FAIRSFAIR
Fostering Fair Data Practices in Europe

FAIRsFAIR
Coming together to build a FAIR and functioning EOSC

FAIRsFAIR webinar on Persistence and interoperability in FAIR research data management
11 February 11:00 AM CET

Sara Pittonet, Trust-IT Services s.pittonet@trust-itservices.com

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

Our objective

Help **survey the landscape of FAIR activities** in relation to EOSC and identify where dialogue and collaboration can be encouraged.

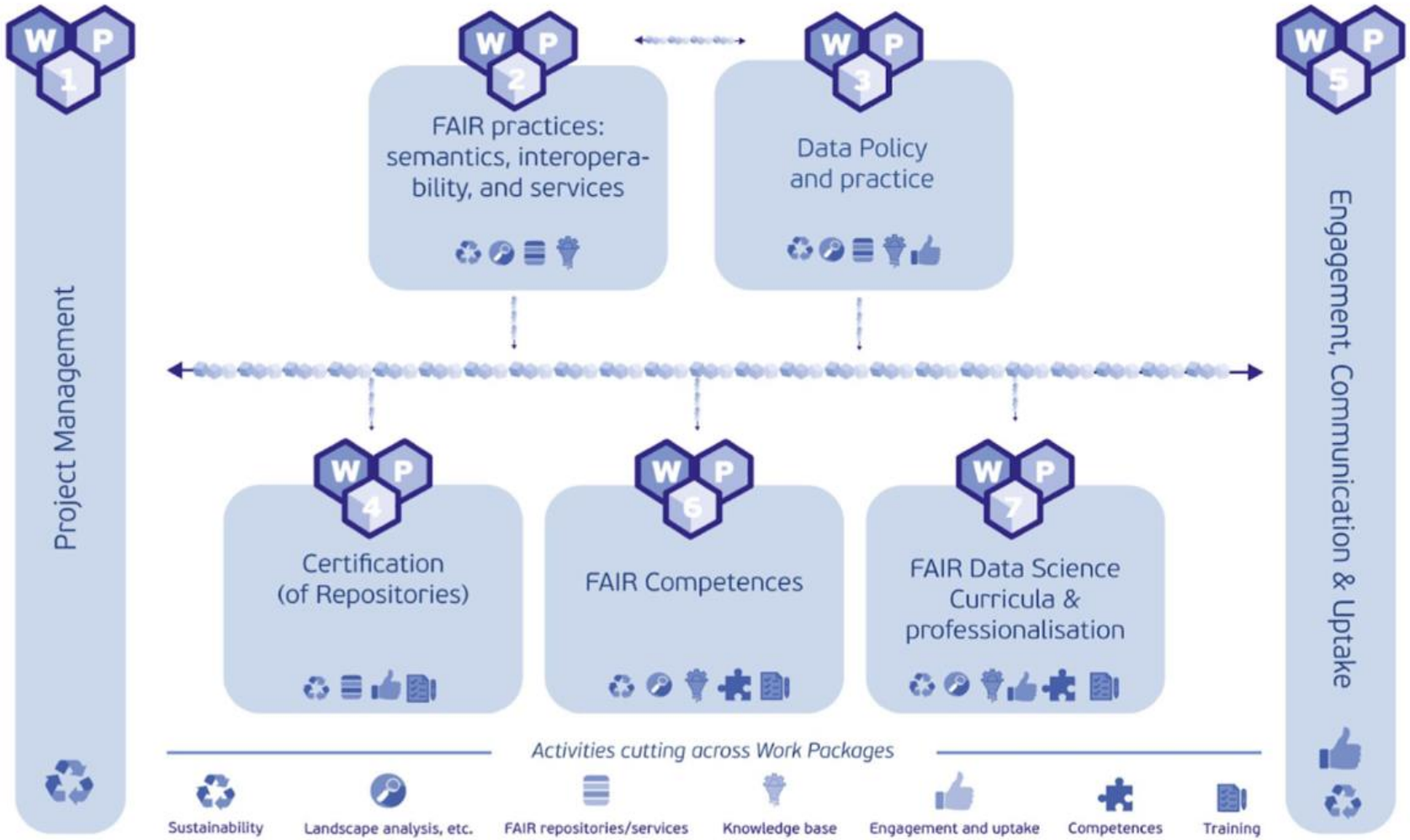
Create a **basis for harmonisation** efforts to bring together the various actors working in the **FAIR ecosystem** and build a **functioning EOSC** and **active community** around EOSC.

Specifically we aim to **identify overlaps, divergences and challenges** related to FAIR within the EOSC framework, with a special focus being given to the **interaction between FAIRsFAIR and the FAIR related initiatives, including the EOSC Cluster projects.**

FAIRsFAIR Key facts

- Starting date: March 1, 2019
- Duration: 36 months
- 22 partners from 8 Member States (MS)
- 6 core partners: DANS (project coordinator), CSC, DCC, Trust-IT, STFC, EUA

Work Packages



WP2: FAIR Practices: Semantics, Interoperability, and Services

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

D2.1 Report on FAIR requirements for persistence and interoperability 2019

http://doi.org/10.5281/zenodo.3557381

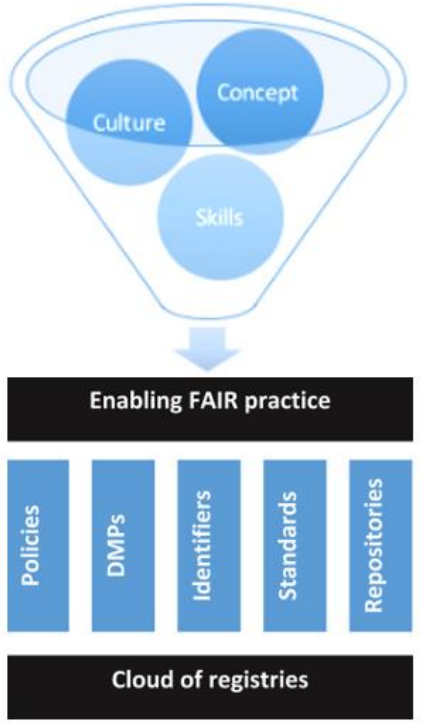
This document is the first iteration of three annual reports on the state of FAIR in European scientific data by the FAIRsFAIR project. The interpretation of the FAIR data principles and their implications for services are now under intense scrutiny across Europe with multiple possible outcomes. The 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. This study highlights the rapidity of change in technical solutions and wide variation across scientific domains in the uptake. More efforts are needed to guide researchers in best practices.

Request for comments:

► We are seeking wide feedback on this draft which will inform other areas of work within the FAIRsFAIR project. Comments and suggestions can be added at https://docs.google.com/document/d/1LPMpuDSyIhzYT6S3bG2KPecdDXn-af4bJxzX2r_xLIs/edit

WP3: FAIR Data Policy and Practice

WP3 aims to increase the production and use of FAIR data by **guiding necessary changes in policy and practice** at funder, repository and organisational levels.



FAIRsFAIR version of the Turning FAIR into Reality Components of a FAIR ecosystem

Under community review:

D3.1 FAIR Policy Landscape Analysis http://doi.org/10.5281/zenodo.3558173

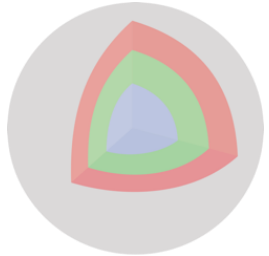
Request for comments:

► We are seeking wide feedback on this draft which will inform other areas of work within the FAIRsFAIR project. Comments and suggestions can be added at https://docs.google.com/document/d/1EaPCF_9ir9bNg9MPBe3heT1wNuDuS8tJ/edit?dls=true

D3.2 FAIR Data Practice Analysis

https://zenodo.org/record/3581353#.XkJtNFJKhTY

WP4: FAIR Certification



- **FAIR Objects** → FAIRness evaluations of individual datasets
  - use case based iterative approach building on existing work: researchers and data repositories
- **FAIR-enabling repositories →** to support the co-development and implementation of certification schemes for data repositories, building on existing frameworks
- Through two Open Calls run between July and August 2019, FAIRsFAIR selected **22 Data Repositories** - out of 73 applications - which **will get specific support** for achieving CoreTrustSeal certification (www.coretrustseal.org) & improving the FAIRness and interoperability of data

Images: https://doi.org/10.2777/54599 and https://icon-library.net/icon/data-repository-icon-5.html

FAIRsFAIR 1st Certification Support Workshop for Data Repositories

The first FAIRsFAIR training workshop for data repositories selected to receive assistance in achieving CoreTrustSeal certification took place in The Hague on Thursday **6 February 2020.**

WP6: FAIR Competence Centre

Competence Centre Support

- ➔ Provide **overview of research communities' needs** for a competence centre.
- ➔ Establish a **core competence centre for developing FAIR skills incl** a help centre and a "FAIR forum" to provide online help
- ➔ Develop a **knowledge base of training materials in FAIR skills** for the above competence centre.

Training Programme

- ➔ Build on CODATA-RDA Research Data Science schools to run **annual series of schools in FAIR skills**.
- ➔ Run **five train the trainer events** (run in parallel with CODATA-RDA schools).
- ➔ Franchise the schools to specific research communities.
- ➔ Provide materials for competence centre.

Under community review:

D6.1 Overview of needs for competence centres http://doi.org/10.5281/zenodo.3549791

Request for comments:

► Comments and suggestions can be added until 17 April 2020 at: https://drive.google.com/file/d/1c-KFgFWXr3d9f93lZiAIMsH0W7-g547X/view?usp=sharing

WP7: FAIR Data Science and Professionalisation

- Realisation of EOSC requires more data scientists/data stewards and researchers with FAIR competences
- RDM mandates (e.g. in H2020 and other European funding programmes) will mainstream FAIR even further and increase competence needs
- Data-sharing and re-use needs also a cultural change among researchers

WP7 overview/objectives

- Develop a **Competence Framework** for FAIR to support professionalisation, recognition and uptake of FAIR data science and data stewardship
- Develop **model courses**, **curricula, training** documents to support uptake in university curricula
- **Train universities** in using the Framework and model curricula to speed up adoption

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The High Level Advisory Committee

Jaana Bäck
Affiliation: University of Helsinki
Country: Finland

Jaana Bäck, University of Helsinki (UHEL), Institute for Atmosphere and Earth System Research INAR. Prof. Jaana Bäck's field is forest-atmosphere interactions and feed... She has contributed to the conceptual understanding on how biosphere eco-physic... processes, e.g. biogeochemical cycles, trace gas exchange and soil processes, are a... by environmental factors. In particular, she is interested in how ecosystems act as ... sinks and contribute to atmospheric aerosol formation and this way slow down the ... change especially in arctic and boreal regions. She has been involved in Arctic resea... 30 years, and has studied e.g. the effects of atmospheric pollutants on forests in Lapl...

Linkedin | Twitter

David Carr
Affiliation: Wellcome Trust
Country: United Kingdom

David Carr is Programme Manager for Open Research at the l, and helps drive's Well... efforts to maximise the availability and use of research outputs (including... publications, software and materials), in ways that will enrich the research enterpri... accelerate the delivery of health benefits. Prior to this, David was a Policy Adv... Wellcome where he led on work to develop and communicate Wellcome's policy in ... areas, including research data sharing, open access publishing, biosecurity and genet...

Linkedin |

Patricia Clarke
Affiliation: Health Research Board (HRB)
Country: Ireland {Republic}

Dr. Clarke is Programme Manager, Policy and EU Funding, at the Health Research ... Ireland and a National Delegate in H2020 Societal Challenge Health, Demographic ... and Wellbeing. Dr. Clarke has a particular interest in open research and is responsi... the HRB Open Research publishing platform. She is also co-chair of the National ... Research Forum with the Higher Education Authority, and a member of the EU Comm... expert group on National Points of Reference on Scientific Information.

Linkedin | Twitter

Rūta Petrauskaitė
Affiliation: Vytautas Magnus University
Country: Lithuania

Rūta Petrauskaitė is a professor at Vytautas Magnus University and a proponent of data-driven research, Open Access and data sharing initiatives. With research interests ranging from corpus and computational linguistics to discourse analyses, she has initiated and supervised compilations of the first big corpora of the Lithuanian language and performed corpus-based research in most fields of linguistics.

Linkedin |

Carthage Smith
Affiliation: Organisation for Economic Co-operation & Development (OECD)
Country: United Kingdom

Dr. Smith joined the Organisation for Economic Co-operation and Development in June 2014 as head of the Global Science Forum Secretariat. His work with national members to define the overall strategy and priorities for the Forum, includes defining policy on research infrastructures, Open Science, research funding mechanisms, and science advisory processes.

Linkedin |

Shelley Stall
Affiliation: American Geophysical Union
Country: United States

Shelley Stall is the Senior Director for the American Geophysical Union's Data Leadership Program. She works with AGU's members, their organizations, and the broader research community to improve data and digital object practices with the ultimate goal of elevating how research data is managed and valued. Better data management results in better science.

Linkedin | Twitter

Francoise Genova
Affiliation: Strasbourg Astronomical Data Centre
Country: France

Ms. Genova is one of the founders of the astronomical Virtual Observatory initiative, chaired the International Virtual Observatory Alliance (IVOA) Executive Board in 2006-2007, and has led operations in France since 2004. She has also coordinated several related European projects on behalf of CNRS. Director of the Strasbourg astronomical data centre from 1995 to 2015, Ms Genova led the Data Access, Discovery and Interoperability Work Package of the European ASTERICS Cluster, the aim of which was to optimise the use of data coming from the astronomical and astroparticle physics ESFRIs and other large projects.

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Stan Gielen
Affiliation: Dutch Research Council: NWO
Country: Netherlands

Dr. Gielen holds a PhD in biophysics and worked at Northwestern University, UCLA, and University Utrecht before being appointed as Full Professor of Biophysics at Radboud University Nijmegen (1988) with a chair in both the science and medical faculties. From 2010 to 2016 he served as dean of the Faculty of Science.

Linkedin | Twitter

Thomas Hahn
Affiliation: Siemens
Country: Germany

Thomas Hahn has been Chief Software Expert at Siemens AG since 2011. After studying computer science at Friedrich-Alexander University of Erlangen he joined the company in 1986 and worked as a product developer in the field of industrial networks in Erlangen. In 1993 he moved to Nuremberg, where he worked in product management for SIMATIC and as a project manager responsible for development of SIMATIC STEP 7. From 1997 he worked as Head of Development atTraffic Control Systems in Munich for two years.

Linkedin |

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.
- 1st meeting organised in Budapest on 25 November 2019, during the EOSC Symposium, **second meeting scheduled on 29-30 April 2020, Den Haag**

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EOSC Governance Board

EOSC Executive Board

(5a)

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

Regional Nodes / Thematic Projects (5b)

NI4OS Europe
EOSC SYNERGY
EOSC-Pillar
EOSC NORDIC
ExPaNDS
European Open Science Cloud Photon and Neutron Data Services

FAIR (5c)

FAIRSFAIR
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Synchronisation Force
EGFC
European Group of FAIR Champions

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

INFRAEOSC-5 Cross Project Collaboration Board

INFRAEOSC-5 Task Forces

'Horizontals'

ARCHIVER
ARCHIVING AND PRESERVATION FOR RESEARCH ENVIRONMENTS
PREVAIL
eInfra Central
RDA
RESEARCH DATA ALLIANCE
OpenAIRE
OCRE Open Clouds for Research Environments
EOSC-hub

ESFRI Clusters

FAIRe ENVRI
panosc
photon and neutron open science cloud
ESCAPE
SSHOC
EOSC-Life

Other FAIR initiatives

FAIR4Health
GO FAIR
FAIRsharing.org
standards, databases, policies
FAIRplus

European Group of FAIR Champions Current Members

Alastair Dunning

- **Affiliation:** Delft University of Technology
- **Country:** Netherlands

Andreas Rauber

- **Affiliation:** Tech Uni Vienna
- **Country:** Austria

Odile Hologne

- **Affiliation:** French Institute for Agricultural Research
- **Country:** France

Tobias Weigel

- **Affiliation:** German Climate Computing Center
- **Country:** Germany

Susanna-Assunta Sansone

- **Affiliation:** University of Oxford
- **Country:** United Kingdom

New Champions to be announced by the end of February 2020

FAIRsFAIR First Deliverables on Landscape Analysis, FAIR Requirements & Competence Centre

Call for feedback open!

- D2.1 Report on FAIR requirements for persistence and interoperability 2019 http://doi.org/10.5281/zenodo.3557381
- D3.1 FAIR Policy Landscape Analysis http://doi.org/10.5281/zenodo.3558173
- D3.2 FAIR Data Practice Analysis https://doi.org/10.5281/zenodo.3581353
- FAIR Ecosystem Components: Vision http://doi.org/10.5281/zenodo.3565428
- D6.1 Overview of needs for competence centres http://doi.org/10.5281/zenodo.3549791

https://www.fairsfair.eu/fairsfair-deliverables-community-review

Ten things you can do to support the FAIR data culture

FAIRsFAIR is organising a half-day workshop at [IDCC2020] on how to support FAIR data culture.

Topics for discussion:

- Improving the interoperability of FAIR objects
- Increasing the production and use of FAIR data
- Building networks of Trusted Digital Repositories and supporting their certification
- Fostering data stewardship skills development
- Embedding FAIR data education into university programmes

FAIRsFAIR 2020

28-20 April, Den Haag, The Netherlands

- 28 April - parallel WP meetings
- 29 April - WP2 workshop + *2nd Synchronisation Force Workshop*
- 30 April - All-hands meeting

Stay tuned!

Thank you and enjoy the webinar!

Sara Pittonet s.pittonet@trust-itservices.com

Twitter: FAIRsFAIR_eu
Linkedin: company/fairsfair/
Website & Newsletter www.fairsfair.eu

Annex - Ongoing work and initial deliverables (Until Q2 2020)

Jessica Parland-von Essen (WP2 Leader)

WP2: Ongoing work and initial deliverables (Until Q2 2020)

- D2.1 Report on FAIR requirements for persistence and interoperability
  - Report https://doi.org/10.5281/zenodo.3557381
  - Data https://doi.org/10.5281/zenodo.3518922
  - Reviews the landscape and stakeholders
  - Diversity in maturity within domains
  - Need for context sensitive solutions based on researchers' needs
  - Semantic interoperability needs attention
- Intense work in WP on FAIR regarding semantics and services, we need engagement and community input
- Upcoming:
  - D2.2 1st set of Recommendations for FAIR Semantics
  - D2.3 Set of FAIR data repositories features

Joy Davidson (WP3 Deputy Leader)

WP3: Upcoming milestones and deliverables (Until Q2 2020)

T3.2 - Work with stakeholders to enhance and/or develop data policies

- ❑ M3.3 Draft recommendations on policy enhancement [M11]
- ❑ M3.4 Workshop with policy makers [M11]
- ❑ D3.3 Recommendations on policy to support FAIR practice [M12]

T3.3 - Embedding FAIR data practice in research culture

- ❑ D3.4 Recommendations on practice [M15]

T3.4 - Support transition to FAIRer data providers, stewards and repositories

- ❑ M3.5 Draft of D3.5 for consultation with repositories [M15]
- ❑ M3.6 Identification of initial group of repositories [M16]
- ❑ D3.5 Description of transition support for repositories [M18]

Ilona von Stein, DANS (WP4 leader)

WP4: Ongoing work, Deliverables and Milestones until the end of Q2 2020

- WP4 **delivered** outputs:
  - **Open Call for repository involvement**
    - 10 repositories selected for in-depth FAIR-aligned repository certification support (WP4)
    - 19 repositories selected for technical FAIRification/interoperability support (WP2)
  - **Generic evaluation reference model**, for considering different, standard, evaluation and certification solutions

- WP4 **upcoming** output:
  - **Feb 2020** - M4.1 : initial set of proposals for repository evaluation including assessment of maturity towards enabling long-term FAIR objects
  - **Feb 2020** - D4.1: **draft recommendations on requirements for FAIR datasets in trustworthy repositories**
  - **May 2020** - D4.2**: initial version of a repository certification mechanism.** Open to iterations afterwards.
  - **Aug 2020** - M4.9: first prototypes of FAIR data assessment tools. Further testing through pilots.

Brian Matthews (WP6 Leader)

WP6: Ongoing work and initial deliverables (Until Q2 2020)

Training & skills

WP6 - Competence centre

- Delivery of first school in August 2019. Development of additional curriculum with focus on FAIR.
- Workshop at RDA Helsinki on school to improve curriculum.
- Discussions initiated on franchising.
- Paper accepted for IDCC 2020 in Dublin on schools.
- Landscape Survey and interviews on Competence centre requirements (Aug-Nov 2019)
- Defining structures for Competence Centre

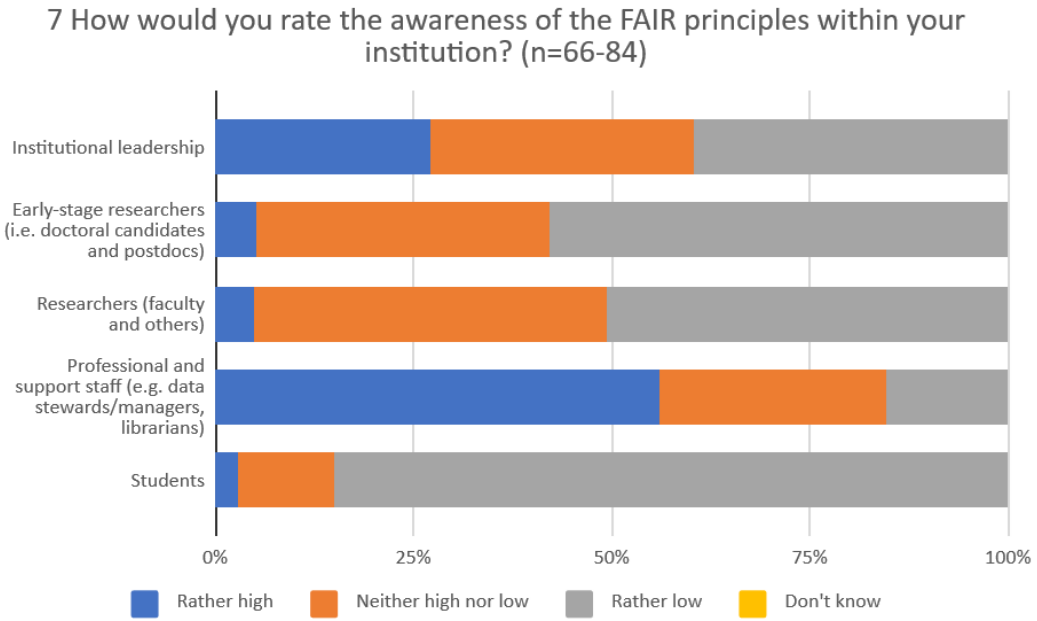
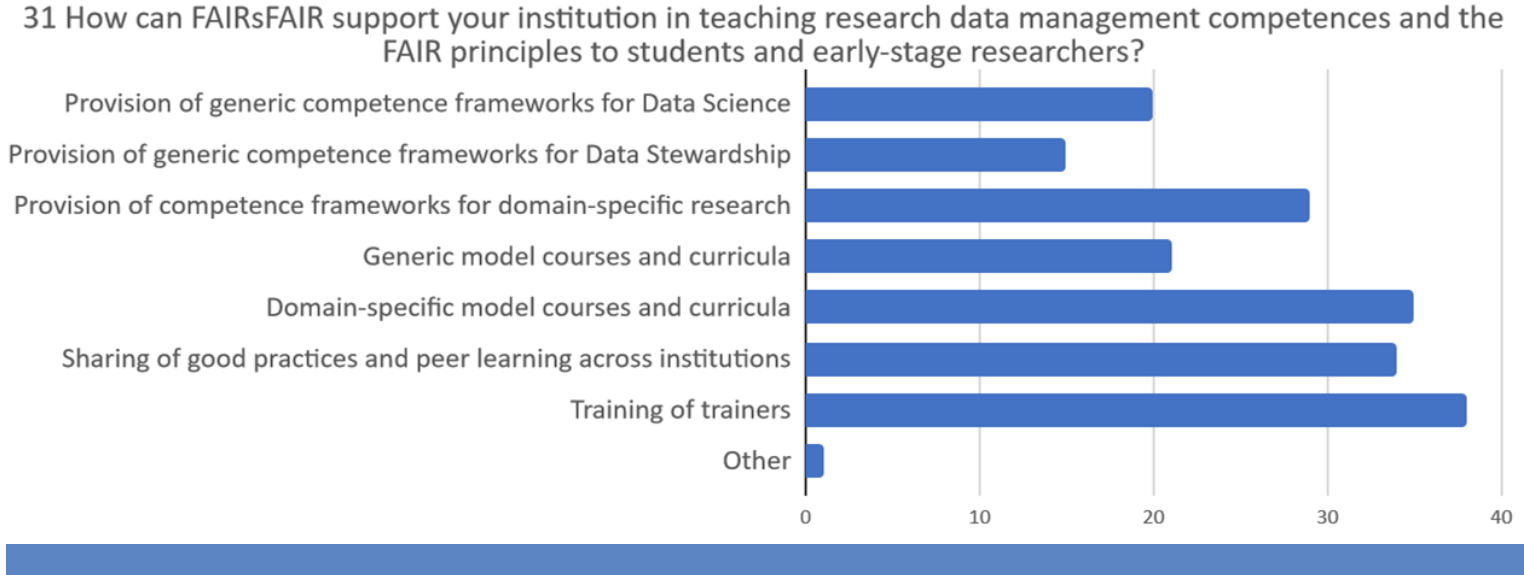
MS38: Research communities surveyed and prioritised for competence centres (Nov 2019)

D6.1: Report: Overview of needs for competence centres (Nov 2019) https://zenodo.org/record/3549791

Upcoming

- D6.2 : Report : Initial core competence centre structures (Feb 2020)

Lennart Stoy (WP7 Leader)

WP7: Ongoing work and initial deliverables (Until Q2 2020)

- Focus Groups: ~55 participants
  - Universities, Research Data Management and the FAIR Principles (UC3M, 30 October) - together with WP3
  - Teaching (FAIR) Data Management and Stewardship (UvA, 19 November)
- Survey on FAIR data aspects in Higher Education Institutions (Sep-Nov 2019): 90 responses including partial ones
- Results are being analysed, report due in February 2020 (Deliverable 7.1, M12)
- Work on FAIR Competence Framework is in progress (Deliverable 7.3, M24, but with iterations)