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D5.2 PAN-EUROPEAN UPTAKE INTERIM REPORT

Work Package	WP5, Engagement, Communication and Uptake
Lead Author (Org)	Trust-IT Services
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Dissemination Level

X	PU: Public
	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 report maps the portfolio of the project's dissemination results and its subsequent assets against the particular target stakeholder groups and includes updated figures for effective FAIR uptake in Europe.

Versioning and contribution history

Version	Date	Authors	Notes
0.1	14.04.2020	Rita Meneses & Sara Pittonet (Trust-IT)	ToC
0.2	21.04.2020	Frans Huigen (DANS), Joy Davidson (DCC), Lennart Stoy (EUA), Jessica Parland (CSC), Yann Le Franc (e-Science Data Factory), Anusuriya Devaraju (Marum)	Added information to section WP4: Certification, section WP3 Policy & Practice, WP6-WP7 Data Science and Professionalisation, incl. the FAIR Competence Centre
0.3	24.04.2020	Rita Meneses (Trust-IT)	Added information to section 2 and 3
0.4	28.04.2020	Rita Meneses, Tracey Biller (Trust-IT)	Added information to section 5 on Champions
0.5	12.05.2020	Rita Meneses (Trust-IT)	Added information to WP2 section & executive summary
0.6	11.05.2020	Sara Pittonet (Trust-IT)	First internal review, added information to section 4 Synchronisation Force
0.7	18.05.2020	Linas Cepinskas (KNAW-DANS), Ryan Connor (University of Edinburgh)	Internal Review
0.8	20.05.2020	Rita Meneses (Trust-IT)	Fixed comments by reviewers
0.9	25.05.2020	Sara Pittonet (Trust-IT)	Addressed other comments and added Conclusion chapter
1.0	29.05.2020	Rita Meneses (Trust-IT)	General formatting

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Abbreviations and Acronyms

EGFC	European Group of FAIR Champions
EOSC	European Open Science Cloud
ESFRI	European Strategy Forum on Research Infrastructures
FAIR	Findable, Accessible, Interoperable, Reusable
GESIS	Leibniz Institute for the Social Sciences
HLAC	High Level Advisory Board
IDCC	International Digital Curation Conference
M34	Milestone 34
RDA	Research Data Alliance
RDA VSIG	Research Data Alliance Vocabulary Services Interest Group
RDA IG ETHRD	Research Data Alliance Interest Group on Education and Training on Handling of Research Data
SME	Small & Medium Enterprises
STM Association	International Association of STM Publishers
TFiR	Turning FAIR into Reality
WG	Working Group
WP	Work Package

Executive Summary

FAIRsFAIR aims to supply practical solutions for the implementation of FAIR data principles throughout the research data life cycle by fostering FAIR data culture and the uptake of good practices in making data FAIR. To achieve this goal, it is crucial that targeted stakeholders - both end users of research data and implementers of FAIR data principles - across Europe adopt the FAIRsFAIR results and its key assets as a means to accelerate the realisation of the European Open Science Cloud (EOSC).

During its first year, FAIRsFAIR worked intensively to ensure project activities dovetailed with work being carried out by the other key strategic actors in the EOSC. FAIRsFAIR activity fed into and complemented the work being done by other projects in the research data and FAIR space, maximising coordination and minimising unnecessary duplication.

FAIRsFAIR established synergies with representatives of the thematic ESFRI clusters, the INFRAEOSC5 projects, the EOSC national and thematic initiatives, and the EOSC Governance and Executive Board Working Groups, and special liaisons were set up with the EOSC WG on FAIR and its Task Forces. Collaboration was also established with other horizontal activities of strategic importance to ensure the effective uptake of FAIRsFAIR results. RDA, FREYA and EOSC-Hub are some examples. Other FAIR initiatives engaged with and now acting as multipliers of FAIRsFAIR reports and outcomes include the STM Association and GO-FAIR.
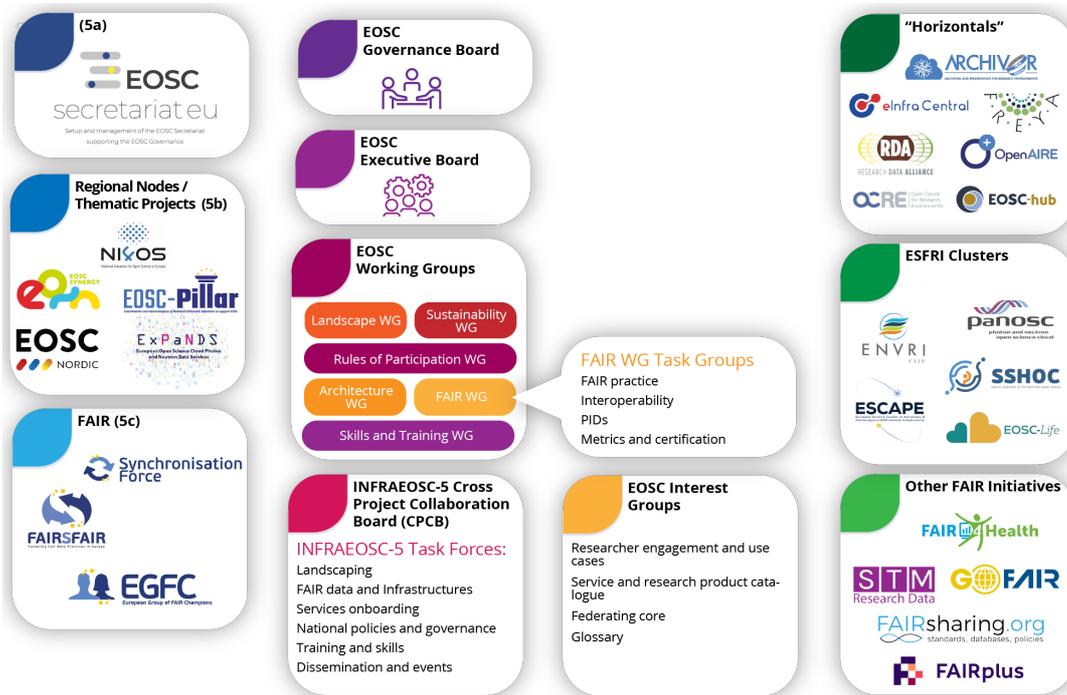

Figure 1 The EOSC initiatives

Sharing knowledge, expertise, guidelines, implementation stories, courses and education on FAIR matters are some of the activities detailed in this document, which reports the outcomes from engagement efforts between March 2019 and March 2020.

The breakdown of activities performed and the related uptake figures by key stakeholders are presented separately for each of the strategic FAIRsFAIR assets, grouped around the 4 pillars: *FAIR Practices: Semantics, Interoperability, and Services (WP2), FAIR Policy and Practice (WP3), FAIR Certification (WP4), FAIR Data Science and Professionalisation, incl. the FAIR Competence Centre (WP6 and WP7).*

Section 1 provides an overview of the stakeholders that are now part of the FAIRsFAIR community, monitored via their interactions with the project website and social media channels, and their attendance at events such as webinars, workshops and open consultations.

Section 2 introduces the channels that FAIRsFAIR uses to reach stakeholders in all four pillar areas.

Section 3 is organised by work package and describes project activities in detail, referring in each case to the stakeholder group engaged, the channels exploited, and the results achieved.

Section 4 is dedicated to the FAIRsFAIR Synchronisation Force, a special actor set up to maximise coordination with all the FAIR and EOSC-related initiatives.

Section 5 deals with the establishment of the FAIRsFAIR European Group of FAIR Champions (EGFC) and the High-Level Advisory Board (HLAC), which support FAIRsFAIR by providing strategic advice and also by amplifying FAIRsFAIR messaging in their own communities.

This document will have a second iteration at the end of the project (M34), when the final report on FAIR uptake in Europe by FAIRsFAIR stakeholders will be released.

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1. Introduction - FAIRsFAIR community overview

Early and continuous engagement with stakeholders is key to sustainable and efficient innovation which aligns project results with the values, needs and expectations of society. From March 2019 to March 2020, all FAIRsFAIR partners engaged continuously with target stakeholders in terms of communication and dissemination activities, as described in detail in D5.1 Communication Marketing & Engagement Plan. These activities have created the foundation for an effective dissemination plan and efficient exploitation of FAIRsFAIR results.

As of March 2020, the FAIRsFAIR stakeholder community has 2,600 members from different stakeholder categories including **1,900 social media followers** and **400 registered on the FAIRsFAIR website**. These individuals were engaged not only via online communication activities, but also thanks to the organisation of events, webinars, surveys, open calls, partners' networks, and the establishment of synergies with initiatives that match and complement the FAIRsFAIR mission, mostly related to Open Science and the European Open Science Cloud (EOSC).

Half of the community members mapped (website registered users and participants to the two focus groups organised by the project – see Figure 2) are from "Universities and Research Performing Organisations" (72%), and 8% from "Small & Medium Enterprises SMEs". These figures indicate that FAIRsFAIR is gaining attention from SMEs with an interest in creating and benefiting from FAIR data.
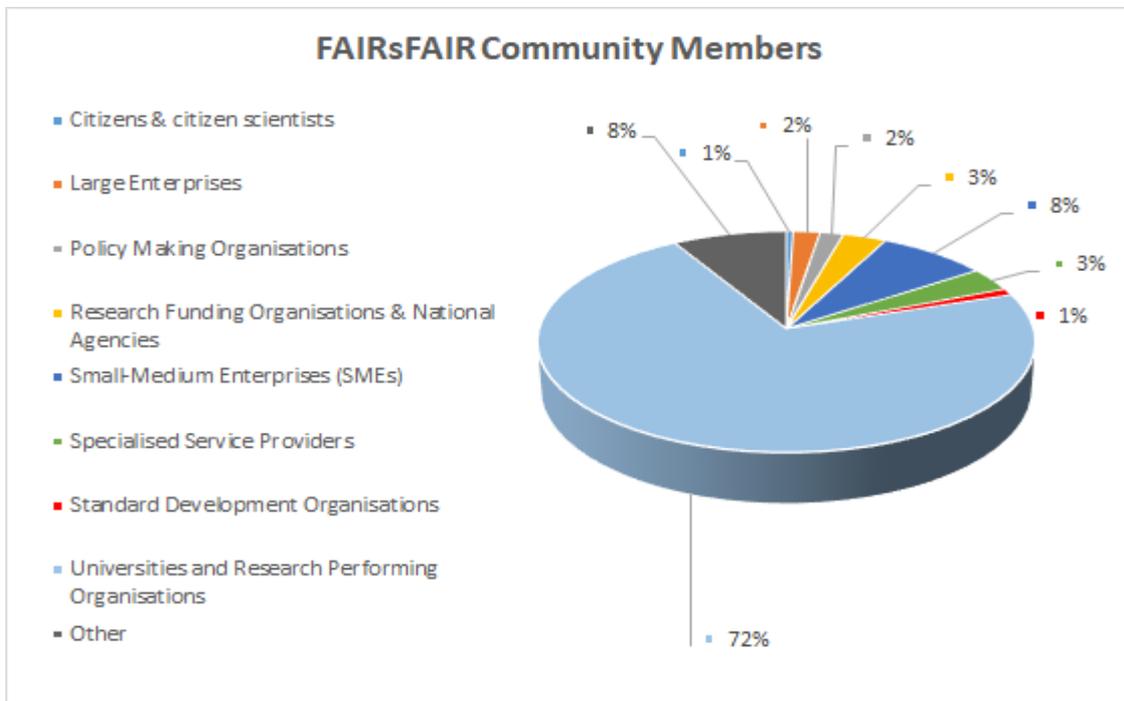
Figure 2 FAIRsFAIR Community Members

The geographic distribution of **website visitors** extends beyond Europe, alongside visitors from the UK (10%), Germany (10%), The Netherlands (9%), and France (8%), as presented in Figure 3:
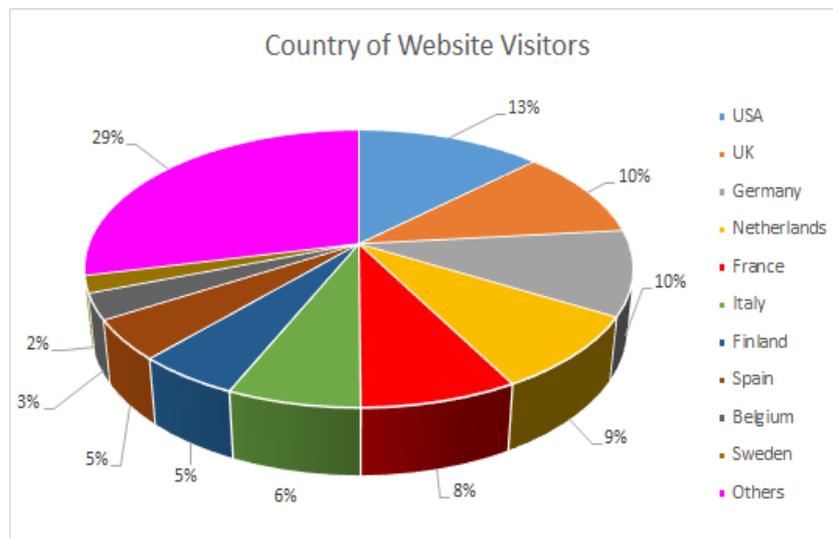
Figure 3 Country of website visitors

In the first twelve months of the project the FAIRsFAIR website attracted over 9.1K users and there were 58.7K page views.

Perhaps unsurprisingly given that the majority of FAIRsFAIR community members are from the research field, the most visited pages are "FAIRsFAIR Open Call for Data Repositories", "FAIRsFAIR Open Consultation: FAIR Data Policies and Practices", and "European Group of FAIR Champions". The first indicates that there is an interest among users in increasing repository interoperability and achieving CoreTrustSeal certification. The second is a welcome sign that users are motivated to comment on project outputs, thus supporting FAIRsFAIR in developing recommendations to enable and promote FAIR policies and practices.

Three main categories of stakeholders have been identified as key for the uptake of FAIRsFAIR outcomes and have been engaged in three different online surveys designed and implemented to gather their specific feedback:

● **Researchers, Repository managers and data practitioners**
● **Data curators, architects, and developers**
● **University staff** responsible for the research data management policies and plans

More than 200 people directly contributed to this activity, distributed across the three categories.

Almost 10% of website traffic comes from the FAIRsFAIR social media channels which offer the opportunity for direct and immediate engagement with 1900 users. Twitter alone had more than 918.4K impressions over the 12 months and proved a highly efficient conduit through which to invite

users to join events, provide feedback on FAIRsFAIR outputs, apply for funding, share interviews and testimonials from stakeholders, and offer news.
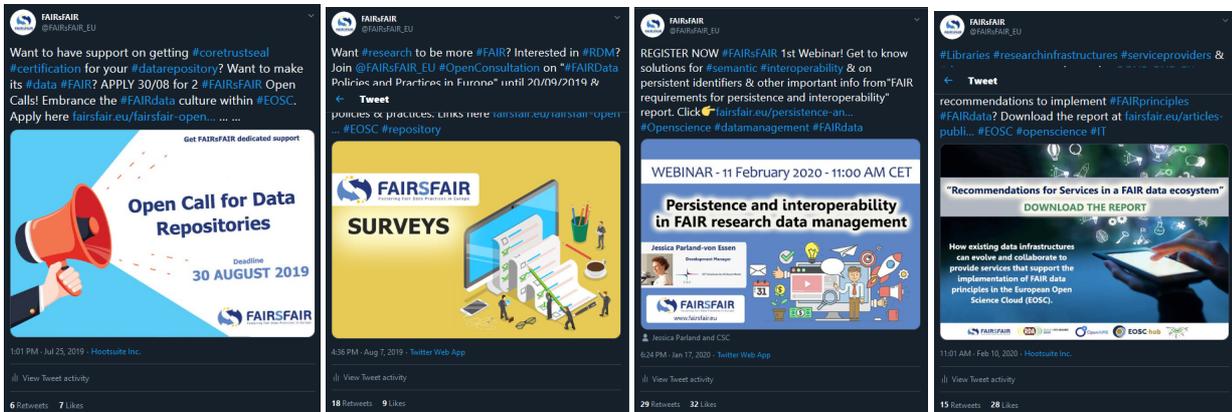
Figure 4 Sample of popular FAIRsFAIR tweets

The online community is very active, not only sharing FAIRsFAIR updates with their networks but also publishing their own messages about FAIRsFAIR activities. Key contributors include researcher Dominic Dixon, data managers & producers EMODnet, universities such as TU Delft, non-profit organisations Australian Research Data Commons and ECRIN, library and repository LIBER and Digital CSIC, policy maker ISA2 Programme, collaborative platforms EarthCube and Open Access Japan, and EOSC Secretariat.
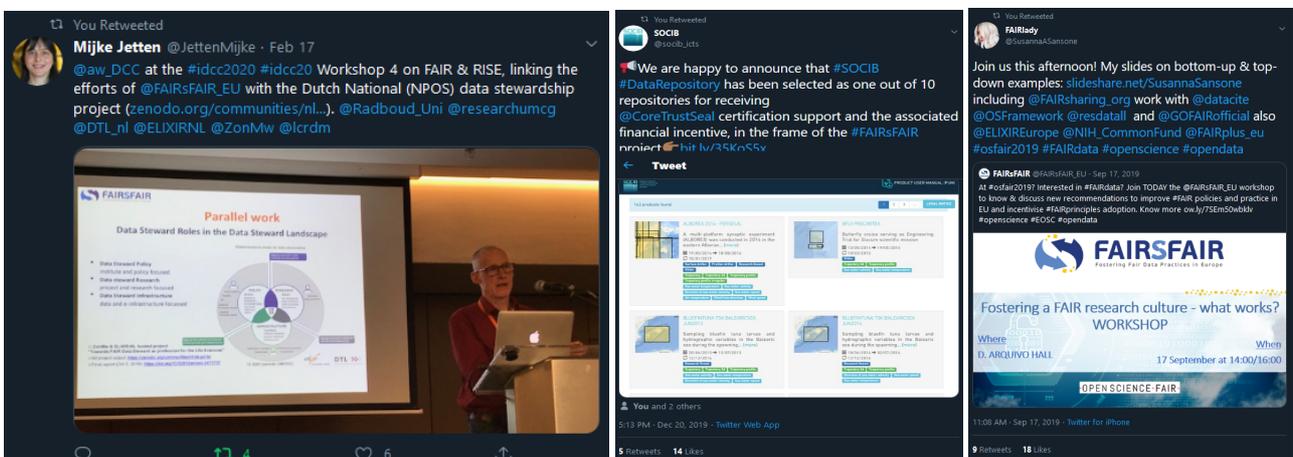
Figure 5 Sample of popular shares from FAIRsFAIR Twitter account

To increase audience reach, appropriate hashtags related to FAIR data, open science and data management have been used.

List of Hashtags used in FAIRsFAIR Social Media Channels
#researchdata, #developer #knowledge #metadata #interoperability #FAIRdata #OpenScience #openscience #repositories #datascience #semantic #dataresearcher #datamanagement #datarepositories #FAIRpractices

#datapolicies #FAIRprinciples "digitaldata #datasources #dataintegration #certification #datapolicies #datainteroperability #libraries #researchdata #datamanagers #FAIRness

Table 1 List of hashtags used in FAIRsFAIR social media channels

The importance of the FAIRsFAIR newsletter as a dissemination and engagement tool is reflected in open and click-through rates of 55% and 20,37% respectively. These figures compare favourably with global averages of 13,94% and 6,86% - source).

As regards events organised by FAIRsFAIR, there were some 100 attendees at the first webinar, and FAIRsFAIR workshops each drew an average of 45 participants. More detailed information about FAIRsFAIR events is provided in the following sections.

Across the board, FAIRsFAIR branded promotional materials supported engagement activities and strengthened calls to action.

Material	Results
Posters	5 (March 2019 1 | March 2019 2 | September 2019 1 | September 2019 2 | October 2019 | February 2020)
Flyers	3 (March 2019 | October 2019 | October 2019 2)
Infographics	2 (November 2019 | December 2019)
Rollups	2 (March 2019 | September 2019)
Videos	8 (Kick off Meeting: 5 | Open Science Fair: 3)
Giveaways	3 (reusable cup, stickers and pins)

Table 2 Communication Materials produced by FAIRsFAIR

2.   Channels for Stakeholder Uptake

2.1.   FAIRsFAIR Events & Focus Groups

Amongst the goals of events organised by FAIRsFAIR (see Annex 1) is to provide new skills or support to stakeholders, promoting the FAIRsFAIR mission and first results to new audiences, collecting feedback from end-users regarding specific FAIR, Open Science or EOSC initiatives, and facilitating the adoption of the FAIR principles across initiatives. At the same time, the project's regular and continuing representation at third-party events has ensured wide and consistent promotion of FAIRsFAIR research and results to researchers, policy makers, repository managers, open science managers, universities, research infrastructures, and service providers amongst others (see Figure 6).

FAIRsFAIR organised independent events in 9 different countries around Europe. Examples include FAIRsFAIR Focus Groups & Certification Support to Repositories. Other events were co-located at major gatherings, capitalising on their international audiences. The EOSC Symposium and Open Science FAIR are examples. Participant numbers varied from a handful to a maximum of 300.

The inputs collected at events supported the work developed by FAIRsFAIR work packages and are described in the following chapters.

Figure 6 Workshops organised by FAIRsFAIR

2.2.   Webinars

FAIRsFAIR webinars organised so far turned out to be effective in presenting project results to a distinct audience and to collect user feedback in view of an upcoming iteration of reports and deliverables. A first webinar on Persistence and interoperability in FAIR research data management was organised on 11 February 2020 followed by a second one in early April on FAIRification of Services. The impact of these activities are described in chapter 4.1.2.

2.3.   Open Calls

Two open calls were launched, one to invite data repositories to apply for FAIRsFAIR support in achieving CoreTrustSeal certification, and the other to receive assistance in increasing interoperability levels. As a result, new members were brought into the FAIRsFAIR community. More information is provided in the chapter "FAIR Certification - WP4".

Open Call	Goal	Stakeholders	When	Nº Submissions
Support for data repositories towards achieving CoreTrustSeal certification - open call	Provide support to data repositories on their pre-submission to the CoreTrustSeal certification process	Data Repositories	August 2019	46 from 22 different countries (10 Data Repositories were selected)
Support for the "FAIRification" of your repositories - open call	Provide support on building and testing prototypes of an interoperability layer for data repositories, and ultimately improve the FAIRness of data in repositories that enable FAIR data.	Data Repositories	August 2019	33 applications (12 Data Repositories were selected)

Table 3 FAIRsFAIR Open Calls

2.4.   Surveys

Three surveys were undertaken, as described in Table 4, and proved effective as a means of gathering feedback from stakeholders and insights into FAIR topics. More information is provided in chapter "Data Science and Professionalisation, incl. the FAIR Competence Centre - WP6 & WP7"

Open Call / Survey	Goal	Stakeholders	When	Nº Submissions
FAIR policies and practices - survey	Identify the range of policies influencing the way researchers work, what motivates researchers when sharing data and metadata, and what sources of support are currently available.	Researchers, Repository managers and data practitioners	September 2019	106 responses from Researchers and eInfrastructures, Universities and Research Organisations, Research funding organisations & national agencies, and Specialised Service Providers
Semantics and interoperability - survey	Identify what kind of formats, semantic artefacts, identifiers and software practices experts see in the scientific community they work in.	Data curators, architects, developers	September 2019	66 responses
Research data and FAIR data principles - survey	Gather a comprehensive overview of policies, practices and training activities relating to research data and the FAIR principles at European universities.	University leadership or management staff responsible for the development and implementation of research data management policies and plans	November 2019	90 universities and higher education institutions from 26 countries

Table 4 Surveys prepared by FAIRsFAIR

2.5.   Engaging stakeholders for Community Review

In working towards making FAIR data a reality in Europe, FAIRsFAIR must understand stakeholders' needs and expectations. To that end, a number of landscape analyses and a 'Vision for the components of a FAIR Ecosystem' have been produced. The documents may be obtained from the "FAIRsFAIR deliverables for community review" section of the website or through the FAIRsFAIR ZENODO account.

A standard approach to gathering feedback on project outputs has been defined. Once finalised, deliverables are uploaded both to ZENODO and to the FAIRsFAIR Google drive. Through social media and other channels including the newsletter, relevant events, and targeted emails to the EOSC 5B and Cluster projects, community members are alerted to the publication and invited to insert comment and feedback directly into the Google doc version. Rather than being incorporated into revisions of the original document, such comments are considered in terms of their potential to inform further work.

N°	Document currently available for community review
1	D2.1 Report on FAIR requirements for persistence and interoperability 2019
2	D2.2 FAIR Semantics: First recommendations
3	D2.3 Set of FAIR data repositories features
4	D3.1 FAIR Policy Landscape Analysis
5	D3.2 FAIR Data Practice Analysis
6	D3.3 FAIRsFAIR Policy Enhancement Recommendations
7	D4.1 Draft Recommendations on Requirements for Fair Datasets in Certified Repositories
8	D6.1 Overview of needs for competence centres
9	FAIR Ecosystem Components: Vision
10	M2.7 Assessment Report on 'FAIRness of Services
11	Milestone 4.1 Evaluation of CoreTrustSeal, Implications for Maturity Modeling

Table 5 FAIRsFAIR documents under community review

2.6. Presence at third-party events

As well as organising workshops within third-party events, FAIRsFAIR has participated in associated panel discussions and offered presentations and posters, amongst other activities. In total, FAIRsFAIR was present at over 13 events located in 6 different countries around Europe, covering topics such as FAIR data, digital preservation, data convergence, open science, research infrastructure landscape, data science, and data certification.

3. Assessment of stakeholder engagement in FAIRsFAIR activities

The channels presented so far have been exploited at different levels by the teams leading the different Work Packages. In the following chapters the impact of such activities is presented, organised around the four main FAIRsFAIR assets:

- FAIR Practices: Semantics, Interoperability, and Services (WP2)
- FAIR Policy and Practice (WP3)
- FAIR Certification (WP4)
- FAIR Data Science and Professionalisation, incl. the FAIR Competence Centre (WP6 and WP7)

3.1. FAIR Practices: Semantics, Interoperability, and Services (WP2)

3.1.1. Target stakeholders & purpose for engagement

The main goal of this work package is to produce recommendations for repositories to support FAIR semantics and Semantic in FAIR. Technologies that support semantic interoperability in a sustainable way are being analysed, in order to develop practices that support FAIRness.

The main stakeholders targeted in WP2 are:

- Data managers and data support experts
- Researchers and Research infrastructure
- Data Repositories
- Policy makers

3.1.2. Exploited channels and activities performed

The FAIR ecosystem is vast and diverse, with many stakeholders involved. Therefore, the focus on information collection was not only on desktop research, but also on feedback collection from stakeholders using surveys and interviews.

In cooperation with WP3, a survey was created, between July and early October 2019, entitled "Semantics and Interoperability". Aimed at data managers and data support experts, the survey was used to collect information about relevant tools and also reflections on the thinking around identifiers and ontologies and other semantic artefacts. The survey covered questions about metadata, use of persistent identifiers, use of semantic artefacts and handling of research software (conclusions of the survey are available on "D2.1 Report on FAIR requirements for persistence and interoperability 2019"). The information collected supported the WP on organising workshops with stakeholders to further discuss priority topics in these fields. In total 66 responses were collected and, as indicated in Figure 7, mostly from research support staff (29%), followed by researchers and repositories staff (20%).
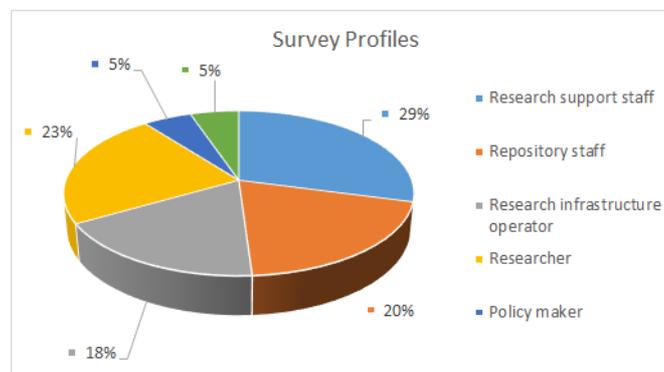
Figure 7 Survey Profiles

The majority of responses covered different research domains. Most of the respondents were from Europe (89%), specifically Germany (16%), the Netherlands (13%), and Finland (11%).
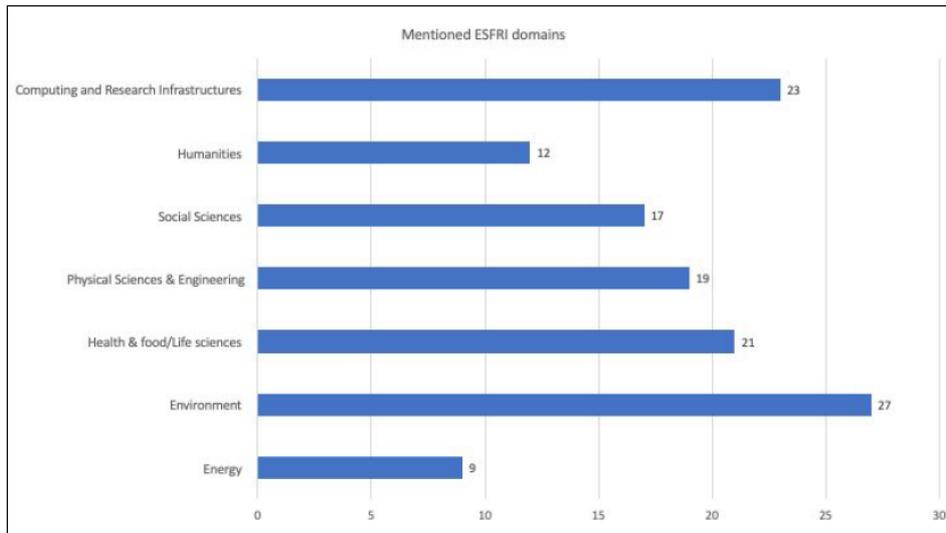
Figure 8 Research domains from survey respondents
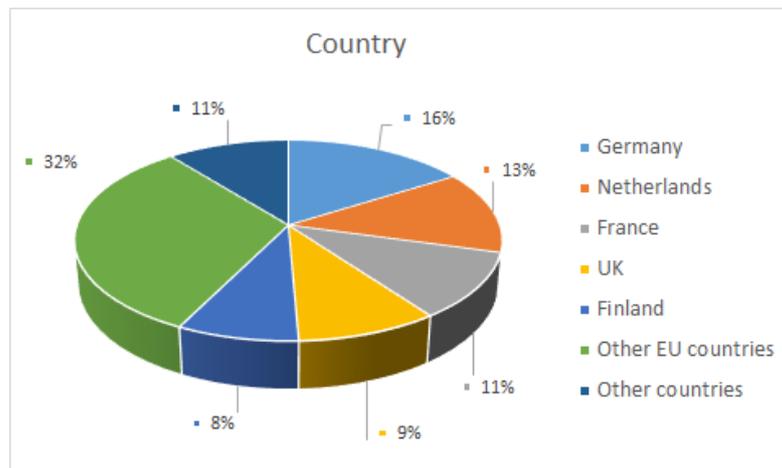
Figure 9 Country from survey respondents

Simultaneously, **five semi-structured expert interviews** were also run in September 2019, with DataCite, Deutsches Klimarechenzentru, DiSSCo, FAIRsharing and Figshare. The goal was to collect views from agents that work with interoperability and services which are domain agnostic or domain independent and generic. In addition, the WP wanted to get information about practical implementations of semantic interoperability across infrastructures, the most critical factors for success in FAIR and semantic interoperability and the most serious omissions in currently available tools and specifications.

A workshop, entitled "Building the data landscape of the future: FAIR Semantics and FAIR Repositories", was organised in October 2019, co-located with RDA Plenary in Helsinki, Finland. The goal was to brainstorm about recommendations, requirements and requests for each of the FAIR aspects. The workshop attracted 20 experts who shared their valuable comments and recommendations on requirements for semantic artefacts. After a detailed analysis, a final list of 17

recommendations was prepared. The recommendations are described in more detail in "D2.2 FAIR Semantics: First Recommendations".

In February 2020, a webinar titled "Persistence and interoperability in FAIR research data management was organised, reaching 92 participants. The webinar presented D2.1 Report on FAIR requirements for persistence and interoperability 2019, the first iteration of three annual reports on the state of FAIR in European scientific data. Based on studies of public information, especially EOSC infrastructure efforts, and on limited surveying and interviews, the report reviews and documents commonalities between infrastructures and obstacles to semantic interoperability; that is, the use of metadata and persistent identifiers to enhance dissemination across infrastructures.

All the webinar materials (presentation file and video) are available for consultation in the webinar dedicated page (the webinar video has 97 views and the webpage has over 600 visits at the time of writing).

Figure 10 Twitter card to promote FAIRsFAIR 1st webinar

3.1.3. Impact & exploitable results achieved in the period

Two reports were published and are being disseminated in ZENODO to gather community feedback:

- **D2.1 Report on FAIR requirements for persistence and interoperability 2019**: report is based on studies of public information, especially EOSC infrastructure efforts, and on limited surveying and interviews. The focus has been on understanding the usage of persistent identifiers and semantic interoperability. So far, the document has 608 downloads. The report was also presented during the EOSC Symposium (Budapest, Hungary) and many comments were collected from the audience.

- **D2.2 FAIR Semantics: First recommendations**: with 710 downloads, this document is the first iteration of recommendations for making semantic artefact FAIR.

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An active connection has been established between FAIRsFAIR and the **GO INTER Implementation Network of the GO FAIR project,** through the direct involvement of Yann Le Franc (T2.2 leader) and Gerard Coen (T2.2 participant). GO FAIR 'GO Inter' aims at applying, developing and evaluating methods, tools and guidelines for implementing and assessing semantic interoperability of heterogeneous research data across disciplines. Leveraging this link, the GO Inter participants have been invited to comment on both the "D2.1 Report on FAIR requirements for persistence and interoperability" and "D2.2 FAIR Semantics: first recommendations". The engagement achieved with the GO Inter implementation network is represented by the message sent by Peter Mutschke, GESIS, to a GO-FAIR mailing list sharing a recent newsletter distributed by FAIRsFAIR and promoting the recent reports included there:

"Dear all,
Please note the invitation from FAIRsFAIR to comment the recent report on requirements for persistence and interoperability (see newsletter below). The report is a relevant piece for GO Inter. It provides a great overview of the current state of the art in the technical implementation of the FAIR principles, especially as regards semantic interoperability. But, the report also shows that there is very much work still to be done as regards turning all these insights into reality in a way that data providers and researchers can use it in their daily work (such as integrating semantic tools / artefacts into workflows). I see GO Inter as a platform to bring things a step closer to practice"

Peter Mutschke, *GESIS – Leibniz Institute for the Social Sciences to the GO-FAIR Inter list- championing the work of FAIRsFAIR and calling for feedback coming from the project. 31 March 2020.*

In parallel, Yann Le Franc and Gerard Coen are involved in ongoing evaluation of the FAIR Semantics recommendations within GO FAIR INTER activities:

1- Regular meeting with Bartoc and Coli-conc, two semantic services for Social Science and Humanities, have happened to evaluate how they comply with/meet the requirements of the FAIR Semantics recommendations

2- Participation to the GO Inter hackathons (May 19th-20th 2020) to discuss the FAIR Semantics recommendations and the possible alignment with the FAIR Digital Object framework.

Furthermore, the work done within T2.2 is tightly connected to the RDA Vocabulary and Semantic Service Interest Group (VSSIG) as Yann Le Franc is the co-chair of this IG. The VSSIG is used as a global platform to integrate multiple related and interested initiatives (including GO Inter). The work of T2.2 has been initiated through the organisation of a dedicated brainstorming session at the RDA Plenary P14 in Helsinki. This work has been presented and discussed within the Vocabulary Services & Semantics Interest Group of RDA during the RDA 14th plenary VSSIG session in October 2019. An initial agreement to focus on the FAIR Semantics as core topic for the VSSIG has been reached during this session.

The first set of recommendations, derived from the brainstorming session, was the core topic of discussion during the VSSIG virtual session during the RDA P15 in March 2020. From these discussions within VSSIG, two nascent task groups have emerged within the RDA VSSIG, one on a minimal metadata schema for semantic artefacts that was initiated at both the RDA P15 session and the T2.2 workshop in April 2020 and a second on the alignment of semantic artefact repositories with the FAIR Semantics recommendations. The integration with the RDA VSSIG taps right into previous work done within the RDA IG group, for instance the Task Group for Ontology Metadata (report in 2018). One of the objectives of the T2.2 is to create an RDA Working Group, spinning off from the RDA VSSIG and focused on the establishment of the final FAIR Semantics recommendations as RDA recommendations to extend the impact of FAIRsFAIR work beyond the border of FAIRsFAIR.

The FAIRsFAIR task participants are actively involved in the RDA VSSIG and other relevant community-driven initiatives. They are coordinating these different initiatives together and facilitating the work by inviting experts to take part in the work in developing the recommendations into the most useful and applicable format.

3.2. FAIR Policy and Practice (WP3)

3.2.1. Target stakeholders & purpose for engagement

The key aim for this work package is to identify current and good practice and to support various actors in the research ecosystem to make changes to increase the production and use of FAIR data. The FAIRsFAIR project is aware that there are other projects and initiatives also active in this regard and a work plan was put in place to avoid duplication of effort.

This was possible thanks to not only the **FAIRsFAIR Synchronisation Force**, but also by joining the **INFRAEOSC related working groups including the National Policies and Governance Task Force** (FAIRsFAIR partners which joined: DCC, SPARC Europe), **5B Landscaping Working Group** (FAIRsFAIR partners which joined: DCC, CSC, EUA, STFC), **the EOSC Training and Skills Working Group** (FAIRsFAIR partners which joined: DCC, DANS, EUA) and the Turning FAIR into Reality Working Group being coordinated by **EOSC Life** (FAIRsFAIR partners which joined: DCC).

In addition, DCC participates in the EOSC FAIR WG (sub-topic: Practice) bi-weekly meetings as often as possible to share details of activities to highlight areas for further cooperation. FAIR Practice WG members reviewed the first tranche of FAIRsFAIR outputs and several have been referenced in the outputs of the group. A recent blog post provides more information on the collaboration:

*'When working on FAIR principles, one always encounters a plethora of initiatives that are on parallel or even similar tracks on what comes to scope of their work. This motivated us to clearly define the scope of our work to **ensure we do not duplicate the work** already done by others. In addition, we*

have established frequent communication with the ongoing FAIRsFAIR project that deals with highly similar issues.' - **Juuso Marttila,** *member of the EOSC FAIR WG*

The main stakeholders that are targeted by WP3 are:
- Policymakers
- Research and e-Infrastructures
- Universities and Research Organizations
- Researchers
- Research funding organisations & national agencies
- Specialised Service Providers

WP3 members also participate in the newly formed Clusters Collaboration WG to ensure that there is a more coordinated and aligned approach to communication and dissemination from the projects to the various stakeholders as there are many areas of overlap. WP3 also engages with stakeholders through non-INFRAEOSC coordination fora, including RDA, and GO FAIR. DCC members co-chair a number of relevant RDA Interest and Working Groups and the GO FAIR Implementation Network on Data Stewardship Competence Centres.

3.2.2.   Exploited channels and activities performed

In close cooperation with WP2, WP6 and WP7, a series of three open consultations were developed between May-July 2019:

- SURVEY 1: FAIR Policies and Practices (WP3)

- SURVEY 2: Semantics and Interoperability (WP2)

- SURVEY 3: Research Data and FAIR Data Principles (WP6 & WP7)

FAIRsFAIR also worked in cooperation with several related initiatives including the **EOSC 5B projects,** the Group of European Data Experts in RDA (**GEDE**) the **EOSC FAIR Working Group** to avoid duplication of effort in our information collection. The open consultation on policy and practice targeted the research support community to gather views and experiences of implementing the FAIR principles.

A survey-based consultation using the EU Survey tool was made accessible from the FAIRsFAIR website. The open consultation of "SURVEY 1: FAIR Policies and Practices" ran from August 2 - September 27, 2019 and gained 106 responses from research and e-infrastructures, universities and research organizations, research funding organisations and national agencies, and specialised service providers. The anonymised survey data are available from the FAIRsFAIR ZENODO community for reuse.

The initial policy landscape findings and draft policy enhancement recommendations were shared initially with the **High Level Advisory Committee** (HLAC) during its second meeting on December 12, 2019 with some specific questions. Following this, the early draft was shared with a range of policymakers during the 'Ten things you can do to support the FAIR data culture' workshop held as part of part of the 15th International Digital Curation Conference (IDCC). The fully booked session took place on 17th February 2020 in Dublin, Ireland. A blog post shared via the FAIRsFAIR website summarised the session.

Figure 11 Images from the FAIRsFAIR workshop "Ten things you can do to support the FAIR data culture"

3.2.3.   Impact & exploitable results achieved in the period

Thanks to the information collected from workshops and online surveys, WP3 was able to deliver some reports that will help to enhance FAIR data policies in Europe:

- D3.1 FAIR Policy Landscape Analysis was published on December 3, 2019. The draft was shared with members of the EOSC-5B national policies and governance task force and the landscaping task force to help them with their own landscaping activities and to secure early feedback. The ZENODO record includes a link to a living Google Doc to allow for community feedback to be gathered. To date, there have been 443 downloads.

- D3.2 FAIR Data Practice Analysis was published on December 13, 2019. The draft includes a link to a Google Doc to allow for community feedback to be gathered. To date there have been 225 downloads.

- D3.3 FAIRsFAIR Policy Enhancement Recommendations was published on February 25, 2020. The draft includes a link to a Google Doc to allow for community feedback to be gathered. To date there have been 415 downloads.

A set of policy characterisation elements was developed to assess 42 policies from a range of stakeholders (14 publishers, 11 HEIs, 17 funding bodies) to see how well they currently reflect the priority and supporting actions outlined in Turning FAIR into Reality report. The policy characterisation elements built upon existing characterisation efforts and defined a total of 42 policy features to be reviewed during our landscape assessment. Fourteen of these features were intended

to capture information about the policy itself (e.g., title, year of introduction, machine-readability) and 28 policy features were reviewed in relation to the content of the policy. A template with the characterisation elements and policy data are available via ZENODO (https://doi.org/10.5281/zenodo.3550543).

3.3.   FAIR Certification (WP4)

3.3.1.   Target stakeholders & purpose for engagement

The main purpose of WP4 is to augment existing certification mechanisms for digital data repositories, such as CoreTrustSeal. These established procedures and standards of the CoreTrustSeal requirements emerged from research data community work to identify key practices for data repositories which support long term access to reusable data. For this, WP4 targets the following stakeholders:

- Digital Repositories: so far **10 digital repositories** have been selected for the FAIRsFAIR Certification Support initiative and data repositories contribute to pilots testing of FAIR data assessment tools.

- Coordination fora: engagement activities were put in place with **RDA FAIR Data Maturity Model WG** & **EOSC FAIR WG,** Policy makers & EOSC related projects, namely the **EOSC-hub** project.

3.3.2.   Exploited channels and activities performed

FAIRsFAIR is playing a key role in the contribution to policies and practices for broader adoption of FAIR practices and in the development of standards for FAIR certification of repositories. Through two Open Calls run between July and August 2019, FAIRsFAIR selected 22 Data Repositories - out of 73 applications - which are now getting specific support for two different initiatives.

As a result of this call, 10 repositories are receiving support from FAIRsFAIR in achieving CoreTrustSeal Certification (www.coretrustseal.org). The open call selected 10 repositories out of 46 applications from 22 different countries (see Figure 12) that will get a financial incentive as well as dedicated support for pre-submission to the CoreTrustSeal certification process.
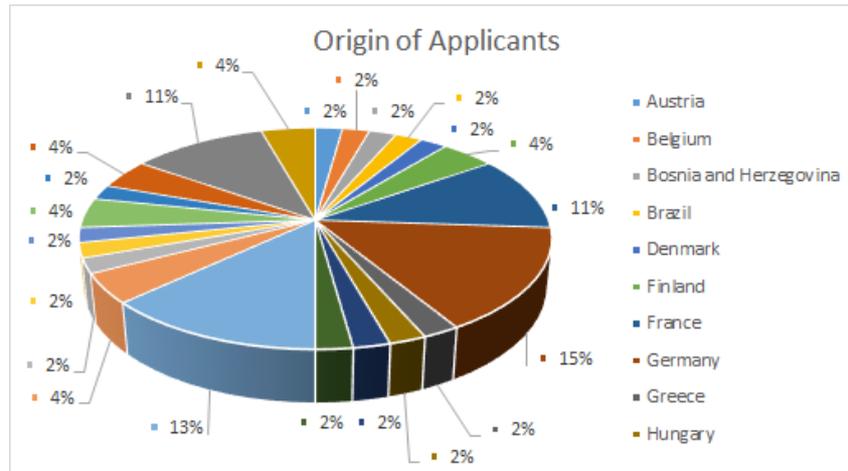
Figure 12 Origin of Applicants

10 Data Repositories selected for the CoreTrustSeal certification support

The submissions were assessed based on the repository's focus on long-term preservation, on reuse and Designated Community as well as on feasibility for obtaining CoreTrustSeal certification within the given time frame. The Expert Committee did take into account a diverse geographical and disciplinary spread among selected repositories as well.

∨ **Apollo - United Kingdom**
∨ **DaSCH - Data and Service Center for the Humanities (DaSCH) - Switzerland**
∨ **DASS-BiH (Data Archive for Social Sciences & The Humanities in Bosnia & Herzegovina) - Bosnia & Herzegovina**
∨ **DASSH - The Archive for Marine Species and Habitats Data - United Kingdom**
∨ **ESRF Data Repository - France**
∨ **IAGOS Data Center - France**
∨ **ICOS Data Portal - Sweden**
∨ **The Movebank Data Repository - Germany**
∨ **SOCIB - Balearic Islands Coastal Ocean Observing and Forecasting System Data Repository - Spain**
∨ **Tárki Data Archive - Hungary**

Figure 13 List of Data repositories selected for the CoreTrustSeal certification support

A second open call "Support for the "FAIRification" of your repositories", 33 repositories applied to make the storage and process of their data repository more FAIR, where 36% were a "domain" type repository, followed by national and publication repositories (17% each). Only three of the total applicants were already certified. From these 33 applicants, 12 were selected to receive FAIRsFAIR support by discussing and designing implementation features that enable and increase repository interoperability.
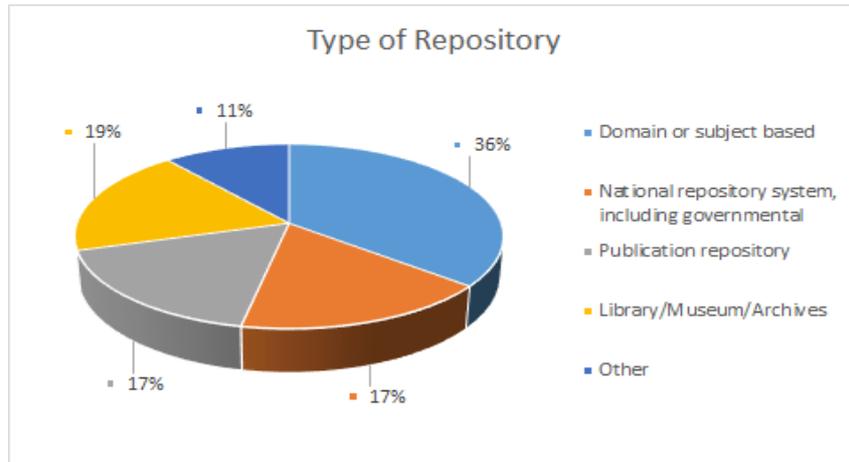
Figure 14 Type of Repository

6 Developer Repositories

A "Developer Repository" is usually set as a central data storage location. The following six repositories have been chosen and will participate in the development.

- ∨   **EUDAT B2Share - Finland**
- ∨   **Dryad Digital Repository - USA**
- ∨   **Central University of Punjab Knowledge Repository - India**
- ∨   **Digital Academic Archives and Repositories - Croatia**
- ∨   **The Movebank Data Repository - Germany**
- ∨   **Data Inra - France**

6 Tester Repositories

Six Tester Repositories have also been chosen with the aim to engage with a wide community of experts in testing the solution.

- ∨   **Phaidra - Italy**
- ∨   **FRDR - Canada**
- ∨   **PANGAEA - Germany**
- ∨   **data Sciences Po - France**
- ∨   **DataverseNO - Norway**
- ∨   **NBN Atlas - United Kingdom**

Figure 15 List of selected developer & tester repositories

Representatives from ten data repositories received the first of two rounds of training in CoreTrustSeal certification at DANS during a workshop in The Hague on 6 February 2020. A news article was published in in FAIRsFAIR website and testimonials from repositories were shared in FAIRsFAIR social media accounts.

Figure 16 Tweets promoting the outcomes of CoreTrustSeal training

The training session was followed by a virtual open session with the selected repositories, on March 5 2020, to answer questions concerning the CoreTrustSeal and the FAIR model overview.

3.3.3. Impact & exploitable results achieved in the period

3 major results were achieved, with 2 reports published and are being disseminated in ZENODO to gather communities' feedback on the content:

- **D4.1 Draft Recommendations on Requirements for Fair Datasets in Certified Repositories**: which presents an initial set of preliminary metrics corresponding to FAIR principles that can be used to assess data objects through manual and automated testing. So far the document has 242 downloads.

- **Milestone 4.1 Evaluation of CoreTrustSeal, Implications for Maturity Modeling**: with 56 downloads, this document presents the first iterative step in aligning the characteristics of FAIR digital objects with the repositories that enable FAIRness, through the CoreTrustSeal Trustworthy Data Repository Requirements and the application of a capability/maturity evaluation approach.

- **Repository Finder:** Registry of FAIR compliant repositories as an extension to re3data.

To reach a wider community, WP4 partners presented their work at several workshops and virtual meetings, including the **EOSC Symposium 2019**, the **RDA Germany 2020** conference on 12 February 2020; the **"Certification of research data repositories - paths, practical experience and perspectives"** workshop in Leipzig, Germany, 5 March 2020; the **Open science Workshop 2020**, amongst others.

FAIRsFAIR WP4 team adopted the output of the RDA FAIR Data Maturity Model WG: Specification and Guidelines (assessment indicators v3) as a basis to develop a set of minimum metrics for assessing the FAIRness of research data objects and the tools implementing those metrics to address two main use cases: researchers and data repositories. To support assessments based on the metrics,

the FAIRsFAIR team is currently implementing a manual self-assessment tool, to be used by researchers, and an automated assessment service for implementation by repositories. The metrics and tools will be iteratively improved through pilot testing with researchers and selected data repositories.

FAIRsFAIR partners working on FAIR Certification have actively participated in online and RDA Plenary face-to-face meetings organized by the WG. They have contributed extensively throughout the various feedback stages of the WG. The project and the WG have jointly organized a session on **FAIR Metrics at EOSC Symposium 2019** to raise awareness about FAIR assessment, and to discuss ongoing and planned FAIR assessment implementations by different communities, including opportunities and challenges they face. In addition, the partners have provided feedback on each of the releases of the indicators.

A FAIRsFAIR 'Adoption story' is currently under publication by the RDA adoption team and will soon be available from the dedicated area on the RDA website.

3.4. Data Science and Professionalisation, incl. the FAIR Competence Centre (WP6 & WP7)

3.4.1. Target stakeholders & purpose for engagement

In brief, the goal of FAIRsFAIR WP6 is to propagate FAIR skills by "training the trainers", while WP7 aims to include these training elements in core university provision and, ultimately, allow a formal accreditation. With this, key stakeholders are research institutions and higher education institutions, for the respective work on training researchers and developing material and resources for the integration of research data related skills in higher education curricula.

For the training and education aspects, FAIRsFAIR included the **EOSC 5b projects** and **ESRFI cluster projects** and project members are active participants in the EOSC related groups: **EOSC Training and Skills Working Group** (FAIRsFAIR partners which joined: DCC, DANS, EUA) and EOSC 5B Training & Skills Task Force (FAIRsFAIR partners which joined: DCC, EUA).

Additionally, in order to reach a wide range of stakeholders, project members are involved in a number of initiatives including **Terms4FAIRSkills** and **Research Data Alliance Interest Group on Education and Training on Handling of Research Data** (RDA IG ETHRD).

3.4.2. Exploited channels and activities performed

As highlighted above, WP6, WP7 and WP3 have worked in collaboration to develop mechanisms for open consultation. The activities relating to training and education are summarised below.

In order to inform the requirements and definition of the competence centre structure a number of engagement approaches were instigated (as reported in "D6.1 Overview of needs for competence center"). User stories were created which were refined through open consultation surveys (106 responses during the period August 2 - September 27, 2019), interviews with EOSC and ESFRI supported "cluster" projects and feedback gathered at the Open Science Fair in Porto, September 2019.

The first data steward school took place in Trieste Italy in August 2019, as part of the CODATA/RDA Summer School for Research Data Science. Six participants with a data stewarding background took part in the pilot programme. An overview of the pilot school was presented in a paper at the IDCC conference in February, which includes the Data Steward action plans that were produced by the participants. To support ongoing development of the Data Steward training curriculum, a workshop took place at the 14th RDA Plenary in Helsinki, October 2019, with the aim of gathering feedback on the curriculum from RDA community members.

The joint IDDC workshop "Ten things you can do to support FAIR data culture" enabled FAIRsFAIR team to reach an international audience of mainly research data practitioners. Issues around the sharing and re-use of existing FAIR training, guidance and resources were explored. The session provided valuable feedback on whether participants share materials they have created and if so who with and where, but also where and how they located and identified suitable materials to re-use. The findings from the session will be incorporated into ongoing work on how to describe learning resources.

A survey run by WP7 on competences and policies for FAIR data and research data management and FAIR data coordinated, entitled "Research Data and FAIR Data Principles", was targeted at universities. This survey was active between 19 September 2019 and 15 November 2019, and served as foundation of Deliverable 7.1 FAIR in European Higher Education. In total, 90 universities and higher education institutions from 26 countries responded to the survey (See Figure 17).
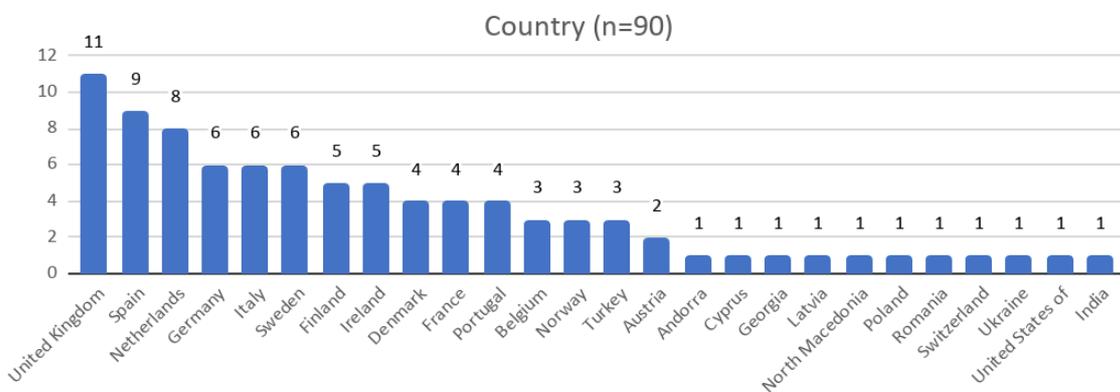

Figure 17 Universities country of origin

In order to reach out to stakeholders within universities and gain qualitative insights for the preparation of D7.1, FAIRsFAIR organised two Focus Groups: "Universities, research data management and the FAIR principles" with 26 participants was held at Universidad Carlos III de Madrid (UC3M) on 30 October 2019 in Madrid, Spain. The discussions have been summarised and disseminated in a blog post. The "Teaching (FAIR) data management and stewardship" focus group, with 25 participants, was hosted by the University of Amsterdam on 19 November 2019 in Amsterdam, Netherlands. Discussions were summarised for FAIRsFAIR and were used to qualify the data collected through the survey organised by WP7.

The first WP7 deliverable, entitled D7.1 FAIR in European Higher Education, was completed in February 2020. Therefore, most activities were aimed at communicating WP7 to relevant stakeholders and increasing the participation in the survey and focus groups. Besides collaboratively implemented workshops listed under other Work Packages (workshop at IDCC 2020, EOSC Symposium 2019), this included: A presentation at the meeting of the RDA Education and Training on Handling Research Data IG, 23 October 2020 in Espoo/Helsinki, Finland; A presentation at the EDISON Community Workshop, 20 November in Amsterdam, The Netherlands; An EUA Expert Voice on the results of D7.1 developed for the university community published on 17 March 2020 and re-published by FAIRsFAIR; and participation in the first meeting of the terms4fairskills initiative on 20-21 May 2020 in Paris, France.

3.4.3.   Impact & exploitable results achieved in the period

Two reports were published and are being disseminated in ZENODO:

- **D6.1 Overview of needs for competence center**": with 334 downloads, the document proposes priorities for competence centres for FAIR data stewardship in general.

- **D7.1 FAIR in European Higher Education**: with 249 downloads so far, the document aims to build a foundation for the identification of existing practices and needs of higher education institutions. The research covered several dimensions of research data management at HEIs relevant for the implementation of FAIRsFAIR WP7, as well as WP3 "FAIR Data Policy Practice" and WP6 "FAIR Competence Centre". These dimensions included: Institutional research data management policies; support services for research data management; competence development of students and graduates; universities and EOSC; and FAIRsFAIR support for universities. The deliverable outlines several areas of action identified by respondents and focus group participants how FAIRsFAIR can support competence development. It also includes recommendations and good practices around research data management practices at higher education institutions that will be further disseminated by FAIRsFAIR and the project partners. Blog posts and summaries based on the focus groups and the deliverables were written and distributed to aid rapid dissemination of results.

4.   FAIRsFAIR as a catalyst of the FAIR vision in the EOSC: the Synchronisation Force

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, FAIRsFAIR 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. The SF is composed of representatives from all work packages. The SF interacts with many stakeholders through participation in Working Groups of the EOSC Executive Board and Task Forces from other projects and initiatives such as other INFRAEOSC-5 projects, FAIRplus, FAIR4Health, ESFRI Cluster projects as well as during events such as RDA plenaries, and the Open Science FAIR.

The objective of the Synchronisation Force, and the specific focus of the second workshop, is to try to understand how actors within the EOSC and FAIR ecosystems are addressing the TFiR recommendations; and responding to and implementing the TFiR Action Plan. By examining their activities in relation to the TFiR recommendations, the Synchronisation Force will report in the White Paper on progress towards implementing the recommendations; likewise, any gaps can be identified.

The first workshop was organised in Budapest, Hungary on 25 November 2019 in conjunction with the EOSC Symposium. It highlighted the points discussed by stakeholders from the FAIRsFAIR project, EOSC WGs, and other associated EOSC representatives including those from (among others) the European Commission, INFRAEOSC5 projects, and the FAIRsFAIR European Group of FAIR Champions. 16 people representing these bodies participated, in addition to SF members. The report, (available at https://doi.org/10.5281/zenodo.3629159) highlights the points discussed during that workshop. 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 main issue affecting all actors turned out to be the difficulty around coordination and collaboration, as well as knowledge and process management. No clear workflows with respect to information sharing and collaboration were in place at the time of the event 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. Some general conclusions were identified and taken forward by the Synchronisation Force in the upcoming activities. In addition, specific recommendations were prepared addressing each one of the EOSC EB Working Groups. All the above have been addressed in the organisation of the second meeting of the Synchronisation Force.

As a necessary response to the COVID19 epidemic outbreak and the travel restrictions, the second workshop of the FAIRsFAIR Synchronisation Force which was originally scheduled for 29 April in The Hague was held as a series of online sessions between 29 April and 11 June 2020. At the time of

writing this deliverable, the sessions are still ongoing and all information is being updated online at this page https://www.fairsfair.eu/events/fairsfair-2020-and-second-synchronisation-workshop

The objective of the FAIRsFAIR Synchronisation Force virtual workshops is to discuss and compare the FAIR oriented activity of a number of projects and initiatives in Europe. To do this, representatives of the Working Groups of the EOSC Executive Board, FAIR representatives from ESFRI clusters, FAIR Task Force representatives from INFRAEOSC5 projects, and FAIR Champions, have been clustered in discussion groups around the Turning FAIR into Reality Recommendations. The findings of the groups will inform the FAIRsFAIR Synchronisation Force's task of helping ensure dialogue and coordination between different actors and initiatives in FAIR and EOSC.

58 participants from all the key stakeholder groups (Working Groups of the EOSC Executive Board, FAIR representatives from ESFRI clusters, FAIR Task Force representatives from INFRAEOSC5 projects, and FAIR Champions) registered for the series, with an average participation to each session of more than 20 people. The full participants list is available at this link while presentation and recordings have been published on the dedicated page on the FAIRsFAIR website.

Figure 18 The EOSC initiatives

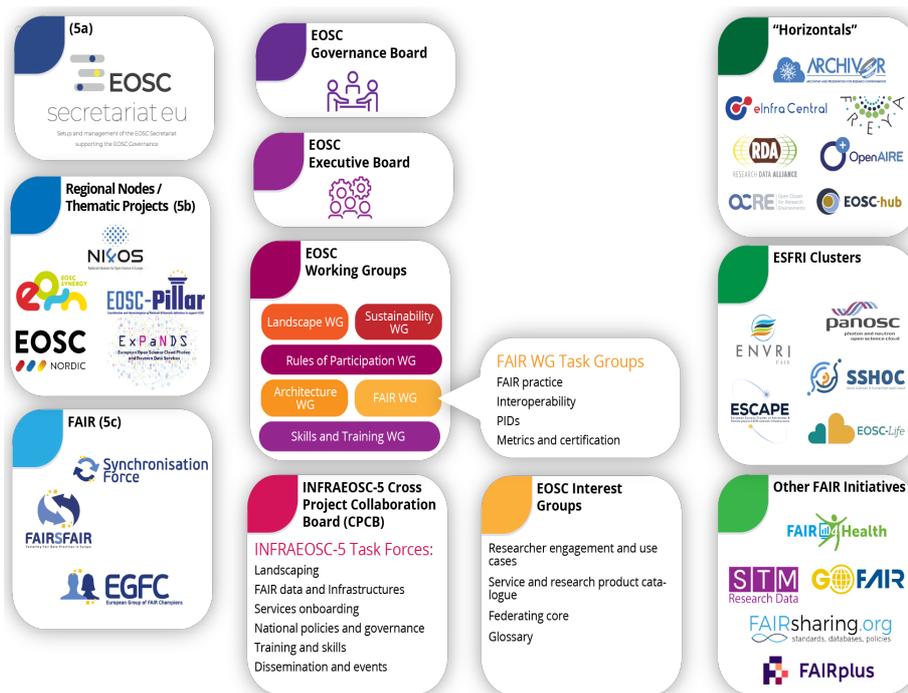The Synchronisation Force aims to provide beneficial input for the EOSC Working Groups, as well as the five ESFRI Clusters (PANOSC, SSHOC, ENVRI-FAIR, ESCAPE and EOSC-Life), and the other INFRAEOSC-5 projects, and Horizontal projects e.g. EOSChub and Freya. They are supported in this work by our Expert Group of FAIR Champions (EGFC) who act as ambassadors for FAIR in their own networks and communities.

5. FAIRsFAIR Stakeholders Multipliers

5.1. European Group of FAIR Champions

The European Group of FAIR Champions (EGFC) is composed by scientific experts and "practitioners" in the field of FAIR data, carefully selected based on their individual merits and knowledge. The EGFC currently counts 11 members, 5 invited to join the project in June 2019, and other 6 selected on boarded in March 2020, as the outcome of an open call launched in August 2019. A second round of selection is supposed to take place in September 2020, (application deadline 31 August 2020) to secure 15 members who will be engaged throughout the duration of the project. The European Group of FAIR Champion page on FAIRsFAIR website is the one with the highest number of page views (over 1,300).

FAIRsFAIR Champions are highly visible experts actively engaged in analysing and shaping FAIR data policy and practice in their field. They are engaged into identifying research data gaps and needs within their communities, to create broader engagement with FAIR, and to shape and disseminate the outcomes of the FAIRsFAIR project.

FAIRsFAIR is looking for Champions who have broad expertise in FAIR policy or practice, bring strong research data advocacy experience and excellent communications skills, are driven to help mobilise others to generate more FAIR data on a policy and/or practice level, and are keen to share best practice. In putting together its team of Champions, FAIRsFAIR will ensure gender diversity, a balanced geographical and stakeholder representation, and broad interdisciplinary expertise across FAIR policy and practice.

FAIRsFAIR has been benefiting from the expertise of these Champions, as described in Table 6.

Name	Strategic liaisons	Member since	Field	Engagement so far
Mark Allen Director of the Strasbourg Astronomical Data Centre - France	Chair of the **International Virtual Observatory Alliance** (IVOA, 2017-19) Leader of work package in the European funded **ESCAPE** project for the connection of ESFRI projects to EOSC.	March 2020	Astronomy and Astrophysics	Joined the FAIRsFAIR Synchronisation workshop in April-June 2020 Invited to provide feedback on documents available under FAIRsFAIR community review
Isabel Bernal DIGITAL.CSIC - Spain	Currently participates in **EOSC SYNERGY** Project	March 2020	Research Data Repositories	Joined the FAIRsFAIR Synchronisation workshop in April-June 2020 Invited to provide feedback on documents available under FAIRsFAIR community review
Alastair Dunning	Contributed to the **Dutch National**	June 2019	Data stewardship &	1 article and panel discussions at FAIRsFAIR workshops during the Open

Name	Strategic liaisons	Member since	Field	Engagement so far
Delft University of Technology – The Netherlands	**Platform on Open Science,** writing on FAIR principles		research data management	Science Fair Invited to provide feedback on documents available under FAIRsFAIR community review Invited to join the FAIRsFAIR Synchronisation workshop in April-June 2020 Invited to provide feedback on documents available under FAIRsFAIR community review
Odile Hologne French Institute for Agricultural Research - France	Involved in many international working groups dealing with open science in the agri-food sector including **GODAN, RDA and GO FAIR.**	June 2019	Agriculture	Invited to join the FAIRsFAIR Synchronisation workshop in April-June 2020 Invited to provide feedback on documents available under FAIRsFAIR community review
Maria Johnsson Librarian at University Library, Lund University - Sweden	Maria is engaged, on behalf of **ICOS**, in the European project **ENVRI FAIR** Member of **RDA**	March 2020	Climate	Joined the FAIRsFAIR Synchronisation workshop in April-June 2020 Invited to provide feedback on documents available under FAIRsFAIR community review
Eetu Mäkelä Professor in Human Sciences – Computing Interaction at University of Helsinki – Finland	Social sciences and the humanities experts and practitioners	March 2020	Digital humanities, linked data	Joined the FAIRsFAIR Synchronisation workshop in April-June 2020 Invited to provide feedback on documents available under FAIRsFAIR community review
Andreas Rauber Head of the Information and Software Engineering Group (IFS) at the Department of Information Systems Engineering	Chair and co-chair of different **RDA** Groups including the RDA National Node in Austria	June 2019	Information and Software Engineering	Joined the 1st FAIRsFAIR Synchronisation Force meeting during the EOSC Symposium Week (Budapest) Joined the FAIRsFAIR Synchronisation workshop in April-June 2020 Invited to provide feedback on documents available under FAIRsFAIR community review

Name	Strategic liaisons	Member since	Field	Engagement so far
(ISE) TU-Wien - Austria				
Susanna-Assunta Sansone Professor at the University of Oxford - UK	Member of the Dryad and **RDA Technical Advisory Board** and currently serves as co-chair of numerous **RDA working groups.**	June 2019	Life Sciences	1 interview, 1 article and panel discussions at FAIRsFAIR workshops during the OpenScience Fair Joined the 1st FAIRsFAIR Synchronisation Force meeting during the EOSC Symposium Week (Budapest) Represented FAIRsFAIR in the panel discussion "Life and environmental science" session during EOSC Symposium Week (Budapest) Provided feedback on documents available under FAIRsFAIR community review: FAIR Ecosystem Components: Vision	D3.1 FAIRsFAIR FAIR Policy Landscape Analysis	D6.1 Overview of needs for competence centres Joined the FAIRsFAIR Synchronisation workshop ina April-June 2020
Barbara Sierman Digital Preservation Manager of the KB Library in the Netherlands	**Digital Preservation Coalition** and Dutch Digital Heritage Network	March 2020	Digital preservation, stewardship of digital heritage	Joined the FAIRsFAIR Synchronisation workshop in April-June 2020 Invited to provided feedback on documents available under FAIRsFAIR community review
Eefke Smit Director of Standards and Technology of the International STM, Association, The Netherlands	Science **publishers**	March 2020	Scholarly Publishing	Joined the FAIRsFAIR Synchronisation workshop in April-June 2020 Invited to provide feedback on documents available under FAIRsFAIR community review
Tobias Weigel German Climate Computing Center -	Member of the **RDA Technical Advisory Board** and of the editorial board of the **CODATA** Data Science	June 2019	Climate science, Informatics, data infrastructure	1 interview, 1 article and panel discussions at FAIRsFAIR workshops during the Open Science Fair Joined the FAIRsFAIR Synchronisation

Name	Strategic liaisons	Member since	Field	Engagement so far
Germany	Journal. Extensively involved in data infrastructure projects EUDAT, EOSC-hub, ESGF, IS-ENES			workshop in April-June 2020 Invited to provide feedback on documents available under FAIRsFAIR community review

Table 6 FAIRsFAIR EGFC members

A virtual break-the-ice meeting, as a contingency plan for the missed physical event originally scheduled in The Hague in conjunction with the meeting of the Synchronisation Force, was organized and very well received by all Champions on 29 April 2020.

6. Conclusion & next steps

One of the objectives of the FAIRsFAIR project is to plan and implement its FAIR oriented activities in the context of FAIR-related initiatives undertaken elsewhere in Europe. This is fundamental to ensure that the results, guidelines and tools released are considered and adopted by relevant stakeholders, with few overlaps and common sharing.

To this end, FAIRsFAIR has established synergies with key EOSC actors including the thematic ESFRI clusters, the INFRAEOSC5 projects, the EOSC national and thematic initiatives, the EOSC Governance and Executive Board Working Groups, and set up special liaisons with the EOSC WG on FAIR and its Task Forces. FAIRsFAIR also collaborates with other horizontal activities of strategic importance, such as RDA, FREYA and EOSC-Hub, to ensure the effective uptake of FAIRsFAIR results. All these groups now act as multipliers of FAIRsFAIR reports and outcomes.

Furthermore, as this report details, both a broad variety of relevant initiatives, and a large number of individuals, have been engaged in a diverse range of activities (surveys, interviews, events, webinars, open calls, etc.) to inform and support the uptake of the strategic assets being delivered by the project so far. A final report on FAIR uptake in Europe will be released at the end of the project (M34) as a follow-up to this report. It will focus on the communication and dissemination activities boosting the implementation of the FAIRsFAIR policies, practices, and research outputs which are yet to be delivered.

DRAFT NOT YET APPROVED BY THE EUROPEAN COMMISSION

7. Annex 1 - Events Organised by FAIRsFAIR

Event	Date	Location	Co-located at a 3rd party event?	Stakeholders	Impact/Results
Services to Support FAIR Data workshop	April 2019	Prague, Czech Republic	EOSC-hub week	Service users, service and e-infrastructures providers, national representatives, and scholarly communication experts. Past workshops targeted service providers, research Infrastructures, and research support staff.	-
Services to support FAIR Data workshop	April 2019	Vienna, Austria	Workshop at Linking Open Science	Researchers, open science facilitators, research facilitators, repository managers, policy makers, funders and librarians	-
Data Steward School	August 2019	Trieste, Italy	-	Data Stewards	-
Services to support FAIR Data – Formulating recommendations for EOSC workshop	September 2019	Oporto, Portugal	Open Science Fair	Service users, service and e-infrastructures providers, national representatives, and scholarly communication experts. Past workshops targeted service providers, research Infrastructures, and research support staff.	Advancing knowledge about services supporting FAIR data, understanding the landscape, identifying priorities and formulating recommendations to build the FAIR data ecosystem needed for the EOSC.
Fostering a FAIR research culture - what works? workshop	September 2019	Oporto, Portugal	Open Science Fair	policy makers and funders, researchers, research infrastructures, research performing organisations, publishers, service providers and research support staff.	Explored examples where successes have been realised and considered if these are extensible to other domains.
Making EOSC Training more FAIR workshop	September 2019	Oporto, Portugal	Open Science Fair	Training coordinators, librarians and service providers. All EOSC stakeholders	-
Time to Professionalise Data Stewardship workshop	September 2019	Oporto, Portugal	Open Science Fair	Data stewards, librarians, policy makers and funders, researchers and research administrators	Understand the need for the professionalization of data steward roles as one of the elements required for the transition to Open Science and FAIR data. Become aware of current initiatives defining the roles, skills and competencies for data stewards. Understand the obstacles and challenges faced by

Event	Date	Location	Co-located at a 3rd party event?	Stakeholders	Impact/Results
					those tasked with implementing data stewardship
How identifiers can help you in Open Science workshop	September 2019	Oporto, Portugal	Open Science Fair	EOSC and Research Data Communities: Researchers, RIs in EOSC cluster projects, ESFRI, research data experts, RDA communities (working and interest group members)	-
Building the data landscape of the future: FAIR Semantics and FAIR Repositories workshop	October 2019	Espoo, Finland	RDA Plenary	Semantics experts, maintainers of semantic registries and data repositories, and representatives from infrastructures	-
Focus Group on Research data policies and the FAIR data principles	October 2019	Madrid, Spain	-	university and academic leadership responsible, Research Infrastructures and RDM-related projects	25 participants
Focus Group on Teaching (FAIR) data management and stewardship	November 2019	Amsterdam, The Netherlands	-	university and academic leadership responsible, Research Infrastructures and RDM-related projects	26 participants
FAIRsFAIR Synchronisation Workshop	November 2019	Budapest, Hungary	EOSC Symposium	EOSC Working Groups, the FAIRsFAIR Synchronisation Force, and FAIR Task Force representatives from EOSC 5B projects.	-
Action towards FAIR in practice workshop	November 2019	Budapest, Hungary	EOSC Symposium	Researchers, Research Support staff, Service Providers, Research Infrastructures, Funders and policy makers	Identification of key challenges and priorities for implementing FAIR Best practice examples that can be implemented elsewhere
FAIR Metrics - FAIR Data Assessment in European Digital Repositories: Requirements and Use Cases workshop (co-organised with RDA FAIR Data Maturity Model Working Group	November 2019 he session was co-organized by FAIRsFAIR representatives (Anusuriya Devaraju and Mustapha Mokrane) with the RDA FAIR Data	Budapest, Hungary	EOSC Symposium	Researchers, data stewards, data providers, research infrastructures, funders and publishers, including FAIR newcomers	Feedback on draft outputs by RDA WG FAIR Data Maturity Model Ongoing and future activities on data FAIRness assessment and its implementation

Event	Date	Location	Co-located at a 3rd party event?	Stakeholders	Impact/Results
	Maturity Model Working Group.				
EOSC Skills and Training workshop	November 2019	Budapest, Hungary	EOSC Symposium	RDM for researchers for open/FAIR science Service provisioning for/within EOSC Supporting open science activity in institutions	-
FAIR Services Certification workshop	November 2019	Budapest, Hungary	EOSC Symposium	Service providers, especially repositories, software, Service users including data producers, researchers, science users	Input to FAIR WG deliverables (Certification, eventually Metrics), input and feedback on outputs by FAIRsFAIR
Impact of Requirements of FAIR on Technical Architecture workshop	November 2019	Budapest, Hungary	EOSC Symposium	-	-
Ten things you can do to support FAIR data culture workshop	February 2020	Dublin, Ireland	IDCC	-	Presentation of emerging recommendations for fostering a FAIR data culture from all areas of the FAIRsFAIR project.
Preparing to deliver FAIR policy engagement and skills using RISE	February 2020	Dublin, Ireland	IDCC	-	Offered a practical approach to strategic RDM service development, with special focus on FAIR skills and engagement capabilities.
Certification Support Workshop for Data Repositories	February 2020	Den Haag, The Netherlands	-	Selected data repositories	-

8.   Annex 2 - Third-party events FAIRsFAIR joined

Event	Date	Location	Stakeholders
EPOS Implementation Phase Project final event - Roundtable	September 2019	Madrid, Spain	Experts, scientists, representatives of international initiatives and Research Infrastructure
EOSC-Life project's FAIR Enough? workshop - joint Discussions	September 2019	Brussels, Belgium	Representatives were present from EOSC-Hub, EOSC-Life, FAIR4HEALTH, FAIRPlus, FAIRsFAIR, and GoFAIR, as well as other EOSC-Life project partners.
iPRES 2019 - Presentation	September 2019	Amsterdam, Netherlands	Libraries, data repositories, and regional or national archives
Building EOSC through the H2020 projects current status and future directions - Joint discussions	September 2019	Brussels, Belgium	Policy & EOSC-related projects
GO-FAIR IN Convergence meeting - joint Discussions	January 2020	Hamburg, Germany	
FAIRPlus Innovation Forum - joint Discussions	January 2020	Cambridge, UK	Biotech companies owning data potentially in need of FAIRification Technology companies who are planning to provide FAIRification services Academic groups interested in FAIRification for their data collections
Open Science Workshop in Ljubljana - resentation on 'FAIR assessment of research data'.	January 2020	Ljubljana, Slovenia	Slovenian researchers
ENVRI-FAIR Community workshop - presentation overview	February 2020	Dresden, Germany	Environmental Research Infrastructures
EOSC Working Group Training & Skills - joint Discussions	February 2020	Brussels, Belgium	Trainers
RDA Deutschland Tagung - Poster & talk about 'FAIR digital objects in a FAIR Ecosystem – Certification and Assessment'.	February 2020	Potsdam, Germany	
Training in EOSC Workshop - joint Discussions	February 2020	Den Haag, Netherlands	
Workshop 'Zertifizierung von Forschungsdatenrepositorien - Wege, Praxiserfahrungen und Perspektiven' - presentation on 'How good repositories help to make and to keep data FAIR'.	March 2020	Leipzig, Germany	
RDA UK/OpenAIRE joint workshop	01/05/2020	Virtual Meeting	RDA members , those engaged in research data, and open science