![EOSCRoP Executive Board Working Group logo]

European Open Science Cloud
Rules of Participation
Version 0.5 (20 October 2020)

Introduction

The EOSC Rules of Participation underpin the policies, processes and procedures required to provide assurance of openness, quality and trust in the practices and services offered through voluntary participation in EOSC.

Iterative development

The EOSC Rules of Participation are being produced by a process of iteration. A draft (V0.2) was published in February 2020 and was the subject of a public consultation from which feedback has been taken on board in this second public draft (V0.5). The rules have been developed with input from EOSC implementation projects and using proposals published by other EOSC Working Groups. A legal review of the rules' applicability, appropriateness and compatibility with existing regulation is also being carried out. The draft rules are necessarily aspirational in places due to a number of policies and procedures remaining to be defined or agreed. Comments on this second draft from all EOSC stakeholder groups are welcome, and will be reflected in the third draft which will be proposed for agreement by the EOSC Executive Board and Governing Board and handed over to the EOSC Partnership by the end of 2020.

Responsibility

In drafting these Rules of Participation, the RoP Working Group has assumed that the new EOSC governance will adopt them, and take responsibility for them, from 1 January 2021. Monitoring, enforcement, periodic review and update of the RoP by the EOSC governance are assumed. These should be conducted by stakeholders with sufficient breadth of perspective to achieve openness, identify any unintended consequences or barriers created by the RoP (such as conflicts between the RoP and the practices of a particular user community), and respond to changing needs. The implications of future updates of the rules will also need to be considered. For example, consideration of the backwards compatibility of any changes for users and providers already involved in the EOSC. The RoP apply at the point of first interaction with the EOSC and continue throughout involvement. The RoP define rights and obligations, so the EOSC will need to monitor compliance and apply sanctions for non-compliance as appropriate.

Applicability

The RoP apply to all EOSC users. They apply not only to data and services, but also for example to software, tools, workflows, training and consultancy. They apply to all resources

provided or accessed via the EOSC, whether digital or non-digital. They apply to publicly-funded research users, including international users, and to publicly funded and commercial providers. They have been formulated primarily with the Minimal Viable EOSC[1] and its initial operational phase (2021-23) in mind and are expected to evolve as the EOSC and its user base and usage scenarios grow beyond the currently foreseen landscape.

Genericity

The Rules of Participation are referred to as "minimal". This is understood by the RoP WG as meaning that the RoP should be kept as simple, short and lightweight as possible whilst still fulfilling their purpose of defining the rights, obligations and accountability governing the activities of those using the EOSC. The RoP are formulated as an overarching set of top-level rules that apply across the whole of EOSC. Feedback has shown that some expect the RoP to contain a set of applicable rules which lay out specific criteria which implementations can comply with. However, that level of detail will depend on the specificities of particular resource types and, accordingly, these rules will need to be refined in specific ways for particular contexts. Further elaboration of the specific RoP is therefore devolved to those involved with these resources.

Definitions

In order to ensure consistent use of terminology, the Rules of Participation make use of terms which are defined in the (draft) <u>EOSC Glossary</u>[2]. The number of terms used has also been kept to a minimum. Some key definitions are reproduced here for convenience.

User: <u>actor</u> that interacts with the <u>EOSC</u> or benefits from the EOSC during its utilization. (Note that the definition of EOSC user includes service providers.)

EOSC resource: a resource findable[3] through the EOSC portal. A resource can mean any object or entity such as data, software, workflows, services, training materials and consultancy.

Data: reinterpretable digital representation of <u>information</u> in a formalized manner suitable for communication, interpretation, or processing.

Provider/resource provider: <u>user</u> that manages and delivers a <u>resource</u> or resources.

Service provider: <u>provider</u> that manages and delivers a <u>service</u> or services to <u>end-users</u>.

---

[1] as proposed by the Sustainability Working Group in its Iron Lady document
[2] The exception to this is the definition of EOSC resource used here, which differs from that proposed in the draft EOSC glossary and needs to be discussed and agreed with the glossary team
[3] Access to a resource may be indirect: for example, the resource may be listed in a repository which is itself listed in a repository which is accessible through the EOSC portal. Such recursion could take several steps.

The EOSC Rules of Participation

The Rules of Participation state the standards and conduct required of EOSC users. EOSC users agree to adhere to the Rules of Participation.

The rules themselves are abstract and high level in order that they can be generally applicable and long-lived. The commentary below provides a further level of detail and discusses issues related to each rule.

1. ***EOSC is based on the principle of openness***

2. ***EOSC data align with FAIR principles***

3. ***EOSC services align with EOSC architecture & interoperability guidelines***

4. ***EOSC is based on principles of ethical behaviour and integrity***

5. ***EOSC users are expected to contribute to a successful EOSC and active EOSC community***

6. ***EOSC users adhere to the terms of use of the resources they use***

7. ***EOSC users reference the resources they use in their work***

8. ***Participation in EOSC is subject to the policy and legislation of the EU***

Commentary on the Rules of Participation

1. ***EOSC is based on the principle of openness***

The principle of openness is central to EOSC. EOSC is as open as possible, and only as closed as necessary. This applies to users, resources, and the RoP themselves.

Regarding Users: Use of EOSC is open to anyone, regardless of role or geography. However, the EOSC is initially envisaged primarily for use by researchers. The service onboarding criteria[4] reflect this focus.

---

[4] See, for example, https://wiki.eosc-hub.eu/display/EOSC/Criteria+for+possible+inclusion+in+the+EOSC+Service+Portfolio. Onboarding information will shortly be transferred to eosc-portal.eu so this link will then be updated

Regarding Resources: EOSC resources are listed publicly, comply with policy requirements (for example on openness of publicly funded data) and are findable without charge by all users. Access to certain resources may require personal or organisational registration, authentication or authorisation including for the purpose of compensating the resource provider. Terms of use will be made clear by resource providers, including information about whether access requires authentication and authorisation; licencing; and any quotas or charges which may apply[5]. Open Access is encouraged where possible. Prospective service providers will be considered for onboarding to the EOSC according to transparent, published criteria. Adherence to the Rules of Participation forms a central element of the onboarding process of services to the EOSC.

Regarding the RoP: The RoP support and promote the agreed aims of the EOSC Partnership. They are owned by the EOSC governance bodies and will be periodically updated based on experience and feedback via a participatory and transparent process. They will be applied fairly and impartially according to published processes and criteria. EOSC users and providers will have a right of appeal of any decisions affecting them which relate to the RoP.

2. EOSC data align with FAIR principles

Data in EOSC will as far as possible be made available in accordance with FAIR principles. FAIR is a relatively recent concept and precise definitions are still evolving. For example, recommendations for implementation of FAIR practice are currently being developed by the EOSC FAIR Working Group, and metrics and certification work will continue in the coming years both in Europe, for example in the FAIRsFAIR project, and internationally, for example in FAIR Data Maturity Model Working Group of the Research Data Alliance.

Individual datasets, or repositories of data that are findable via the EOSC may have specific terms and conditions associated with them. However, these will comply with the EOSC FAIR principles. Examples of such conditions may include licensing, or legal and ethical conditions on how data can be utilised.

Regarding metrics and certification, it is not expected that any particular threshold of FAIRness will be required to be met across all the data in EOSC, where disciplinary norms differ widely, but the principle of openness will be applied to any use of such measures as it is desirable for a potential data reuser to be able to assess the usability of data they are considering. For example, some providers may wish to undertake certification and publicise the result, whilst others may choose not to certify their services but simply to report on a self assessment against a recognised metrics scheme.

Similarly it is unlikely, in the near future, that there will be a single scheme for determining who is responsible for ensuring FAIRness. For example, some data repositories may place stringent

---

[5] A variety of models will exist to pay for resource consumption. These will be agreed by the EC and member states in the EOSC governance bodies. The EOSC Sustainability Working Group is developing proposals for the business models for EOSC which will further define how compensation for service provision may work. These RoP may need to be refined in the light of the outcome of that work.

requirements on the data they hold so ensuring a high level of reusability of the data they curate, whereas others may simply pass on data without so much quality assurance. Again, whilst no single threshold of data quality will be mandated across EOSC, openness of processes and responsibilities, together with transparency of decision making is to be expected.

3. EOSC services align with EOSC architecture & interoperability guidelines

EOSC aims to build a coherent infrastructure that removes silos and provides integration of data and services within and across geographical and disciplinary boundaries and the EOSC Architecture and FAIR Working Groups are developing the standards and guidelines required to enable this at a technical level. Examples include Six Recommendations for Implementation of FAIR Practice, A Persistent Identifier (PID) policy for the European Open Science Cloud, the EOSC Interoperability Framework, and the AARC blueprint architecture for Authentication and Authorisation Infrastructure (AAI). However, significant stakeholder engagement will be required, over some time, to bring about uniform adoption of these standards, policies, processes and practices.

The EOSC architecture and interoperability guidelines enable user environments to be built across EOSC resources so enriching the user experience. To achieve this, services are required to comply with relevant EOSC architectural standards and technical guidelines so that composite services and workflows can be built that integrate service use. For example, services requiring authentication or authorisation will support the use of relevant credentials for federated AAI as defined by the EOSC AAI taskforce, and, where access requires authentication and/or authorisation, data providers should make clear what body will make these decisions (e.g., Data Access Committee) along with appropriate details.

Services will be described by a commonly agreed metadata scheme and service providers will define and publish the terms of use for their services, including, for example, licensing, authentication and authorisation requirements, and any cost implications. These terms of use will comply with the EOSC principles and any relevant legal and ethical conditions on how data can be accessed, processed, analysed, changed and redistributed by others.

Service providers define and publish their own quality targets for their services such as through a Service Level Specification or Service Level Agreement, and agree that the EOSC-Core may monitor and report on the service levels achieved by an EOSC service.

4. EOSC is based on principles of ethical behaviour and integrity

The EOSC is committed to ethical behaviour and accountability. This includes fostering openness with respect to funding EOSC and with respect to negotiations with third parties (including commercial partners). A policy and structure(s) for dealing with ethical and legal issues of relevance to EOSC will be developed[6]. EOSC users and providers will act in

---

[6] The recommendations in EOSC pilot deliverable D3.6 provide a starting point. See https://eoscpilot.eu/sites/default/files/eoscpilot-d3.6-v2.7_0.pdf

accordance with commonly agreed principles regarding the conduct of research[7] to ensure ethical practices and integrity. For example: resource providers agree not to wilfully misrepresent resources or provide false information.

EOSC users will be able to report misconduct by EOSC or any EOSC service provider anonymously to an independent committee which will make recommendations to the EOSC governance and negotiate their implementation. Misconduct, including breaches of the RoP, may result in penalties including temporary or permanent removal of access to EOSC resources or suspension of membership of the EOSC Association.

5. EOSC users are expected to contribute to a successful EOSC and active EOSC community

The EOSC is a common undertaking of the research community, both with respect to providing access to resources and to improving its functioning. This community effort will contribute to achieve quality of EOSC operational performance and relevance. In addition, this should include a willingness of EOSC users to fuel the EOSC with everything produced by using available EOSC resources.

In order to achieve a continuing growth of EOSC through collaborative effort, a number of expectations are placed on EOSC users, such as compliance with security policies. Resource providers define and publish quality targets for their services, and agree that the EOSC may monitor and report on the level usage of their resource through EOSC. Usage reports for individual resources will be shared with their provider(s), and aggregated usage reports will inform the EOSC community about successful developments, thus raising quality through transparency. Any data collected on contributions to and use of EOSC will be handled in accordance with relevant legislation and guidelines on data protection and privacy including GDPR.

6. EOSC users adhere to the terms of use of the resources they use

Ownership of resources is not changed when they are made available through EOSC. As such, EOSC users agree to adhere to the terms of use for the specific resources they use. The implication is that whilst service providers define and publish the terms of use for the service they are provisioning, these terms are themselves consistent with the EOSC RoP. This includes licensing and conditions of use, and whether access requires authentication and/or authorisation. Access to some resources may explicitly require users to accept Terms & Conditions before access is granted.

In order to establish a trust framework on established standards and compliance with EU regulations (e.g. certification that a service conforms with GDPR or other restrictions), resource providers have to indicate, perhaps through checkboxes, the conformity of their data and services with the standards and regulations. The resources are not accessible through EOSC

---

[7] For example, The European Code of Conduct for Research Integrity, https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf

until these checkboxes are filled. Only EOSC resource providers may use EOSC branding to advertise their resources.

Examples of conditions that resource providers may require include: acknowledgement of the intellectual work of original creators and, where the resource stipulates, use of a standard form for this acknowledgment; or agreement to adhere to and not willfully violate any terms of use associated with the resource.

7. EOSC users reference the resources they use in their work

It is a common, well-accepted research practice to provide references in published work, and it is likewise required that EOSC users reference the resources they use in their work. As such, it is crucial that data providers offer users the appropriate references to their raw or processed data, preferably as PIDs. Similarly, this practice promotes transparency in tracing back the origin, authors, and/or curators of datasets in the research data cycle. It is not uncommon in the research cycle to process raw data, for example with extractions, interpolations or extrapolations, and other transformations. In addition, such processed data will be combined and analysed with other data, resulting in new data products which in turn may offer a new dataset for other research projects or for policy purposes. Both for the involved researchers and for policy users, openness, and as such credibility, is supported by referencing all successive data transformations in the metadata using PIDs where available. The EOSC operators will offer guidance and technical support for constructing the metadata and PIDs showing the cascade of previous data transformations and the involved operators. The provision of rich (metadata) references will assist data providers and data processors in keeping account of the use of their data publications through EOSC, which is increasingly important to be accountable (to their organisations and funding bodies).

8. Participation in EOSC is subject to the policy and legislation of the EU

The EOSC is primarily a European collaboration and therefore its activities come under European legislation and policy. For example, actors in EOSC will support the vision for "free flow of data" and digital sovereignty. Naturally, EOSC actors will also be working within local national legislation and, here, the principles of subsidiarity and complementarity would anyhow apply in relation to how EU and MS Law interact. A study of legal aspects of the Rules of Participation is currently underway within the EOSC Secretariat project.