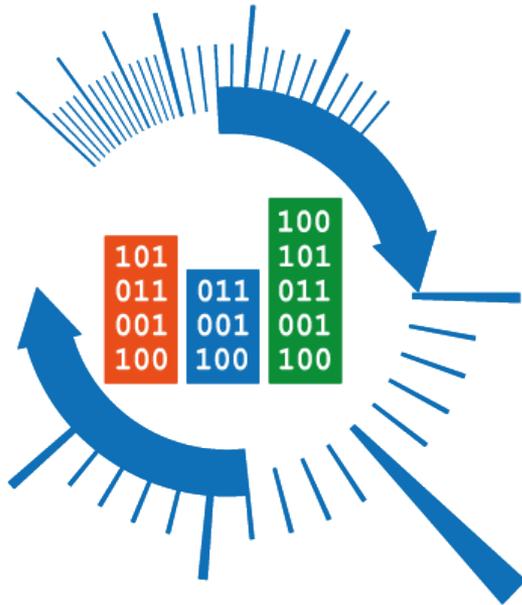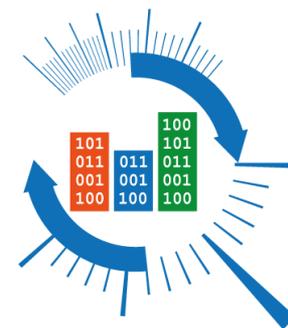# Web Tutorial 1: Research data management in EPM projects

Maitane Iturrate-Garcia

METAS

Research data management in European metrology

EURAMET

EMPIR 2021 data outputs:

3575 Conference presentations/posters
2363 Other dissemination activities
1317 Peer-reviewed publications
1728 Inputs to standards committees
25 Patent applications
1070 Training activities
10078 Total number of unique outputs

Ambitions:

FAIR
Traceable
Reproducible
EOSC → Metrology

Measures/means:

Guidelines & checklists
Quality metrics & assessments
Training & teaching
Common data policies
Metrology information standards

RDM in start/ running projects

Breakout session 2

Maitane Iturrate-Garcia

METAS

EURAMET EPM requirements

EPM projects are "co-financed from the EU Horizon Europe Research and Innovation Programme and by the Participating States".

Open science practices as per Regulation (EU) 2021/695 (Horizon Europe): rules for participation and dissemination

Initial RDM included in JRP proposals (max. 2 pages) in sections

- o B2.f (Open science): research outputs' sharing, reproducibility and open access

- o B2.g (RDM and management of other research outputs): types of data/research outputs generated and how data findability, accessibility, interoperability and reusability will be achieved

EURAMET EPM requirements

- JRP proposal: potential RDM description
- M6: RDM summarised in DMP submitted to EURAMET
- M18: DMP update
- M36: DMP update

EPM Grant Agreement
Annex 5, Article 17

RDM ≠ DMP (not synonymous)

RDM: a collection of tasks, practices and decisions for the organization of data, from its generation until its dissemination and archiving (and eventually its destruction)

DMP: an evolving document and tool used to facilitate the implementation of a good RDM
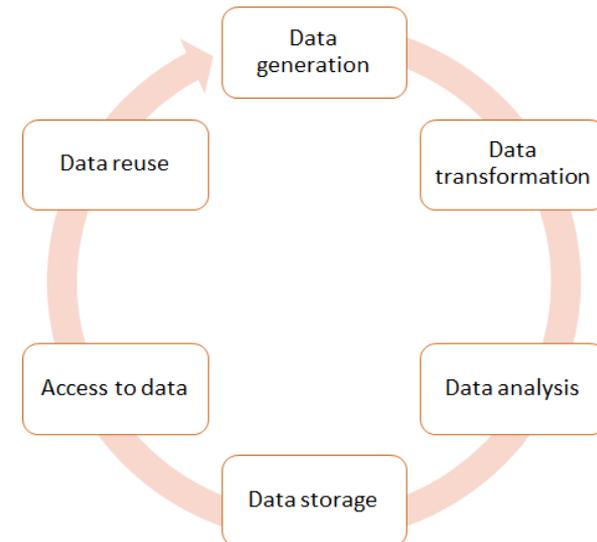
RDM in EPM projects

RDM relates to **digital research data**:

"Information in digital form (in particular facts or numbers), collected to be examined and used as a basis for reasoning, discussion or calculation."

Examples: statistics, results of experiments, measurements, observations from fieldwork, survey results, interview recordings, images and raw data where technically feasible (i.e. enables reanalysis, reproducibility and/or data re-use)

Source: Herovired
https://herovired.com/learning-hub/blogs/what-is-data/

RDM in EPM projects

Aspects to be covered

Data sharing

Repository

Ontologies and mapping

Persistent identifiers

Curation and preservation

Data access

Data provenance

Licencing

Metadata

Qualified references

Dataset description

Costs

RDM in starting projects

o Requirements

- 6 months after start of the project, DMP submission to EURAMET

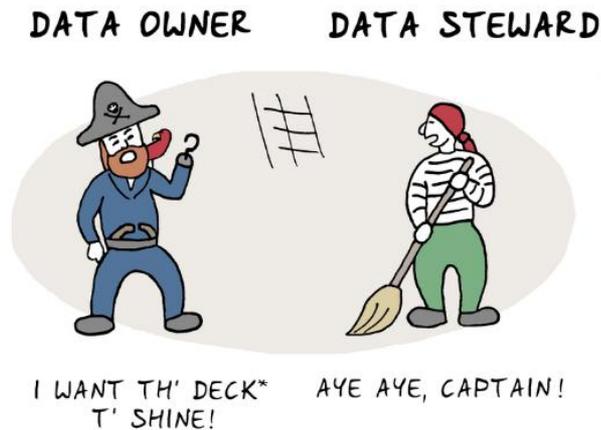- 42 questions about access, metadata, restrictions, costs, …

https://metpart.eu/download.html

- Template: Template 2 – Data management plan template

- Guide to fill DMP: Part 2 – Preparing data management plans

RDM in starting projects

o Tips for coordinators (from personal experience)

- If possible, put a data steward in your life

DATA OWNER   DATA STEWARD

I WANT TH' DECK*   AYE AYE, CAPTAIN!
T' SHINE!

Source: Dataedo (Piotr)
https://dataedo.com/cartoon
/data-owner-data-steward

- Establish a small group/a person within the consortium (ideally with previous experience in RDM) responsible for drafting the RDM and, further in the project, for ensuring the quality of the data and its curation (including the project repository)

RDM in starting projects

o Tips for coordinators (from personal experience)

- Early enough in the project, make sure all the partners are in the same pace and engage with the RDM.

- Make the RDM drafting as collaborative as possible to increase engagement

- Invest time on "training" the consortium: tutorials on licences, metadata, ontologies and other RDM aspects adapted to the project

RDM in running projects

o Requirements

- M18: DMP update to be submitted to EURAMET

o Tips for coordinators (from personal experience)

- Ensure the data "responsible" group/person and you as coordinator keep a clear overview of the generated datasets all across the project (particularly important for data publication)

- Anticipate potential risks and ethics/privacy conflicts; search for help (legal departments) within the consortium to mitigate the effects

- Harmonization will save you time (common ontology, metadata,…)

RDM in finishing projects

o Requirements

- M36: DMP update to be submitted to EURAMET

o Tips for coordinators (from personal experience)

- Ensure all the selected data (i.e. open data practices) are ready for publication with the correct formatting, metadata, ... before the end of the project. Data publication before the end of the project will make your life easier

- Take actions on how to proceed once the project is over (unpublished data?, data curation?, project repository?...)

Take-home messages

o RDM requires (initial) great amount of resources,
but a good RDM will save you many headaches

o Don't underestimate the power of communication

o You are not alone!!