Supporting the alignment of organisational research data management policies
- The HRB experience

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Health Research Board
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HRB Data Management & Sharing Policy

Key Policy Principles

- Policy came into effect for all funding calls launched after **1st January 2020**

- All data must be made openly available unless justification can be given as to why not
  - At a minimum, data that underlies publications must be made available
  - Metadata must always be made openly available
  - Applies to all data outputs and any underlying software as well as original software, methodology or organisation of data collection

- DMP for all successful grants

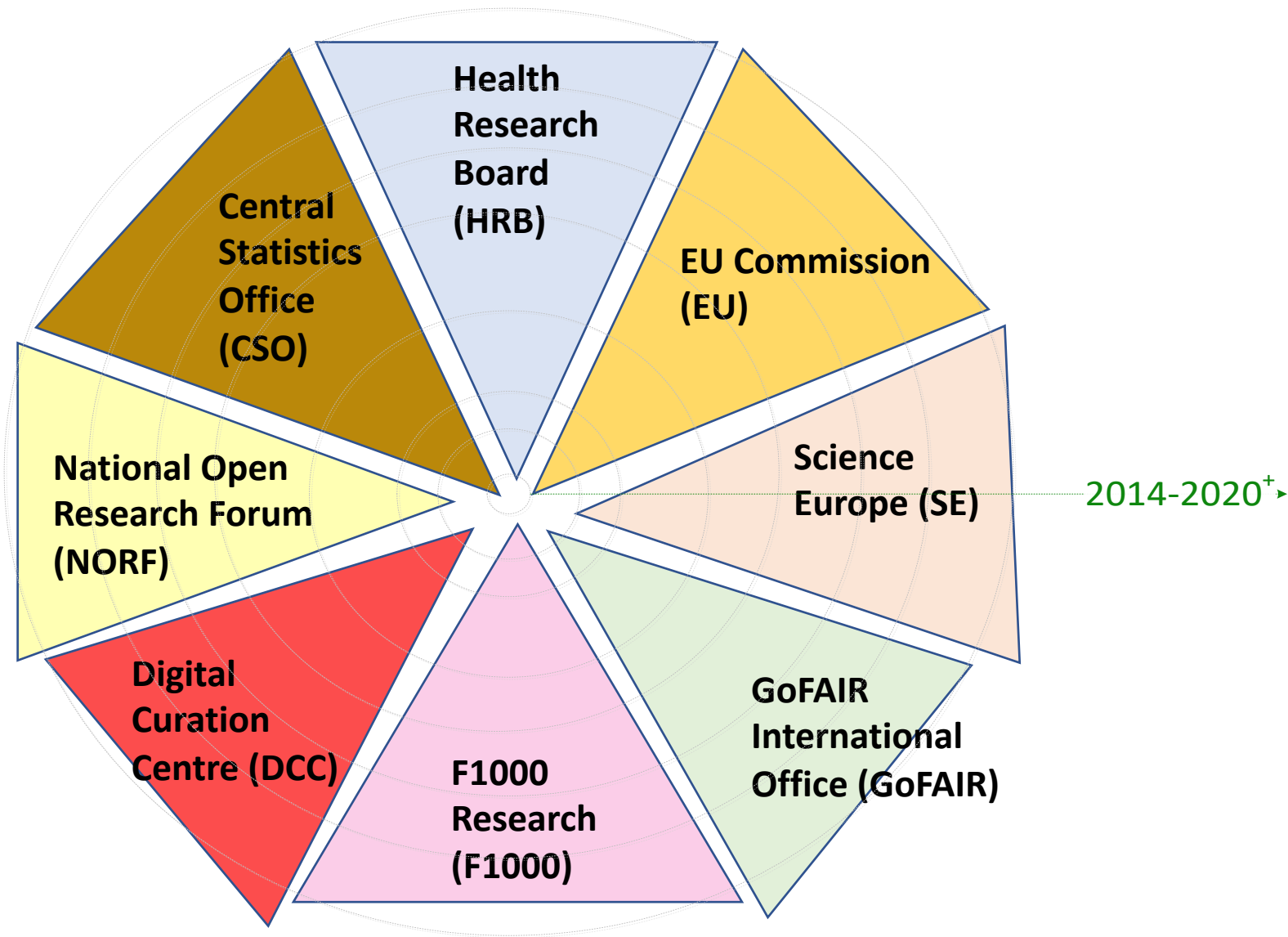- Importance of FAIR Data Principles and Data Stewardship

DMP requirements

- Tool to get researchers to consider data management requirements at project start

- Required at two points in time; near start of project and at end of grant reporting

- Required for most, but not all, projects – will be specified within call guidance

- Must use the HRB DMP template available through DMPonline - https://dmponline.dcc.ac.uk/

- DMPs must accompany certification/declaration from Host Institution

  - To confirm the researcher worked with data steward or equivalent on the DMP – not based on quality

  - To be determined by the institution who is responsible

Other policy clauses

- DMP assessment

- FAIR Budgeting

- Evaluation of applications and outputs
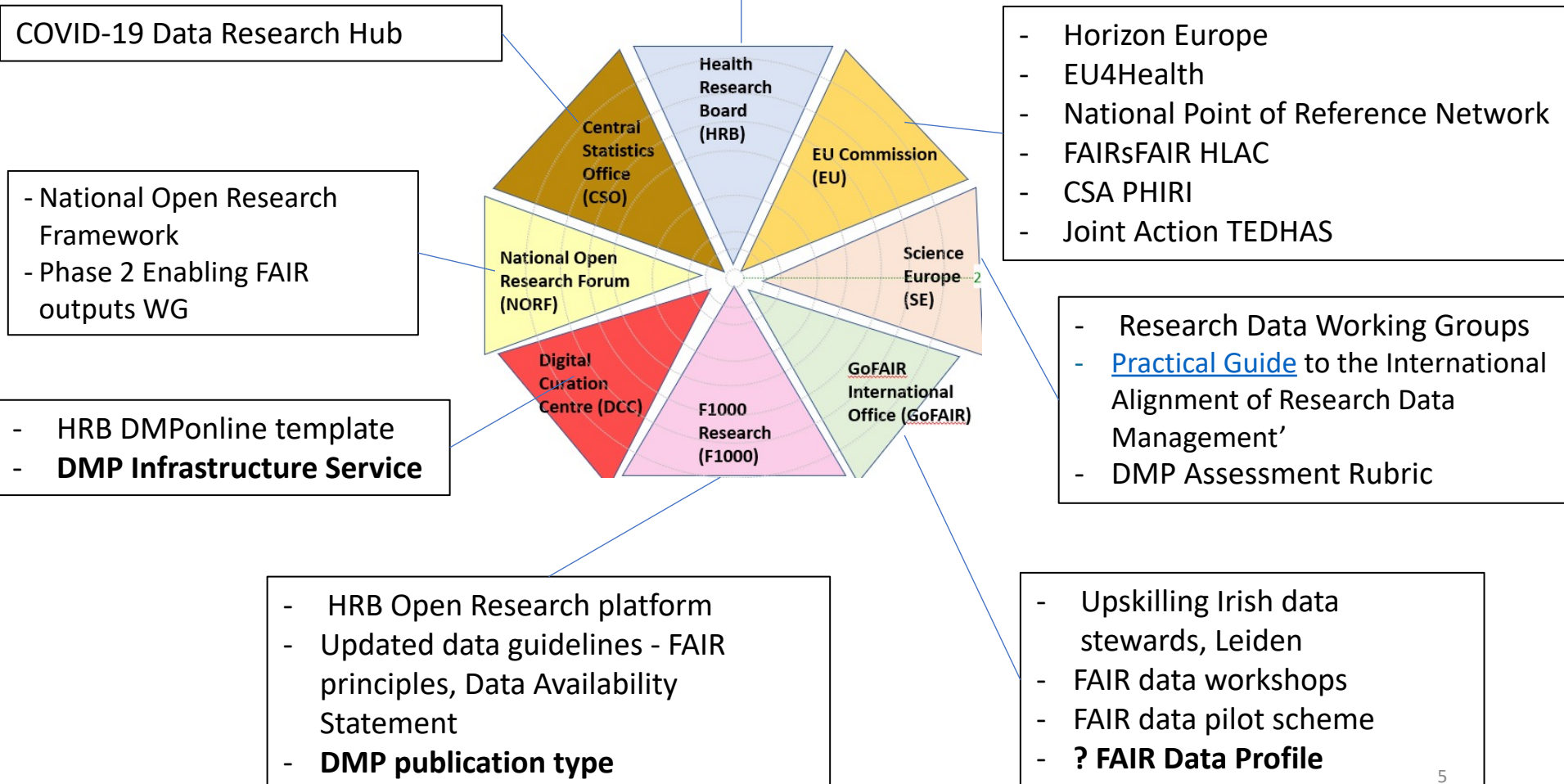
- Recognition for data-sharers

Partnerships 2014-2021

- Health Research Board (HRB)
- EU Commission (EU)
- Science Europe (SE) — 2014-2020⁺
- GoFAIR International Office (GoFAIR)
- F1000 Research (F1000)
- Digital Curation Centre (DCC)
- National Open Research Forum (NORF)
- Central Statistics Office (CSO)

Where we are now - 2020⁺

- Open Science Conference
- Data Linkage 'DASSL' report
- HRB DASSL PoC award
- HRB Secondary Data Awards

- **HRB Policy on Data Management and Sharing**
- HRB International Panel DMP Evaluation
- Irish ORCID Consortium
- Research Guidance

Signatory of DORA

COVID-19 Data Research Hub

- National Open Research Framework
- Phase 2 Enabling FAIR outputs WG

Health Research Board (HRB)

Central Statistics Office (CSO)

EU Commission (EU)

National Open Research Forum (NORF)

Science Europe (SE)

Digital Curation Centre (DCC)

F1000 Research (F1000)

GoFAIR International Office (GoFAIR)

- HRB DMPonline template
- **DMP Infrastructure Service**

- Horizon Europe
- EU4Health
- National Point of Reference Network
- FAIRsFAIR HLAC
- CSA PHIRI
- Joint Action TEDHAS

- Research Data Working Groups
- [Practical Guide](#) to the International Alignment of Research Data Management'
- DMP Assessment Rubric

- HRB Open Research platform
- Updated data guidelines - FAIR principles, Data Availability Statement
- **DMP publication type**

- Upskilling Irish data stewards, Leiden
- FAIR data workshops
- FAIR data pilot scheme
- **? FAIR Data Profile**

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National Level and Data Discussions

1. FAIR data stewards mentoring programme, with GoFAIR International Office and research institutions
- Networked experts, common messages, HRB learning

2. **Funder discussions** during policy development

3. **National Open Research Forum,** chaired jointly with Higher Education Authority
- National Framework Principles, National Landscape report and National coordinated actions due
- Enabling FAIR Data Working Group – chaired jointly by Timea Biro DRI and Aoife Coffey UCC

4. HRB National Initiatives
- HRB DASSL (Data Access, Sharing and Linkage) Proof of Concept study
- HRB Secondary Data Analysis Funding Calls
- HRB Open Research – publishing your underlying data
- CSO-HRB COVID-19 Data Research Hub – Research Data Governance Board secretariat
- Member, Irish ORCID Consortium

5. Provide **national roles for EU Programmes** with integrated research data policies
- Horizon Europe Health and EU4 Health public health programme

6. **Irish representation on key EU initiatives/ projects**
- EU JA TEHDAS (Towards EU Health Data Space)
- EU CSA PHIRI (Population Health Information Research infrastructure)
- EU National Point of Reference network

7. **Learning from others**
- EU FAIRsFAIR project, GoFAIR, Science Europe, DCC/ DMPonline

Implementation- HRB FAIR Data Pilot

Led by Dr Annalisa Montesanti HRB

Main aim - to introduce data management and stewardship process in a small scale across two funding schemes (Investigator-led Projects and Emerging Investigator Awards).

- To provide the Irish data stewards/managers, HRB and the wider community of stakeholders (at both a national and international level) with some valuable lessons from the general process, tools and quality of data management;

- To provide the first practical experience on the real value of data stewardship among the research community;

- To review internationally and receive feedback and recommendation for further developments

Phase I
Grant Applications

'DMP outline' and DMP costs in all applications

Phase III
Post award Monitoring and outputs

Grantees report on discoverability of research outputs
FAIR and/or open
- Metadata
- Searchable repositories
- DOI

Phase II
Award: DMP completion

Grantees complete DMP
With support from institutional Data Stewards

Grant Application stage

Funding approved and start of awards

End of Grant

Updated DMP submitted with final annual report

1st deliverable of the award

DMP is completed via the DMPonline

International review conducted
Report to be published/disseminated

Grantees keep the DMP as a live document

Main stakeholders
- GFISFO office
- Researchers
- Data stewards
- VP/Deans research
- Research offices
- Irish funders
- NORF
- Other funders
- Science Europe
- DCC

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Data Management Plan

Overview

- Adopted Science Europe guidelines
  - Guidance supplemented with information on sensitive data, clinical trials, GDPR and the Health Research Regulations

- Plan includes questions across several different topics:
  - Data description and collection or re-use of existing data
  - Documentation and data quality
  - Storage and backup during the research process
  - Legal and ethical requirements, codes of conduct
  - Data sharing and long-term preservation
  - Data management responsibilities and resources

DMPonline

https://dmponline.dcc.ac.uk/

Digital Curation Centre work with International partners , for example

DMP assessment rubric

HRB DMP question	HRB DMP guidance	Performance Levels	
GENERAL INFORMATION		**Sufficiently Addressed**	**Insufficiently Addressed**
Administrative Information	- Name of Principle Investigator of the award, award/grant reference number (if applicable), and version of DMP.	- Provides the name of the Principle Investigator, award/grant reference number and version of DMP.	- No or limited information provided which makes it hard to identify who is responsible for the DMP and its implementation, or which award it is related to.
1 DATA DESCRIPTION AND COLLECTION OR RE-USE OF EXISTING DATA		**Sufficiently Addressed**	**Insufficiently Addressed**
1a How will new data be collected or produced and/or how will existing data be re-used?	- Explain which methodologies or software will be used for data collection and/or data analysis - State any constraints on re-use of existing data, if applicable. - Explain how data provenance will be documented. - Briefly state the reasons if the re-use of any existing data sources has been considered but discarded.	- Gives clear details of where the data come from and how new data will be collected or produced. - If applicable, explains clearly why new data must be collected, rather than re-using existing data. - If data is reused, explains how existing data will be accessed and any constraints to reuse.	- Provides no explanation, or insufficient details to get a clear understanding of where the data come from and what data will be collected or re-used. - If applicable, does not explain sufficient rationale for generating new data.
1b What data (for example the kind, formats, and volumes), will be collected or produced? **Note:** Information derived from previously existing data sources - namely output, processed, analysed	- Give details on the kind of data: for example, numeric (databases, spreadsheets), textual (documents), image, audio, video, and/or mixed media. - Give details on the data format: the way in which the data is	- Clearly describes or lists what data types will be generated (e.g. numeric, textual, audio, video, etc.) and their associated data formats including, if needed, data conversion strategies	- Provides no information, without a valid reason to do so (e.g. a statement that no data will be produced or generated) - Only lists/describes data types without specifying the data formats

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International Panel DMP review

Experts from Austria, Denmark, Finland, Netherlands and UK met in September 2020

- To provide feedback to data stewards, HRB and researchers – learning curve

- To discuss with HRB topics such as DMP quality, costing, process, DMP template

- To provide to HRB any advise and/or recommendation on how to further advance the data agenda

Issues raised:
- human vs machine actionability;
- Metadata definition and type
- anonymisation vs pseudonymisation of personal data;
- data sharing vs publication of the research article;
- data sharing vs commercialisation of data
- which repositories (domain vs specific)
- unrealistic costs for data management
- Use of data stewards/ experts
- clarity on data sharing strategy missing
- Institutional level expertise/resources
- Funding agency in learning mode e.g. versioning of DMPs

How can we improve?

Provide guidance for researchers, peer reviewers and evaluators

- E.g. how much should researchers/ data stewards/ Funders budget for data management and data sharing?

Review of DMPs under our COVID Rapid Response Calls

We are planning to:

- Develop DMP as a publication type on HRB Open Research with F1000 Research
- Work more closely with Digital Curation Centre to provide a supportive service for our funded researchers and institutions

We are:

- Learning from others
- Organising ourselves internally – new Strategic objective, HRB Data Group, HRB Open Science Plan
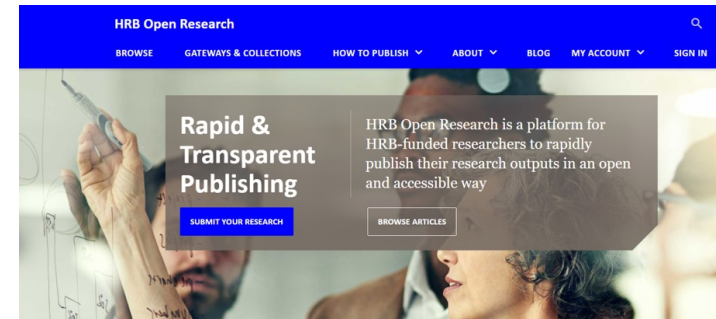

2021-2025 strategic objectives

People at the heart of HRB research

1. Invest in research that delivers value for health, the health system, society, and the economy.
2. Be an independent, credible voice for research and evidence, and a trusted thought leader.
3. Promote and enable the use of data to shape health policy, enhance healthcare delivery, and drive broader research and innovation initiatives.
4. Build a strong and supportive environment for health research in Ireland.
5. Foster and enhance European and international coordination, collaboration and engagement.
6. Develop the HRB as a progressive place to work, where our people are supported to be innovative and responsive.

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Infrastructure for DMP management and publishing

Benefits of DMP management infrastructure

- Single platform for the Researcher, Host Institution and the Funder

- Automate certification and reminders

- Reduce administration across three user groups

- Helpdesk support for researchers and data stewards and HRB

Benefits of DMP publishing infrastructure

Published DMPs will receive a DOI and versioning of DMPs allows for periodic review and revision.

Published DMPs will by openly available allowing authors to get credit for their development and maintenance, and serving as examples to establish, maintain, and teach quality standards.

Published DMPs will be linked to related research outputs including research articles, datasets, etc. and benefit from metrics such as views and downloads.

RDA Policy Brief - Supporting the alignment of organisational research data management policies

How does the HRB approach match-up?

- ✓ Join national networks to facilitate alignment with national legislation, national funders and policy makers

- ✓ Join disciplinary networks for alignment with disciplinary approaches and best practices, guidance for specific types of organisations

- ✓ Dedicate effort to communication and training before, during and after the RDM policy development

- ✓ Provide tools and resources to navigate and use the RDM policy

- ✓ Consider a principle - based approach - FAIR principles

- ✓ Consider the point of view of the researcher who should not be faced with conflicts in policy directions

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