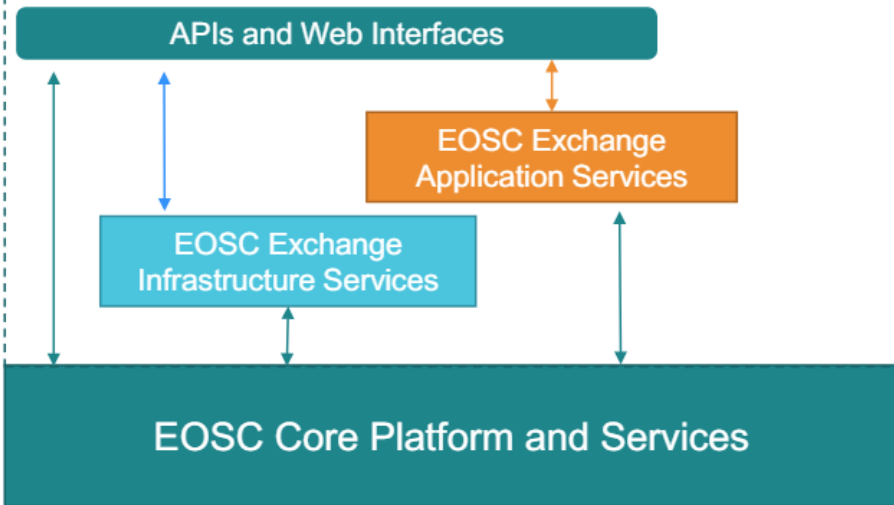
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Peter Szegedi

Hight-level EOSC EU Node architecture

EOSC Exchange Thematic/Regional Services



EOSC Exchange Horizontal Services



EOSC Support Activities

EOSC Interoperability Framework

Procurement Lot Structure

- Lot 3** Managed Collaborative Data Platform, Interactive Data Analytics Platform and Visualization Services for the EOSC Exchange (Application Services)
- Lot 2** Managed Container Platform and Virtual Machine Services for the EOSC Exchange (Infrastructure Services)
- Lot 1** Managed Services for the Development, Integration, Deployment and Operations of the Federated EOSC Core



EOSC procurement x EU node

2024

Launching and operating the EOSC EU Node

approach, milestones, and the role of the broader community

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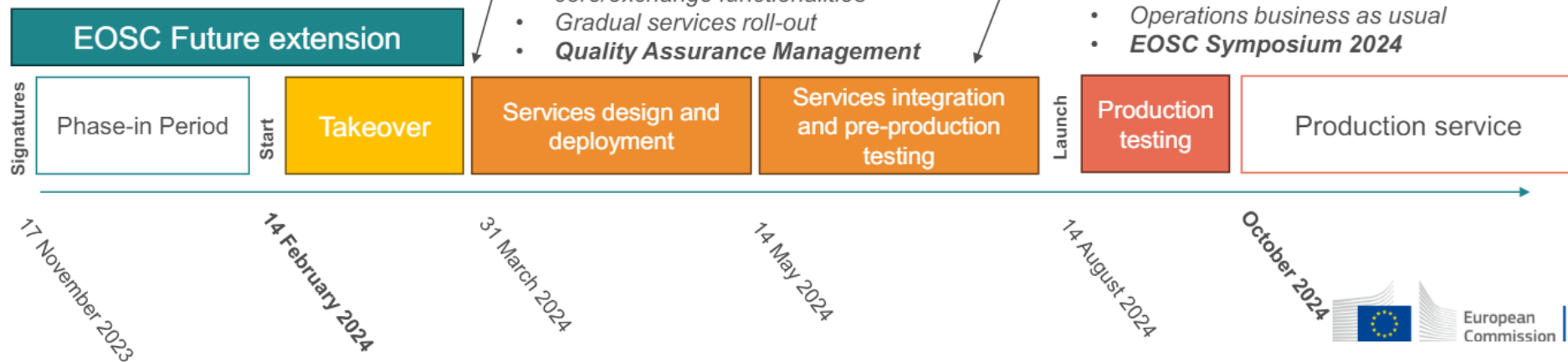
- Planning and architecting of service components
- **Compliances and approvals (EC IT Gov)**
- Definition of policies (RoP, AUP, AP)
- Production launch of the EOSC EU Node web front-office

- Handover of relevant EOSC Portal functionalities (specs, software, IPO, etc.)
- Managing expectations of all stakeholders (providers, users, etc.)

- Deployments and staging of core/exchange functionalities
- Gradual services roll-out
- **Quality Assurance Management**

- Full integration testing of core and exchange services
- Integration of EC services (ORE, ODP, CORDIS/Cellar)
- **Onboarding of flagships to EOSC EU Node**

- Pre-production and production testing
- First user experiences
- Operations business as usual
- **EOSC Symposium 2024**





Karel LUYBEN
EOSC-A President, 2023-2025



Marialuisa LAVITRANO
EOSC-A Vice-President, 2024-2026



Klaus TOCHTERMANN
EOSC-A Treasurer, 2024-2026



Ignacio BLANQUER
EOSC-A Director, 2023-2025



Suzanne DUMOUCHEL
EOSC-A Director, 2024-2026



Sara GARAVELLI
EOSC-A Director, 2022-2024



Bob JONES
EOSC-A Director, 2022-2024



Sarah JONES (in memoriam)
EOSC-A Director, 2023-2025



Wilhelm WIDMARK
EOSC-A Director, 2022-2024

PROF. LAVITRANO
NEL BOARD OF
DIRECTORS



EOSC ▾

Collaboration

The EOSC Association

EOSC Association

Advancing Open Science in Europe

<https://eosc.eu/>



EOSC Symposium 2024

<https://eosc.eu/symposium2024/>

21 - 23 October / Berlin, Germany



250
MEMBRI/OBSERVERS



EOSC partnership

Home / Collaborations / EOSC Partnership

EOSC Partnership

<https://eosc.eu/partnership/>



The European Open Science Cloud has been granted special status as a co-programmed European Partnership.

European Partnership status fortifies EOSC with European funding of almost €500 million and an in-kind contribution of the partners of also €500 million. The aim is to improve the storing, sharing and especially the combining and reusing of research data across borders and scientific disciplines.

500 M DALLA EU + 500 M IN 10 ANNI
ADDITIONAL ACIVITIES DAI MEMBRI

EOSC in the ma

Home / EOSC / The Macro-Roadmap

The Macro-Roadmap

The Macro-Roadmap for the implementation of EOSC is a visual mapping of the results of EU projects developing EOSC and the in-kind contributions of EOSC Association member organisations.

These two inputs will be mapped over time and categorized according to selected high-level objectives and the respective Action Areas of the EOSC Partnership's Strategic Research & Innovation Agenda. As the data become available, the in-kind contributions of the EOSC-A members (Additional Activities) will be added to the Macro-Roadmap.

Home / Collaborations / Horizon Europe Projects / AI4EOSC

AI4EOSC

Artificial Intelligence for the European Open Science Cloud

AI4EOSC project will deliver an enhanced set services for the development of AI, ML and DL models and applications in the EOSC. The services will make use of advanced features such as distributed, federated and split learning; provenance metadata; event-driven data processing services or provisioning of AI/ML/DL services based on serverless computing.

Coordinator:
Consejo Superior de Investigaciones Científicas (CSIC)

DOI:
10.3030/101058593

Website:

Countries:

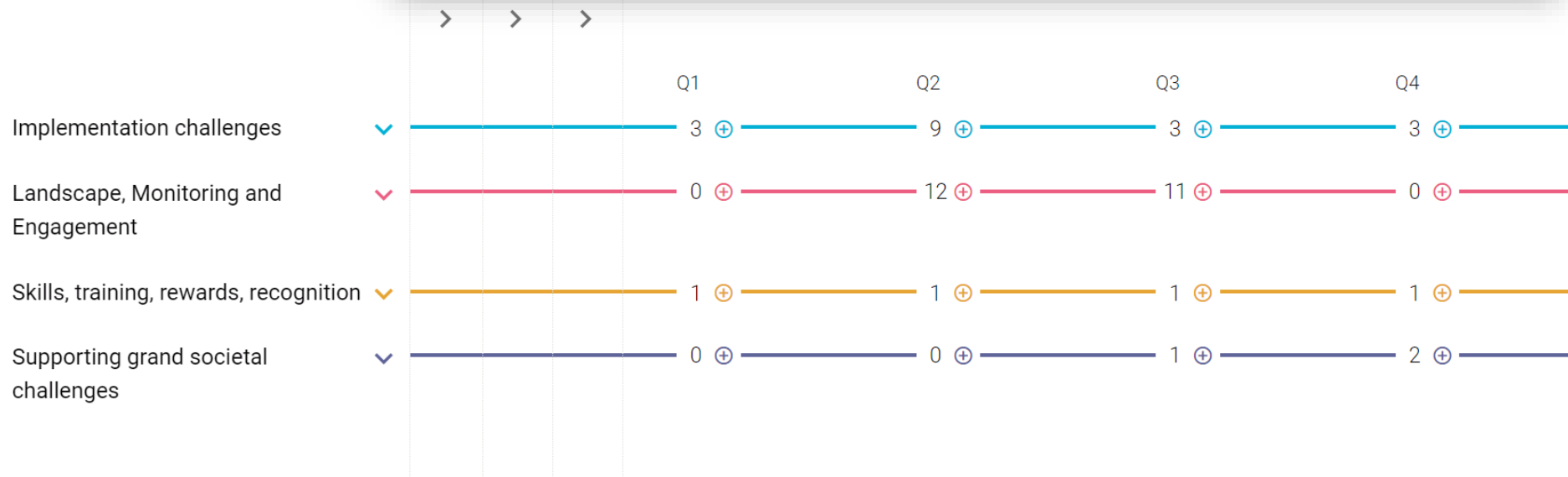
- Spain
- Germany
- Poland
- Slovakia
- Italy
- Portugal

Training Material on Artificial Intelligence (AI)

Open Educational Resources on FAIR and EOSC for the freshwater community

Open Educational Resources on FAIR and EOSC for the freshwater community

Training Material on Services for Cancer Research



EOSC strategic and innovat

Strategic Research and Innovation Agenda (SRIA)

SRIA 1.2 2023

of the European Open Science Cloud (EOSC)

Version 1.2 – 1 November 2023

1 NEW WAYS OF SCIENCE.....

- 1.1. The opportunity for change.....
- 1.2. The request for change.....
- 1.3. Open Science.....
- 1.4. Next-generation infrastructure.....

2 EOSC IN THE MAKING.....

- 2.1. European Research Area.....
- 2.2. Priorities of the new Commission.....
- 2.3. The European strategy for data.....
- 2.4. From Horizon 2020 to Horizon Europe.....
- 2.5. A history of EOSC.....
- 2.6. International dimension.....
- 2.7. Strengthening the community.....

3 STRATEGIC OBJECTIVES OF THE EUROPEAN OPEN SCIENCE CLOUD.....

- 3.1. EOSC Objectives Tree.....
- 3.2. Ensure that Open Science practices and skills are rewarded and taught, becoming the 'new normal'..... 56
- 3.3. Enable the definition of standards, and the development of tools and services, to allow researchers to find, access, reuse and combine results..... 56
- 3.4. Establish a sustainable and federated infrastructure enabling open sharing of scientific results.....

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4 GUIDING PRINCIPLES.....

- 4.1. Introduction.....
- 4.2. Multi-stakeholderism.....
- 4.3. Openness: 'as open as possible, as closed as necessary'.....
- 4.4. FAIR guiding principles: making science transparent and reproducible.....
- 4.5. Federation of infrastructures.....
- 4.6. Open Science services: machines in support of people.....
- 4.7. Recommendations.....

5 IMPLEMENTATION CHALLENGES.....

- 5.1. Identifiers.....
- 5.2. Metadata and ontologies.....
- 5.3. FAIR metrics and certification.....
- 5.4. Authentication and authorisation infrastructure.....
- 5.5. User environments.....
- 5.6. Resource provider environments.....
- 5.7. EOSC Interoperability Framework.....

6 BOUNDARY CONDITIONS.....

- 6.1. Rules of Participation.....
- 6.2. Landscape monitoring.....
- 6.3. Funding models.....
- 6.4. Skills and training.....
- 6.5. Rewards and recognition.....
- 6.6. Communication.....

- 6.7. Widening to public and private sectors and going global.....

7 EXPECTED IMPACTS.....

- 7.1. Improved trust, quality and productivity in science.....
- 7.2. Development of innovative services and products.....
- 7.3. Improved impact of research in addressing societal challenges.....
- 7.4. Critical success factors.....

8 ROADMAP.....

- 8.1. Summary of priorities for 2025.....
- 8.2. Establishing the MAR 2025-2027.....
- 8.3. Results of the MAR 2025-2027 Consultation.....
- 8.4. Processing survey results.....
- 8.5. Objectives.....
- 8.6. Levels of implementation.....
- 8.7. Priorities Stage 1 (2021-2022).....
- 8.8. Priorities Stage 2 (2023-2024).....
- 8.9. Priorities Stage 3 (2025-2027).....
- 8.10. Appraisal of the present and outlook to the future.....
- 8.11. Building on the Horizon 2020 and Horizon Europe projects.....

9 CONCLUSIONS.....

APPENDIX A RELATED DOCUMENTS.....

- A.1 European Open Science Cloud (EOSC) Partnership: Draft proposal under Horizon Europe.....

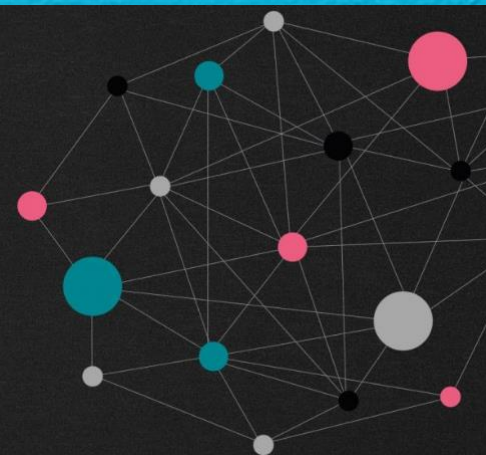


EOSC



Building the EOSC Federation

Join EOSC-A in co-creating the EOSC Federation



380

With the anticipated launch of the [EOSC EU Node](#) at the EOSC Symposium in October 2024, preparations for the [EOSC Federation](#) have kicked into high gear. To fully unlock the benefits of EOSC, one single node is not enough: additional “EOSC Nodes” need to be established and enrolled into the EOSC Federation.

The EOSC Federation will consist of multiple “EOSC Nodes” that are interconnected and can collaborate to share and manage scientific data, knowledge, and resources within and across thematic and geographical research communities. The EOSC Nodes will be entry points for users to the EOSC Federation, with each node offering its own and possibly third-party services, including data reposing and accessing services.

To enable the establishment of such a distributed system many questions remain to be answered:

- What are the minimum requirements for an entity to be an EOSC Node?
- What are the rules for enrolment of Nodes into the EOSC Federation?
- How will the EOSC Federation be governed?
- What are the financial mechanisms that will support the resource transactions within the EOSC Federation?

<https://eosc.eu/building-the-eosc-federation/>

THE TRIPARTITE GROUP
INCLUDES
REPRESENTATIVES FROM

- The European Commission’s Directorate-General Research and Innovation (DG RTD)
- Directorate-General Communications Network Content

EOSC Nodes share some common characteristics, including:

Collaboration: Nodes in the EOSC Federation enable collaboration to achieve common goals. This involves sharing information and experience, coordinating activities such as development, or combining resources to complete tasks. This benefits users (including clinicians, citizen and private sector scientists, etc.) by making more services and resources available, and by increasing the number of ways users can exploit those resources to reach their own objectives. The operation of the Nodes and the EOSC Federation should be transparent to users.

Governance: A governance structure is established at the EOSC Federation level to determine federation policies including the inclusion/exclusion of Nodes. There are basic policies, rules of participation as well as technical profiles and standards at the EOSC Federation level that apply to all Nodes. These rules are defined by the legal entity governing the EOSC Federation and are intended to maximise the possibility of additional Nodes joining the EOSC Federation, while at the same time assuring minimum levels of quality, interoperability and consistency (of the user

Position paper

EOSC Association Board position paper on the EOSC Federation and the role of EOSC Nodes

EOSC Association Board of Directors
Draft revised 12 November 2023

Autonomy: A Node has a degree of autonomy so it may operate independently to perform specific tasks or functions. There may be Node specific policies that vary from one Node to another (while remaining consistent with the policies at the federation level). For example, access policies may differ between Nodes. A Node ensures that all applicable policies are enforced and monitored for the resources within the Node. Within a Node, the entities legally responsible for any resource retain control over their own operations.

Interconnectivity: Nodes offer interfaces that respect the EOSC Interoperability Framework. Nodes can be connected to one another through a network, enabling them to communicate and exchange data or information. Information about a Node and its resources should be visible to the whole EOSC Federation via its inclusion in the EOSC Resource Catalogue along with the required information.

Resources: All Nodes contain resources that should be valuable to EOSC users, and by extension, to the EOSC Federation as a whole. The services may be of a technical nature (i.e. allow to perform actions on data) but may also include training services, skills and expertise such as centres of competence.

Scalability: The EOSC Federation can be scaled by adding new Nodes that adhere to the federation-level policies allowing for flexibility in accommodating changing workloads, requirements or capacity.

Heterogeneity: Nodes in the EOSC Federation can vary in the collection of resources to which they provide access and the infrastructure on which they are built.

COLLABORAZIONE
GOVERNANCE INCLUSIVA
AUTONIMA
INTERCONNESSIONE
RISORSE UTILI
SCALIBILITÀ
ETEROGENEITÀ

EOSC portal



European Open Science Cloud - EU Node

[Home](#) | [About](#) | [Services](#) | [Resource Hub](#) | [Support](#) | [Contributors](#) | [News & Events](#)

EOSC EU Node

A European platform and information gateway to explore, engage, and enrich your research collaborations.

[Explore our services >](#)



Enrich your Scientific Endeavours

Explore EOSC, the “Web of FAIR Data and Interoperable Services”



Enter the Gateway to Open Science

Access a diverse range of research objects and supplementary services all in one place



Manage your Research Workflows

Conduct your research while ensuring interoperability throughout the entire lifecycle



Exchange with your Peers

Collaborate, disseminate, and reuse research outputs across teams and domains

<https://open-science-cloud.ec.europa.eu/>

EOSC portal



<https://open-science-cloud.ec.europa.eu/>

European Open Science Cloud - EU Node

[Home](#) | [About](#) | [Services](#) | [Resource Hub](#) | [Support](#) | [Contributors](#) | [News & Events](#)

EOSC EU Node

A European platform and information gateway to explore, engage, and enrich your research collaborations.

File Sync and Share

Enable automatic file syncing and secure sharing across locations and teams.

Interactive Notebooks

Create and share documents with real-time code execution.

Large File Transfer

Streamline large file transfers online with added security and integrity.

Virtual Machines

Design and conduct experiments with flexibility while ensuring reproducibility.

Cloud Container Platform

Deploy cloud-native containerised applications that can easily scale.

Bulk Data Transfer

Move data effortlessly to data-intensive execution environments.

Resource hub



Search resources

All resources

Publications

Data

Software

Other Products

Services

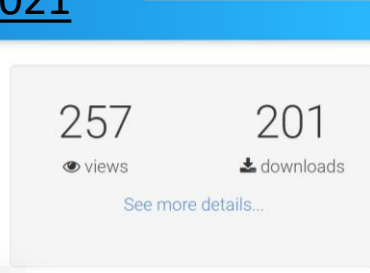
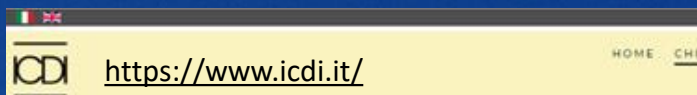
Data Sources

Training

Interoperability Guidelines

ICDI

TAVOLO DI LAVORO
INFRASTRUTTURE E ATENEI
PER FAVORIRE LA
PARTECIPAZIONE A EOSC E
INFRASTRUTTURE EUROPEE



- COMPETENCE CENTER PER SUPPORTO
 - PORTALE OPENSOURCE IT
 - OPEN SCIENCE CAFÈ

[EOSC come bene comune]

DOVREMMO CONSIDERARE SERIAMENTE
«OPEN» IN EOSC E PENSARE A
EOSC COME BENE COMUNE
AL DI LÀ DELLA RICERCA IN SÉ



EOSC Association
@eoscassociation

We should seriously consider the "Open" in [#EOSC](#) and interpret EOSC as a public good that goes beyond [#research](#) itself.
Per-Erik Yngwe at [#EOSCSymposium22](#)

[Traduci il Tweet](#)

9:31 AM · 15 nov 2022 · Twitter Web App

[Nov. 15 2022](#)

3 Retweet 1 Tweet di citazione 10 Mi piace



Open Science in Horizon

Open science

Open science in Horizon Europe

Open science is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process. It has the potential to increase the quality and efficiency of research and accelerate the advancement of knowledge and innovation by sharing results, making them more reusable and improving their reproducibility. It entails the involvement of all relevant knowledge actors.

Horizon Europe moves beyond open access to open science for which it features a comprehensive policy implemented from the proposal stage to project reporting. The Horizon Europe Regulation sets the legal basis for the open science obligations and incentives that apply to Horizon Europe beneficiaries. The Annotated Grant Agreement provides guidance on how to comply with the open science obligations required in the Model Grant Agreement. **The present guide complements the information**

pro the In Horizon Europe, open science practices are considered in the evaluation of proposals, under 'excellence' and under the 'quality and efficiency of implementation'.¹⁷ There are mandatory open science practices, which are required for all projects through the Model Grant Agreement and/or through the work programme or call conditions, and recommended practices (all open science practices that are not mandatory). Recommended open science practices are incentivised through their the evaluation at the proposal stage. Proposers should be aware of both mandatory and recommended practices and integrate them into their proposals.

PRATICHE OPEN SCIENCE

VALUTATE SOTTO

«EXCELLENCE»

a) OBBLIGATORIE

b) RACCOMANDATE

DOVETE INTEGRARE

ENTRAMBE NELLA PROPOSTA

V.1 June 17 2021

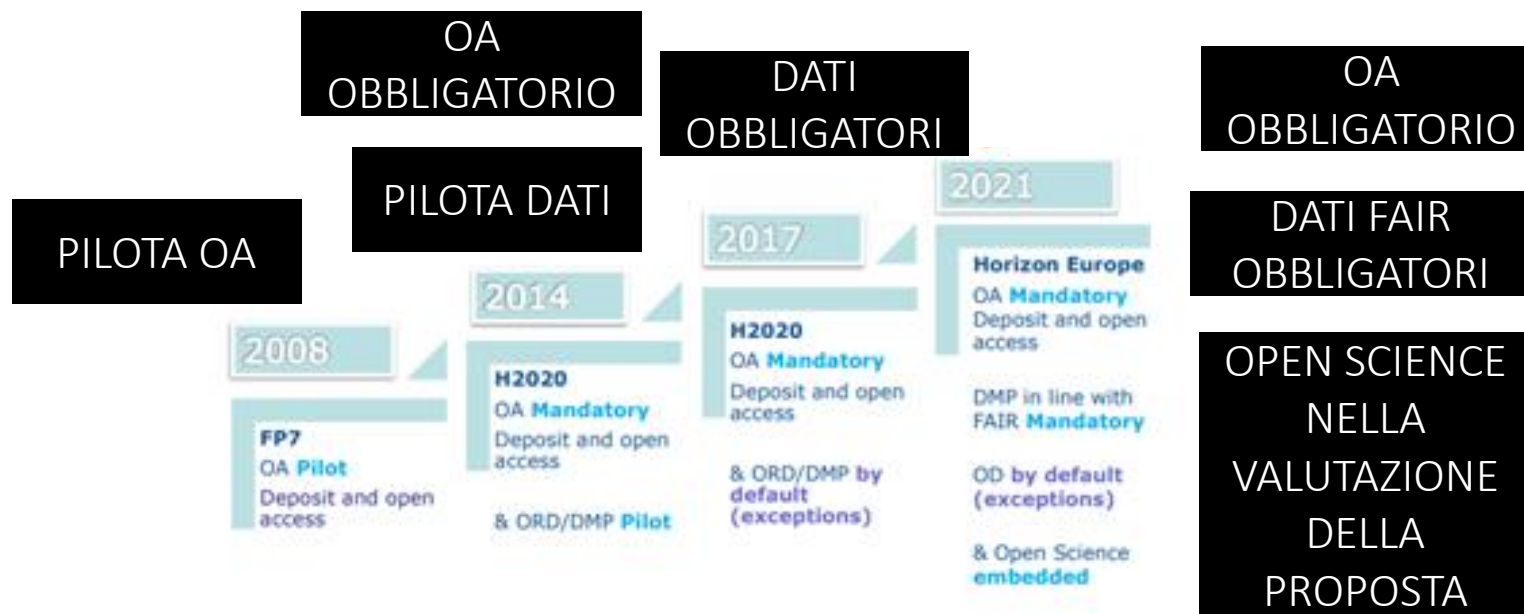


Horizon Europe

Programme Guide

Il percorso

The European Commission and Open Science



Horizon Europe documenti rilevanti

ART. 6.2 SPECIFIC ELIGIBILITY CONDITIONS
FOR EACH BUDGET CATEGORY C.3 OTHER
GOODS [P.30]
ART. 17 COMMUNICATION,
DISSEMINATION AND VISIBILITY [P.49]
ANNEX 5, TO ART. 17, **OPEN SCIENCE**
[P.107-109]



- ART. 6.2.C.3 OTHER COSTS (DISSEMINATION) P.[69]
- ART.17 COMMUNICATION & DISSEMINATION [P.113-115]
- ANNEX 5 IPR RULES [P.124-125 E 133-146 EXPLOITATION & PROTECTION]
- ANNEX 5 DISSEMINATION & OPEN SCIENCE [P.153-161]
INCLUDING THE DEFINITION OF «TRUSTED REPOSITORY» P. 156
- ANNEX 5 DISSEMINATION PLAN [P. 162]

Horizon Europe documenti rilevanti



PART A – LIST OF RELEVANT OUTPUTS
(OPEN ACCESS) [P.12]
PART B – 1.EXCELLENCE – 1.2 METHODOLOGY
(OPEN SCIENCE+DATA MANAGEMENT) [P.8]
PART B – 2.IMPACT
PART B – 3.2 CONSORTIUM CAPACITY [P.15]

- DISSEMINATION & IPR MANAGEMENT [P.30-37]
- OPEN SCIENCE [P.38-52]
INCLUDING RIGHTS
RETENTION CLAUSE [P.49] + A
LIST OF USEFUL RESOURCES
- CITIZEN SCIENCE [P.52-54]



Horizon

PRATICHE OBBLIGATORIE E RACCOMANDATE – **IN SEDE DI PROPOSTA VIENE VALUTATO COME VENGONO ADOTTATE/ADATTATE**



Open Science in Horizon Europe

NELLA METODOLOGIA VANNO DESCRITTE ENTRAMBE:
1) COME SI SARÀ CONFORMI ALLE PRATICHE OBBLIGATORIE
2) COME SI ADOTTERANNO PRATICHE RACCOMANDATE

PRATICHE RACCOMANDATE

NEL PROFILO RICERCATORE:
5 RISULTATI RILEVANTI (pubblicazioni, dati) ACCESSIBILI IN MODO OPEN (es. in IRIS) E CON IDENTIFICATIVO UNIVOCO (se possibile)

NELLA METODOLOGIA DEL PROGETTO
1) PRATICHE OPEN SCIENCE ADATTATE AL PROGETTO
2) GESTIONE DEI DATI FAIR CON SCHEMA DEL FUTURO DMP

MASSIMIZZAZIONE DELL'IMPATTO CON OPEN SCIENCE (OS È FRA I KEY PATHWAY INDICATORS) IN BOZZA DI DISSEMINATION PLAN (FUTURO DELIVERABLE M6)

PRATICHE OPEN PREGRESSE E CAPACITÀ DI FARE OPEN SCIENCE NELLA VALUTAZIONE DELLA QUALITÀ DI IMPLEMENTAZIONE E SOLIDITÀ DEL CONSORZIO

PRATICHE OBBLIGATORIE

DEPOSITO+ ACCESSO IMMEDIATO (ZERO EMBARGO E CC BY) =
1. OPEN RESEARCH EUROPE
2. RIVISTA OPEN
3. RIVISTA TRADIZIONALE MANTENENDO DIRITTI

- DATI E OGNI ALTRO ELEMENTO «AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY»
- GESTITI RESPNSABILMENTE SECONDO PRINCIPI FAIR
- DATA MANAGEMENT PLAN ENTRO MESE 6

RESEARCHERS PROFILE
Template PartA

SCIENTIFIC EXCELLENCE
Template PartB

IMPACT
Template PartB

IMPLEMENTATION
Template PartB

DISSEMINATION
Publications

DISSEMINATION
FAIR data

PROPOSTA DI PROGETTO [SU QUESTO SI VIENE VALUTATI]

OBBLIGHI A PROGETTO APPROVATO



Part A: Application form

Lista di 5 fra pubblicazioni, datasets, software, protocolli, ogni altro risultato rilevante per il progetto

- le pubblicazioni devono essere Open (NON "pubblicate", ok "depositate")
- i dataset devono essere FAIR e Open*

* "As open as possible, as closed as necessary"

Part B: Project proposal - Technical description

1 Excellence

1.1 Objectives and ambition

1.2 Methodology

Open Science [max 1 pag.]

In che modo il progetto adotterà /adatterà le pratiche Open Science obbligatorie e raccomandate?

Pratiche OS obbligatorie

Open Access# per le pubblicazioni: deposito+accesso immediato

Open Access* per i dati

Informazioni e documentazioni per validare la ricerca / per il riuso

Gestione responsabile dei dati in linea con i principi FAIR

Pratiche OS raccomandate

Condivisione aperta e immediata

Preregistrazione, open peer-review

Citizen science, public engagement

Gestione degli altri elementi della ricerca (oltre ai dati)

Riproducibilità

#1) pubblico in ORE-Open Research Europe

2) pubblico su rivista Open Access

3) pubblico su rivista tradizionale MA mantengo i diritti per deposito e accesso immediato

Research Data Management (RDM) and management of other research outputs (exc. publications) [max 1 pag.]

Come saranno gestiti i dati e altri elementi della ricerca in modo FAIR?

Dati e altri elementi...

...devono essere Findable Accessible* Interoperable Reusable

costi e responsabilità nella gestione, deposito e conservazione dei dati

Come applico Open Science alla proposta?



HORIZON EUROPE

Open Science (OS) gioca un ruolo fondamentale in Horizon Europe e le pratiche Open Science sono considerate nella valutazione della proposta di progetto.

Ci sono pratiche obbligatorie (Open Access a testi e dati) e raccomandate (open peer review, preprint, pre registrazione...).

Se non fossero applicabili, occorre fornire una giustificazione solida.

3 Quality and efficiency of the implementation

3.1 Work plan and resources

Es. Date visibilità alla gestione dei dati con specifici tasks/work packages

Includete il Data Management Plan (DMP) completo come deliverable (M6)

Includete altre attività di gestione dati/elementi e mettete a budget i costi

3.2 Capacity of participants & consortium as a whole

Es. Descrivete le competenze dei partners nel fare Open Science

2 Impact

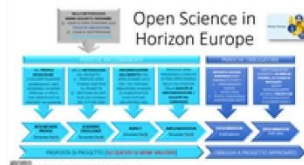
2.1 Project's pathways towards impact

2.2 Measures to maximize impact. Dissemination, exploitation & communication

Es. Serve solo uno schema. Fate riferimento alle pratiche Open Science descritte nella sezione Methodology (Open Access ai risultati, condivisione aperta e immediata...)

Controllate che le pratiche proposte siano compatibili con il Dissemination and exploitation plan (es. protezione della proprietà intellettuale) e con il Consortium agreement

Maggiori dettagli in Guida all'Open Science in Horizon Europe



<https://doi.org/10.5281/zenodo.4826662>



Traduzione e adattamento: Elena Giglia

Elementi obbligatori e non

ESEMPI DI PRATICHE
RACCOMANDATE E
OBBLIGATORIE

Open Science practices

What?	How?	Mandatory in all calls/recommended
Early and open sharing of research	Preregistration, registered reports, preprints, etc.	Recommended
Research output management	Data management plan (DMP)	Mandatory
Measures to ensure reproducibility of research outputs	Information on outputs/tools/instruments and access to data/results for validation of publications	Mandatory
Open access to research outputs through deposition in trusted repositories	<ul style="list-style-type: none">• Open access to publications• Open access to data• Open access to software, models, algorithms, workflows etc.	<ul style="list-style-type: none">• Mandatory for peer-reviewed publications• Mandatory for research data but with exceptions ('as open as possible...')• Recommended for other research outputs
Participation in open peer-review	Publishing in open peer-reviewed journals or platforms	Recommended
Involving all relevant knowledge actors	Involvement of citizens, civil society and end-users in co-creation of content (e.g. crowd-sourcing, etc.)	Recommended

NOI LI CONSIDERIAMO INSIEME
COME OPEN ACCESS AI DATI
GESTITI IN MODO FAIR

Elementi obbligatori e non

NELLA PROPOSTA DOVETE DECLINARE ENTRAMBE:

1. COME SARETE CONFORMI ALLE PRATICHE OBBLIGATORIE
2. COME ADATTERETE QUELLE RACCOMANDATE

LE PRATICHE OPEN SCIENCE
DETTAGLIATE NEL GRANT AGREEMENT
SONO **OBBLIGATORIE**:

- GESTIONE DEI RISULTATI IN MODO FAIR (DATA MANAGEMENT PLAN)
- OPEN ACCESS ALLE PUBBLICAZIONI
 - OPEN ACCESS AI DATI
- FORNIRE INFORMAZIONI UTILI A VALIDARE/RIUSARE

LE PRATICHE OPEN SCIENCE
SUGGERITE NEL PROPOSAL TEMPLATE
SONO **RACCOMANDATE**:

es. open peer review, pre registration,
cittizen science...

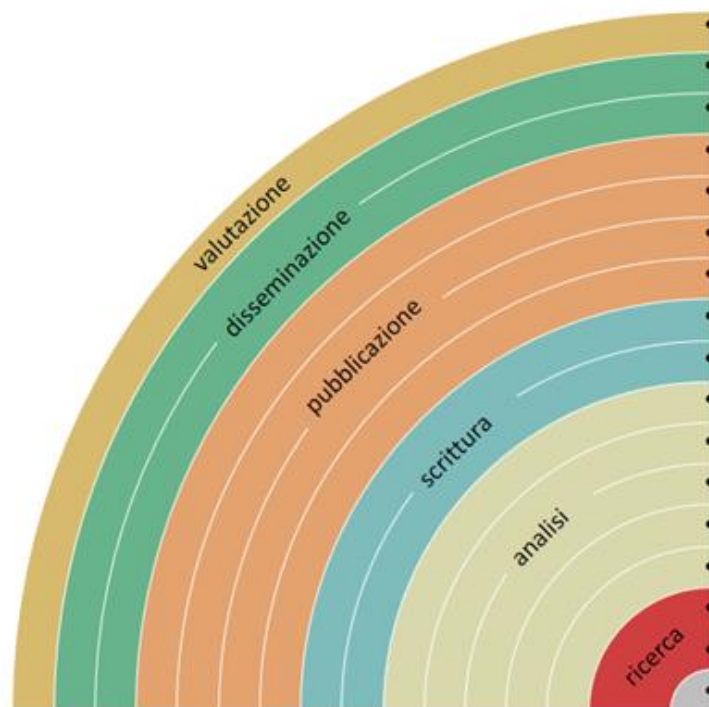
ALCUNE CALL POTRANNO
AVERE ULTERIORI OBBLIGHI
(SARÀ SPECIFICATO)

MA SU QUESTE PRATICHE SI VALUTA
ECCELLENZA E SOLIDITÀ DEL
CONSORZIO

Pratiche Open Science

OS rainbow

Come rendere Open ogni passo della ricerca...



- aggiungendo misure di impatto alternative, es. [altmetrics](#)
- comunicando sui social media, es. [Twitter](#)
- condividendo poster e presentazioni, es. su [FigShare](#)
- utilizzando licenze aperte, es. [Creative Commons BY](#)
- depositando in [archivi](#) o pubblicando su [riviste Open](#)
- provando la open peer review, es. [PubPeer](#) o [F1000](#)
- condividendo preprints, su [OSFpreprint](#), [arXiv](#) o [biorXiv](#)
- con formati leggibili dalle macchine, es. [Jupyter](#) o [CoCalc](#)
- con la scrittura collaborativa, es. [Overleaf](#) o [Authorea](#)
- condividendo protocolli e workflow, es. su [Protocols.io](#)
- condividendo note di laboratorio, es. [OpenLabNotebook](#)
- condividendo software, es. su [GitHub](#) con licenza [GNU/MIT](#)
- condividendo i dati, es. su [Dryad](#), [Zenodo](#) o [Dataverse](#)
- pre-registrando esperimenti, es. [OSFregistry](#) o [AsPredicted](#)
- commentando pagine web, es. su [Hypothes.is](#) o [Pund.it](#)
- usando bibliografie condivise, es. su [Zotero](#)
- condividendo progetti di ricerca, es. su [RIO Journal](#)



ADATTATE IL MAGGIOR NUMERO DI PRATICHE ALLA VOSTRA RICERCA
LA RICERCA DEVE RISULTARE «OPEN BY DESIGN»



Obblighi / testi

- Open Access ai testi
- validazione/riproducibilità

HEU – Grant Agreement - TESTI

ANNEX 5

SPECIFIC RULES

COMMUNICATION, DISSEMINATION, OPEN SCIENCE AND VISIBILITY (— ARTICLE 17)

Open Science

Open science: open access to scientific publications

The beneficiaries must ensure open access to peer-reviewed scientific publications relating to their results. In particular, they must ensure that:

- at the latest at the time of publication, a machine-readable electronic copy of the published version, or the final peer-reviewed manuscript accepted for publication, is deposited in a trusted repository for scientific publications
- immediate open access is provided to the deposited publication via the repository, under the latest available version of the Creative Commons Attribution International Public Licence (CC BY) or a licence with equivalent rights; for monographs and other long-text formats, the licence may exclude commercial uses and derivative works (e.g. CC BY-NC, CC BY-ND) and
- information is given via the repository about any research output or any other tools and instruments needed to validate the conclusions of the scientific publication.


V.1 Feb 2021



Horizon Europe (HORIZON)
Euratom Research and Training Programme
(EURATOM)

General Model Grant Agreement
EIC Accelerator Contract

(HE MGA – Multi & Mono)

Version 1.0
20 February 2021

PUBBLICAZIONI:

1. DEPOSITO IN UN **ARCHIVIO AFFIDABILE**
2. DARE **ACCESSO APERTO IMMEDIATO**
3. FORNIRE TUTTE LE INFORMAZIONI PER VALIDARE (SOFTWARE, STRUMENTI..)

NOVITÀ:

- **CONCETTO DI «ARCHIVIO AFFIDABILE»**
- **NON ESISTE PIÙ EMBARGO (CHE OBBLIGAVA ALL'OPEN ACCESS IBRIDO)**

[significa che sono sempre obbligato a pubblicare e non



IP Helpdesk

Home Services Regional helpdesks IP management and resources About News & Events

European Commission > IP Helpdesk > News & Events > News > Open Science vs. IPR in Horizon Europe – which one wins?

NEWS ARTICLE | 17 September 2021 | European Innovation Council and SMEs Executive Agency

Open Science vs. IPR in Horizon Europe – which one wins?

- 1) OBBLIGO DI PROTEGGERE I RISULTATI (SE DEL CASO)
- 2) OBBLIGO DI DISSEMINARE IN OPEN ACCESS NON SIGNIFICA OBBLIGO DI PUBBLICARE. SE SONO PREVISTE PUBBLICAZIONI, DEVONO ESSERE OPEN

Our enquirer's concerns were the following: is it possible to first file for a patent (his proposed project would involve the development of a new invention), and only then to proceed to the dissemination of results via an open access article? Or does the Open Science policy applicable in Horizon Europe prevail over IPR protection, and imposes the disclosure of the invention in an open access journal as soon as possible?

To answer this, it is essential to keep in mind that in Horizon Europe (including MSCA), grant beneficiaries have the **obligation to protect their results** - see Annex 5 to the [model GA for Unit Grants](#) incl. MSCA (page 88 onwards).

On the other hand, Open Science practices, while compulsory in Horizon Europe, are not incompatible with this obligation... even though they may seem so. Indeed, the open access obligation (for example) is NOT an obligation to publish. Simply, if/when fellows publish a scientific article, it will have to be in open access.

In other words, Open Science obligations in Horizon Europe are NOT a general obligation to disseminate. **They are even less an obligation to surrender IP rights, and for this reason should not be construed in opposition to IP protection.** The dissemination of Horizon results can be postponed to allow the appropriate protection of results beforehand - see the grant agreement clauses on dissemination (annex 5 to the MGA for Unit Grants, pp.94-95) according to which the dissemination obligation is made subject to any restrictions linked to the protection of intellectual property.

This is confirmed by the European Commission in the [annotated model grant agreement](#) for Horizon Europe (see page 153).

To sum up: not only is it possible for fellows and beneficiaries to protect their results first (e.g. via a patent filing), but **it is also necessary to ensure compliance with the obligation to protect the project results.** This is something that can be explained in the proposal – that the strategy is, first, to secure IP protection, and that once this is completed, dissemination obligations will be fulfilled, including via open access if publications are foreseen.



No entry
to unauthorised personnel
No smoking or naked lights



Keep well
ventilated

«ARCHIVIO AFFIDABILE»

IRIS SI STA ATTREZZANDO /
SENTIRE CINECA

Trusted repositories are:

- Certified repositories (e.g. CoreTrustSeal, nestor Seal DIN31644, ISO16363) or disciplinary and domain repositories commonly used and endorsed by the research communities. Such repositories should be recognised internationally.
- General-purpose repositories or institutional repositories that present the essential characteristics of trusted repositories, i.e.:

- o display specific characteristics of organisational, technical and procedural quality such as services, mechanisms and/or provisions that are intended to secure the integrity and authenticity of their contents, thus facilitating their use and re-use in the short- and long-term. Trusted repositories have specific provisions in place and offer explicit information online about their policies, which define their services (e.g. acquisition, access, security of content, long-term sustainability of service including funding etc.).
- o provide broad, equitable and ideally open access to content free at the point of use, as appropriate, and respect applicable legal and ethical limitations. They assign persistent unique identifiers to contents (e.g. DOIs, handles, etc.), such that the contents (publications, data and other research outputs) are unequivocally referenced and thus citeable. They ensure that contents are accompanied by metadata sufficiently detailed and of sufficiently high quality to enable discovery, reuse and citation and contain information about provenance

facilitate mid- and long-term preservation of the deposited material. They have mechanisms or provisions for expert curation and quality assurance for the accuracy and integrity of datasets and metadata, as well as procedures to liaise with depositors where issues are detected. They meet generally accepted international and national criteria for security to prevent unauthorized access and release of content and have different levels of security depending on the sensitivity of the data being deposited to maintain privacy and confidentiality.



- INTEGRITÀ
- CONSERVAZIONE
- SICUREZZA
- IDENTIFICATIVI
- RIUSO

HEU – Grant Agreement - TESTI

ANNEX 5

SPECIFIC RULES

**COMMUNICATION, DISSEMINATION, OPEN SCIENCE AND VISIBILITY (—
ARTICLE 17)**


V.1 Feb 2021



Horizon Europe (HORIZON)
Euratom Research and Training Programme
(EURATOM)

General Model Grant Agreement
EIC Accelerator Contract

(HE MGA – Multi & Mono)

Version 1.0
20 February 2021

Beneficiaries (or authors) must retain sufficient intellectual property rights to comply with the open access requirements.

MA SAREBBE
BENE CHE GLI
ATENEI AVESSERO
UNA POLITICA DI
CESSIONE NON
ESCLUSIVA

GLI AUTORI DEVONO
MANTENERE I DIRITTI SUFFICIENTI
PER ESSERE CONFORMI AGLI OBBLIGHI DI OPEN ACCESS
(DEPOSITO+ZERO EMBARGO)

SI TRATTA DI UNA «PRIOR OBLIGATION» RISPETTO AL
CONTRATTO CHE SARÀ FIRMATO CON L'EDITORE
(SAREBBE TENUTO A RISPETTARLO)

NELLA GUIDA HEU CI SARÀ UN MODELLO DI CLAUSOLA
DA SOTTOPORRE ALL'EDITORE

Right retention clause

CLAUSOLA DA USARE AL MOMENTO
DELLA SUBMISSION
[PRIOR OBLIGATION]



beneficiaries/researchers are encouraged to notify publishers of their grant agreement obligations (including the licensing requirements) already at manuscript submission. For example, by adding the following statement to their manuscript: *"This work was funded by the European Union under the Horizon Europe grant [grant number]. As set out in the Grant Agreement, beneficiaries must ensure that at the latest at the time of publication, open access is provided via a trusted repository to the published version or the final peer-reviewed manuscript accepted for publication under the latest available version of the Creative Commons Attribution International Public Licence (CC BY) or a licence with equivalent rights. CC BY-NC, CC BY-ND, CC BY-NC-ND or equivalent licenses could be applied to long-text formats."* If the publishing agreement is contrary to the grant agreement obligations, authors should negotiate its terms and, alternatively, look for a different publishing venue/options.

SE EDITORE RIFIUTA... CAMBIATE EDITORE!

HEU – Grant Agreement - TESTI

ANNEX 5

SPECIFIC RULES

COMMUNICATION, DISSEMINATION, OPEN SCIENCE AND VISIBILITY (— ARTICLE 17)

Metadata of deposited publications must be open under a Creative Common Public Domain Dedication (CC 0) or equivalent, in line with the FAIR principles (in particular machine-actionable) and provide information at least about the following: publication (author(s), title, date of publication, publication venue); Horizon Europe or Euratom funding; grant project name, acronym and number; licensing terms; persistent identifiers for the publication, the authors involved in the action and, if possible, for their organisations and the grant. Where applicable, the metadata must include persistent identifiers for any research output or any other tools and instruments needed to validate the conclusions of the publication.

- METADATI FAIR E SEMPRE OPEN CON LICENZA CC0
- **INSERIRE GRANT NUMBER E ACRONIMO** PER OPENAIRE

Only publication fees in full open access venues for peer-reviewed scientific publications are eligible for reimbursement.

SOLO LE SPESE PER PUBBLICAZIONI FULL OPEN ACCESS SONO RIMBORSABILI
SONO ESCLUSE LE RIVISTE IBRIDE


V.1 Feb 2021



Horizon Europe (HORIZON)
Euratom Research and Training Programme
(EURATOM)

General Model Grant Agreement
EIC Accelerator Contract

(HE MGA – Multi & Mono)

Version 1.0
20 February 2021

Mandatory OS practices /testi/ riepilogo



DA DETTAGLIARE ANCHE NELLA PROPOSTA. COME SARÀ CONFORME IL PROGETTO A QUESTI OBBLIGHI?

OPEN ACCESS AI TESTI:

1. DEPOSITO IN TRUSTED REPOSITORY [SEMPRE]
2. DARE **ACCESSO IMMEDIATO**
MANTENENDO I DIRITTI PER POTERLO FARE
3. OGNI ELEMENTO UTILE A VALIDARE
4. METADATI OPEN + GRANT PER OPENAIRE

[IL DEPOSITO]

IN HEU «DEPOSITO» È
SEMPRE IL PRIMO STEP

OBBLIGATORIO SEMPRE,
ANCHE SE PUBBLICATE SU
RIVISTA OPEN ACCESS

SERVE PER
CONSERVAZIONE+
TEXT/DATA MINIG

VA DEPOSITATO POSTPRINT
O PDF EDITORIALE
NON PRE-PRINT

IL SECONDO STEP È DARE
ACCESSO IMMEDIATO

È UN PO' DIVERSO DALLA «GREEN ROAD»
TRADIZIONALE CHE SI USA PER «LIBERARE»
UN PAPER PUBBLICATO IN ABBONAMENTO

NELLA «GREEN ROAD» PRIMA PUBBLICATE,
POI VERIFICATE IN SHERPA ROMEO
VERSIONE ED EMABRGO E DEPOSITATE

[...QUINDI NORMALMENTE
NON HA SENSO DEPOSITARE
SE AVETE PUBBLICATO IN OPEN ACCESS]

Preliminari: Open su cosa?



Open Science

Open science: open access to scientific publications

The beneficiaries must ensure open access to peer-reviewed scientific publications relating to their results. In particular, they must ensure that:

LA VERSIONE PEER-REVIEWED
[AUTHORS' ACCEPTED MANUSCRIPT O VERSION OF RECORD]
NON BASTA IL PREPRINT SU ARXIV

Definizioni

PREPRINT/SUBMITTED VERSION:

LA BOZZA CHE INVIATE ALLA RIVISTA PER LA SUBMISSION,
NON CONTIENE I COMMENTI DEI REVISORI

POSTPRINT/AUTHOR'S ACCEPTED MANUSCRIPT:

LA VERSIONE FINALE REVISIONATA, CONTIENE I COMMENTI
DEI REVISORI MA NON HA LA VESTE GRAFICA ED EDITORIALE

PDF EDITORIALE/VERSION OF RECORD:

LA VERSIONE FINALE PUBBLICATA,
CON VESTE GRAFICA ED EDITORIALE

EMBARGO:

MESI IN CUI L'ARTICOLO PUR DEPOSITATO NELL'ARCHIVIO
NON RISULTA VISIBILE

- SI CALCOLA DALL'USCITA DEL FASCICOLO ONLINE (NON DAL DEPOSITO!)
- SI APPLICA ALLA VERSIONE CONSENTITA E NON AL PDF EDITORIALE!
- IL SISTEMA SBLOCCA IL FILE ALLA DATA FINE EMBARGO IMPOSTATA

TESTI

Tre modi per essere conformi



1. PUBBLICO SU ORE – OPEN RESEARCH EUROPE

NESSUN
COSTO

2. PUBBLICO SU UNA RIVISTA OPEN ACCESS E
DEPOSITO

POSSIBILE APC -
RIMBORSATA

NO RIMBORSO
PER IBRIDO

3. PUBBLICO SU UNA RIVISTA TRADIZIONALE
E MANTENGO I DIRITTI PER
DEPOSITO+ ACCESSO IMMEDIATO

Come fare / 1. pubblico in ORE

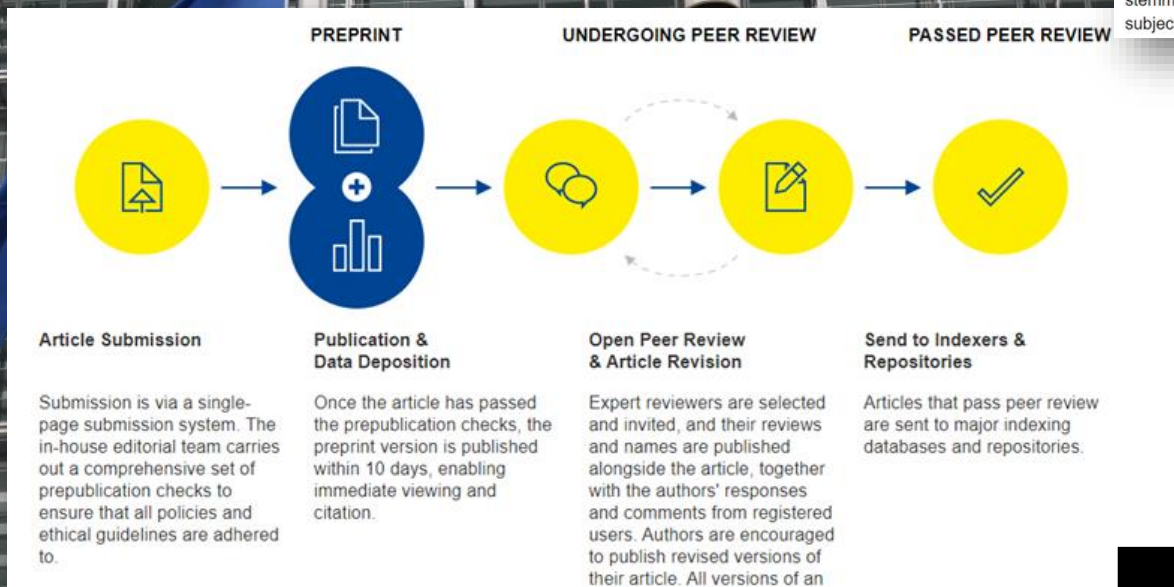
Open Research Europe

How to Publish ▼ About ▼

Rapid & Transparent Publishing

Fast publication and open peer review for research stemming from Horizon 2020 funding across all subject areas.

ORE



DEPOSITO
[INCLUSO]

OPEN
IMMEDIATO

DATI/INFO
[INCLUSO]

CON QUESTO SIETE
GIÀ CONFORMI

CON ORE, IN
PIÙ:

GRATIS

OPEN PEER
REVIEW

INDICIZZAZIONE

NON INCLUDERE
NEL BUDGET

CONTA COME
PRATICA OPEN

CONTA PER MAX
IMPATTO

Come fare / 2. Pubblico su una rivista Open Access [Gold o Diamond]

Three tips to choose a publishing venue using the Directory of Open Access Journals (DOAJ)

Published on January 11, 2021

Jan. 11, 2021



Andrea Chiarelli

Senior Consultant at Research Consulting | Enhancing the effectiveness and impact of research

4 articles

Following



OLTRE 15.000 RIVISTE
FULL OPEN ACCESS

DEPOSITO

[STA A VOI]

- IRIS/APERTO
- ZENODO

OPEN

IMMEDIATO

COSTI?

DATI/INFO

[STA A VOI]

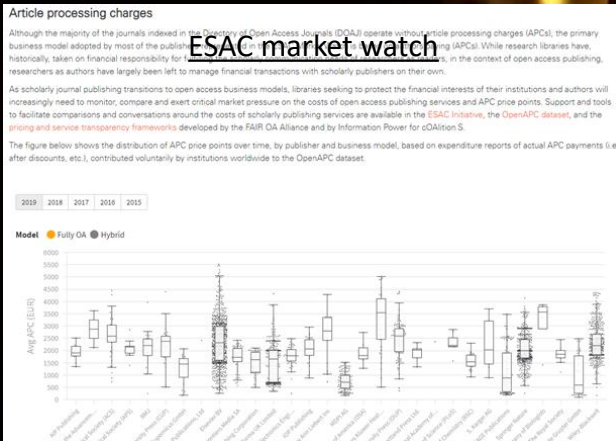
- ZENODO
- [RE3DATA]

SIETE CONFORMI

- EVENTUALI SPESE VANNO **INCLUDE NEL BUDGET**
- PER CALCOLARE, UNA MEDIA IN ESAC MARKET
- CONTROLLATE LA VOSTRA RIVISTA

27% CHIEDE PAGAMENTO
SPESE PUBBLICAZIONE
250-2900 \$

- RIMBORSABILI SOLO SPESE PER
- FULL OPEN ACCESS (NO IBRIDO)
 - DIGITALE (NO LIBRI A STAMPA)



Come fare / 3. Pubblico su una rivista tradizionale

DEPOSITO

[STA A VOI]

- IRIS/APERTO
- ZENODO

OPEN

IMMEDIATO

POSSO?

DATI/INFO

[STA A VOI]

- ZENODO
- [RE3DATA]

SIETE CONFORMI

VERIFICATE
EVENTUALE EMBARGO
(SHERPA ROMEO)



COSTI?

OPEN CHOICE
IBRIDA NON
RIMBORSABILE

SE VIENE RICHIESTO EMBARGO, DOVETE
MANTENERE I DIRITTI PER DARE ACCESSO
IMMEDIATO NELL'ARCHIVIO OPEN


SI TRATTA DI UNA **PRIOR OBLIGATION**
VERSO L'ENTE FINANZIATORE CON CUI
AVETE FIRMATO AGREEMENT

NELLA PROGRAMME GUIDE
P.49 **CLAUSOLA DA**
AGGIUNGERE AI CONTRATTI

Come fare / 3. Pubblico su una rivista tradizionale

SPESE PER RIVISTE
IBRIDE NON
RIMBORSABILI



 Publishing fees (including page charges or colour charges) for publications in other venues, for example in subscription journals (including hybrid journals) or in books that contain some scholarly content that is open and some that is closed are NOT eligible costs. Publishing fees for open access books may be eligible to the extent that they cover the first digital open access edition of the book (which could include different formats such as html, pdf, epub, etc.). Printing fees for monographs and other books are NOT eligible.

SPESE PER VOLUMI CARTACEI
NON RIMBORSABILI («OPEN»
ONLINE)

[nota bene]

NON CI INTERESSA DOVE
PUBBLICANO MA COME
SPENDONO I SOLDI
PUBBLICI
(CONVERSAZIONE PRIVATA
VIA MAIL)

“WE DO NOT TELL RESEARCHERS
WHERE TO PUBLISH, SO
NOTHING IS PROHIBITED.
HOWEVER, WE DO CARE WHERE
WE SPEND TAXPAYER MONEY”

...e ricordate che la valutazione
sta cambiando



Coalition for Advancing Research Assessment

Our vision is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for which peer review is central, supported by responsible use of quantitative indicators.

Obblighi / dati

- gestione dei dati (DMP)
- Open Access ai dati
- validazione/riproducibilità



HEU – Grant Agreement - DATI

ANNEX 5

SPECIFIC RULES

COMMUNICATION, DISSEMINATION, OPEN SCIENCE AND VISIBILITY (— ARTICLE 17)

Open science: research data management

The beneficiaries must manage the digital research data generated in the action ('data') responsibly, in line with the FAIR principles and by taking all of the following actions:

- establish a data management plan ('DMP') (and regularly update it)
- as soon as possible and within the deadlines set out in the DMP, deposit the data in a trusted repository; if required in the call conditions, this repository must be federated in the EOSC in compliance with EOSC requirements

DATI:

GESTITI RESPONSABILMENTE E SECONDO I PRINCIPI FAIR

1. FORNIRE UN DATA MANAGEMENT PLAN E AGGIORNARLO REGOLARMENTE
2. DEPOSITARE IN UN **ARCHIVIO AFFIDABILE**, SE ESPLICITAMENTE RICHIESTO DALLA CALL L'ARCHIVIO **DOVRÀ ESSERE FEDERATO IN EOSC**

NOVITÀ:

- ARCHIVIO AFFIDABILE E POSSIBILE USO DI EOSC
- DMP ENTRO M6


V.1 Feb 2021



Horizon Europe (HORIZON)
Euratom Research and Training Programme
(EURATOM)

General Model Grant Agreement
EIC Accelerator Contract

(HE MGA – Multi & Mono)

Version 1.0
20 February 2021

HEU – Grant Agreement - DATI

ANNEX 5

SPECIFIC RULES

COMMUNICATION, DISSEMINATION, OPEN SCIENCE AND VISIBILITY (— ARTICLE 17)

Open science: research data management

- as soon as possible and within the deadlines set out in the DMP, ensure open access — via the repository — to the deposited data, under the latest available version of the Creative Commons Attribution International Public License (CC BY) or Creative Commons Public Domain Dedication (CC 0) or a licence with equivalent rights, following the principle 'as open as possible as closed as necessary', unless providing open access would in particular:
 - be against the beneficiary's legitimate interests, including regarding commercial exploitation, or
 - be contrary to any other constraints, in particular the EU competitive interests or the beneficiary's obligations under this Agreement; if open access is not provided (to some or all data), this must be justified in the DMP


V.1 Feb 2021



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(HE MGA — Multi & Mono)

www.ec.europa.eu
20 February 2021

3. FORNIRE ACCESSO AI DATI IL PIÙ PRESTO POSSIBILE
(SECONDO QUANTO PREVISTO NEL DMP)
SEGUENDO IL PRINCIPIO «**AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY**»
CON LICENZA CCBY O CC0

- provide information via the repository about any research output or any other tools and instruments needed to re-use or validate the data.

4. FORNIRE IDENTIFICATIVI DI TUTTO CIÒ CHE SERVE
A **VALIDARE O RIUSARE** I RISULTATI

HEU – Grant Agreement - DATI



ANNEX 5

SPECIFIC RULES

COMMUNICATION, DISSEMINATION, OPEN SCIENCE AND VISIBILITY (— ARTICLE 17)

Open science: research data management

Metadata of deposited data must be open under a Creative Common Public Domain Dedication (CC 0) or equivalent (to the extent legitimate interests or constraints are safeguarded), in line with the FAIR principles (in particular machine-actionable) and provide information at least about the following: datasets (description, date of deposit, author(s), venue and embargo); Horizon Europe or Euratom funding; grant project name, acronym and number; licensing terms; persistent identifiers for the dataset, the authors involved in the action, and, if possible, for their organisations and the grant. Where applicable, the metadata must include persistent identifiers for related publications and other research outputs.

5. METADATI DEVONO ESSERE FAIR E SEMPRE OPEN CON LICENZA CC0 E CONTENERE UNA SERIE PRECISA DI INFORMAZIONI

Deposito dei dati

2. Beneficiaries must deposit the data in a trusted repository (see explanation above) and open access through the repository, as soon as possible and within the deadlines set in the DMP.

Deposition of data must take place as soon as possible after data production/generation after adequate processing and quality control have taken place, providing value and context to the data and at the latest by the end of the project. This does not entail that the data must be made open, but rather that it is deposited so that metadata information is available and information about the data is findable. In exceptional cases in which specific conditions apply (e.g. security rules), deposition can be delayed beyond the end of the project.

Data includes raw data, to the extent technically feasible, but especially if it is intended for reanalysis, reproducibility and/or data reuse.

Data underpinning a scientific publication should be deposited at the latest at the time of publication, and in line with standard community practices.

For calls with a condition relating to the European Open Science Cloud (EOSC): data must be deposited in trusted repositories that are federated in the EOSC in compliance with the EOSC requirements. A list of the services offered by EOSC, including for storage and processing of research data, can be found at the [EOSC Portal](#).

Open access is required as the default for research data under the principle 'as open as possible, as closed as necessary'. This means that, as an exception, beneficiaries may or must keep certain data closed for justified reasons (see below); beneficiaries must explain in the DMP the exception(s) under which they choose to or must restrict access to some or all of the research data.




EU Grants

AGA – Annotated Model Grant Agreement

EU Funding Programmes 2021-2027

DI QUALI DATI
STIAMO
PARLANDO?

Deposito dei dati

 These exceptions are: if providing open access is against the beneficiary's legitimate interests, including regarding commercial exploitation; if it is contrary to any other constraints, such as data protection rules, privacy, confidentiality, trade secrets, Union competitive interests, security rules, intellectual property rights or would be against other obligations under the Grant Agreement.

«AS CLOSED AS
NECESSARY»

Deposito dei dati

RICHIESTA
CC0



EU Grants

AGA – Annotated Model Grant Agreement

EU Funding Programmes 2021-2027

Licensing requirements. Research data made open access must be licensed under the latest version of a Creative Commons Attribution International Public Licence (**CC BY**) requiring attribution of authorship, or a licence providing equivalent rights, or under a Creative Commons Public Domain Dedication (**CC0**) or equivalent (which waives any rights to the data). The latter may be appropriate in particular for large datasets that can be more easily reused without restrictions, or in any other case if authors so desire. A Creative Commons Public Domain Mark (PDM) or equivalent should be applied to raw research data unless the data meet the requirements to be protected by copyright/database right.

Requirements for the re-use and validation of data. Information must be given via the repository about any research output or any other tools and instruments needed for the re-use or validation of research data. Research outputs, tools and instruments may include data, software, algorithms, protocols, models, workflows, electronic notebooks and others. Information must include a detailed description of the research output/tool/instrument, how to access it, any dependencies on commercial products, potential version/type, potential parameters etc.

Best practice: Beneficiaries are encouraged to provide open access to these research outputs, tools and instruments unless legitimate interests or constraints apply.

Mandatory OS practices / dati / riepilogo

DA DETTAGLIARE
ANCHE NELLA
PROPOSTA. COME
SARÀ CONFORME IL
PROGETTO A QUESTI
OBBLIGHI?

OPEN ACCESS AI DATI:

1. GESTIRLI RESPONSABILEMENTE E IN MODO FAIR;
FORNIRE UN DATA MANAGEMENT PLAN E
AGGIORNARLO REGOLARMENTE
2. DEPOSITARE IN UN **ARCHIVIO AFFIDABILE**, **SE**
ESPLICITAMENTE RICHIESTO DALLA CALL L'ARCHIVIO
DOVRÀ ESSERE FEDERATO IN EOSC
3. «AS OPEN AS POSSIBLE AS CLOSED AS NECESSARY»
4. OGNI ELEMENTO UTILE A VALIDARE/RIUSARE
5. METADATI

Mandatory OS practices / validazione e riproducibilità

What are YOU
willing to DO?
Get involved!

2015
European Year
for Development

our world
our dignity
our future

SI TROVA SIA NEL PARAGRAFO
SULLE PUBBLICAZIONI SIA IN
QUELLO SUI DATI,
RISPETTIVAMENTE AL PUNTO 3 E 4

MISURE PER ASSICURARE RIPRODUCIBILITÀ:

1. INFORMAZIONI SU STRUMENTI E MATERIALI UTILI A
VALIDARE I RISULTATI PUBBLICATI NELL'ARTICOLO
2. INFORMAZIONI SU STRUMENTI E MATERIALI UTILI A
VALIDARE E RIUSARE I DATI
3. SE POSSIBILE, DARE ACCESSO

Open Science nella proposta / lista dei risultati

Application form (Part A)



V.2 April 2021



Horizon Europe Programme
Standard Application Form (RIA, IA)

Application Form (Part A)
Project proposal – Technical description (Part B)
Version 2.0
22 April 2021

PART A

Application Forms

Proposal ID XXXXXXXXX Acronym XXXXXXXX Participant short name: XXXX

Researchers involved in the proposal

Include only the researchers involved in the proposal. (see below definition of 'researcher'). You do not need to include in the table the identity of other persons involved in the proposal who are not researchers.

'Researchers are professionals engaged in the conception or creation of new knowledge. They conduct research and improve or develop concepts, theories, models, techniques instrumentation, software or operational methods. (Frascati Manual 2015)'

Include also person in charge of the proposal if a researcher.

Title	First Name	Last Name	Gender	Nationality	E-mail	Career stage ¹	Role of researcher (in the project)	Reference Identifier	Type of identifier
			[Woman]			[Category A – Top grade researcher]	[Leading]		[ORCID]
			[Man]			[Category B – Senior researcher]	[Team member]		[Researcher id]
			[Secondary]			[Category C – Recognised researcher]			[Other - specify]

LISTA DEI RISULTATI RILEVANTI AI FINI DELLA PROPOSTA

List of up to 5 publications, widely-used datasets, software, goods, services, or any other achievements relevant to the call content.

Type of achievement	Short description
[Publication]	Key elements of the achievement, including a short qualitative assessment of its impact and (where available) its digital object identifier (DOI) or other type of persistent identifier (PID).
[Dataset]	
[Software]	
[Good]	

Publications, in particular journal articles, are expected to be open access. Datasets are expected to be FAIR and 'as open as possible, as closed as necessary'.

SIGNIFICA CHE DEVONO ESSERE ACCESSIBILI CON UN CLICK

- RICHIESTI GLI IDENTIFICATIVI [ORCID, DOI...]
- ARTICOLI OPEN [DEPOSITO O PUBBLICAZIONE]
- DATI FAIR AS OPEN AS POSSIBLE

Open Science nella proposta parte A



V.1 June 17 2021



Horizon Europe

Programme Guide

PARTE A, LE 5 PUBBLICAZIONI:

- SE NON PUBBLICATE OPEN, DEPOSITATELE!
- **NON VERRANNO VALUTATE CON IMPACT FACTOR**

PARTE A, I DATI:

- AS OPEN AS POSSIBLE, FAIR

Finally, in **part A of their proposals**, proposers are asked to list up to five relevant publications, widely used datasets or other achievements of consortium members that they consider significant for the action proposed. Open access is expected for publications, in particular journal articles, while datasets are expected to be FAIR and 'as open as possible, as closed as necessary'. If publications are not open access, proposers are strongly encouraged to deposit them retroactively in repositories and provide open access to them when possible. The significance of publications will not be evaluated on the basis of the Journal Impact Factor of the venue they are published in, but on the basis of a qualitative assessment provided by the proposers for each publication.

Open Science nella proposta / metodologia

IN QUESTA SEZIONE DOVETE DARE L'IDEA CHE NEL VOSTRO PROGETTO **LA OPEN SCIENCE SIA DAVVERO «EMBEDDED»**


V.2 April 2021



Horizon Europe Programme
Standard Application Form (RIA, IA)

Application form (Part A)
Project proposal – Technical description (Part B)

PART B

NELLA METODOLOGIA (TOT 15 PAGG.)

MAX 1 PAGINA SU OPEN SCIENCE

- COME SARETE CONFORMI ALLE PRATICHE OBBLIGATORIE (TESTI, DATI, RIPRODUCIBILITÀ)
(es. PUBBLICHERETE IN ORE? DEPOSITERETE IN ZENODO?)
- COME ADOTTERETE PRATICHE RACCOMANDATE (OPEN PEER REVIEW, CITIZEN SCIENCE, PREPRINT, PREREGISTRATION...)

[Guide]



V.1 June 17 2021



Horizon Europe

Programme Guide

- GUIDA, p.41-42
DOVETE DIMOSTRARE
SE E COME
ADOTTERETE
- CONDIVISIONE RAPIDA
 - GESTIONE DEI DATI
 - RIPRODUCIBILITÀ
 - OPEN ACCESS
 - OPEN PEER REVIEW
 - CIZIEN SCIENCE

Early and open sharing: Provide specific information on whether and how you will implement early and open sharing and for which part of your expected output. For example, you may mention what type of early and open sharing is appropriate for your discipline and project, such as preprints or preregistration/registration reports, and which platforms you plan to use.

Research data management (RDM): RDM is mandatory in Horizon Europe for projects generating or reusing data. If you expect to generate or reuse data and/or other research outputs (except for publications), you are required to outline in a maximum of one page how these will be managed. Further details on this are provided in the proposal template in the relevant section on open science. A full data

Reproducibility of research outputs: you should outline the measures planned in the project that tend to increase reproducibility. Such measures may already be interweaved in other parts of the methodology of a proposal (such as transparent research design, the robustness of statistical analyses, addressing negative results, etc) or in mandatory/non-mandatory open science practices (e.g. *the DMP, early sharing through preregistration and preprints, open access to software, workflows, tools, etc*) to be implemented. More detailed suggestions on good practices for enhancing reproducibility and resources in the relevant section below.

Open access: Offer specific information on how you will meet the open access requirements, that is deposition and immediate open access to publications and open access to data (the latter with some exceptions and within the deadlines set in the DMP) through a trusted repository, and under open licenses. You may elaborate on the (subscription-based or open access) publishing venues that you will use. You may also

Open peer review: Anytime it is possible, you are invited to prefer open peer review for your publications over traditional ('blind' or 'closed') peer review. When the case, you should provide specific information regarding the publishing venues you envisage to make use of, and highlight the venues that would qualify as providing open peer review.

Citizen, civil society and end-user engagement: Provide clear and succinct information on how citizen, civil society and end-user engagement will be implemented in your project, where/if appropriate. The kinds of engagement activities will depend on the type of R&I activity envisaged and on the disciplines and sectors implicated.

Open Science nella proposta / metodologia / dati FAIR

IN QUESTA SEZIONE DOVETE
DARE L'IDEA DI SAPER GESTIRE
OGNI FASE DEL CICLO DEI DATI
IN MODO FAIR E RESPONSABILE
E DETTAGLIARE I COSTI


V.2 April 2021



Horizon Europe Programme
Standard Application Form (RIA, IA)

Application form (Part A)
Project proposal – Technical description (Part B)

PART B

NELLA METODOLOGIA (TOT 15 PAGG.)

1 PAGINA SU

1. TIPO DI DATI (SPERIMENTALI, OSSERVAZIONI...)
2. IDENTIFICATIVI
3. POLITICHE DI ACCESSO (OPEN/CLOSED/EMBARGO)
4. LUOGO DI ACCESSO (REPOSITORY)
5. STANDARD, ONTOLOGIE
6. DOCUMENTAZIONE E TUTTO CIÒ CHE SERVE A VALIDARE E RIUSARE
7. LICENZE PER RIUSO
8. CONSERVAZIONE
(E COSTI CONNESSI)

QUI DOVETE
ANCHE GIÀ
ANTICIPARE SE CI
SARANNO DATI
CHIUSI E PER
QUALE MOTIVO

DMP in Horizon Europe

IN HORIZON EUROPE

- **NELLA PROPOSTA**: 1 PAGINA DI SINTESI SU COME GESTIRETE I DATI
- **ENTRO MESE 6** DMP COME DELIVERABLE



V.1 Feb. 2021

Horizon Europe (HORIZON)
Euratom Research and Training Programme
(EURATOM)

General Model Grant Agreement
EIC Accelerator Contract

(HE MGA — Multi & Mono)



V.2 April 2021



Horizon Europe Programme
Standard Application Form (RIA, IA)

Application form (Part A)
Project proposal – Technical description (Part B)

Version 2.0
22 April 2021

⚠️ *Proposals selected for funding under Horizon Europe will need to develop a detailed data management plan (DMP) for making their data/research outputs findable, accessible, interoperable and reusable (FAIR) as a deliverable by month 6 and revised towards the end of a project's lifetime.*

⚠️ *For guidance on open science practices and research relevant section of the [HE Programme Guide on the Fun](#)*

Open science: research data management

The beneficiaries must manage the digital research data generated in the action responsibly, in line with the FAIR principles and by taking all of the following actions:

- establish a data management plan ('DMP') (and regularly update it)
- as soon as possible and within the deadlines set out in the DMP, deposit the data in a trusted repository; if required in the call conditions, this repository must be featured in the EOSC in compliance with EOSC requirements



HEU DMP

Horizon Europe

Data Management Plan Template

TEMPLATE IN TUTTI GLI
STRUMENTI ONLINE

Open Science nella proposta / qualità implementazione

Proposal template Part B: technical description

3. Quality and efficiency of the implementation

Quality and efficiency of the implementation – aspects to be taken into account

Quality and effectiveness of the work plan, assessment of risks, and appropriateness of the effort assigned to work packages, and the resources overall

Capacity and role of each participant, and extent to which the consortium as a whole brings together the necessary expertise.

COME
IMPLEMENTARE


V.2 April 2021




Horizon Europe Programme
Standard Application Form (RIA, IA)

Application form (Part A)
Project proposal – Technical description (Part B)
Version 2.0
22 April 2021

PART B

3.2 **Capacity of participants and consortium as a whole** [e.g. 3 pages]

 *The individual members of the consortium are described in a separate section under Part A. There is no need to repeat that information here.*

- Describe the consortium. How does it match the project's objectives, and bring together the necessary disciplinary and inter-disciplinary knowledge. Show how this includes expertise in social sciences and humanities, open science practices, and gender aspects of R&I, as appropriate.
- Show how the partners will have access to critical infrastructure needed to carry out the project activities.
- Describe how the members complement one another (and cover the value chain, where appropriate)
- In what way does each of them contribute to the project? Show that each has a valid role, and adequate resources in the project to fulfil that role.
- If applicable, describe the industrial/commercial involvement in the project to ensure exploitation of the results and explain why this is consistent with and will help to achieve the specific objectives proposed for exploitation of the results of the project (see section 2.2).

DIMOSTRARE CHE IL
CONSORZIO HA COMPETENZE
SU OPEN SCIENCE

[e Open Science va anche ne]

Dissemination plan

RICORDATE CHE UNA DELLE KEY IMPACT PATHWAYS
PER IMPATTO SCIENTIFICO È LA OPEN SCIENCE
IL DISSEMINATION PLAN DEVE ESSERE COERENTE CON
LE PRATICHE OPEN SCIENCE

Proposal template Part B: technical description

2. Impact

Impact – aspects to be taken into account.

- Credibility of the pathways to achieve the expected outcomes and impacts specified in the work programme, and the likely scale and significance of the contributions due to the project.
- Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities.

HORIZON EUROPE LEGISLATION defines three types of impact, tracked with Key Impact Pathways

1. Creating high-quality new knowledge

2. Strengthening human capital in R&I

3. Fostering diffusion of knowledge and Open Science

Scientific
Impact



4. Addressing EU policy priorities & global challenges through R&I

5. Delivering benefits & impact via R&I missions

6. Strengthening the uptake of R&I in society

Societal
Impact



7. Generating innovation-based growth

8. Creating more and better jobs

9. Leveraging investments in R&I

Economic/
Technological
Impact



Article 50 & Annex V 'Time-bound indicators to report on an annual basis on progress of the Programme towards the achievement of the objectives referred to in Article 3 and set in Annex V along impact pathways'

no dejes de
Soñar

GRAZIE!