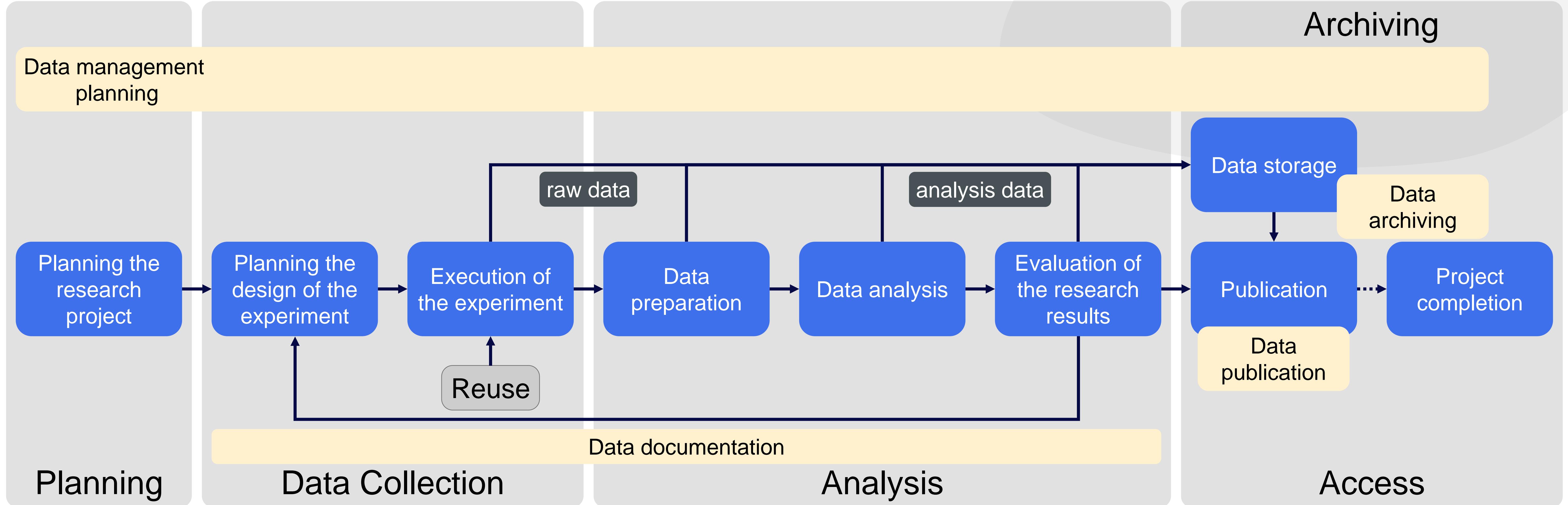


Quality Assessment for Research Data Management in Research Projects

Max Leo Wawer*, Johanna Wurst*, Roland Lachmayer*
* Institute of Product Development, Leibniz University Hannover

Data Management in Research Projects



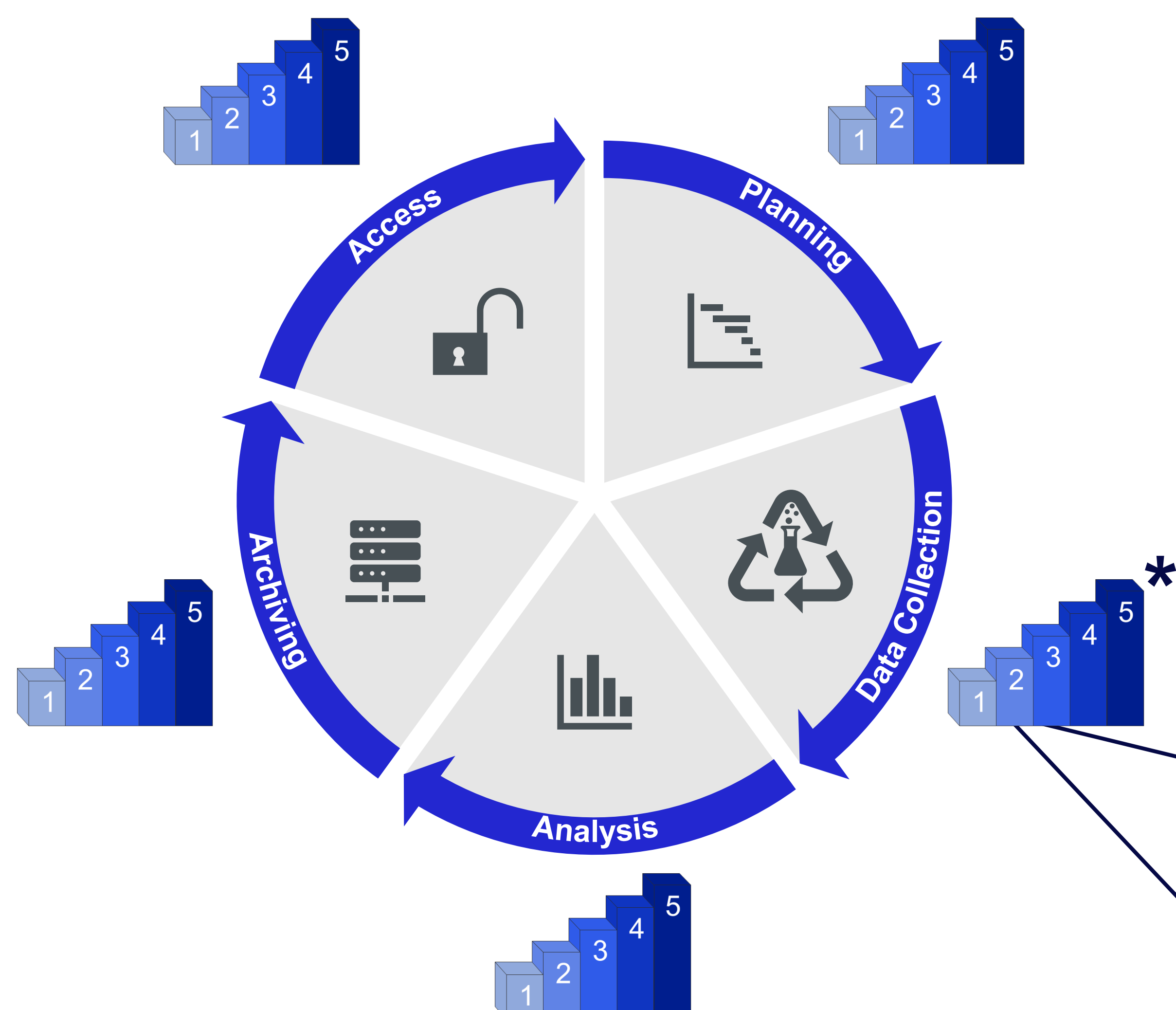
Quality Assessment

- Implementation of data management in research projects
- Individual maturity models for defined process areas oriented to the data lifecycle
- Overarching maturity characteristics based on the goals of research data management (RDM) and established maturity models
- Defined goals and practices on each maturity level for each maturity model
- Potential for improvement by reaching higher maturity levels and implementing recurring RDM processes in a research project
- Self assessment for researchers in research projects

Maturity Characteristics

- Initial**
Research data management is executed reactively and intuitively, as there are no processes defined for handling research data
- Managed**
The execution of research data management is planned and carried out at project level or internally within the organisation
- Defined**
The execution of research data management is defined and aligned with domain-specific community standards
- Quantitatively Managed**
Quality metrics and evaluation methods are applied with regard to research data management
- Optimizing**
Research data management is proactively and continuously improved and revised

Individual Maturity Models



* Exemplary Maturity Model: „Data Collection“



collection of field data from an actual or experimental operation

Process Area

Design of experiment

Execution of experiment

RDM Tasks

Data creation

- formats
- resources
- savings

Data documentation

- formats
- process metadata
- descriptive metadata

- Specific requirements are defined based on domain-specific guidelines
- Data collection is done with domain-specific solutions
- Field documentation is done with consideration of domain-specific standards
- The field experiment is planned and carried out in a project-oriented manner
- Data collection of defined variables based on a planned structure
- Field documentation is managed and carried out at project level

