

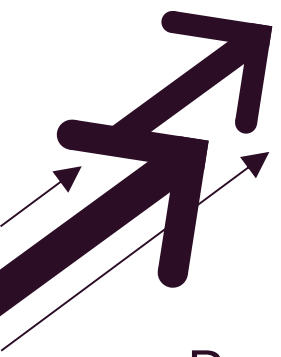
# Campus Collaboration for Data Management

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## → **Outline**

- Research Data Management: What and Why?
- Building Blocks of Research Data Management
  - Policy
  - Services
  - Processes
  - Technologies
- Conclusion



## → **Research Data Management: What?**

- Research data management (RDM) is a concept used to describe the **managing**, **sharing**, and **archiving** of research data to make it more **accessible** to the broader research community.
- RDM provides an opportunity for a researcher to make plans to create a plan that will ensure that their data will be **organized** so that it can be **shared** with other researchers, and **archived** for long term preservation.

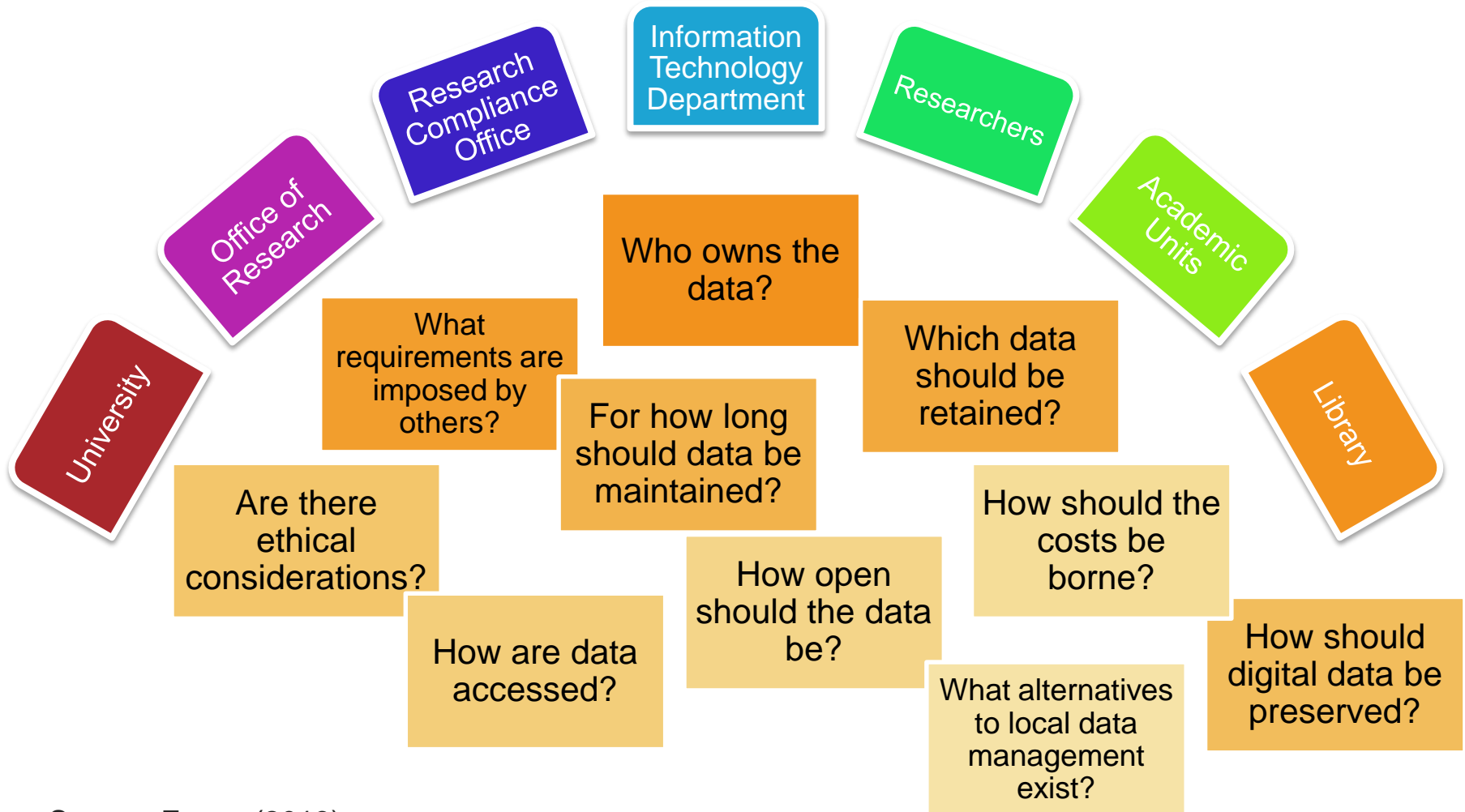


## → **Research Data Management: Why?**

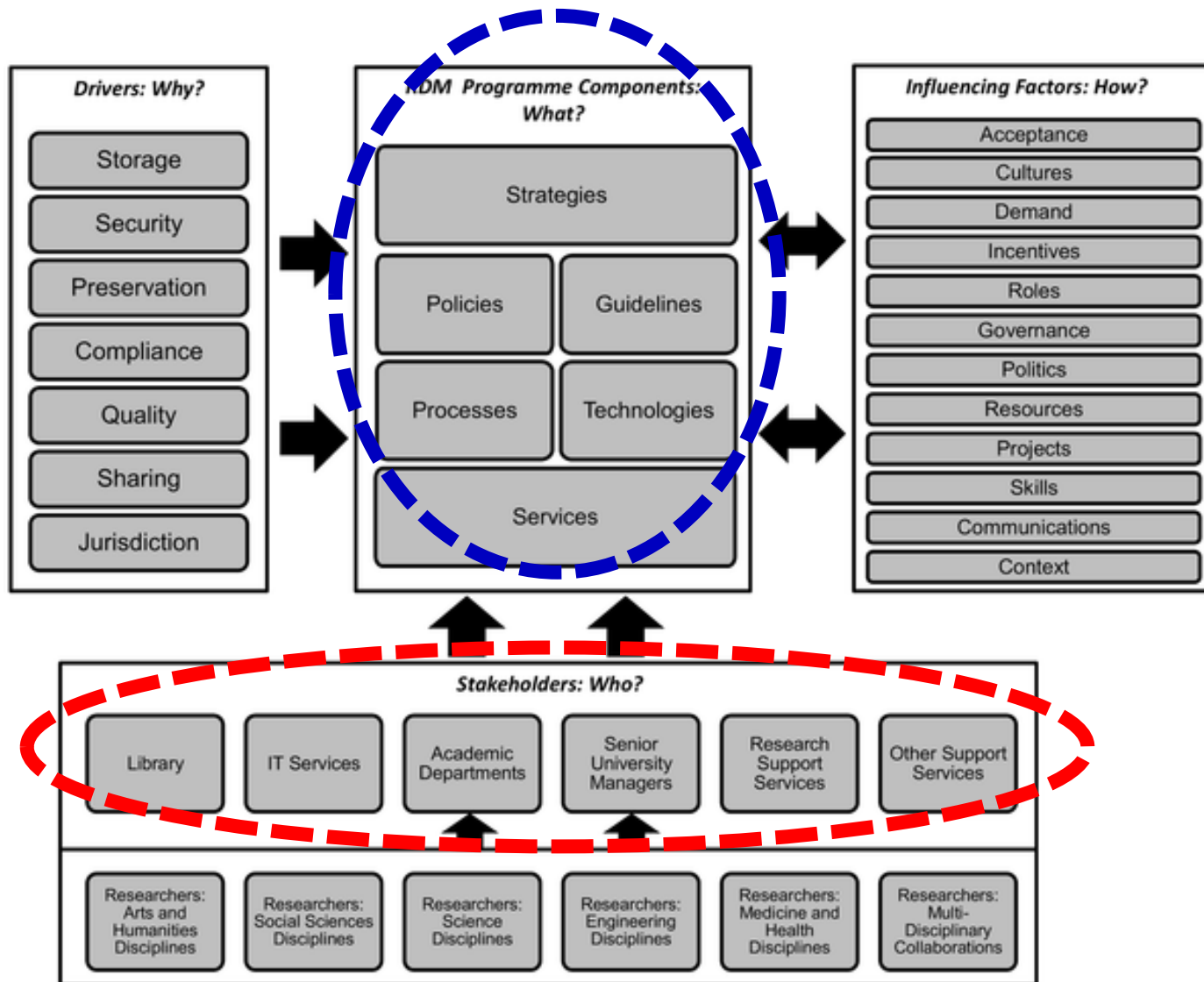
- Librarians can assist researchers with their data management concerns by helping to assign **metadata** to describe research data; teaching **data management best practices**; providing **guidance** for transferring data into a **data repository**; and outlining a **preservation plan** to ensure long term access to data.



## → Starting Off RDM...



# → A Library-oriented RDM Model





## → RDM Policy: Who?

- *Researchers, departments/faculties, divisions, central administrative units and service providers* and, where appropriate, *research sponsors* and *external collaborators*, need to **work in partnership** to implement good practice and meet relevant legislative, research funder and regulatory requirements.



## → RDM Policy: What?

The University is responsible for:

- Providing access to **services and facilities** for the **storage**, **backup**, **deposit** and **retention** of research data and records that allow researchers to meet their requirements under this policy and those of the funders of their research;
- Providing researchers with access to **training**, **support** and **advice** in research data and records management;
- Providing the necessary **resources** to those operational units charged with the provision of these services, facilities and training.





## → **RDM Services: Outreach**

- ***Work done:***
  1. HKU Library Research Support Survey (Ithaka S+R), with a section on **Data Preservation and Management**
  2. Received faculties' feedback on a) **ownership/IP rights**, b) **nature and extent of data**, and c) **implementation/operations** of the drafted policy and implementation plan



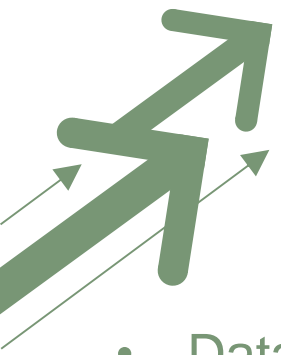
## → RDM Services: Outreach

- **Partners:** Research Services, Faculties, Subject Librarians
- **Scope:** Research data creation, collection, and possibly sharing
- **Plans:**
  1. Approach researchers who expressed willingness to share their research data (☑ of data sharing in RGC grant proposals)
  2. Talk to individual researchers on their specific RDM needs, practices, and considerations
- **Useful reference:**
  1. Incentives for researchers and support stakeholders (Brown, Bruce, & Kernohan, 2015)
  2. Talking Points with Faculty (Tsang, 2015)
  3. Motivations and incentives for sharing research data (Van den Eynden & Bishop, 2014)



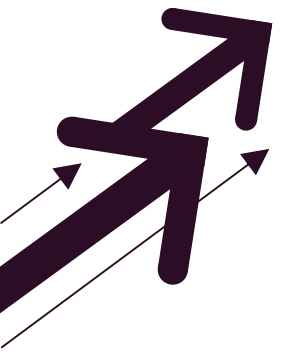
## → RDM Services: Training

- **Partners:** Graduate School, Research Services, Faculties, Instructional Librarians
- **Scope:**
  - Start with RPG students and staff, first round is voluntary
  - May later embed into existing research integrity/ethics training
  - Initial training/support will probably be more generic
- **Plans:**
  - Course(s) on data management planning, data discovery, publication and sharing
  - Individual data management consultation (or data curation interview)



## → RDM Services: Training Data Management Plan

- Data Management Plan is important not just to the funder, but also the institution and the researchers.
- ***Work in progress:***
  - Evaluation of DMPTool and DMPonline
  - DMPTool: NTU Singapore has become the first non-US partner institution
  - DMPonline: Already used by a number of non-UK institutions
  - Further liaison needed to correspond DMP with data policy
  - The need to customize:
    - ✓ Add own template(s) & questions to other templates
    - ✓ Add custom guidance, examples, suggested answers
    - ✓ Branding



## → RDM Processes: Metadata

- ***Work done:***

1. Mapping between Dublin Core and [DataCite](#) Metadata Schema
2. Obtained a subject coding scheme [ACIRES](#), for describing research data from Professor Chen Kuang-hua of NTU
  - ❖ Bilingual
  - ❖ Browsable with 3 degrees of hierarchy
  - ❖ Based on ANZSRC (Australian and New Zealand Standard Research Classification) published in 2008, with modifications



## → RDM Processes: Link With Researchers

- **Partners:** Research Services, Faculties, Technical Services Division
- **Future work:**
  1. Procedures for research data collection, storage & re-use
  2. Refine the DC-DataCite metadata scheme
    - mandatory, recommended, optional fields
  3. Consolidate the subject coding scheme with [RGC Research Field Areas](#)
  4. Explore the possibility to
    - a. enrich the generic DC-DataCite metadata scheme with [subject-specific metadata](#) (see also [Research at risk by Jisc](#))
    - b. map researchers' research interests with the subject coding scheme



## → RDM Technologies: Data and Institutional Repository

- **Partners:** Research Services, Faculties, Technology Support Services Division
- **Scope:**
  - [HKU Scholars Hub](#) to host, preserve, and curate HKU data centrally
    - Create automated procedures for ingestion of data sets
    - Data sets as top level entities
    - Linking data sets to researchers, publications, grants, patents
    - DOI minting



## → RDM Technologies: Data and Institutional Repository

- ***Future work:***

1. Decide on the costing model for data storage
2. Evaluate various data repository software & data-related features
3. In-house enhancement of Hub (currently DSpace-CRIS 4.1)
4. Get in touch with global registries (DataCite, re3data.org, etc.)

- ***Projects to keep an eye on:***

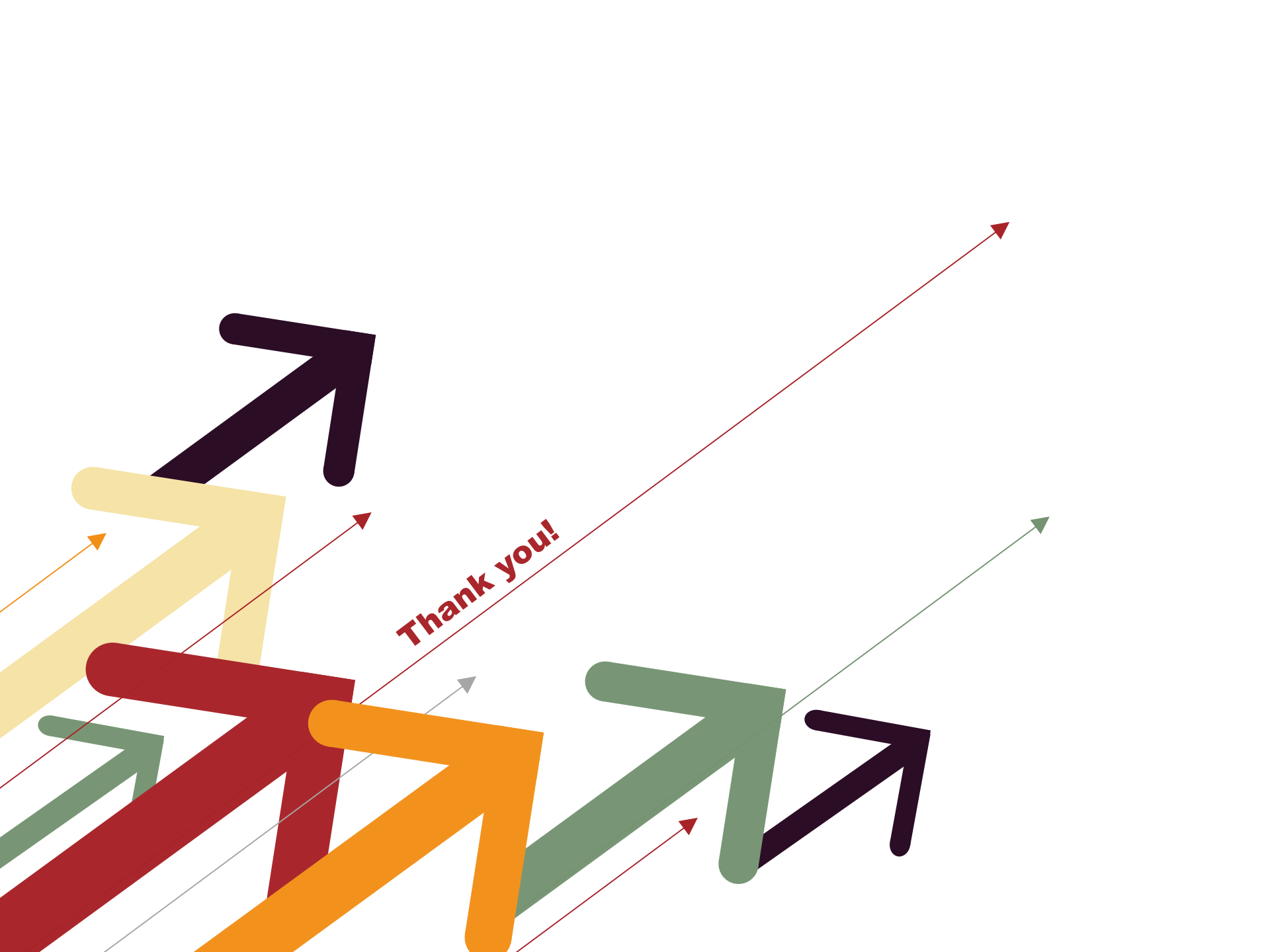
1. Research Data Repository Requirements and Features Review (Leahey et al., 2015)
2. Research Data Management Technical Infrastructure (Lewis, 2014)
3. [Repository Platforms for Research Data, by Research Data Alliance](#)





## → **Conclusion**

- RDM cannot be done alone, it's important to leverage other parties' skills and knowledge via collaboration.
- Given the large scope of RDM programme, starting with the generics may be a good idea.
- RDM offers opportunities to libraries to become important partners in the entire research lifecycle.
- However, disciplinary differences can be a major challenge.
- Policies, practices, and software development are rapidly changing, we can stay informed by participating in discussion groups, joining mailing lists, and attending webinars/training.

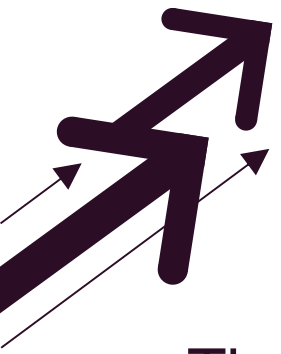


**Thank you!**



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