FAIR Data policies – how to support FAIR and Open Research Data at the national level

Kevin Ashley (with thanks to Joy Davidson)
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The Road towards EOSC as seen from a National Level (Romania)

Policies exist at many levels – and so do actions

- Trans-national (European Commission, OECD, G7)
- National level – ministries/governments
- National level – funders
- Organisational level – universities, research organisations
- Service level – repositories
- Research domains

Good policies share actions and responsibilities between the policy maker and the target of the policy

Sparc Europe/DCC monitoring of national policy

- Regular review of national-level policy on open research in Europe

- Most recent update April 2021: https://doi.org/10.5281/zenodo.4725817

- Short reports designed to allow policy makers to see change over time & compare progress at national level

- In 2019, Romania was not mentioned in the report. By 2021, there was something to say

Currently, Romania does not have a national .. policy although discussions are underway with various stakeholders … Open Access is mentioned in The National Plan for Research and Innovation 2015-2020. In 2019, the UEFISCDI in partnership with the Ministry of Education and Research have started a process of developing a national strategic framework for Open Science. The process is led by Open Science Hub Romania … [they] will start implementing a project financed through European structural funds which includes a strong component dedicated to the elaboration of a proposal for an Open Science national strategy.

FAIRsFAIR landscape activities 2019-2021

Semantics and Interoperability

Policies and Practices

HEIs and FAIR Data

- **D3.1 FAIR Policy landscape analysis**
  https://zenodo.org/record/3558173

- **D3.3 Policy Enhancement Recommendations**
  https://zenodo.org/record/3686901

- **D7.1 FAIR in European Higher Education**
  https://zenodo.org/record/3629683

FAIRsFAIR recommendations

Collectively agree on a **common set of FAIR policy elements** to describe policies.

FAIRsFAIR Policy Characterisation Data for D3.1
https://zenodo.org/record/3550544

AA9 Landscape Monitoring
*Monitor **standardised** national Open Science and FAIR data strategies, including the description of these policies.*

SRIA: https://www.eoscsecretariat.eu/sites/default/files/open_consultation_booklet_sria-eosc_20-july-2020.pdf

FAIRsFAIR recommendations

PIDs should be assigned to **clearly versioned policies** made available via registries.

Emphasis on describing elements that may be considered 'rules' to support **machine-actionability.**

Guidance is helpful, but is not policy. Keep them separate.

Model Policy on Open Access to Publications and Data for Research Performing Organisations (RPOs)

1. Preamble

1. The **[Name of RPO]** commits to the advancement of science and the wide dissemination of knowledge to the benefit of society by adopting practices on open, reproducible and responsible research.

2. The **[Name of the RPO]** recognizes "openness" as one of its guiding principles and commits to promoting it by –among others- encouraging and supporting research processes and tools that encourage collaboration, enabling new working models and new social relationships, stimulating the dissemination of knowledge and the accessibility and re-usability of research outputs, encouraging open access to publications and data and building the necessary infrastructure to support open science.

2. Jurisdiction and Effect of Policy

The Policy applies to all researchers active at **[Name of RPO]**. In cases where research is funded by a third party, any agreement with that party concerning access rights, deposit and storage takes precedence over this Policy.

The Policy has been approved by **[dean/ commission/....]** and takes effect from **[dd/mm/yy]**

3. Rights, Responsibilities, and Duties

3.1 The [Name of RPO] is responsible for:

1. Supporting and empowering the transition to Open Access/ Open Science through education, training and awareness-raising actions targeting researchers and other employees, along with the provision of the necessary infrastructure and funding to support this transition. Acquisition of Open Science skills should form an integral part of professional training and career development offered to researchers.

2. Establishing (if one does not yet exist) an **Institutional Open Access Repository [Name of the Repository]** according to international standards, containing digital content and providing advanced tools for search, navigation and Open Access to its content.

https://www.openaire.eu/model-policy-on-open-science-for-research-performing-organisations

FAIRsFAIR recommendation

FAIR can be referred to both explicitly and implicitly.

Really depends on your organisation's aims.

IMPLICIT	EXPLICIT
Implicit refers to something that is implied but not said directly	Explicit refers to something is that stated directly
When someone expresses something implicitly, there is room for confusion	When someone expresses something explicitly, there tends to be no confusion

Image from https://pediaa.com/what-is-the-difference-between-implicit-and-explicit/

FAIRsFAIR recommendation

Provide clarity on the range of outputs that should be considered and what might be considered

"**FAIR enough**"

Publications
Reports
Data
Software
Workflows
…

FAIRsFAIR recommendation

Standardised **exceptions for not sharing data** should be developed and promoted in guidance

BUT... data that cannot be shared still needs:
- Identifiers
- Preservation
- Metadata
- Findability
- Reusability

Example data access statements

Openly available data

- All research data supporting this publication are directly available within this publication.
- Additional research data supporting this publication are available as supplementary information accompanying this publication at [insert DOI].
- Additional research data supporting this publication are available from the [insert repository name] repository at [insert DOI].
- Multiple datasets openly available at various data repositories were used to support these research findings. All the data used are referred to in the 'References' section of this publication.

Secondary analysis of existing data

- This study is a re-analysis of existing data that are publicly available from the [insert name of repository] repository at [insert DOI]. Further documentation about data processing is available from the [insert repository name] repository at [insert DOI].
- This study brought together existing research data obtained upon request and subject to licence restrictions from a number of different sources. Full details of how these data were obtained are available in the documentation available at the [insert repository name] repository at [insert DOI].

Ethical constraints

- Due to ethical concerns, supporting data cannot be made openly available. Further information about the data and conditions for access are available from the [insert repository name] repository at [insert DOI].

EstER 1824
The University of Manchester

The University of Manchester Library

https://www.library.manchester.ac.uk/using-the-library/staff/research/research-data-management/sharing/data-access-statements/

FAIRSFAIR Recommendation on DMPs

Require **updating** of DMPs over the research lifecycle leading to **end stage** DMPs.

Emphasis should be on **rewarding** good practice but, where necessary, **penalties** for non-compliance will eventually need to be considered.

HORIZON 2020 ONLINE MANUAL

Research Data Management Plans During The Project Life Cycle

First version

Once a project has had its funding approved and has started, you **must submit a first version of your DMP** (as a deliverable) within the first 6 months of the project. The Commission provides a DMP template in annex, the use of which is recommended but voluntary.

Updates

The DMP needs to be updated over the course of the project whenever significant changes arise, such as (but not limited to):

- new data
- changes in consortium policies (e.g. new innovation potential, decision to file for a patent)
- changes in consortium composition and external factors (e.g. new consortium members joining or old members leaving).

The DMP should be updated as a minimum in time with the periodic evaluation/assessment of the project.

- If there are no other periodic reviews foreseen within the grant agreement, then such an update needs to be made in time for the final review at the latest.
- Furthermore, the consortium can define a timetable for review in the DMP itself.

Periodic reporting

For general information on periodic reporting please check the following sections of the online manual

- how to fill in reporting tables for publications, deliverables and
- process for continuous reporting in the grant management system of the Funding & Tenders Portal.

https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management_en.htm

How are we supporting these recommendations?

Machine actionable assessment tool

https://github.com/pangaea-data-publisher/fuji

Graphical user interface / www.f-uji.net

https://www.fairsfair.eu/f-uji-automated-fair-data-assessment-tool

CoreTrustSeal Certification Support

FAIR|Aware

- Online tool to raise awareness and educate on data FAIRness

- For researchers, authors and data stewards

- 10 simple questions with practical tips to improve data FAIRness before data deposit

- Continuously improved. Open source.

https://fairaware.dans.knaw.nl/

FAIR skills frameworks

Professional and PhD level

Framework	Main Field	Addresses FAIR data?	Main elements
FA/R 4S	FAIR data stewardship	Yes	Group of skills / competences for each research lifecycle stage; Identification of professional groups sharing stewardship responsibility.
FOSTER	Open Science	Yes	Open Science Taxonomy; Open Science training toolkit; Open Science Training Handbook oriented to practical teaching; Open Science Learning objectives.
Towards FAIR data steward as profession for the lifesciences	Data steward for Life sciences	Yes	Data Steward roles competencies (kno
BELMONT FORUM	Data skills in Global Environmental Change Research	No	Curricula goals, Cu Investigators).

https://www.fairsfair.eu/fair-frameworks-training-programmes
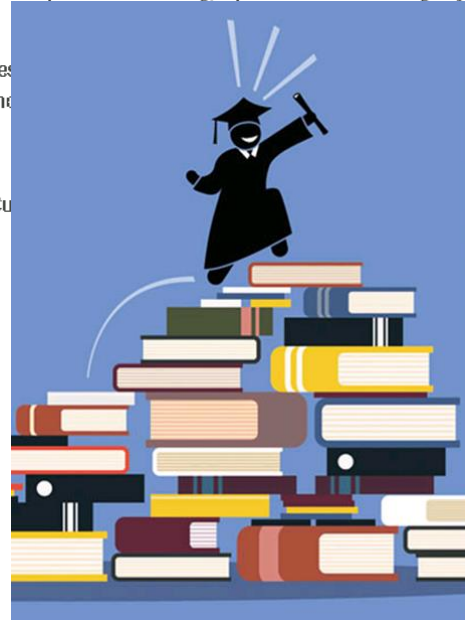
FAIRSFAIR
Fostering Fair Data Practices in Europe

Booksprint for FAIR Adoption Handbook for Universities
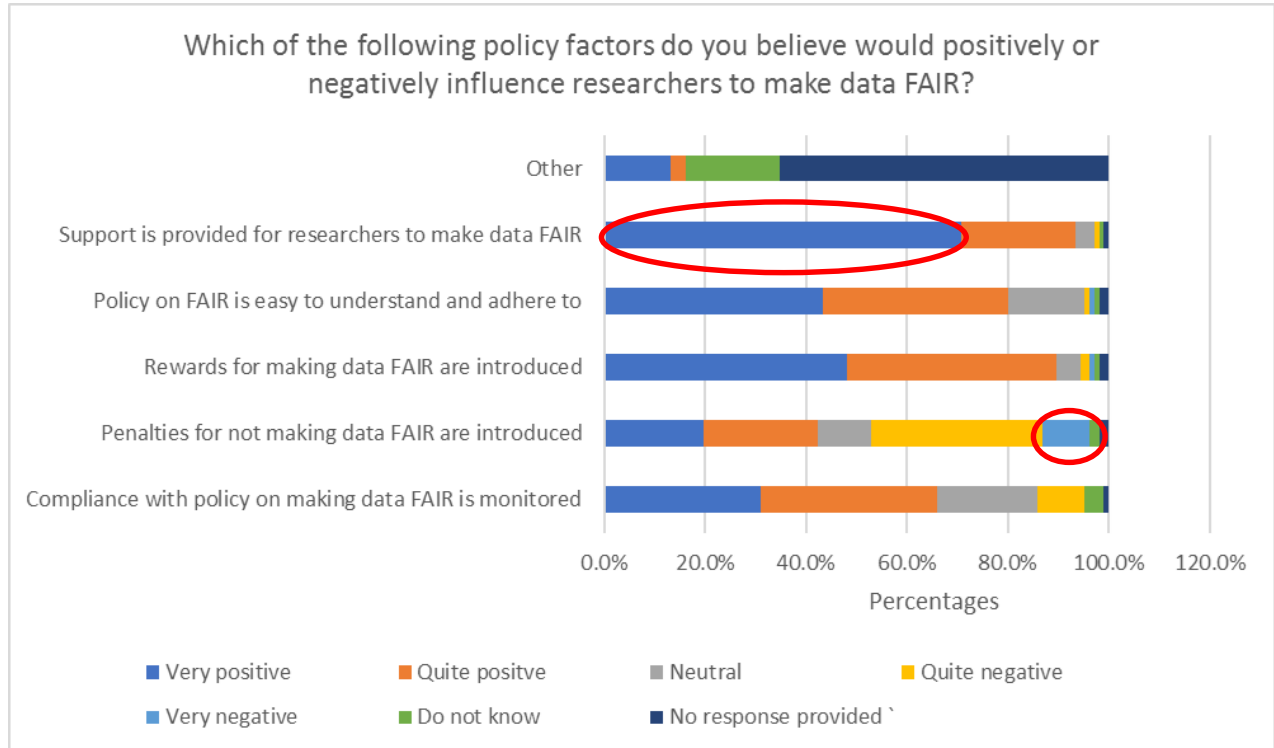
CALL FOR EXPERTS

DEADLINE 3 MAY 2021

https://fairsfair.eu/news/call-fair-experts-apply-and-join-booksprint-fair-adoption-handbook-universities

Local support is valued

Support provision is a positive influence

Lots of different ways to provide support!

Which of the following policy factors do you believe would positively or negatively influence researchers to make data FAIR?

Legend: Very positive | Quite positve | Neutral | Quite negative | Very negative | Do not know | No response provided `

Thank you! Any questions?

https://www.fairsfair.eu