



FAIRsFAIR

Fostering Fair Data Practices in Europe

Coming together to build a FAIR and functioning EOSC

Ingrid Dillo, Marjan Grootveld, Simon Hodson, Sara Pittonet,
FAIRsFAIR Synchronisation Force
Introduction to the third workshop
29th April 2021



FAIRsFAIR "Fostering FAIR Data Practices in Europe" has received funding from the European Union's Horizon 2020 project call H2020-INFRAEOSC-2018-2020 Grant agreement 831558

THIRD SYNCHRONISATION WORKSHOP

**SERIES OF ONLINE SESSIONS
29 APRIL - 10 JUNE 2021**



FAIRSFair

Fostering Fair Data Practices in Europe

Fostering Fair Data Practices in Europe

The series

Plenary introduction	
29 April 10:00 11:30 CEST	
TFIR Pillar sessions	
Pillar n 1: Core Concepts: FAIR Digital Objects and technical components of the FAIR ecosystem	11 May 14:00 - 15:30 CEST
Pillar n 5: Incentives and Metrics	12 May 10:00 - 11:30 CEST
Pillar n 4: Skills for FAIR: data science and data stewardship, curriculum frameworks	18 May 14:00 - 15:30 CEST
Pillar n 2: FAIR Culture: agreements on data availability and description, data management plans, recognition and reward, policies	19 May 10:00 - 11:30 CEST
Pillar n 3: FAIR Ecosystem: key services, semantic technologies, trust and certification of services	20 May 10:00 - 11:30 CEST
Pillar n 6: Investment, Sustainability and Governance	21 May 10:00 - 11:30 CEST
Concluding discussion	
10 June 10.00-11.30	

<https://fairsfair.eu/events/fairsfair-third-synchronisation-force-workshop>

Plan for today

- Introduction to FAIRsFAIR and the Synchronisation Force
- Stakeholders in this workshop
- Looking back on the first and second Synchronisation Force workshops (2019 & 2020)
- Goal of this workshop and intended output
- Recap of the *Turning FAIR into Reality* recommendations
- What do we expect from you?
- Q&A

On a practical note:

- Please mute your microphone when you don't speak.
- During the introduction please use the chat for questions.
- Please save this link to join the FAIRsFAIR Synchronisation Workshop series:
<https://zoom.us/j/99053602102?pwd=NnlKYUtlQVYwN3ZiYm8xQINWRVRxUT09>. You can use this link for all workshops.
- Reminders will be sent prior to each session, including details about its structure, chairs and rapporteurs.

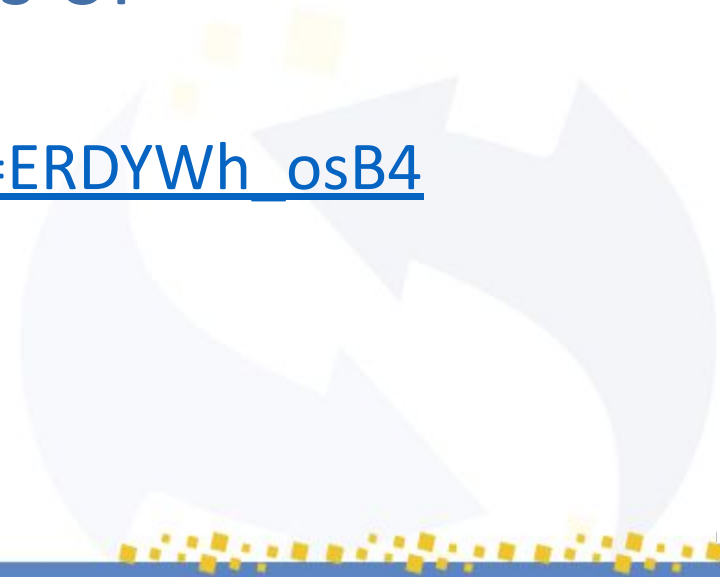


Welcome message by Ingrid Dillo,
DANS & FAIRsFAIR coordinator

<https://www.youtube.com/watch?v=QNbY4MQeY5k>

What are the key outcomes of
FAIRsFAIR?

https://www.youtube.com/watch?v=ERDYWh_osB4





Synchronisation Force

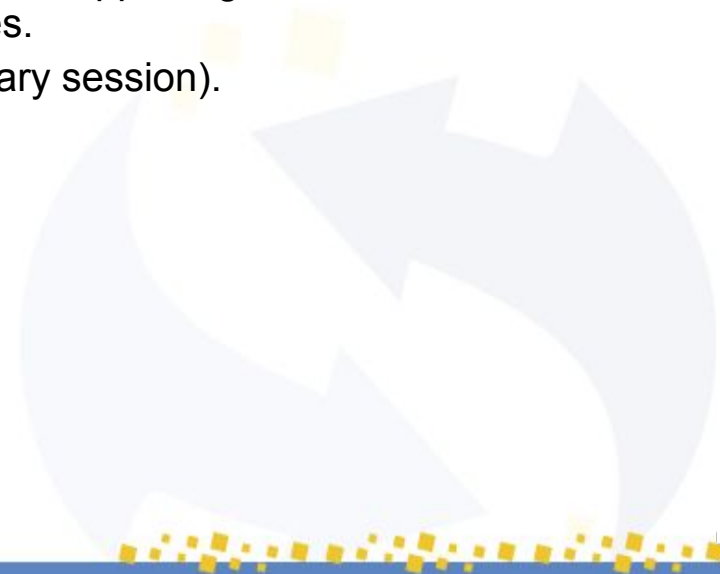
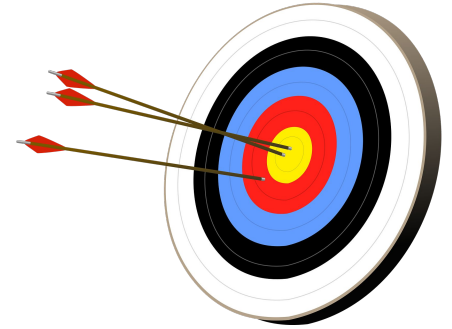
Establishing a dialogue among the various projects and actors in the EOSC Ecosystem whose work touches on FAIR in order to:



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

Goal of the workshop

- Goal: chart how the represented projects and initiatives contribute to carrying out the recommendations from the "Turning FAIR into Reality" report.
 - And compare this to last year's findings.
- Output of this workshop:
 - Spreadsheet of all TFiR recommendations – priority and supporting – and activities of the represented projects and initiatives.
 - Workshop report (draft report shared before final plenary session).



(5a)

EOSC
secretariat.eu
Setup and management of the EOSC Secretariat
supporting the EOSC Governance

**Regional Nodes /
Thematic Projects (5b)**



FAIR (5c)



**EOSC
Governance Board**



**EOSC
Executive Board**



**EOSC
Working Groups**

Landscape WG Sustainability WG
Rules of Participation WG
Architecture WG FAIR WG
Skills and Training WG

FAIR WG Task Groups

FAIR practice
Interoperability
PIDs
Metrics and certification

**INFRAEOSC-5 Cross
Project Collaboration
Board (CPCB)**

INFRAEOSC-5 Task Forces:

Landscaping
FAIR data and Infrastructures
Services onboarding
National policies and governance
Training and skills
Dissemination and events

"Horizontals"



ESFRI Clusters



Other FAIR Initiatives



(5a)



EOSC
secretariat eu

Setup and management of the EOSC Secretariat
supporting the EOSC Governance

**Regional Nodes /
Thematic Projects (5b)**



FAIR (5c)



**EOSC
Governance Board**



**EOSC
Executive Board**



**EOSC
Working Groups**

Landscape WG

Sustainability WG

Rules of Participation WG

Architecture WG

FAIR WG

Skills and Training WG

**INFRAEOSC-5 Cross
Project Collaboration
Board (CPCB)**

INFRAEOSC-5 Task Forces:

- Landscaping
- FAIR data and Infrastructures
- Services onboarding
- National policies and governance
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- Dissemination and events

FAIR WG Task Groups

FAIR practice
Interoperability
PIDs
Metrics and certification

"Horizontals"

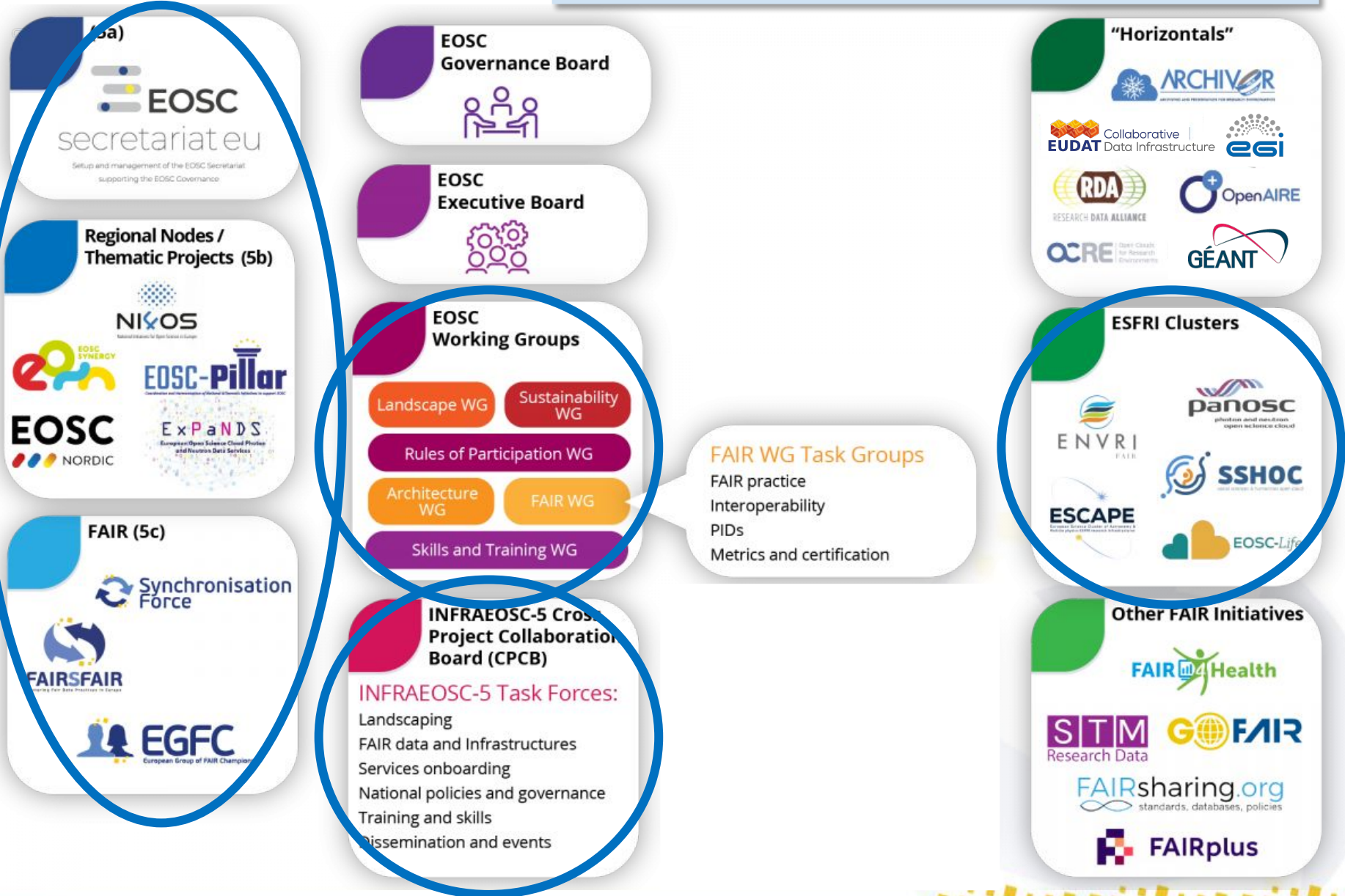


ESFRI Clusters



Other FAIR Initiatives





TURNING FAIR INTO REALITY

Implementation of the Turning FAIR into Reality recommendations in the EOSC framework - July 2020

Indication of activities
per TFIR
recommendation:

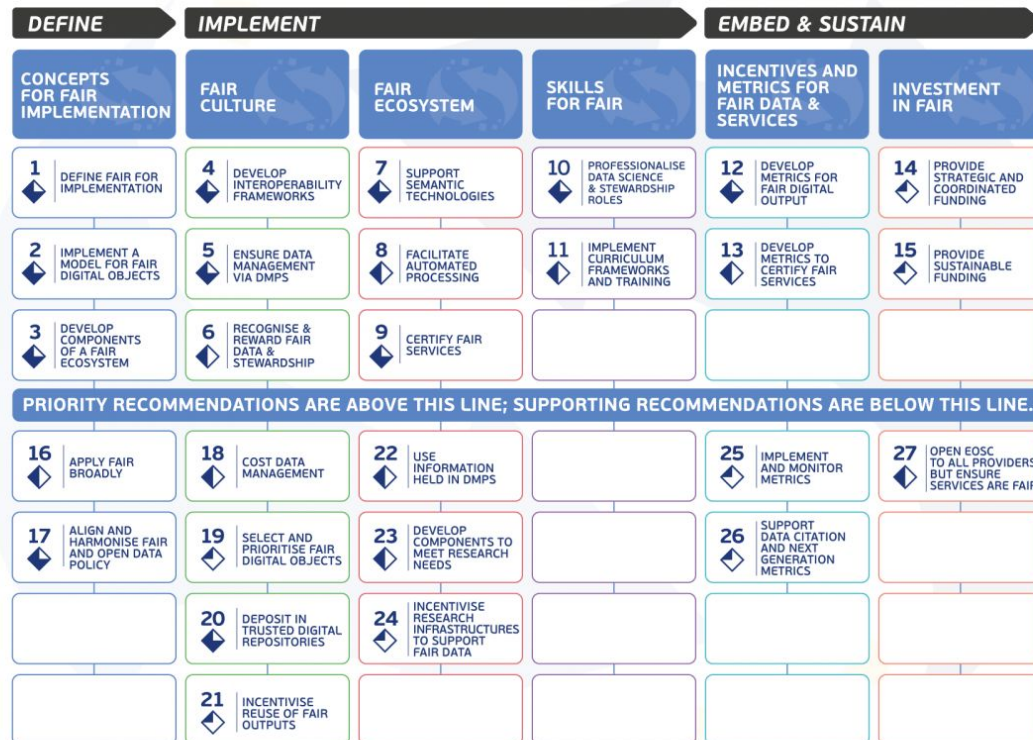
many

some

hardly any



No, we don't have



LEGEND

- many activities support this recommendation
- some activities support this recommendation
- hardly any or no activities support this recommendation

DOI 10.5281/zenodo.3953979

Recommendations

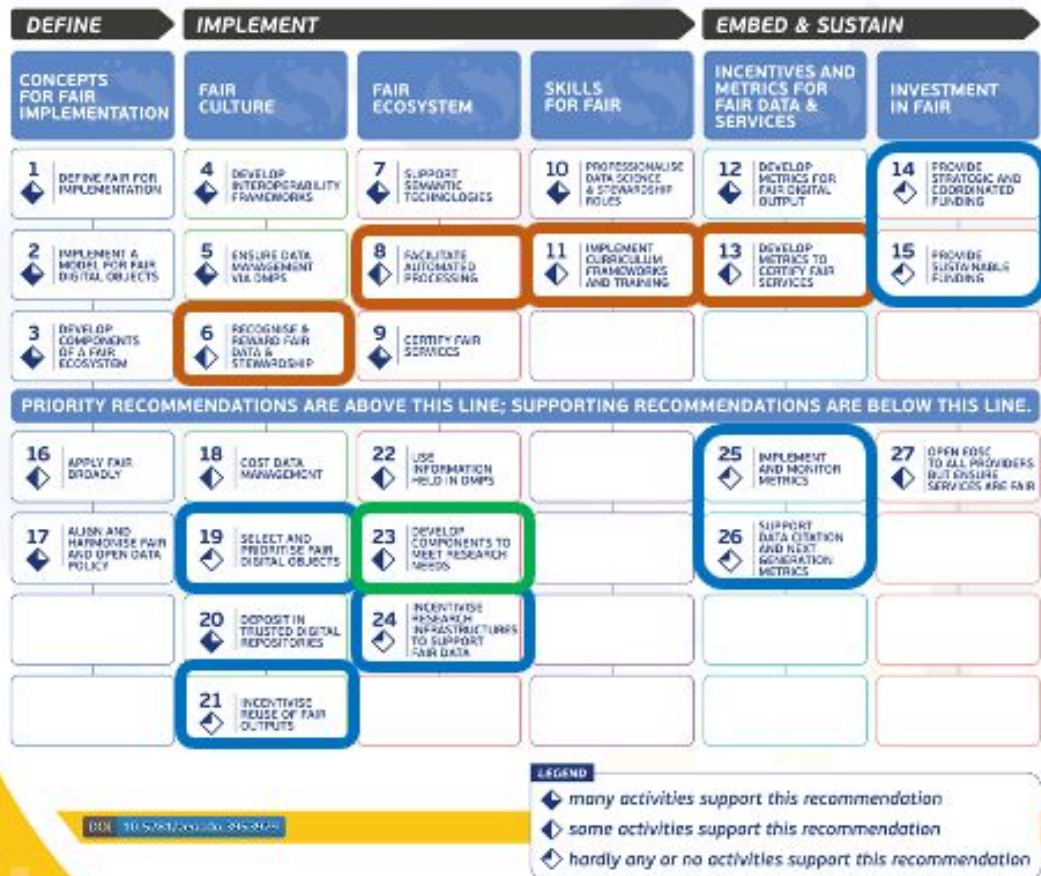
TURNING FAIR INTO REALITY

Implementation of the Turning FAIR into Reality recommendations in the EOSC framework - July 2020

Fund extra activity

Organise more activity

Make priority recommendation



Report Second workshop: <https://doi.org/10.5281/zenodo.3953979>

(5a)

EOSC
secretariat.eu

Setup and management of the EOSC Secretariat
supporting the EOSC Governance

**Regional Nodes /
Thematic Projects (5b)**

NIxOS
National Infrastructure for Open Science in Europe

EOSC SYNERGY

EOSC-Pillar
European Open Science Cloud Pillar
and National Data Services

EOSC
NORDIC

ExPaNDs
European Open Science Cloud Pillar
and National Data Services

FAIR (5c)

**Synchronisation
Force**

FAIRSFAR

HLAC
High Level Advisory Committee

EGFC
European Group of FAIR Champions

**EOSC
Governance Board**



**EOSC
Executive Board**



**EOSC
Working Groups**

Landscape WG Sustainability WG

Rules of Participation WG

Architecture WG FAIR WG

Skills and Training WG

**INFRAEOSC-5 Cross
Project Collaboration
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INFRAEOSC-5 Task Forces:

- Landscaping
- FAIR data and Infrastructures
- Services onboarding
- National policies and governance
- Training and skills
- Dissemination and events

FAIR WG Task Groups

FAIR practice
Interoperability
PIDs
Metrics and certification

"Horizontals"

ARCHIVOR
ARCHIVAL AND PRESERVATION FOR OPEN SCIENCE RESEARCH

EUDAT Collaborative Data Infrastructure

ESI

RDA
RESEARCH DATA ALLIANCE

OpenAIRE

OCRE Open Research Environments

GÉANT

ESFRI Clusters

ENVRI
FAIR

panosc
photon and neutron
open science cloud

SSHOC
social science open science hub

ESCAPE
European Science Cluster of Access to & Analysis of European Research Data

EOSC-Life

Other FAIR Initiatives

FAIR4Health

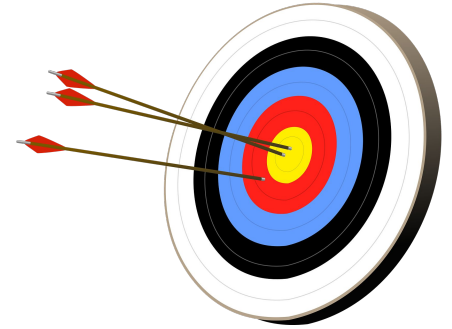
STM Research Data

GO FAIR

FAIRsharing.org
standards, databases, policies

FAIRplus

Goal of the workshop and final output

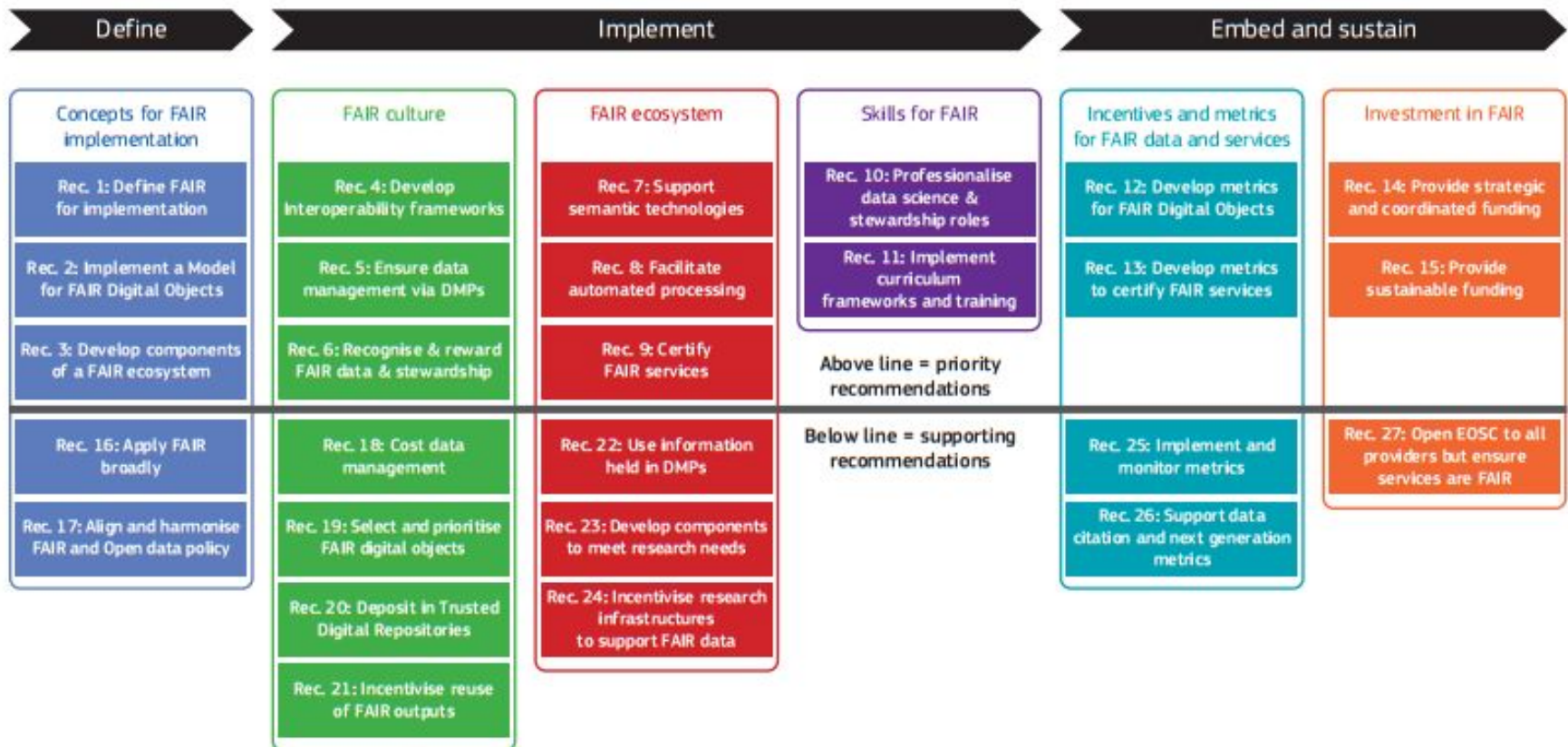


- Goal: chart how the represented projects and initiatives contribute to carrying out the recommendations from the "Turning FAIR into Reality" report.
 - And compare this to last year's findings.
- Output of this workshop:
 - Spreadsheet of all TFiR recommendations – priority and supporting – and activities of the represented projects and initiatives.
 - Workshop report (draft report shared before final plenary session).
- Output of the *three* workshops (2019-2021): White Paper with recommendations for how to encourage alignment and synchronisation around FAIR, Open Science and EOSC.



Turning FAIR into Reality: Recommendations

The Synchronisation Force will map the FAIRsFAIR, EOSC WG and other EOSC FAIR outputs to the TFIR recommendations and track progress and make necessary recommendations to the EOSC Governance Board. **Read FAIR Action Plan: pp.59-75.**



FAIRsFAIR Synchronisation Force

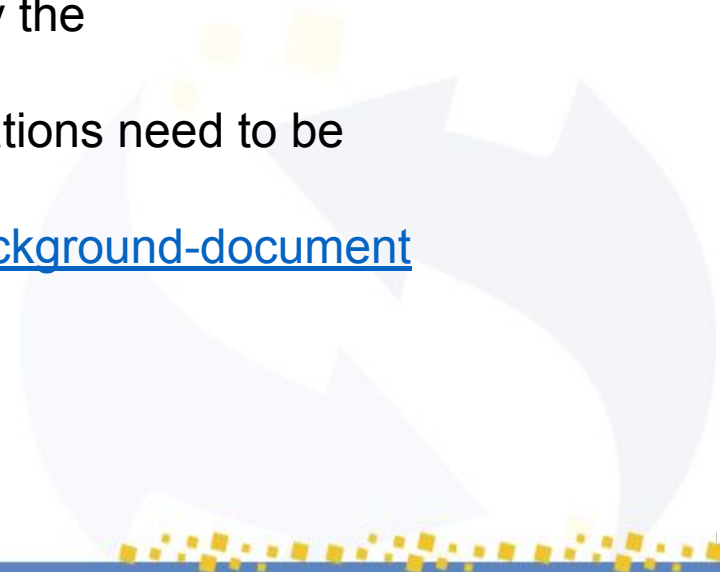
To work with partners to...

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.



FAIRsFAIR Synchronisation Force Workshops

- An analysis of how well stakeholders, groups, projects etc are responding to the Turning FAIR in Reality Recommendations and Action Plan
 - Are there gaps? Are there recommendations that are not being addressed?
 - Does this mean that effort needs to be directed at this recommendation? Or that the recommendation is unnecessary?
 - Are there activities that are not covered by the recommendations?
 - Does this mean that the recommendations need to be expanded?
- Background Document: <http://bit.ly/FsF-SF-background-document>



Completing the Spreadsheet

Our first request: re-read the recommendations in “Turning FAIR into Reality”. Read FAIR Action Plan: pp.59-75. Consider the **actions** as necessary to help flesh out the recommendation and help reporting below.

Our second request: **ADD** (if a new participant) or **UPDATE** (if you participated last year) your project activities to the spreadsheet at least two days before the relevant pillar session: <http://bit.ly/FsF-SF-outputs-sheet-2021>

1.a. What have you already done that addresses the recommendations?

1.b. What has your project planned and scheduled which will address these recommendations?

Please provide brief but usable information: name of activity/output, short description; title, URL, deliverable number and due date where possible.

Please make sure the spreadsheet is completed BEFORE the virtual workshop session.

Virtual Workshop Sessions

Consider the recommendations for the pillar you are addressing.

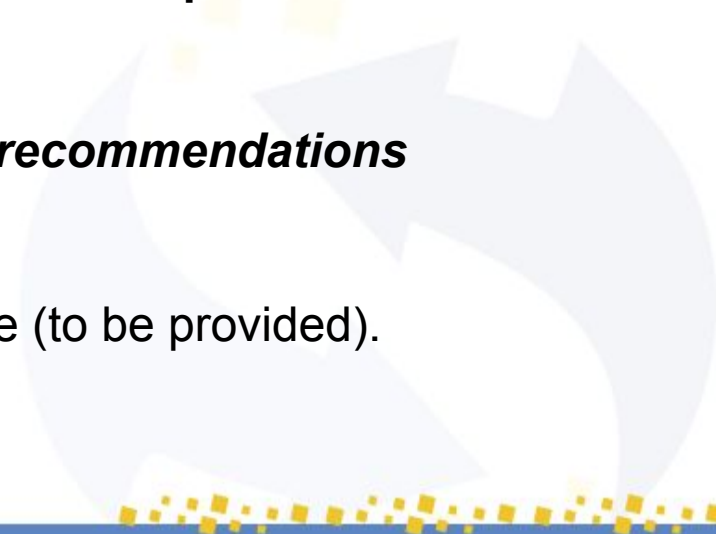
Address the **priority recommendations** first; the supporting recommendations if you have time.

2.a. Are you doing anything of significance related to implementing FAIR in the context of the EOSC that is not covered by the recommendations?

2.b. Does this need to be included in an updated action plan and revised set of recommendations?

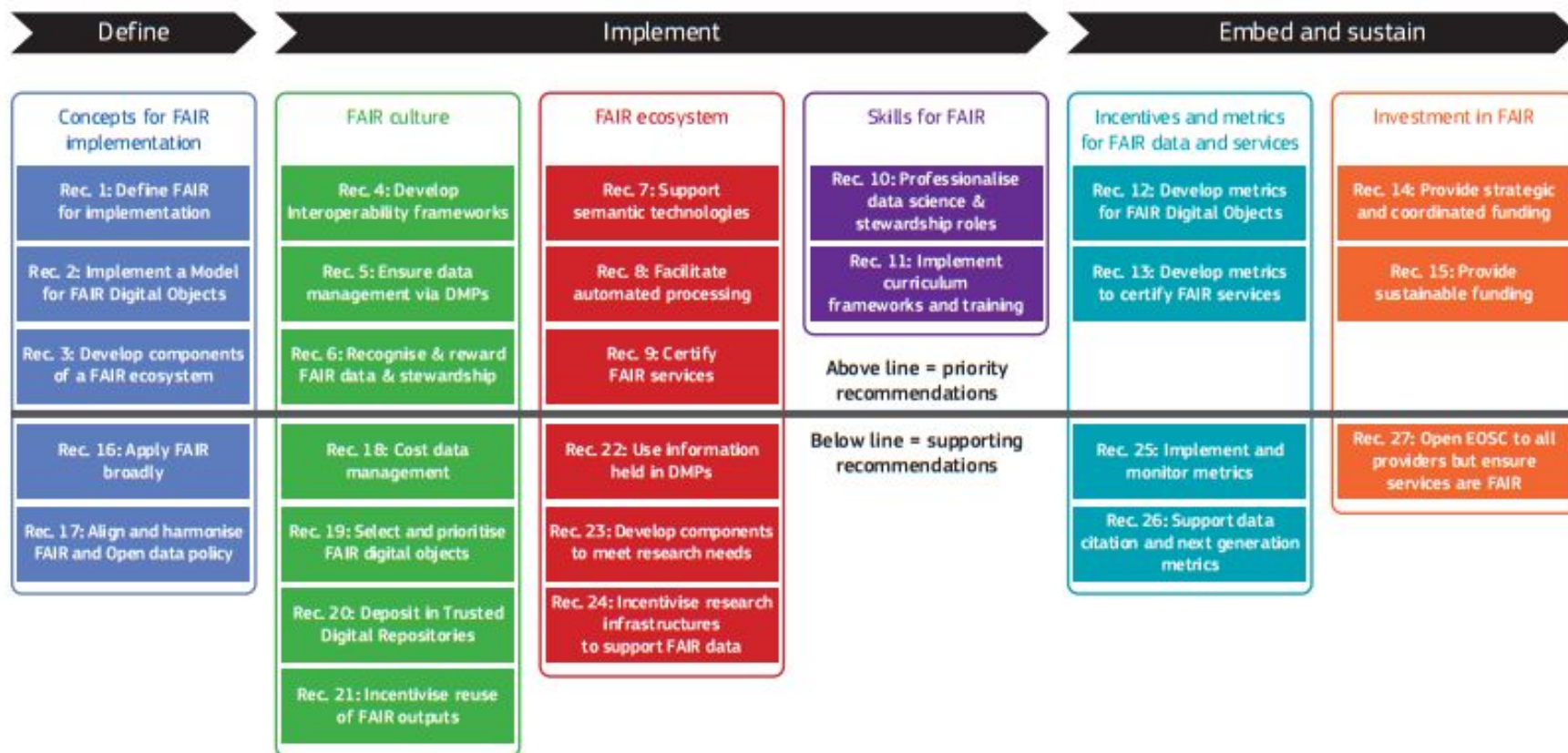
3. *For this pillar can you identify any gaps, any recommendations that are NOT being addressed?*

Capture the discussions and information in template (to be provided).



Turning FAIR into Reality: Recommendations

The Synchronisation Force will map the FAIRsFAIR, EOSC WG and other EOSC FAIR outputs to the TFIR recommendations and track progress and make necessary recommendations to the EOSC Governance Board. **Read FAIR Action Plan: pp.59-75.**



TFiR Pillar 1: Concepts

Concepts for FAIR implementation

Rec. 1: Define FAIR for implementation

Rec. 2: Implement a Model for FAIR Digital Objects

Rec. 3: Develop components of a FAIR ecosystem

Rec. 16: Apply FAIR broadly

Rec. 17: Align and harmonise FAIR and Open data policy

Rec. 1: Define FAIR for implementation

Incorporate and emphasise concepts that are implicit in the FAIR principles, namely: data selection, long-term stewardship, assessability, legal interoperability and the timeliness of sharing.

Rec. 2: Implement a model for FAIR Digital Objects

By definition, these have a PID linked to different types of essential metadata including provenance and licencing. Use of community standards... rich documentation.

Rec. 3: Develop components of a FAIR ecosystem

[Requires], at minimum, the following essential components: policies, Data Management Plans, identifiers, standards and repositories. There need to be registries cataloguing each component of the ecosystem, and automated workflows between them.

TFiR Pillar 2: Culture

FAIR culture

Rec. 4: Develop
Interoperability frameworks

Rec. 5: Ensure data
management via DMPs

Rec. 6: Recognise & reward
FAIR data & stewardship

Rec. 18: Cost data
management

Rec. 19: Select and prioritise
FAIR digital objects

Rec. 20: Deposit in Trusted
Digital Repositories

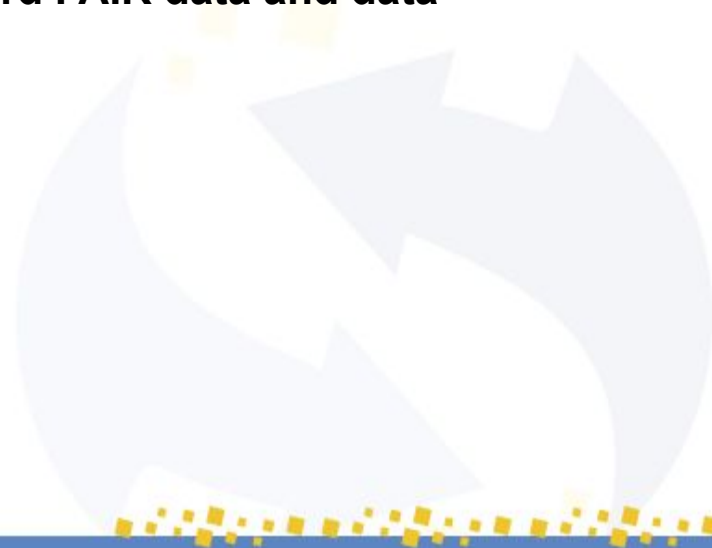
Rec. 21: Incentivise reuse
of FAIR outputs

Rec. 4: Develop interoperability frameworks for FAIR sharing within disciplines and for interdisciplinary research

Rec. 5: Ensure Data Management via DMPs

All research projects producing or collecting data should have create a DMP, which provides information of all relevant outputs as FAIR Digital Objects.

Rec. 6: Recognise and reward FAIR data and data stewardship



TFiR Pillar 3: Ecosystem

FAIR ecosystem

Rec. 7: Support
semantic technologies

Rec. 8: Facilitate
automated processing

Rec. 9: Certify
FAIR services

Rec. 22: Use information
held in DMPs

Rec. 23: Develop components
to meet research needs

Rec. 24: Incentivise research
infrastructures
to support FAIR data

Rec. 7: Support semantic technologies

7.1: metadata specifications and standards, vocabularies and ontologies; 7.2: common protocols...

Rec. 8: Facilitate automated processing

8.1: develop automated workflows (for data access, aggregation, analysis); 8.3: develop mechanisms to broker requests...

Rec. 9: Develop assessment frameworks to certify FAIR services

Data services must be encouraged and supported to obtain certification, as frameworks to assess FAIR services emerge. Existing community-endorsed methods to assess data services, in particular CoreTrustSeal (CTS) for trusted digital repositories, should be used as a starting point to develop assessment frameworks for FAIR services.

TFiR Pillar 4: Skills

Skills for FAIR

Rec. 10: Professionalise data science & stewardship roles

Rec. 11: Implement curriculum frameworks and training

Rec. 10: Professionalise data science and data stewardship roles and train researchers

Steps need to be taken to develop two cohorts of professionals to support FAIR data: data scientists embedded in research projects, and data stewards who will ensure the management and curation of FAIR data. All researchers also need a foundational level of data skills.

Rec. 11: Implement curriculum frameworks and training

A concerted effort should be made to coordinate and accelerate the pedagogy for professional data roles. To support uptake, skills transfer schemes, fellowships, staff exchanges and informal training opportunities are needed, as well as formal curricula.

TFiR Pillar 5: Incentives, Metrics

Incentives and metrics
for FAIR data and services

**Rec. 12: Develop metrics
for FAIR Digital Objects**

**Rec. 13: Develop metrics
to certify FAIR services**

**Rec. 25: Implement and
monitor metrics**

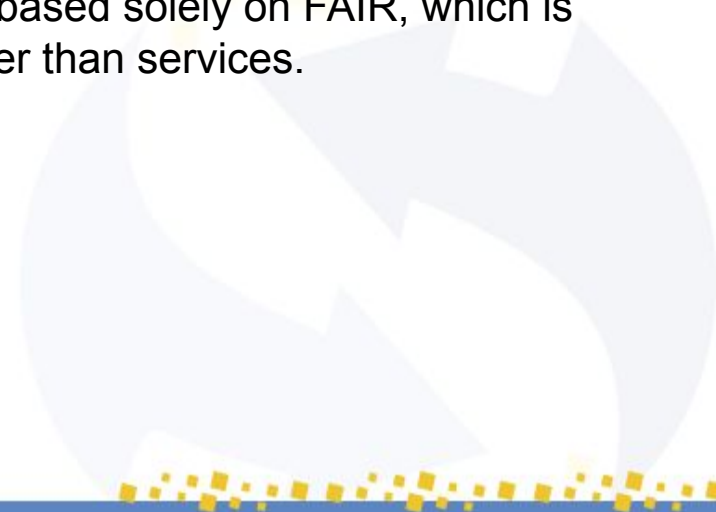
**Rec. 26: Support data
citation and next generation
metrics**

Rec. 12: Develop metrics for FAIR Digital Objects

A set of metrics for FAIR Digital Objects should be developed and implemented, starting from the basic common core of descriptive metadata, PIDs and access.

Rec. 13: Develop metrics to certify FAIR services

Certification schemes are needed to assess all components of the ecosystem as FAIR services. Existing frameworks like CoreTrustSeal (CTS) for repository certification should be used and adapted rather than initiating new schemes based solely on FAIR, which is articulated for data rather than services.



TFiR Pillar 6: Investment

Investment in FAIR

Rec. 14: Provide strategic and coordinated funding

Rec. 15: Provide sustainable funding

Rec. 27: Open EOSC to all providers but ensure services are FAIR

Rec. 14: Provide strategic and coordinated funding

Funders should adopt a coordinated approach to supporting core infrastructure and services, building on existing investments where appropriate. Funding should be tied to certification schemes, sustainable business models and other community-vetted indicators that demonstrate viability.

Rec. 15: Provide sustainable funding

Funders who issue requirements on FAIR must provide support to ensure the components of the FAIR ecosystem are maintained at a professional service level with sustainable funding. Service providers should explore multiple business models and diverse income streams.

Recommendations and Actions

Rec. 7: Support semantic technologies

Semantic technologies are essential for interoperability and need to be developed, expanded and applied both within and across disciplines.

Action 7.1: Programs need to be funded to make semantic interoperability more practical, including the further development of metadata specifications and standards, vocabularies and ontologies, along with appropriate validation infrastructure.

Stakeholders: Funders; Standards bodies; Coordination fora; Research communities.

Action 7.2: To achieve interoperability between repositories and registries, common protocols should be developed that are independent of the data organisation and structure of various services.

Stakeholders: Data service providers; Standards bodies.

Action 7.3: Field-specific approaches to expressing semantic relationships should be more closely aligned with web-scale technologies and standards.

Stakeholders: Research communities; Standards bodies; Coordination fora.

Related recommendations: [Rec. 4: Develop interoperability frameworks for FAIR sharing.](#)

Completing the Spreadsheet (UPDATE or ADD)

Rec. 12: Develop metrics for
FAIR digital output

D4.1 (Feb 2020) Draft
recommendations on
requirements for FAIR datasets in
certified repositories:
<https://doi.org/10.5281/zenodo.3678716> and M4.9 (Aug 2020)
Report on FAIR data assessment
mechanisms to develop pragmatic
concepts for FAIRness evaluation
at the dataset level

Planning and wrap-up



11-21 May: six working sessions, each builds around one of the ‘pillars’ of the “Turning FAIR into Reality” Report.

Background document: <http://bit.ly/FsF-SF-background-document>

Our first request: re-read the recommendations (and actions) in “Turning FAIR into Reality”.

Our second request: add your project activities to the spreadsheet at least two days before the relevant pillar session: <http://bit.ly/FsF-SF-outputs-sheet-2021>

Reminders will be sent prior to each session.

Summaries of each session will be circulated to all participants in the form of a draft ‘workshop report’, plus some questions to you.

10 June, 10.00-11.30: plenary discussion with working session participants, providing an opportunity to refine the content of the draft reports.

Questions?

www.fairsfair.eu

 @FAIRsFAIR_EU

 In/fairsfair

info@fairsfair.eu