EBERHARD KARLS
UNIVERSITÄT
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Quantitative Biology Center
(QBiC)

QBiC

Data Manager: A data management solution for the life sciences

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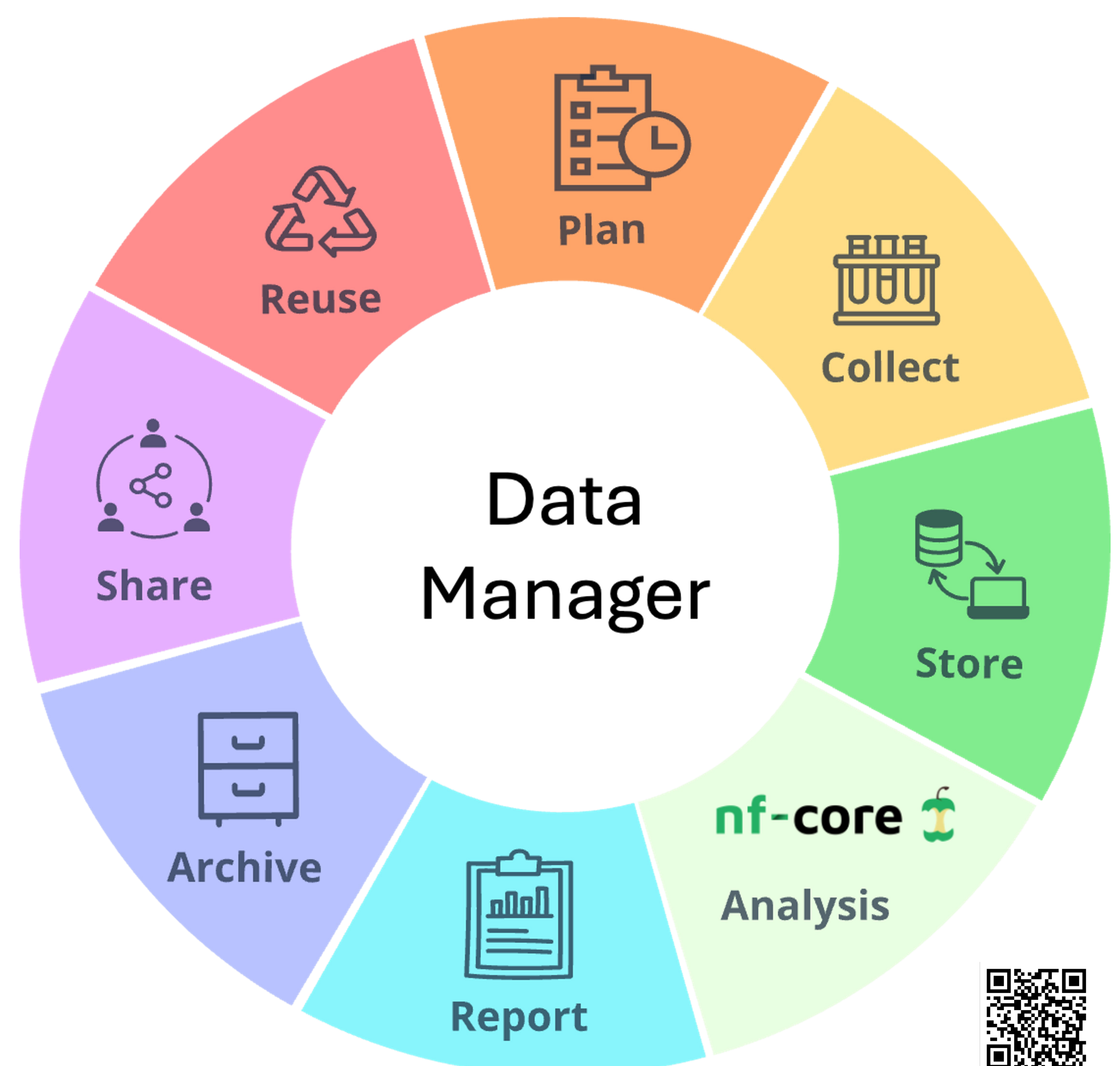
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Mission:

- Effective research data management is fundamental to ensure the integrity, reproducibility, and impact of scientific research.
- The **Data Manager application** is a **FOSS** that not only stores data of the **plethora of omics technologies** alongside its associated metadata, but also enables sharing and re-use of the data **towards a FAIR** and Open Data future.
- Developed at **QBiC**, one of the main core facilities on the **University of Tübingen**, in close collaboration with **domain experts** (life science) and **research software engineers** to support users throughout the research **data lifecycle**.

Features:

- **Single Sign-on Support**
  - ✅ Simplify and secure user access with OpenID login and ORCID integration
- **Provenance Tracking**
  - ✅ Keep provenance transparent and trustworthy with ORCID and Research Organization Registry (ROR) tracking
- **Real-Time Ontology Search**
  - ✅ Quickly access and manage complex taxonomies for seamless data organization
- **Tree of Life Support**
  - ✅ Over 2.5 million species
  - ✅ Harness the NCBI taxonomy for accurate biological classifications and ontology mapping
- **Fast Metadata Registration**
  - ✅ Save time with auto-generated templates tailored to your specific datasets
- **Structured Experimental Design**
  - ✅ Standardize your processes with easy-to-use, consistent templates for experimental designs
- **Long term storage**
  - ✅ Data availability for at least 10 years
  - ✅ Safe storage thanks to geo redundant backup systems
  - ✅ Support in data transfer to international data repositories
- **Flexible data-sharing capabilities**
  - ✅ Visualize project status and all project relevant data
  - ✅ Access to all project collaborators to download and share their data

Barletta Solari, F., & Pawar, S. (2025). Research Data Management Life Cycle. Zenodo. https://doi.org/10.5281/zenodo.15016612

Partner Facilities:

Z MBP — Center for Plant Molecular Biology

NCCT — NGS Competence Center Tübingen — NGS Competence Center

EBERHARD KARLS UNIVERSITÄT TÜBINGEN — Proteome Center Tübingen

Universitätsklinikum Tübingen — Core Facility for Medical Bioanalytics

NMI — Naturwissenschaftliches und Medizinisches Institut — The Natural and Medical Sciences Institute Reutlingen

MAX-PLANCK-GESELLSCHAFT — Max-Planck-Institute for Biology Tübingen

EBERHARD KARLS UNIVERSITÄT TÜBINGEN — Flow Cytometric Core Facility