Tackling Research Data Management challenges with FAIRness

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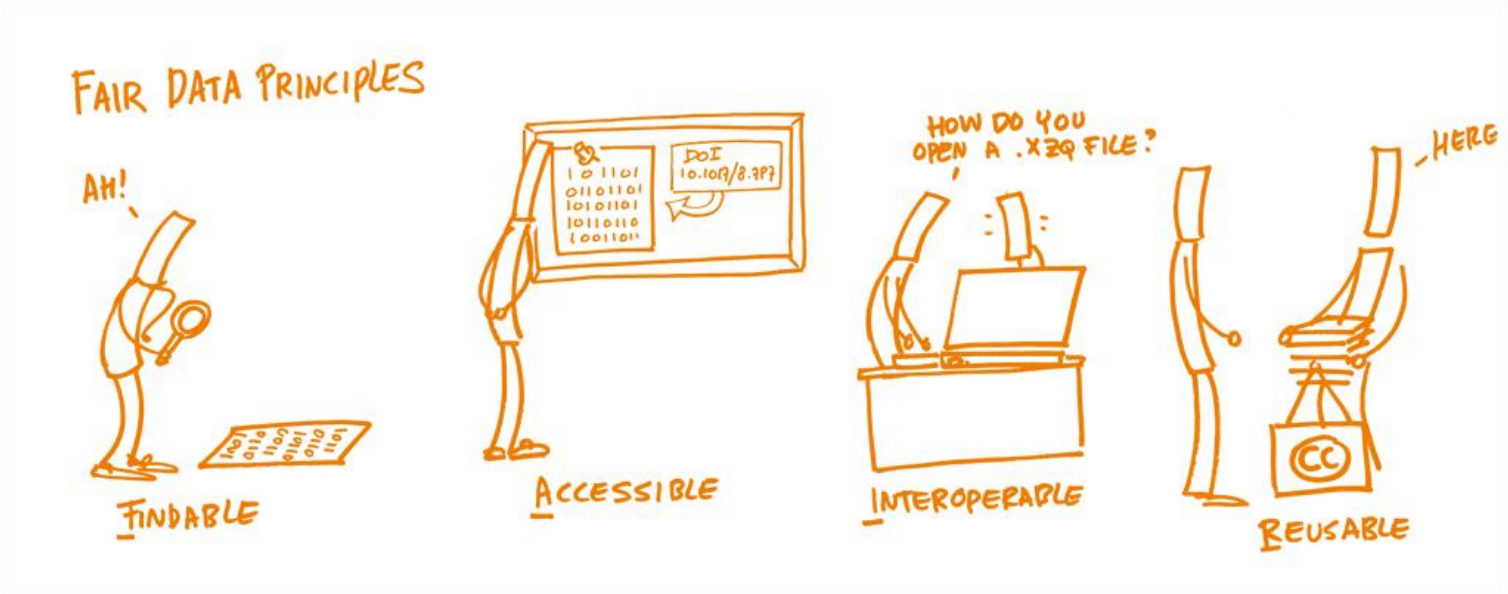
RDM Challanges with FAIRness

- Data need to be Findable, Accessible, Interoperable and Reusable (FAIR): need acknowledged by RDM communities
- FAIR principles can guide and be beneficial to researchers: it is not trivial to make them understand how
- RDM take place in a context of specific and restrictive ethical and legal requirements
- FAIR principles and DMP are mandatory in many funded programmes, including Horizon Europe



(2018). Open Science Training Handbook (1.0) [Computer software]. Zenodo. https://doi.org/10.5281/zenodo.1212496 (CC0)

Researchers should be aware of how all these topics intersect the different phases of data lifecycle, and support for researchers should be tailored on this need for a global and integrated overview

Support @ FAIRness

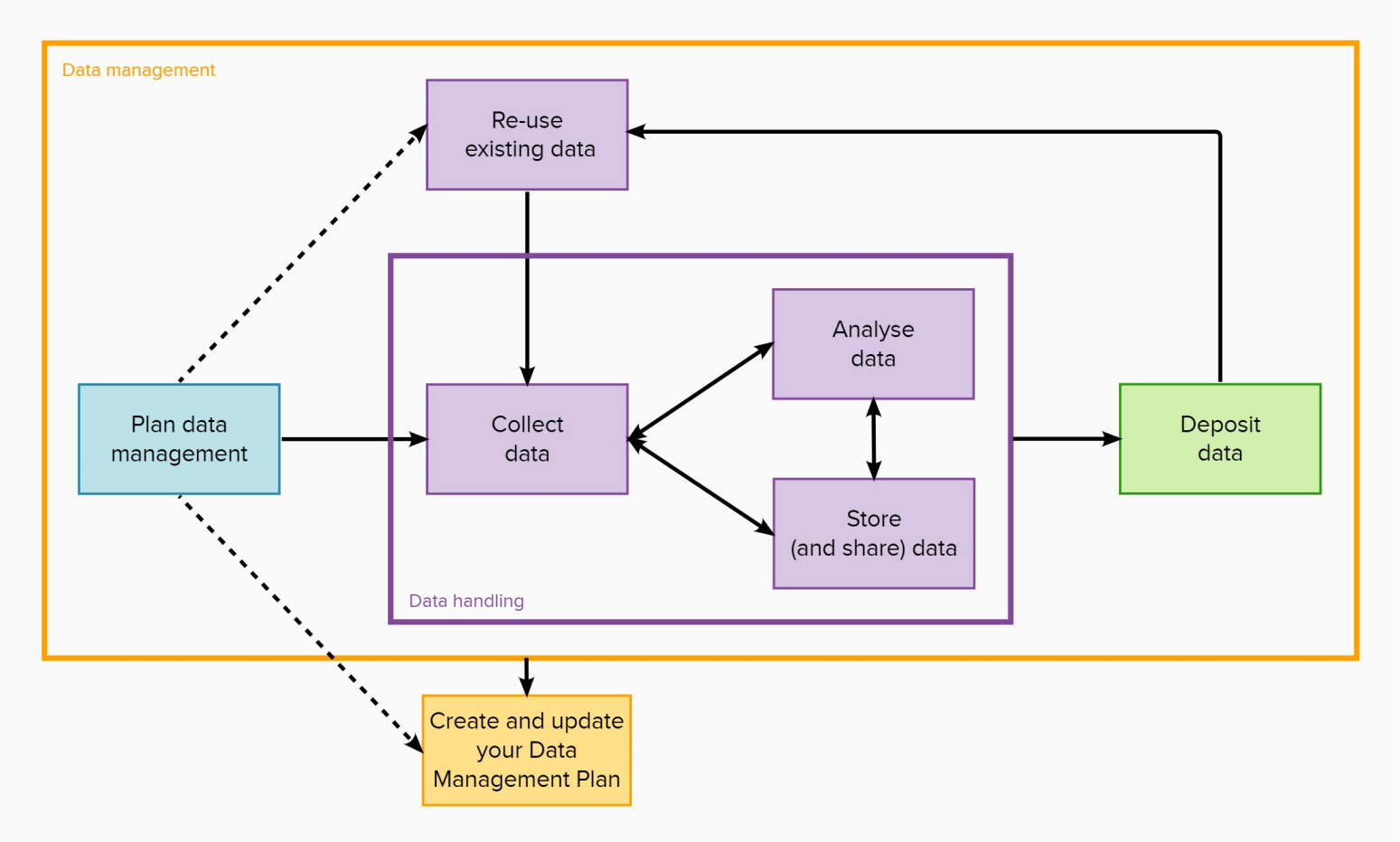
In our experience across different research domains, researchers often face the same stumbling blocks.

To support them, we have developed a **RDM Decisional Tree** starting from the fundamental bricks of the data lifecycle and posing a series of questions to help researchers navigate:

1) the domain specific nature and origin of the data they are handling;
2) Privacy/Ethics requirements (e.g. GDPR);
3) Intellectual Property Rights;
4) active data storage;
5) long-term deposit and preservation.

With all these questions in mind, we support researchers in finding answers by supplying a **Data Lifecycle Model**, including a series of possible actions and resources to protect/organize/preserve their data.

Data Life-cycle



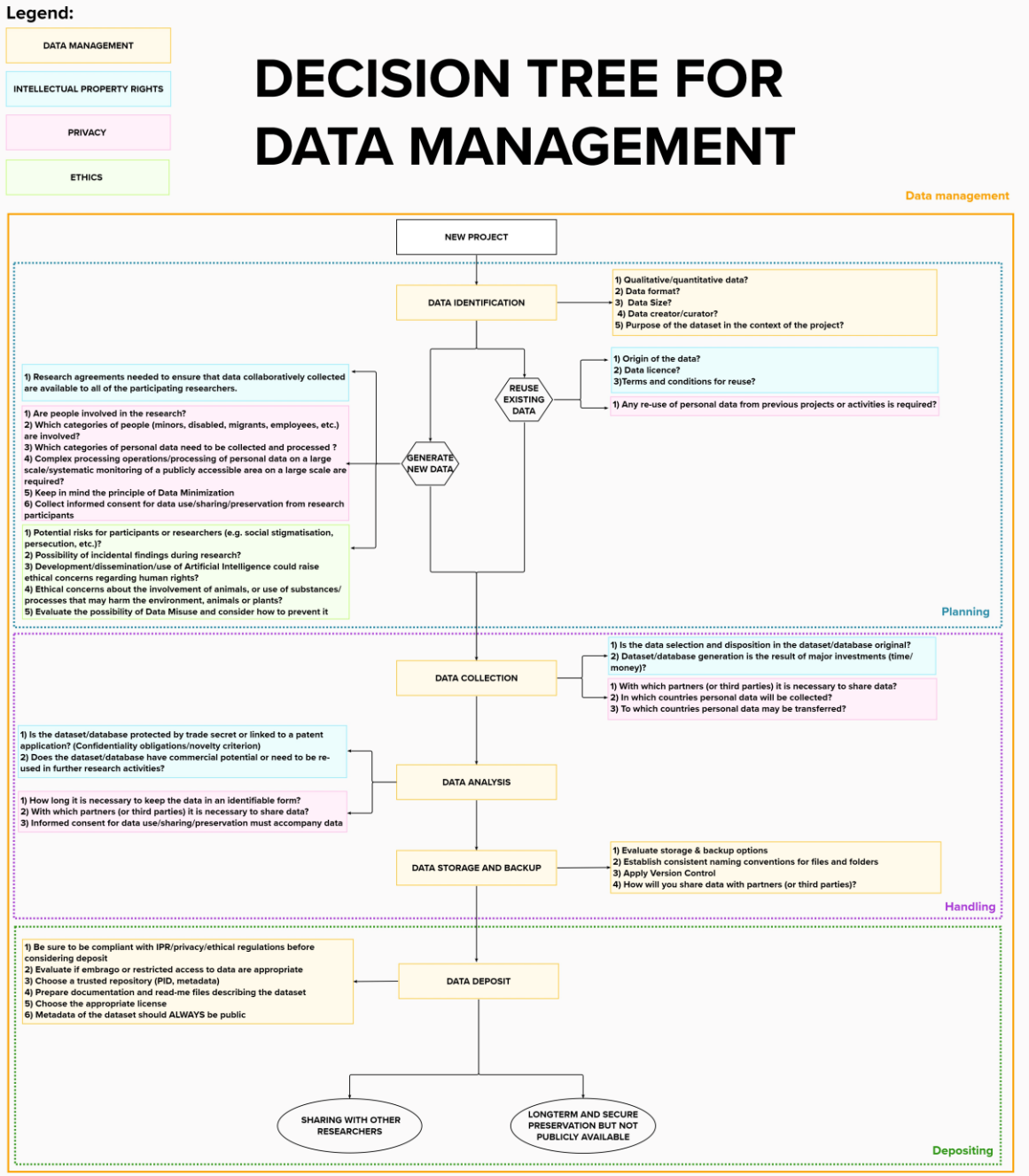
Source: https://zenodo.org/record/7249051#.Y1pAi3ZBxPY

This diagram proposes a data lifecycle model inspired by the University of Virginia Library's model (https://guides.lib.virginia.edu/c.php?g=515290&p=3522215)

Research Data Management Decision Tree

Source: https://zenodo.org/record/7190005#.Y1ptGXZBxPY

Decisional tree to help researchers ask, and answer, questions they did not know they had. Starting from the fundamental bricks of the data lifecycle, integrates a series of questions aiming to encourage the researchers address some major attention points, encompassing issues that range from privacy/ethics requirements to IPR legislation and FAIR principles.



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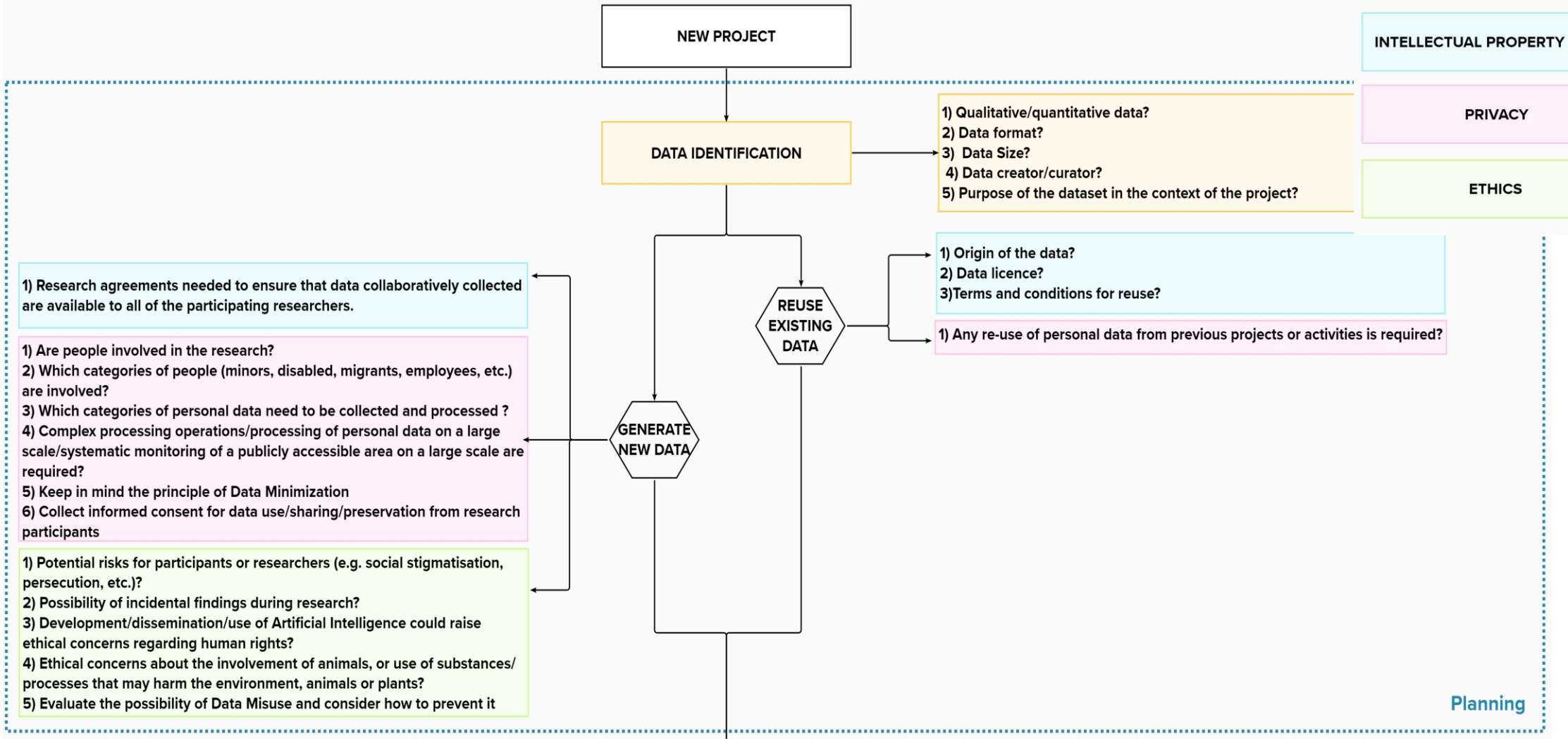
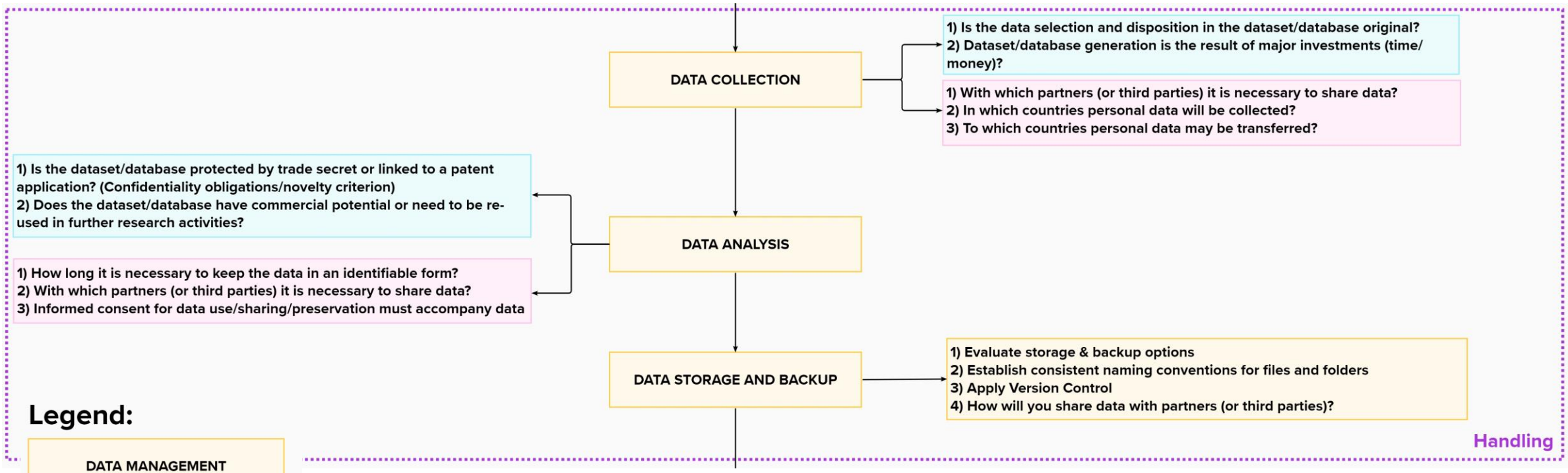
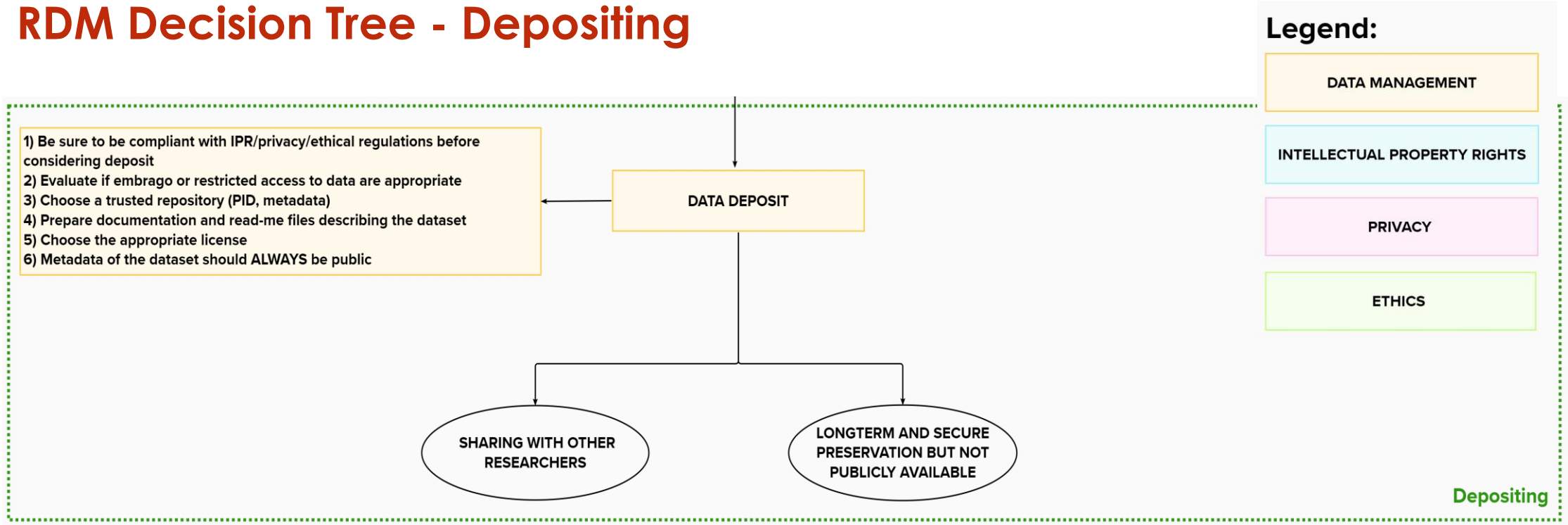
RDM Decision Tree - Planning



RDM Decision Tree - Handling



RDM Decision Tree - Depositing



Take Home Messages:

- RDM Decision Tree is useful also as a self-standing tool to support researchers. It improves researchers' awareness on the importance and value of research data
- It helps the researcher to think about both their inbound (IPR, privacy, ethics) and outbound data, and to make upstream decisions with a view to long-term preservation.
- It highlights that FAIR RDM implies a plurality of supporting expertise and a multitude of services, resources, tools
- RDM DT is a tool that can be used in any context, it might also need to be integrated depending on the situation (e.g. funded project, different funders requirements, etc.)
- We are collecting feedback from researchers to identify further critical points and integrate the Tree
- The feedback gathered so far from researchers has shown considerable appreciation for the tool provided

Thank you!

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