Digital TU Graz – Researcher-led FAIR services

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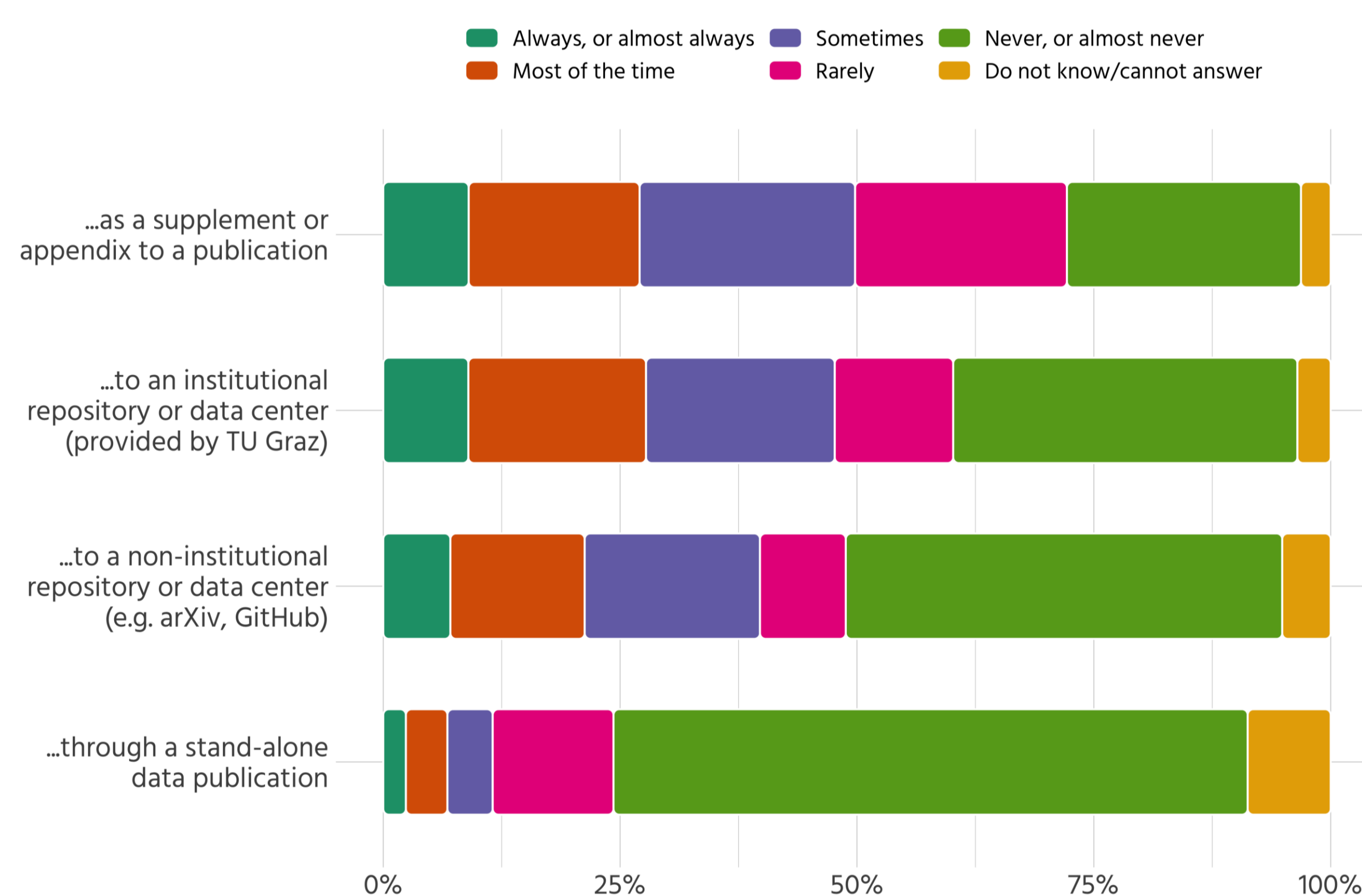
Abstract

- Researchers' perspectives on Research Data Management (RDM) are diverse and often discipline specific, but there are many issues which occur across contexts.
- TU Graz's researcher-led approach to implementing FAIR data services
    - (i)   enable FAIR data through efficient research data management
    - (ii) develop state-of-the-art disciplinary and cross-disciplinary tools and services and
    - (iii) boost the impact and reputation of TU Graz by increasing international visibility and re-usability of research.
- knowledge-gathering (survey/interviews) and policy development to the conception and implementation of open source tools including InvenioRDM and CyVerse.

RDM Faculty Survey at TU Graz (N=259)

- Attitudes/practices of RDM, data sharing, and reuse
- Needs and barriers; guidance for implementation

How frequently do you/does your group share data...

Legend:
- Always, or almost always
- Most of the time
- Sometimes
- Rarely
- Never, or almost never
- Do not know/cannot answer

...as a supplement or appendix to a publication

...to an institutional repository or data center (provided by TU Graz)

...to a non-institutional repository or data center (e.g. arXiv, GitHub)

...through a stand-alone data publication

0% 25% 50% 75% 100%

RDM Faculty Interviews (N=17)

- Lots of *variation between faculties and institutes* (research groups) with respect to *data intensity*, *data collection* and analysis, the *extent to which data are archived* and how, and the significance accorded to data management in different disciplines
- *Effort that needs to be invested into gathering/processing the data* predicts propensity to archive and share data
- The degree of variation is founded, among other things, in the historical origins of disciplinary boundaries now represented in departmental structures
- Variation complicates one-size-fits-all RDM solutions
- The value ascribed to data in a given field can be explained by reference to three factors: *Intensity* (amount and complexity of data), Resources that go into *Data Handling*, and Research Style (What is the aim of the field?)

SAMPLE:

- N=17 staff members from Civil/Mechanical/Electrical/Biomedical Engineering, Technical Chemistry, and Computer Science
- 7 Full Profs, 4 Assoc. Profs, 3 Senior Scientists, 2 PhD Candidates, 1 SysAdmin;
- 700 mins of recorded materials

RDM policy development
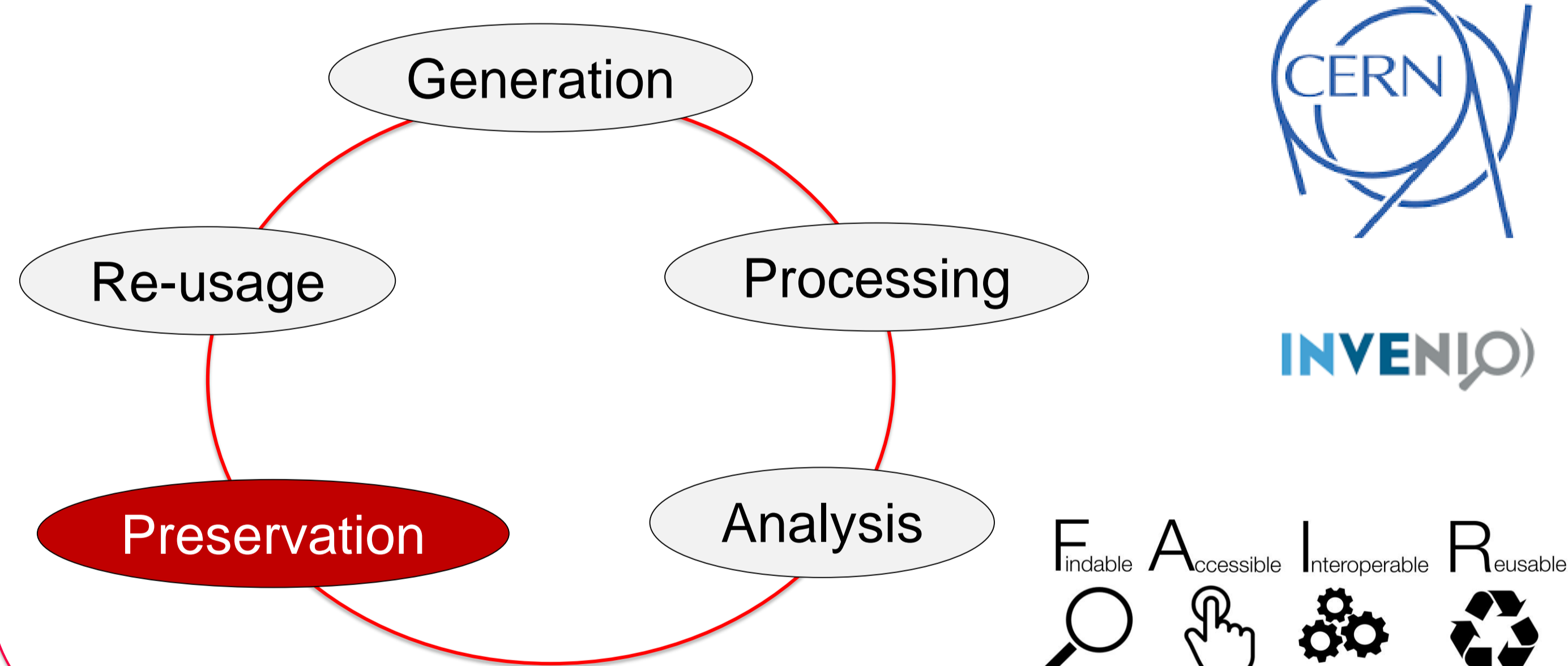### Bottom-up approach with working group
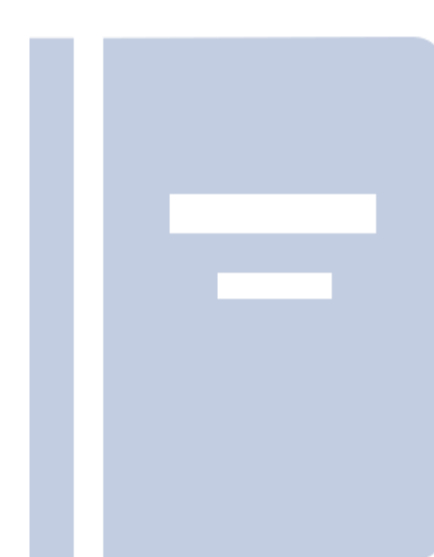
Framework RDM Policy
Roles, responsibilities, rights
university level (ZID, Library, F&T Haus, **Faculties**)
Rights ownership, Intellectual property rights,
Austrian Universities Act (UG 2002)
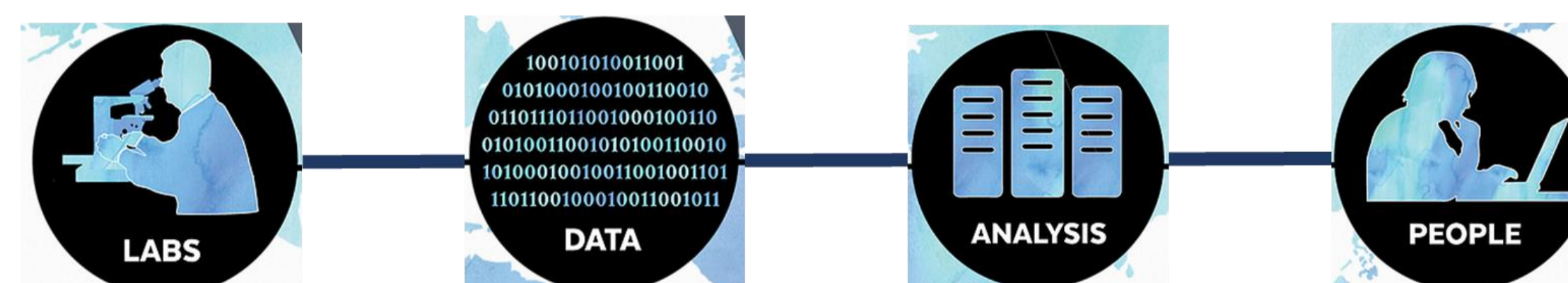
Faculty-specific implementation strategies

InvenioRDM repository

Generation
Re-usage
Processing
Preservation
Analysis

F indable A ccessible I nteroperable R eusable

Discipline-specific solutions: CyVerse Austria

- User requirements in Life Sciences
- Vision: (inter)national, cross-disciplinary, industry
- Training support & sustainability plan
- Life cycle of research data

LABS   DATA   ANALYSIS   PEOPLE

References:

https://inveniosoftware.org/blog/2019-04-29-rdm/
https://home.cern/
https://www.cyverse.org/
https://www.chasegroup.com/executive-life-science-recruiting-services/