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D5.3 REPORT ON THE FIRST SYNCHRONISATION FORCE WORKSHOP

Work Package	WP5, Engagement, Communication and Uptake
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	PP: Restricted to other programme participants (including the Commission)
	RE: Restricted to a group specified by the consortium (including the Commission)
	CO: Confidential, only for members of the consortium (including the Commission)

Abstract

This is the report of the FAIRsFAIR Synchronisation Force workshop organised in Budapest, Hungary on 25th November 2019 in conjunction with the EOSC Symposium. It highlights the points discussed by stakeholders from the FAIRsFAIR project, Working Groups of the EOSC Executive Board, and other associated EOSC representatives including those from (among others) the European Commission, INFRAEOSC5 projects, and the FAIRsFAIR European Group of FAIR Champions. The objective of the workshop was to open dialogue between Synchronisation Force members and relevant stakeholders, focusing on those representing the EOSC Governance. The workshop aimed to discuss common challenges and priorities, and to begin to evaluate the progress towards and feasibility of reaching common goals.

Versioning and contribution history

Version	Date	Authors	Notes
0.1	10.12.2019	Sara Pittonet (Trust-IT), Mustapha Mokrane, Gerard Coen (DANS), Simon Hodson (CODATA)	Structure and first full draft of the report document.
0.2	11.12.2019	Renée van Kessel (DANS)	Review and recommendations of the document.
0.3	16.01.2020	Gerard Coen (DANS)	Information added to sections 4.2, 4.3, 4.4, 4.5 and 4.6 based on the presentations of the WG/WPs and rapporteuring notes.
0.4	20.01.2020	Gerard Coen (DANS)	Editing
0.5	28.01.2020	Marjan Grootveld (DANS), Kevin Ashley (DCC)	Review and recommendations of the document.
0.7	30.01.2020	Gerard Coen (DANS)	Incorporation of feedback from review and final editing.

Disclaimer

DSM	Digital Single Market
EAWG	EOSC Architecture Working Group
EGFC	European Group of FAIR Champions of FAIRsFAIR project
ENVRI-FAIR	ENVironmental Research Infrastructures building Fair services Accessible for society, Innovation and Research - ESFRI cluster project
EOSC	European Open Science Cloud
EOSC EB	EOSC Executive Board
ESCAPE	European Science Cluster of Astronomy & Particle physics ESFRI research infrastructures - ESFRI cluster project
ESFRI	European Strategy Forum on Research Infrastructures
FAIR	Findable, Accessible, Interoperable, Reusable
FsF	FAIRsFAIR project
HLAC	High Level Advisory Committee of FAIRsFAIR project
HEIs	Higher Education Institutions
PANOSC	Photon and Neutron Open Science Cloud - ESFRI cluster project
RDA	Research Data Alliance
RI	Research Infrastructure
RoP	Rules of Participation
SF	Synchronisation Force
SSHOC	Social Sciences & Humanities Open Cloud - ESFRI cluster project
TDR	Trustworthy Digital Repository
TFiR	Turning FAIR into Reality - report
SF	Synchronisation Force

Executive Summary

A key challenge for FAIRsFAIR is to ensure that project activities dovetail with work carried out by the Working Groups (WG) of the EOSC Governance, and feed into and complement the work that is being done by other projects in the research data and FAIR space. For this reason the FAIRsFAIR project set up the Synchronisation Force, an internal team tasked with establishing a dialogue among the various projects and actors in both the EOSC and FAIR ecosystems whose work touches on FAIR in order to:

1. Maximise coordination and minimise unnecessary overlap or duplication;
2. Encourage the dovetailing of projects' and actors' activities with EOSC governance;
3. Promote mechanisms to collaborate on turning FAIR into reality.

This is the report following the first of three workshops organised by the Synchronisation Force to achieve its objectives. The workshop took place in Budapest, Hungary on 25th November 2019 in conjunction with the EOSC Symposium. A special focus was given to the interaction between FAIRsFAIR and the five established EOSC Working Groups:

> **Rules of Participation (RoP):** Designing the Rules of Participation that shall define the rights, obligations governing EOSC transactions between EOSC users, providers and operators;
>
> **Landscape:** Mapping of the existing research infrastructures which are candidates to be part of the EOSC federation, as well as levels of readiness, support, and progress;
>
> **Architecture:** Defining the technical framework required to enable and sustain an evolving EOSC federation of systems;
>
> **Sustainability:** Providing a set of recommendations concerning the implementation of an operational, scalable and sustainable EOSC federation after 2020.
>
> **FAIR:** Implementing the FAIR data principles by defining the corresponding requirements for the development of EOSC services, in order to foster cross-disciplinary interoperability.

The workshop highlighted as a main issue affecting all actors the difficulty around coordination and collaboration, as well as knowledge and process management. No clear workflows in respect to information sharing and collaboration have been established between the EOSC WGs, INFRAEOSC5 projects, and the 30+ EOSC related projects funded in the H2020 framework. Also related to process management, the discussions highlighted the lack of a formal approval mechanism for accepting project outcomes.

Where there is a direct link between wider challenges for EOSC and the activities of the FAIRsFAIR project, intermediate actions for the Synchronisation Force have been developed. These wider topics will also be expanded upon during the second workshop to be held April, 2020.

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1. Introduction

The FAIRsFAIR (FsF) project aims to supply practical solutions for the use of the FAIR data principles throughout the research data life cycle with an emphasis on fostering FAIR data culture and the uptake of good practices in making data FAIR, in particular in the context of the European Open Science Cloud (EOSC).

FAIRsFAIR operates under the aegis of the Strategic Implementation Plan of the EOSC Executive Board and closely cooperates with the EOSC Working groups:

- FAIR[1]
- Rules of Participation[2]
- Landscape[3]
- Architecture[4]
- Sustainability[5]

A key task for FAIRsFAIR is to ensure that the project activities dovetail with the EOSC and feed into and complement the work that is being done by other projects in the research data and FAIR space. For this reason FsF has established the Synchronisation Force (SF) to see how synergies can be explored, evaluate the feasibility of reaching common goals, de-duplicate efforts, and ensure lessons are shared effectively.

FAIRsFAIR is funded under the European Union's Horizon 2020 project call "H2020-INFRAEOSC-2018-2020". Work began early in 2019 and the project is scheduled to finish in March 2022. The main objective of the call is 'Support to the EOSC Governance'[6] via the set up of an operational framework for supporting the overall governance of the EOSC, including the coordination between relevant national initiatives. The operational framework is being developed by project teams focusing on three areas: 1) setting up a coordination structure supporting the activities of the EOSC Executive Board that will oversee the EOSC implementation (coordinated by the EOSC Secretariat project); 2) ensuring coordination between relevant national initiatives/data infrastructures/e- Infrastructures and their federation into the EOSC; and 3) fostering FAIR data culture and the uptake of good practices in making data FAIR (coordinated by FAIRsFAIR).

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[1] https://www.eoscsecretariat.eu/working-groups/fair-working-group
[2] https://www.eoscsecretariat.eu/working-groups/rules-participation-working-group
[3] https://www.eoscsecretariat.eu/working-groups/landscape-working-group
[4] https://www.eoscsecretariat.eu/working-groups/architecture-working-group
[5] https://www.eoscsecretariat.eu/working-groups/sustainability-working-group
[6]
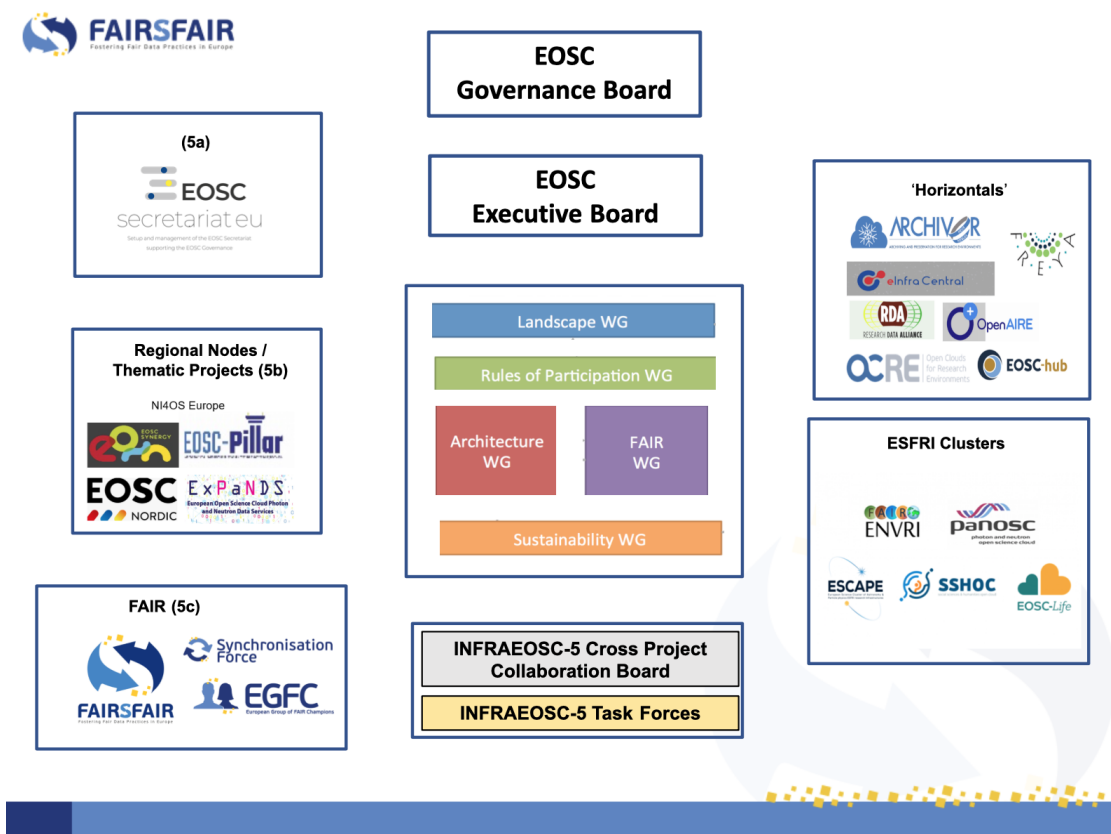https://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-infrastructures_en.pdf

A common Collaboration Agreement has been signed by the teams working on these topics with the purpose of creating synergies in the mutual activities related to the European Open Science Cloud (EOSC), and to prepare and take action to incorporate other EOSC initiatives into this collaboration. In the framework of this agreement the FAIRsFAIR Synchronisation Force (SF) has the role of providing coordinated project input for the EOSC Executive Board Working Groups on 'Landscape', 'FAIR', 'Sustainability', 'Architecture', and 'Rules of Participation' at appropriate moments.

Through outreach and engagement the SF also serves a role in liaising with the five ESFRI Clusters (PANOSC, SSHOC, ENVRI-FAIR, ESCAPE and EOSC-Life), as well as the thematic and regional EOSC-5B projects (Refer to the Workshop pre-read document for further information) and the European Group of FAIR Champions (EGFC). A graphic which provides a quick reference for FAIRsFAIR primary stakeholders within the EOSC ecosystem can be seen at Figure 1.

Figure 1. FAIRsFAIR primary stakeholders within the EOSC ecosystem

This report is structured as follows. Section 2 covers the SF's ambitions, core activities and an outline of their planned work. Section 3 introduces the framework by which the SF will investigate the progress on turning FAIR into reality. Section 4 focuses on the first Synchronisation Force workshop, and provides a summary of the information collected in

advance of and during the workshop. The last section, section 5, presents the conclusions and recommendations based on what was learned during the workshop. It also presents the actions and points which should be taken forward and considered for the second SF workshop (April, 2020).

2. The FAIRsFAIR Synchronisation Force

2.1 Synchronisation Force: Objectives & core activities

FAIRsFAIR has tasked the Synchronisation Force with establishing a dialogue among the various projects and actors in both the EOSC and FAIR ecosystems whose work touches on FAIR in order to:

1. Maximise coordination and minimise unnecessary overlap or duplication;
2. Encourage the dovetailing of projects' and actors' activities with EOSC governance;
3. Promote mechanisms to collaborate on turning FAIR into reality.

A range of means are being used to achieve these objectives and to engage with other projects. The key activity of the Synchronisation Force are three dedicated face-to-face workshops. Each of the three workshops will produce a report. All three reports aim to contribute to a FAIRsFAIR White Paper due Q1 2021. The White Paper will provide a set of prospective recommendations for how to encourage alignment and synchronisation around FAIR, Open Science and EOSC. The White Paper will also provide information about progress on turning FAIR into reality.

This is the first report. It provides a record of the discussion during the workshop which can be used to onboard other projects and initiatives to the ongoing FAIR-related work in the context of the EOSC, and beyond. It also provides some initial recommendations to encourage dialogue, collaboration and harmonisation of efforts related to FAIR.

2.1.1 Other activities of the Synchronisation Force

The SF also interacts with other stakeholders through participation in WGs and Task Forces from other projects and initiatives such as other EOSC-5B projects, FAIRplus, FAIR4Health, ESFRI Cluster projects as well as during events such as RDA plenaries, and the Open Science FAIR.

Members from the SF have contributed to several events by other initiatives, including a series of workshops titled *"Services to support FAIR data"* held in 2019. These workshops were organised in collaboration between EOSCHub[7], Freya[8], OpenAIRE[9], RDA[10] for gathering community feedback on how data services could better support FAIR data and a FAIR ecosystem. As output from these workshops a draft report has been created which

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[7] https://www.eosc-hub.eu
[8] https://www.project-freya.eu/en
[9] https://www.openaire.eu
[10] https://www.rd-alliance.org

highlights common challenges, priorities and a set of initial recommendations for how existing data infrastructures can evolve and collaborate to provide services that support the implementation of the FAIR data principles, in particular in the context of building the EOSC.

2.2 Purpose of the SF workshops

A series of workshops was chosen as the best platform to create a dialogue between the key stakeholders in working in the dynamic landscape of FAIR activities in relation to EOSC. The information shared during the workshops provides the basis for harmonisation efforts to align the various actors working in the FAIR ecosystem. This in turn addresses wider objectives of the FAIRsFAIR project to build a functioning EOSC, and an active community to support it. By facilitating discussions among key stakeholders the workshops seek to identify overlaps, divergences and challenges in the adoption of FAIR principles and practices in the EOSC framework.

2.2.1 Function of the 1st workshop

For the first workshop a special focus was given to the interaction between FAIRsFAIR and the five established EOSC Working Groups. The programme (See Annex 2) for the workshop was structured according to the functional areas the WGs themselves are divided into: Rules of Participation (RoP), Landscape, Architecture, Sustainability and FAIR. In this respect topics could also be dealt with in a way which focused on common working areas rather than framing the conversation by using the FAIRsFAIR WPs. Delegates (See participants list in Annex 2) also discussed how their activities can be seen to address the action plan and recommendations from the *Turning FAIR into Reality* report[11]. This is further outlined in section 3.

2.2.2 Plans for the upcoming workshops

The second workshop (due to take place April 29th, 2020) and third workshop (late 2020) will aim to broaden the engagement between FAIRsFAIR and the other projects and stakeholders in the EOSC ecosystem. These workshops will also be structured according to common themes and working areas, and will aim for a greater participation and interaction with other projects within the EOSC ecosystem. As can be seen in Figure 1. these projects can be clustered into several categories, such as the EOSC-5B projects (e.g. EOSC Synergy[12]) which deal with national and thematic initiatives, the horizontal projects (e.g. Freya) which are focusing on transversal and foundational infrastructural topics, and the ESFRI clusters which focus on the discipline-specific aspects of the EOSC. The intention of the proceeding

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[11] European Commission Expert Group on FAIR Data. Turning FAIR into reality : final report and action plan from the European Commission expert group on FAIR data. [Internet]. 2018 Nov [cited 19.11.2019]. Available from: https://doi.org/10.2777/1524

[12] https://www.eosc-synergy.eu

workshops is to integrate more stakeholders of both FAIR and the EOSC so that the level of information and communication can also scale in a manageable way.

It is also expected that during this period a new 'EOSC Training WG' will emerge. Since two of the seven WPs in FAIRsFAIR deal with skills, training and education it can be expected that this will also be a core topic in the upcoming workshops.

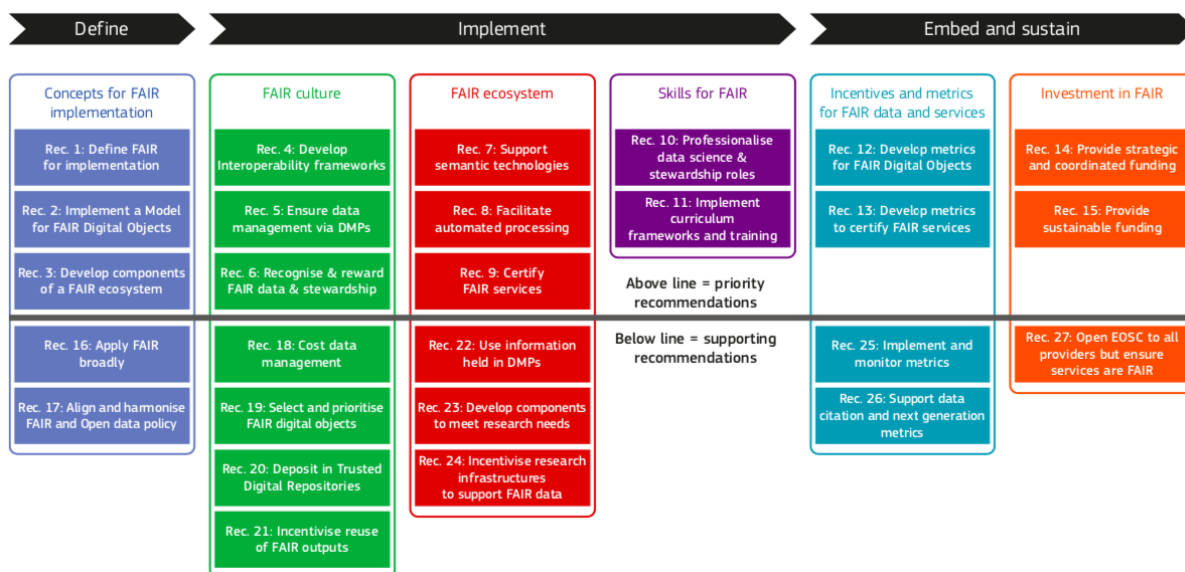# 3. Turning FAIR into Reality: tracking progress for FAIR

The European Commission Expert Group report *Turning FAIR into Reality* (TFiR) lays out an Action Plan for what is needed to implement FAIR. It recognises that in order for data and other research outputs to be Findable, Accessible, Interoperable and Reusable, a broader ecosystem of shared concepts, technologies, services, skills and culture is required. Furthermore, that ecosystem needs to be sustained by appropriate investment and sound governance.

To that end the report makes a series of structured recommendations, and an Action Plan for delivering FAIR. In turn, the structure in which those recommendations are presented provides a useful and appropriate framework for discussing and comparing the FAIR oriented activity of a number of projects and initiatives in Europe.

1. **Core Concepts:** FAIR Digital Objects and technical components of the FAIR ecosystem
2. **FAIR Ecosystem:** key services, semantic technologies, trust and certification of services
3. **FAIR Culture**: agreements on data availability and description, data management plans, recognition and reward
4. **Skills for FAIR:** data science and data stewardship, curriculum frameworks
5. **Incentives and Metrics**
6. **Investment, Sustainability and Governance**

An important aspect of the work carried out using the inputs and outputs of the Synchronisation Force workshops will be to try to understand how actors within the EOSC and FAIR ecosystems are addressing the TFiR recommendations and 'answering' the *Turning FAIR into Reality* Action Plan. By clustering their activities by TFiR recommendation, FAIRsFAIR will report in the White Paper on progress towards implementing the recommendations; likewise any gaps can be identified.

Figure 2. Turning FAIR into Reality priority and supporting recommendations

Define	Implement			Embed and sustain	
Concepts for FAIR implementation	**FAIR culture**	**FAIR ecosystem**	**Skills for FAIR**	**Incentives and metrics for FAIR data and services**	**Investment in FAIR**
Rec. 1: Define FAIR for implementation	Rec. 4: Develop Interoperability frameworks	Rec. 7: Support semantic technologies	Rec. 10: Professionalise data science & stewardship roles	Rec. 12: Develop metrics for FAIR Digital Objects	Rec. 14: Provide strategic and coordinated funding
Rec. 2: Implement a Model for FAIR Digital Objects	Rec. 5: Ensure data management via DMPs	Rec. 8: Facilitate automated processing	Rec. 11: Implement curriculum frameworks and training	Rec. 13: Develop metrics to certify FAIR services	Rec. 15: Provide sustainable funding
Rec. 3: Develop components of a FAIR ecosystem	Rec. 6: Recognise & reward FAIR data & stewardship	Rec. 9: Certify FAIR services			

Above line = priority recommendations

Below line = supporting recommendations

Rec. 16: Apply FAIR broadly	Rec. 18: Cost data management	Rec. 22: Use information held in DMPs		Rec. 25: Implement and monitor metrics	Rec. 27: Open EOSC to all providers but ensure services are FAIR
Rec. 17: Align and harmonise FAIR and Open data policy	Rec. 19: Select and prioritise FAIR digital objects	Rec. 23: Develop components to meet research needs		Rec. 26: Support data citation and next generation metrics	
	Rec. 20: Deposit in Trusted Digital Repositories	Rec. 24: Incentivise research infrastructures to support FAIR data			
	Rec. 21: Incentivise reuse of FAIR outputs				

4. First Synchronisation Force Workshop (Budapest, 2019)

4.1 Workshop preparation

A detailed pre-read document was circulated to delegates one week in advance of the workshop in Budapest. It provided key information about the FAIRsFAIR project, as well as an overview of the ongoing activities where known overlaps and collaboration between the project and the EOSC WGs are already occurring. It also highlighted activities in the work plans of the EOSC-5B projects which relate directly to FAIR (see Workshop pre-read document p.6). In preparation for the workshop, and to assist discussions on the day, WG delegates were asked to prepare an overview explaining the objectives of their WG: an update regarding their current focus, deliverables and milestones, and an answer to the question of how FAIR relates to their WG. The corresponding information was also provided by FAIRsFAIR Work Package leaders and Synchronisation Force members.

Specifically, delegates were asked to consider how their activities correspond to the framework from the *Turning FAIR into Reality* report. During the breakout activity the following four questions were posed to session attendees:

1. How do the activities in your EOSC Working Group correspond to the FAIRsFAIR Work Packages?

2. What activities are being undertaken in your Working Group/Work Package that correspond to the categories from Turning FAIR into Reality?

3. Are there any areas which can be identified in relation to your WG/WP which would benefit from greater coordination and collaboration: i.e. with other initiatives, with FAIRsFAIR, and beyond (ESFRIs, Horizontals, INFRAEOSC-5)?

4. Are there any preliminary recommendations or key points that you would like to make to the FAIRsFAIR Synchronisation Force?

The answers to the above questions were captured by the rapporteurs assigned to each breakout group as well as through the Slido platform. The results from the Slido platform can be seen in Annex 1.

4.2 Summary of information per WG topic

The following subsections contain summaries of the information captured both during and in advance of the workshop. The text in the subsections "The role of ... WG" was provided by the respective WG representatives, and supplemented using information from the

websites of the respective EOSC WGs. The materials gathered as input and outputs on the day are also available. Presentations given by the representatives of the EOSC WGs are available here, and the corresponding presentations given by members for the Synchronisation Force and FAIRsFAIR project team are available here.

4.2.1 FAIRsFAIR & the EOSC Rules of Participation (RoP) Working Group

The role of the RoP WG

The RoP WG aims to define a minimal set of clear Rules of Participation that shall define the rights, obligations and accountability governing all EOSC transactions by the various EOSC users, providers and operators. The initial work of the group will focus on a minimal set of RoP aiming to start-off by developing common requirements across the heterogeneous RIs and service providers.

The WG aims to embrace principles of openness, transparency and inclusiveness in their own work and the RoP they will deliver. As a basic guarantee for the EOSC the intention is to provide an infrastructure which is open and secure, and providing a cost-effective solution for all member states. The WG has a user-centric approach and seeks to provide a documented level of quality for researchers and other users of the EOSC. Rules are being developed at different levels of granularity from more generic to specific. This way RoP can be provided for different roles in several dimensions e.g.: Providers/Consumers, Data/Services, Public/Private, National/Regional/European/Global, etc. The RoP will comply with existing and emerging legal frameworks in the data landscape including GDPR and the free flow of data. The WG has a mandate to work until December 2020 but it is likely that the work will continue thereafter as the RoP and projects for the implementation of the EOSC continue to evolve.

FAIRsFAIR contribution to RoP

The main contribution to RoP from FAIRsFAIR is expected to come from WP4 FAIR Certification. This WP focuses on evaluation and certification of:

- FAIR Objects → FAIRness evaluations of individual datasets.
- FAIR-enabling repositories → to support the co-development and implementation of certification schemes for data repositories, building on existing frameworks. Open data and data management policies that call for the long-term storage and accessibility of data are becoming more and more commonplace in the research community. With it the need for trustworthy data repositories (TDRs) to store and disseminate data is growing. TDRs capable of curating FAIR data for researchers are a critical requirement for a functioning EOSC.

- FAIR object and data repository complementarity. This will be assessed using an iterative approach to consider which elements of repository requirements best support the enabling of FAIR data.

The work also takes into account the wider range of standards or assessment expectations (e.g. regarding services and software). FsF is keen to align with other criteria that might be set for involvement in the EOSC, e.g. minimal technical standards.

RoP: Breakout discussion

Regarding the correspondence between the activities of the EOSC WG and FAIRsFAIR, the discussion focused on the issue of where the approval mechanism for FAIRness is really located. Two core questions arose related to tasks on the project:

- T4.4 registry for FAIR repositories: Does FAIRsFAIR have the authority to define the RoPs for repositories?
- T4.5 FAIR data assessments: Does FAIRsFAIR have the authority to define the documentation of (technical) quality in EOSC for data?

It was further discussed that team members from WP3 ("FAIR policy and practice") and WP7 ("FAIR data science and professionalisation") should try to come up with recommendations on policies regarding acknowledgement and citation within the framework of data reuse. On the point of requirements related to training services it was thought that this would be a point better discussed by the EOSC WG on Training which is currently being formed.

Regarding the advancement of the recommendations from the TFiR report, the common touchpoints for FsF and the RoP WG are the following:

- Rec. 9: Develop assessment frameworks to certify FAIR services
- Rec. 27: Open EOSC to all providers, but ensure services are FAIR
- Rec. 12: Develop metrics for FAIR Digital Objects
- Rec. 13: Develop metrics to certify FAIR services

4.2.2 FAIRsFAIR & the EOSC Landscape Working Group

The role of the Landscape WG

The EOSC Landscape WG highlighted the following objectives during the workshop:

1. Mapping of the existing research infrastructures in Europe which are candidates to be part of the EOSC federation;
2. Deliver the mapping of EOSC-relevant national infrastructures and the current level of spending on research data infrastructures;
3. Take stock of federation constraints and opportunities at the various architectural levels, arising from national and regional infrastructures;
4. Propose mechanisms and best practices that will facilitate convergence and alignment between European, national and regional infrastructures;
5. Conduct an analysis of the Member States to understand: current policies; levels and sources of funding for Open science and FAIR data; national approaches to the EOSC; the level of preparedness to provide financial resources; and support available for the ongoing governance and infrastructural development of the EOSC.

FAIRsFAIR contribution to Landscaping

FAIRsFAIR WP3 'FAIR Policy and Practice' includes a number of activities related to landscaping. It will assess the current FAIR data policy *landscape* at various levels (national, funder, organisation) to identify elements that support or hinder FAIR data practice and provide recommendations on aligning core requirements. In parallel, it will also assess the current FAIR practice *landscape* and provide recommendations to foster a FAIR data culture and improve uptake of good practices and compliance while recognising and respecting differences in culture and practices in different domains. As part of these activities the WP is engaging with the ESFRI clusters and INFRAEOSC-5B projects to collect information about FAIR practices and implementation at regional and national levels.

Following a series of studies and consultations in 2019, landscape reports and related data are already published[13] and available. Initial sets of recommendations have been developed in December 2019 and are being tested in January 2020 during a workshop with policy makers.

Relevant deliverables and milestones planned until the second quarter of 2020:
- **D3.1 FAIR Data Policy Landscape Analysis**
  (Published Nov 2019) https://doi.org/10.5281/zenodo.3558173
- **D3.2 FAIR Data Practice Analysis**
  (December 2019) https://zenodo.org/record/3581353
- **M3.4 Workshop to review draft recommendations** (Jan 2020)

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[13] These reports have been published since the workshop has taken place.

Landscaping: Breakout discussion

Several synergies were identified between the EOSC Landscape WG activities and FAIRsFAIR WPs 3,2,6, and 7 ongoing landscaping activities. It was noticed that the EOSC WG is addressing the policy and infrastructure landscape at Member State level but not looking into the details of instruments and resources available. The initial focus is on developing **Country Sheets** for the draft Landscape Analysis report using questionnaires that function as a template to be able to get comparable data about the policies. There are still discussions on the questions to be asked (for e.g it is important to clearly define basic concepts such as interoperability) and the minimum content to be gathered.

It was flagged that the work already undertaken in **FAIRsFAIR Open Consultations[14]** is relevant even if not at the same granularity level as it would provide complementary and useful input in the information gathering exercise of the EOSC WG regarding national data policies, available infrastructure, and training and skills. The initial policy recommendations developed by FAIRsFAIR to support greater FAIR practice should also be a useful contribution for the WG.

It was noted that coordination and collaboration across the projects is a challenge. There is no 'official' channel for collaboration between the EOSC Landscape WG and FAIRsFAIR and this should be remedied. The INFRAEOSC5 Collaboration Agreement (including 5B projects and FAIRsFAIR) did set up a Landscaping Task Force to share and coordinate the relevant activities early on. Efforts should be made to build complementarity between the projects, agree to synchronize the various surveys during the design phase, but also sharing the results, analysis. The EOSC Landscape WG is planning a validation workshop and FAIRsFAIR a workshop with policy makers. These could be good opportunities to reconcile the various recommendations.

The landscape assessment carried out at the start of the FAIRsFAIR project used the 27 TFiR priority and supporting recommendations as the starting point. The touchpoints between the work of FsF and the EOSC Landscape WG support mostly the implementation of the TFiR supporting recommendations (recommendations 16-26). The following recommendations are specifically covered:
- Rec. 17: Align and harmonise FAIR and Open data policy
- Rec. 21: Encourage and incentivise reuse of FAIR outputs
- Rec. 24: Incentivise research infrastructures and other services to support
- FAIR data

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[14] https://www.fairsfair.eu/fairsfair-open-consultation-fair-data-policies-and-practices

4.2.3 FAIRsFAIR & the EOSC Architecture Working Group

The role of the Architecture WG

The objectives of the EOSC Architecture Working Group (EAWG) fall into two core areas. The first area relates to the development of the technical architecture of the EOSC. The focus for the EAWG is to provide a solution which enables the discovery and reuse of digital research resources, implements the agreed RoP and supports sustainability. A second workstream of the WG is the promotion of core services. The work related to this is to develop the common catalogs needed by the EOSC; explore the options available for portals; and to identify the technical solutions needed for Authentication and Authorization Infrastructure (AAI).

FAIRsFAIR contribution to Architecture

FAIRsFAIR has several WPs which touch upon topics related to Architecture:

WP2: Semantics, ontologies, & metadata.

WP3: Policies, policy frameworks; & the policies applied to digital repositories.

WP4: (FAIR) certification, & the process to become certified as a Trustworthy Digital Repository or TDR.

WP6: Skills and expertise for researchers and Research Infrastructures (RIs) for supporting FAIR concerns.

WP7: Embedding the skills for FAIR data into university curricula (postgrad education).

More specifically the FAIRsFAIR work package with the most technical focus is WP2 'FAIR Practices: Semantics, Interoperability, and Services'. This work package has the following aims:

- Create the basis for continued work on sustainable technical implementation of the FAIR principles on a broad level and improve the understanding of the current variety in FAIR data standards.
- Improve the semantic interoperability of research resources by specifying FAIR metadata schemas, vocabularies, protocols, and ontologies.
- Provide solutions for interoperability requirements and machine accessibility for FAIR repositories.
- Define the extent to which the FAIR concept can be applied to data services (including software).
- Identify gaps regarding semantic interoperability, metadata and PIDs.

Relevant deliverables and milestones planned until the second quarter of 2020:

- **D2.1 Report on FAIR requirements for persistence and interoperability** (Published Nov 2019): https://doi.org/10.5281/zenodo.3557381
- **D2.2 1st set of Recommendations for FAIR Semantics**   Expected Q1
- **D2.3 Set of FAIR data repositories features**   Expected Q1

Architecture: Breakout discussion

A core issue for the Architecture WG is keeping up with the state-of-the-art for technical (and related) work coming from the EOSC ecosystem. The discussion focused first on the need to streamline information sharing at the level of the EAWG, and then looked on the level of content to see where some initial dots could be joined for work which is of a similar nature.

"FAIR Services" was highlighted as a focus area which is currently progressing slowly but emerging as an important topic. Work on the topic has begun in FsF from M6 (September) as part of T2.4 "FAIR Software and Services, and other projects such as EOSC Synergy also have dedicated WPs and Tasks focusing on this area. The role of concepts such as FAIR Data Points [15], FAIR Digital Objects[16], and the need to make sure that best practice and state-of-the-art technical information is flowing both into and out of the FAIRsFAIR project was also raised to make sure that technical silos can be avoided.

A long discussion took place related to terminology and the need for a common glossary and EOSC technical ontology. The EAWG mentioned that every project is struggling with the same issue and they are receiving regular requests for guidance on this topic. Due to this, two EAWG sub-topic task forces ("Metadata & Ontologies" and "Glossary") are being created to provide direction at the level of the EOSC.

Related to the 'I' in FAIR there was a request to have common understanding from both FAIRsFAIR, the EAWG (and/or other EOSC WGs) on e.g. semantic interoperability? One challenge with this is, how to do this without running code?

Related to Architecture FAIRsFAIR has identified recommendations from the report to work on:

- Rec. 1: Define FAIR for implementation
- Rec. 3. Develop components of a FAIR ecosystem
- Rec. 4: Develop interoperability frameworks
- Rec. 7: Support semantic technologies
- Rec. 8: Facilitate automated processes (based on EOSC PID policy work, if possible)
- Rec. 12: Develop metrics for FAIR digital objects (criteria only)
- Rec: 13: Develop metrics to certify FAIR services (criteria only)

4.2.4 FAIRsFAIR & the EOSC Sustainability Working Group

The role of the Sustainability WG

The aim of the Sustainability WG is to provide strategic, legal and financial recommendations for an operational, scalable and sustainable EOSC Federation after 2020. This has been identified as an essential activity in order to facilitate the successful rollout of the second phase of the EOSC implementation.

The WG undertakes their work by carrying out a range of activities including:
- Analysing business models and implications on legal entity, costs, regulations, financial strategies, and supporting alignment.
- Mapping potential legal entities, taking into account national and European legislation. Examining options for a governance framework to oversee EOSC operations and development.
- Analysing regulatory/policy environments and assessing the impacts of proposed structures and funding streams at national and European level.

FAIRsFAIR contribution to Sustainability

FAIRsFAIR's contribution to the topic is two-fold. Firstly, it is essential that the outputs of the project are sustained which is the key focus of FsF WP1 "Project Management and Sustainability" specifically Task 1.3 'Sustainability'. Secondly, it is important that the changes in practice engineered by the project are also sustained. Here the objectives of the project merge with the challenges of implementing change and sustaining the FAIR ecosystem at large. Crucial in the sustainability of both FAIR and the EOSC from the perspective of FAIRsFAIR is the embedding of FAIR policies and practices in universities so that the new generation of researchers are ready to make use of and contribute to the EOSC.

Sustainability: Breakout discussion

The relationship between the Sustainability WG and FAIRsFAIR is currently less well developed. Because of this, the breakout session provided perspectives on sustainability which are currently further from the focus and activities of the WG. The WG primarily focuses on the issues of business model (financial sustainability) and technical infrastructure. Since the EOSC can be considered as socio-technical infrastructure, the sustainability of the social aspects should also be considered, many of which are being addressed by the work of FAIRsFAIR.
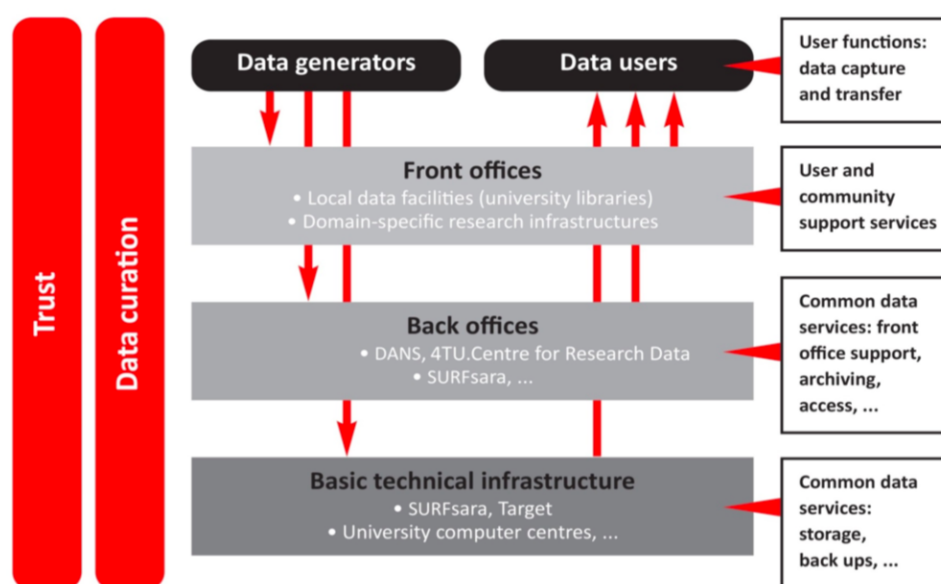
FAIRsFAIR contributes to the development and sustainability of the social infrastructure of FAIR and EOSC in the following ways:
- Raising awareness of FAIR among researchers and research institutes so that the EOSC has a steady flow of data and users.

- Providing training for service providers and end users -> to ensure that the necessary data science and data stewardship skills are being developed alongside the technical development of the EOSC.
- The integration of FAIR and RDM policies and practices at the level of university. Due to its strong focus on education, training and skill developments (both WP6 and WP7) FsF also have a high awareness of the interrelated steps which need to happen at universities: changes in institutional policies and governance; coordinated design and implementation of new incentives and rewards for science; development of graduate and post-graduate curricula; and the provision of technical and human support infrastructures e.g. front-office Research Data Management Services.

FAIRsFAIR can also contribute to an understanding of where the human-machine interaction is needed as part of new processes for both data producers, users and service providers. Reference was made to the "front-office, back-office" model in place for data stewardship in the Netherlands, highlighting the fact that human skills are crucial at various touchpoints in guaranteeing the FAIRness of data.

Fig 3. The federated data infrastructure implemented in the Netherlands by RDNL

The work to identify the relevant TFiR recommendations which both FAIRsFAIR and the Sustainability WG are addressing was not covered as part of the discussion.

4.2.5 FAIRsFAIR & the EOSC FAIR Working Group

The role of the FAIR WG

The EOSC FAIR Working Group has created four Task Forces to address different tasks as outlined below:

FAIR practice *addressing disciplinary standards:* This Task Force will investigate FAIR practices across research disciplines. The work undertaken by this team will inform the development of the Interoperability Framework, and help identify conditions needed for successful FAIR implementation, as well as barriers hindering the adoption of FAIR within certain research groups.

Interoperability *developing a framework for exchange, using inputs from the FAIR practice team and Architecture Working Group:* The work on the EOSC Interoperability Framework will be led by the FAIR Working Group in collaboration with Architecture and Rules of Participation Working Groups. The Framework must cover all aspects of interoperability - semantic, legal, technical and organisational. The different aspects will be addressed by relevant Working Groups. This Framework will provide a series of standards, guidelines and protocols for EOSC service providers and users to abide by to ensure data can be widely exchanged and reused. Open standards and APIs will be promoted and agreed on via the Global Open Science Commons Interest Group of the Research Data Alliance and other relevant fora to ensure EOSC supports and is in line with international best practices.

PIDs *defining a policy for EOSC:* In close collaboration with the Architecture Working Group, the FAIR Working Group will review how globally unique and resolvable persistent identifiers (PID) are being used in different research infrastructure initiatives to facilitate data intensive science and to foster scholarly communication. An initial PID policy will be released[17] in Q4 of 2019. This will then be tested and updated iteratively throughout 2020 using a variety of forums. The PIDforum will be a key vehicle for community consultation, as well as the Research Data Alliance, GOFAIR, GEDE and other relevant groups.

Metrics and certification *addressing criteria for monitoring data and services:* The FAIR Working Group will monitor and help to coordinate the testing, validation and adoption of metrics for FAIR data in order to make recommendations for implementation in the context of EOSC. There is already a significant level of activity in this space, run in particular by the RDA FAIR Data Maturity Model Working Group and the FAIRsFAIR project. The metrics proposed by them will be consulted on and updated iteratively throughout 2020, identifying the gap between existing disciplinary practice and the proposed metrics. Final metrics and recommendations for implementation within EOSC are due in Q4 of 2020.

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[17]   Published   after   the   Synchronisation   Force   workshop:
https://www.eoscsecretariat.eu/news-opinion/launch-persistent-identifier-policy-eosc

The FAIR Working Group will also review and make recommendations on certification frameworks for repositories and their alignment with FAIR object maturity. The FAIRsFAIR project has been tasked with supporting the co-development and implementation of certification schemes for data repositories. The recommendations and outcomes of this project will be taken up in the INFRAEOSC National Initiative and Cluster projects. The FAIR Working Group will liaise closely with FAIRsFAIR and others undertaking activities on assessing services to ensure the EOSC is a trusted environment with appropriate functionality. An outline framework for repository certification will be released in Q4 2019 taking in particular FAIRsFAIR outcomes available at that time into account and then iteratively tested and refined to release a final version in Q4 of 2020. The team will also investigate other certification-related activities taking place beyond repositories and data services, and outline what elements within the FAIR WG remit require the development of certification frameworks for EOSC.

FAIRsFAIR contribution to the FAIR WG

FAIRsFAIR is closely linked to the FAIR WG overall and specifically with the Metrics & FAIR practice task forces. In particular, FAIRsFAIR WP2 ("FAIR Practices: Semantics, Interoperability, and Services"), WP4 ("FAIR Certification") and WP3 ("FAIR Policy and Practice") have different points of contact with the EOSC FAIR WG subteams working on certification and FAIR metrics. In addition, the Landscape activity being run in the framework of WP3 FAIR Policy and Practice, and the training and skills activity part of WP6 FAIR Competence Centre, and WP7 FAIR Data Science and Professionalisation feeds into the FAIR practice Task Force.

An overview of the *evaluation requirements for FAIRness in individual datasets,* including FAIR data assessment metrics, which is being produced by FsF, is being shared with the FAIR WG. A methodology for running pilots to support the assessment of FAIR data in trustworthy repositories is also being presented by FAIRsFAIR alongside two use cases. This work plays an important role in translating FAIR principles into practice, specifically through the practical solutions available to different user groups.

FAIR WG: Breakout discussion

The discussion between the FAIRsFAIR project team and the EOSC FAIR WG highlighted that the biggest distance between the workstreams of both groups related to PIDs. FAIRsFAIR does not have any specific task on supporting a EOSC policy for PIDs.

On a more general level, the SF agreed that FAIRsFAIRs work on certification may also affect the work on PID policies since recommendations from FsF should align with the certification RoP being defined by the RoP WG. Furthermore, any set of rules or recommendations

related to certification should also feed into the technical requirements being set by the Architecture WG. The first focus needs to be evaluation, followed by certification as a second step.

The two groups discussed the point of engagement with the 30+ EOSC related projects funded in the H2020 framework. No clear workflows for information sharing and technical collaboration have been established between the WGs, INFRAEOSC5 projects and the wider EOSC projects. In particular, the lack of interaction with the ESFRI cluster projects was noted. The ESFRIs are recognized as the primary source for the identification of discipline-specific needs.

The EOSC Liaison Group at the EOSC Secretariat was seen as a potential channel for alignment between projects. Datasets and deliverables from FAIRsFAIR should be made available for public comment potentially via the EOSC Liaison Platform. Another potential channel for feedback is the D4Science platform which is being adopted by the EOSC Task Forces for collaboration. In both cases coordination is needed to make sure that multiple posting is avoided when cross-project collaboration occurs and also to make sure that the relevant audience has access to the feedback platforms adopted.

Recommendations for the evolution of the Synchronisation Force:
- **A Synchronisation Force Digest.** Insist that contact points on Synchronisation Force disseminate information widely within their projects. Maybe write a monthly update for wider circulation? A better way to share detailed information might be organising them on topics.
- **Broaden the Synchronisation Force** - make it open to any projects. The model might not work, however.
- **More and better ways for feedback** between FAIRsFAIR and the EOSC WGs are needed. Mapping project activities to EOSC WG activities to share existing and future outputs is one option. Aligning the timeframe for outputs across the EOSC WGs & FAIRsFAIR WPs is desirable but might be difficult, and would likely prove difficult to scale across further projects.
- **Fora for individual networking.** The Synchronisation Force is a good channel but FAIRsFAIR should also keep on encouraging person to person contacts on specific topics.

The work to identify the relevant TFiR recommendations which both FAIRsFAIR and the FAIR WG are addressing was not covered as part of the discussion.

5. Conclusions, recommendations & next steps

The organisation of the workshop, as well as the event itself has provided a range of different ideas for improving the harmonisation efforts, both for FAIR and the EOSC in general. The following sections provide an overview of the actions to be taken and recommendations of FAIRsFAIR based on the information learned during the first workshop. Where a follow-up or action is necessary based on these insights an ID is provided which relates to the table of actions at section 5.7. This table provides a range of short and medium term actions for the SF to focus on in advance of the 2nd workshop.

5.1 General conclusions and recommendations

On the point of knowledge management a clear gap in the awareness of relevant current and existing work has been identified. One suggestion to avoid "re-reinventing the wheel" is to apply for EOSC Co-creation Funding to perform a desk analysis of existing H2020 work. A thematic state-of-the-art or literature review of work from previous projects should be established. Since this work is beyond the scope of both FAIRsFAIR and the Synchronisation Force the recommendation will not be implemented by the team. This point will be raised again during the second SF workshop to see if other stakeholders might be interested in moving forward with the idea (SFW1.1).

A practical approach to information sharing to ensure awareness but avoid overload is needed. One proposed solution is to ensure that projects provide links to key outputs with a two-line summary/abstract. It was suggested that if the INFRAEOSC-5 projects can take the lead with this approach then hopefully it can be scaled and implemented across the wider EOSC ecosystem. FAIRsFAIR deposits all deliverables as draft in the [FAIRsFAIR Zenodo](#) at the time of their submission to the European Commission also in line with our commitment to the Open Research Data Pilot[18] (ORDP). Therefore providing this information is relatively easy to incorporate as part of project management and dissemination activities. This task will be proposed during the next INFRAEOSC-5 FAIR Task Force meeting (SFW1.2). The FAIR-related output could also be included in a 'Synchronisation Force Digest'. The digest was conceived as a monthly update for wider circulation, which could be set-up to disseminate information organized by topics with a distribution to the 30+ EOSC projects (SFW1.7).

The programme for the first Synchronisation Force workshop was structured around the EOSC WG topics. Although quite challenging to map the seven FAIRsFAIR WPs (two of which focus on Education, Training, and Skills) to the five EOSC WGs (one of which is FAIR itself)

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[18] https://www.openaire.eu/what-is-the-open-research-data-pilot

this allowed both project and WG members to more easily identify the stakeholders they should engage with for input, feedback, dissemination and adoption of deliverables. We will therefore continue with a similar approach for the upcoming workshops.

The importance of clustering activities and outputs around recommendations from the *Turning FAIR into reality* report was underemphasized during the first workshop. This work needs to continue as it provides a mechanism for investigating progress towards the implementation of the TFiR action plan and recommendations in a way which also allows input to be gathered from both initiatives inside and outside of the EOSC ecosystem. During the second SF workshop there should be a check for support of this plan, and the willingness of the other projects to familiarise themselves with the report enough to conduct the necessary mapping (SFW1.3).

The question of who gets a seat at the table, both for Synchronisation Force workshops and other similar fora, such as the newly created INFRAEOSC-5 Task Forces set up by the EOSC Cross-Project Collaboration Board (CPCB), was a discussion point which was raised various times. The 2nd Synchronisation Force workshop which will be a longer event will incorporate more stakeholders from the national and thematic EOSC-5B projects, the horizontal projects (e.g. Freya & EOSC Hub) and the ESFRI clusters.

Beyond the two future Synchronisation Force workshops no clear engagement and interaction plan for working with the 30+ EOSC related projects funded in the H2020 framework has been identified. In particular, the SF needs to develop a strategy for engaging with the ESFRI cluster projects, which are currently not directly engaged with FAIRsFAIR project activities. The ESFRI clusters will be invited to the upcoming SF workshop in The Hague. After the upcoming workshop dedicated engagement plans can be developed where necessary (SFW1.11).

A recommendation has also been made to see if the invitation to participate in the EOSC Task Forces can be widened beyond the scope of the core INFRAEOSC5-ABC projects. This falls outside of the remit of FAIRsFAIR since this activity is coordinated by the EOSC Secretariat. The possibility to open the Synchronisation Force membership to team members from other projects is not considered as a good option since the model depends on the work of SF members as ambassadors with deep insight into the ongoing activities in the project.

5.2 Conclusions specific to the EOSC Rules of Participation

Together FAIRsFAIR along with the EOSCSecretariat are considered as the projects supporting the development of appropriate policy and governance for the EOSC. However, ambiguity remains about how project outcomes and recommendations can be formally accepted. Once consensus has been achieved, or decisions have been taken, there should be

a formal mechanism for recording and acknowledging this. Relating to the development of RoP, there needs to be further discussion about the role of FAIRsFAIR (and other INFRAEOSC projects) in 'enforcing' those rules (SFW1.6). This relates to the previous point and raises the question: Will the frameworks for measuring FAIRness, and certification services, and bodies identified by FAIRsFAIR be those ultimately adopted/approved for use? (SFW1.4)

An action point for members of FAIRsFAIR WP3 ("FAIR policy and practice") and WP7 ("FAIR data science and professionalisation") to look into the topic of acknowledgement and citation within the framework of data reuse, and also the topic of requirements related to training services, were raised during the RoP breakout session, however it was noted that this would be a point better discussed by the EOSC WG on Training which is currently being formed. As an intermediate solution until the time that the Training WG emerges, the FAIRsFAIR team is looking into the possibility of inviting members of the INFRAEOSC-5 Task Force on Training & Skills to have a face-to-face meeting as one of the various collocated events to be held alongside the SF workshop under the name "FAIRsFAIR2020" (SWF1.14). In this way the groundwork to address such points can already begin in a more harmonised way.

5.3 Conclusions specific to the EOSC Landscape

It was noted that coordination and collaboration across the projects is a challenge. With regard to the various landscaping activities that almost all projects are engaging in, this carries a real risk of duplication of effort but also the threat of 'survey-burnout' for participants and institutes which receive multiple requests from various actors. Efforts should be made to build complementary between the projects, agree to synchronize the various surveys during the design phase, but also sharing the results, analysis. The INFRAEOSC-5 Landscape Task Force has been identified as a key arena for such work. Currently three SF members are listed as members of the task force and are committed to developing this more collaborative approach further (SFW1.10)

The EOSC Landscape WG is planning a validation workshop and FAIRsFAIR a workshop with policy makers. This has been identified as a good opportunity to compare and align the various recommendations which are emerging and also take a step towards the collaborative planning of further studies (SFW1.5).

5.4 Conclusions specific to Architecture

The EAWG have invited members from all EOSC projects to participate in their regular meetings. FAIRsFAIR is represented on the EAWG by two team members, who ensure a good flow of information between the two groups. Until an Architecture output list becomes available (see section 5.1), as an intermediate solution to information sharing it has been

suggested that the representatives for each project should alert the EAWG to new deliverables as they are released. This will be applied in the case of FAIRsFAIR (SWF1.13).

Related to terminology, FsF WP2 team have already developed a large piece of work to align the terminology used by the project team and will contribute to the WG sub-topics related to "Ontologies & Metadata" and "Glossary" with a specific focus on the terminology for FAIR (SFW1.8). FAIRsFAIR also continues to support and participate in the terms4FAIRskills[19] project. It aims to create a formalised terminology that describes the competencies, skills and knowledge associated with making and keeping data FAIR.

5.5 Conclusions specific to Sustainability

The relationship between the Sustainability WG and FAIRsFAIR is currently less well developed. The discussion during the workshop highlighted that FAIRsFAIR can add a high level of expertise on the social and cultural sustainability of the EOSC. The breakout also had a heavy focus on training and skills, which served as another reminder of the need for a Training & Skills workshop. Opportunities for interaction between the SF and Sustainability WG need to be fostered (SFW1.12).

5.6 Conclusions specific to the FAIR WG

A key opportunity for the SF was highlighted relating to PIDs. FAIRsFAIR does not have any specific task on supporting a EOSC policy for PIDs and should therefore seek to work closely with the WG to follow the developments and recommendations developed by the group (SFW1.9). The work on PIDs is relevant for what FAIRsFAIR is doing in the certification framework and it also needs to feed into and align with the guidelines provided by the RoP WG and Architecture WG.

5.7 Action points for the Synchronisation Force

This table provides a range of short and medium term actions for the SF to focus on in advance of the 2nd workshop.

Table 1. Table of actions and points for consideration before the 2nd SF workshop

ID	Description
SFW1.1	Raise the topic of applying for EOSC Co-creation Funding to perform a desk analysis of existing H2020 work during the 2nd SF workshop plenary. This work will not be carried out by the SF.
SFW1.2	Propose that projects provide links to key (FAIR-related) outputs with a two-line

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[19] https://terms4fairskills.github.io

	summary/abstract during the next INFRAEOSC-5 FAIR Task Force meeting.
SFW1.3	The proposed methodology of the SF to measure progress towards turning FAIR into reality needs to be further fleshed out during the 2nd SF workshop to better understand the wider interest for participating in this work. (Input is needed from other projects in order to cluster EOSC outputs according to the TFiR recommendation that they relate to.)
SFW1.4	Discussion point for the 2nd workshop: How can project outcomes and recommendations can be formally approved and accepted?
SFW1.5	Share the initial policy recommendations developed by FAIRsFAIR WP3 to support greater FAIR practice with the EOSC Landscape WG in the identified liaison and feedback platforms.
SFW1.6	Topic for discussion during the RoP breakout of the second SFW: Defining the role of FAIRsFAIR (and other INFRAEOSC projects) in 'enforcing' the RoP.
SFW1.7	Create a Synchronisation Force monthly digest: An update for wider circulation, which could be set-up to disseminate information organized by topics (related to FAIR) with a distribution to the 30+ EOSC projects.
SFW1.8	Share the work related to Terminology for FAIR which has been developed as part of WP2 activities on FAIR Semantics.
SFW1.9	The SF should closely follow the work of the FAIR WG on PIDs and look for ways to contribute to the outcomes and integrate it into the wider PID-related work of FSF.
SWF1.10	Members of the INFRAEOSC-5 Landscape Task Force need to push for a more collaborative study approach covering the whole research lifecycle.
SFW1.11	Push for broader participation from other projects (especially the ESFRI clusters) during the upcoming SF workshop in The Hague. Where necessary dedicated engagement strategies can be developed following the 2nd workshop.
SFW1.12	Opportunities for interaction between the SF and Sustainability WG need to be fostered.
SWF1.13	The FAIRsFAIR representatives to the EAWG are clear on their role to ensure a good flow of communication regarding project/WG deliverables.
SWF1.14	Investigate the possibility of collocating a meeting of the INFRAEOSC-5 Task Force on Training & Skills with the 2nd Synchronisation Force workshop as part of the wider "FAIRsFAIR2020'' event programme.

![FAIRsFAIR logo - Fostering Fair Data Practices in Europe]

Annex 1 - Slido results

During the breakout activity the following four questions below were posed to session attendees, as well as having rapporteurs for each group taking notes, additional information was also captured using the Slido platform.

Q1 How do the activities in your EOSC Working Group correspond to the FAIRsFAIR Work Packages?

- There needs to be more or clearer avenues for dialogue between the Sustainability WG and FAIR.

- [FAIR] EOSC FAIR WG subteam 'Service certification' and 'FAIR metrics': maps to FsF WP4 (data metrics and repository certification) and WP2 (task 2.4). Also tasks in WP3 around supporting repositories towards FAIR. Landscape feeds into FAIR practice Task Force. Training and skills relevant for FAIR practice Task Force. WP2 semantics work relevant to interoperability frameworks

- Complementarity between FsF WPs 3, 6 and 7 and EOSC Landscape WG but looking at the landscape with different lenses.

- For the intersection of RoP WG and FAIRsFAIR the focus will be on the recommendations 9, 12, 13 and 27.

- T4.4 registry for FAIR repositories: FAIRsFAIR has the authority to define the RoPs for reposities? T4.5 FAIR data assessments: FAIRsFAIR has the authority to define the documentation of (technical) quality in EOSC for data? WP3 en 7 should try to come up with recommendation on policies regarding acknowledgement and citation within the framework of data reuse Training services requirements better suited for the possible EOSC WG on Training

- Architecture concerns in FAIRsFAIR mostly in WP2. semantics, ontologies, metadata, ... fits well also with FAIR DO notion.

- [FAIR] What we do in certification and PID policies has to align with rules of participation. And we need to feed requirements into Architecture.

- [FAIR] Gap: nothing specific on PID policies

Q2. What activities are being undertaken in your Working Group/Work Package that correspond to the categories from Turning FAIR into Reality?

- TFiR 6. recognise and reward FAIR data & stewardship, 10. professionalise data science and stewardship roles, 11. implement curriculum frameworks and training. - WP6, 7

- EOSC WG mostly recommendation 6 of TFiR (sustainability, governance) and recommendation 1 (Core concepts) and FAIRsFAIR work addresses recommendation 2. FAIR Ecosystem

- [FAIR] Close mapping across all of the 5 categories except investment

- [FAIR] with ref. to Obj. Concepts for FAIR implementation: Mostly implicit not explicit tasks e.g. we are applying FAIR broadly and considering object model etc, both in EOSC FAIR WG and FAIRsFAIR

Q3. Are there any areas which can be identified in relation to your WG/WP which would benefit from greater coordination and collaboration: i.e. with other initiatives, with FAIRsFAIR, and beyond (ESFRIs, Horizontals, INFRAEOSC-5)?

- Already listed - but franchising schools on WP6 with other projects. Can that be brokered more easily?

- Sustainability: FAIR Culture Social infrastructure of FAIR and EOSC, Role/value of training for service providers and end users.

- Interest from EAWG & FAIRsFAIR WP2: terminology discussions; lots of work already done by various groups, not a good idea to repeat / reinvent the wheel / do yet another terminology/glossary; so coordination would be good!

- Build of complementarity, agree to synchronize these surveys: at design level (questions) and results (to be shared)

- [FAIR] Biggest gap is with the 30+ projects. How can synchronisation force help? Should Task Forces be extended to anyone in projects or 'coalition of doers'? The 'other' projects that also 'deal with' FAIR - how to identify, prioritise and connect with them?

- The RoP should be implemented through the EOSC federating core. This means the involvement of EOSChub, OpenAIRE, RDA, 03 and 07 projects, etc. We do not have the information at hand of what is actually being done that is RoP related in the other 30 plus EOSC related projects.

Q4. Are there any preliminary recommendations or key points that you would like to make to the FAIRsFAIR Synchronisation Force?

- Things to consider for both: Definition of: Governance; Finance; Training; Services; Social/Cultural; Technical <- in relation to sustainability. Incentives and rewards user stories/ use cases pieces of infrastructure (type of instructure) already exist & credit sociotechnical layers of the EOSC Competitiveness VS evolving competitive environment at various levels (e.g. scholarly publishing and increased innovation and UX expectations of researchers) "Maintaining the human capital" - knowledge management and knowledge transfer

- We should do common terminology work

- Let's look at this at the other way around, and the Landscape WG can look at and reuse what FAIRsFAIR is already doing

- - The suggestion is to have a representative of the Synchronisation Force for each of the following WGs; in order FAIR, Architecture, RoP (and Skills); - Consider scheduling

the next two workshops in alignment with the EOSC Symposia; - Make the next workshop an open one for everyone to attend.

- [FAIR] Insist that contact points on SF disseminate information

- widely within their projects. Maybe SF can help with that? Write a pithy monthly update for wider circulation?

- [FAIR] Widen Synchronisation Force - make it open to any projects?

- [FAIR] Synchronisation force is a good thing but also encourage person to person contacts on specific topics. Better way to share detailed information on topics.

Annex 2 - Workshop Programme

Agenda:

14:00 - 14:15   Opening; Intro to FAIRsFAIR & purpose of the Synchronisation Force

14:15 - 14:30   FAIR Landscape Overview

14:30 - 15:00   Presentation of FAIRsFAIR Work Plan

- Rules of Participation
- Landscaping
- Architecture
- Sustainability
- Training and Skills

15:00 - 15:40   Presentation of Work Plan from the EOSC WGs

- Rules of Participation WG
- Landscaping WG
- Architecture WG
- Sustainability WG
- FAIR WG

15:50 - 16:50   Parallel Breakout Sessions per EOSC WG

1. Rules of Participation WG
2. Landscaping WG
3. Architecture WG
4. Sustainability WG
5. *FAIR WG (*

16:55 - 17:50   Feedback Session from the Breakouts

Chair: Mustapha Mokrane

Panel: Juan Bicarregui, Artur Binczewski, Jean-Francois Abramatic, Willi Scholz, Sarah Jones.

17:50 - 18:00   Questions, discussion, next steps

Participants

The meeting was attended by delegates representing FAIRsFAIR, the EOSC Working Groups and other initiatives.

FAIRsFAIR

Ingrid Dillo, Mustapha Mokrane, Gerard Coen, Ilona von Stein (DANS); Brian Matthews (STFC); Jessica Parland von Essen, Josefine Nordling (CSC); Sara Pittonet Gaiarin (Trust-IT); Simon Hodson (CODATA); Lennart Stoy (EUA); Herve L'Hours (UKDA).

EOSC Working Groups:

- Architecture WG: Jean Francois Abramatic (Chair), Tobias Weigel (EGFC), Mark van de Sanden.

- FAIR WG: Sarah Jones (Chair), Francoise Genova, André Heughebaert, Pedro Principe, Oya Beyan.

- Sustainability WG: Willi Scholz.

- Rules of Participation WG: Juan Bicarregui (Chair).

- Landscape WG: Alizée Francey, Artur Binczewski.

Attendees from other Projects, Groups and Institutions:

Kostas Repanas (European Commission); Andreas Jaunsen (EOSC NORDIC); Susanna Assunta Sansone (EGFC); Adham Hashibon (EOSC Pillar).