

# Building up a Tool Chain to support the Research Data Life Cycle

**IASSIST 2017, Lawrence, Kansas (USA)**

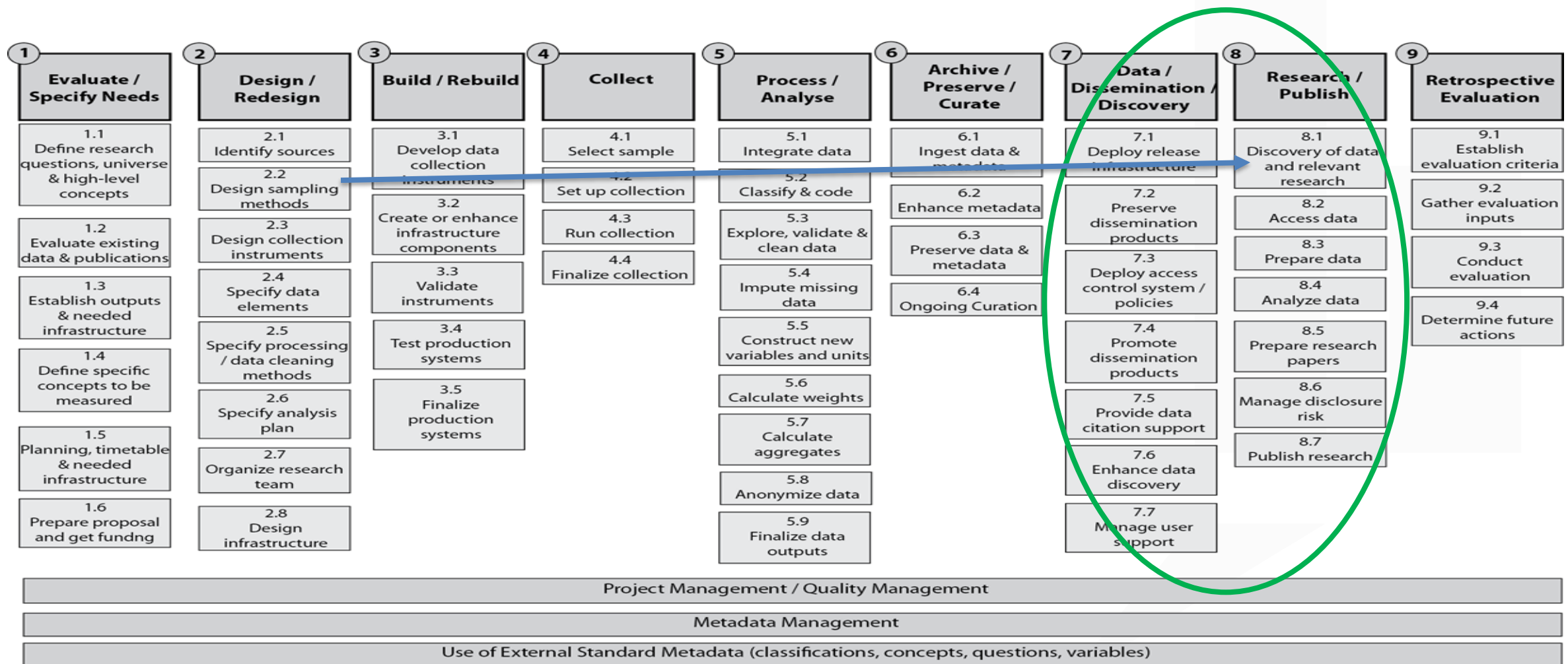
David Schiller (TBA21 Group), Dr. Ingo Barkow (HTW Chur)

- Offices:
  - Nürnberg (concepts and project management)
  - Szeged (programming)
- Software for:
  - assessment, questionnaires, survey management, data documentation, data analysis and data management
- Business plan (in short):
  - assist scientific institutes in running software projects
  - build open source tools
  - reuse software for further enhancement

- University of Applied Sciences in South Eastern Switzerland
- Three departments: Living Environments, Applied Future Technologies, Entrepreneurial Management
- Swiss Institute for Information Science (SII)
- Team for Research Data Management
- Current projects: Swiss National School Monitoring (ÜGK), Program for the International Student Assessment (PISA), Swiss National Education Server (Edudoc), Multi Mode Big Data Repository (MMRepo)

# The GLBPM *(Barkow et al., 2013)*

Generic Longitudinal Business Process Model: Overview



# The Data Life Cycle – reuse!

Helping you publish, discover,  
and reuse research data

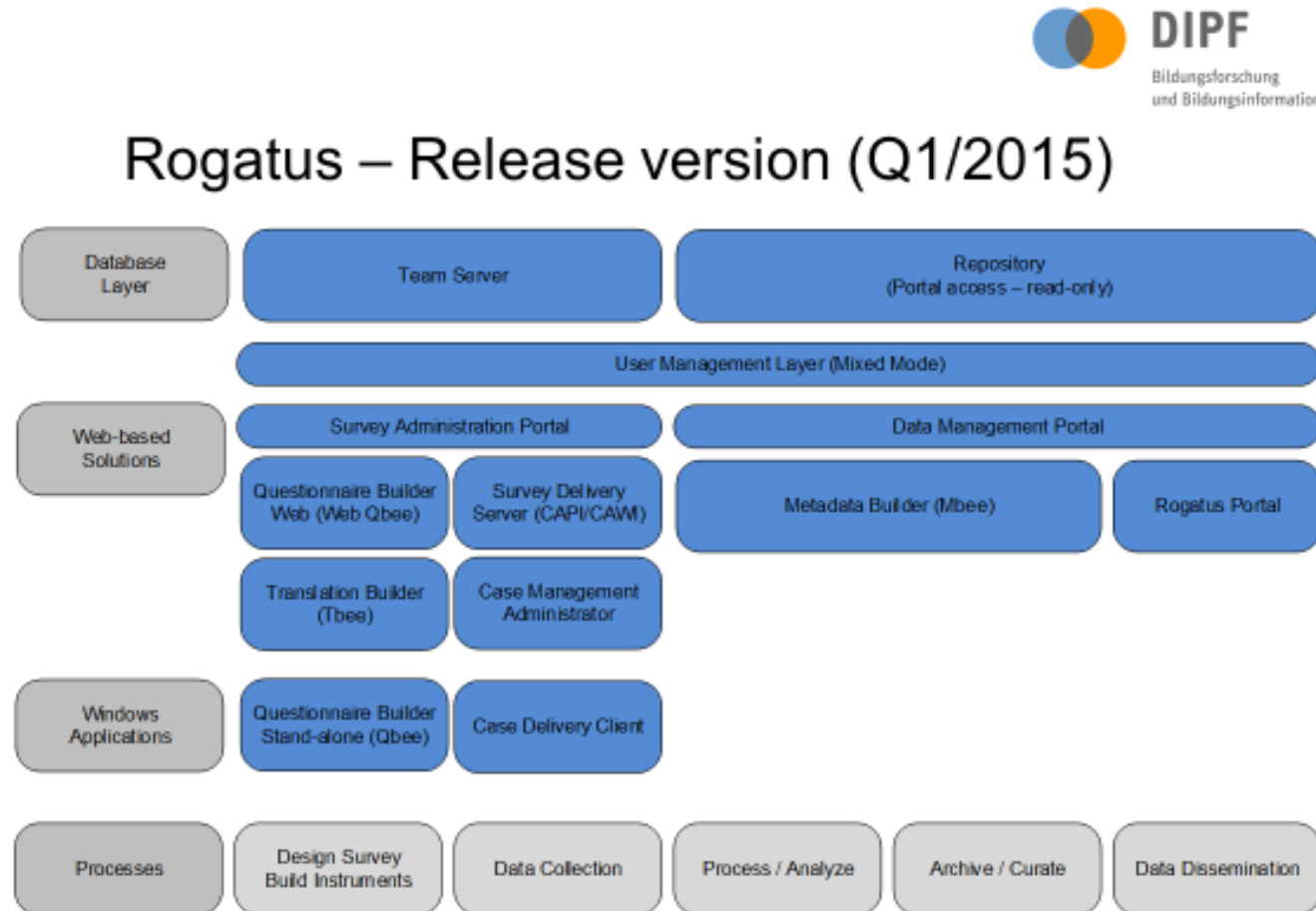


Nature Publishing Group

# The Tool Chain – why?

- No tools, No standard (session C4, IASSIST 2017)
  - Standardised standards need to be in place
  - Standards need tools to support them and make them work in real life
- No tool chain, No Data Life Cycle (not yet a session)
  - Without chained tools information are not able to flow
  - Resulting in, e.g.:
    - Loss of data and quality of data
    - No, poor (or at least hard to create) data documentation
    - Wasted resources due to complicated data reuse

# Tool Chain – first (nice) try



Barkow/Schiller NADDI 2014

- Why is there no „we completed the tool chain“ talk at IASSIST 2017?
  - different needs by clients
  - not able to cover the complete tool chain
  - lack of funding for project on meta level
  - institutional changes (person)
  - not feasible as a single organizational endeavour



# How to build a tool chain...

- Support for standards and interfaces
- Sustainable long-term funding
- Work and develop in networks! Not institution specific
- Use workshops and conferences for exchange and to create understanding
- Commit yourself and your institution
- Believe in Open Science (because it is the knowledge you can trust)

## **Different perspective:**

- Funding agencies: long-term funding for networks
- Data providers: coordinate data access with others
- Software developers: open source, working interfaces
- Research institutions: believe in credits for data reuse
- Researchers: cooperate with others and respect IT
- Standards: don't cover 100%, support tools

Open Science,  
The Data Life Cycle,  
Researchers,  
Institution,  
Standard Initiatives,  
Societies,  
You!

We all need the Tool Chain – lets build it!

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