

# The Challenge of Large Scale Additive Manufacturing in Construction



### Information Infrastructure Project

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#### Summary

The service project Information Infrastructure serves and supports all information and data infrastructure aspects of the TRR 277 in close cooperation with the Leibniz-Supercomputing Centre (LRZ) and the University Library at the Technical University of Munich and the University Library Braunschweig.

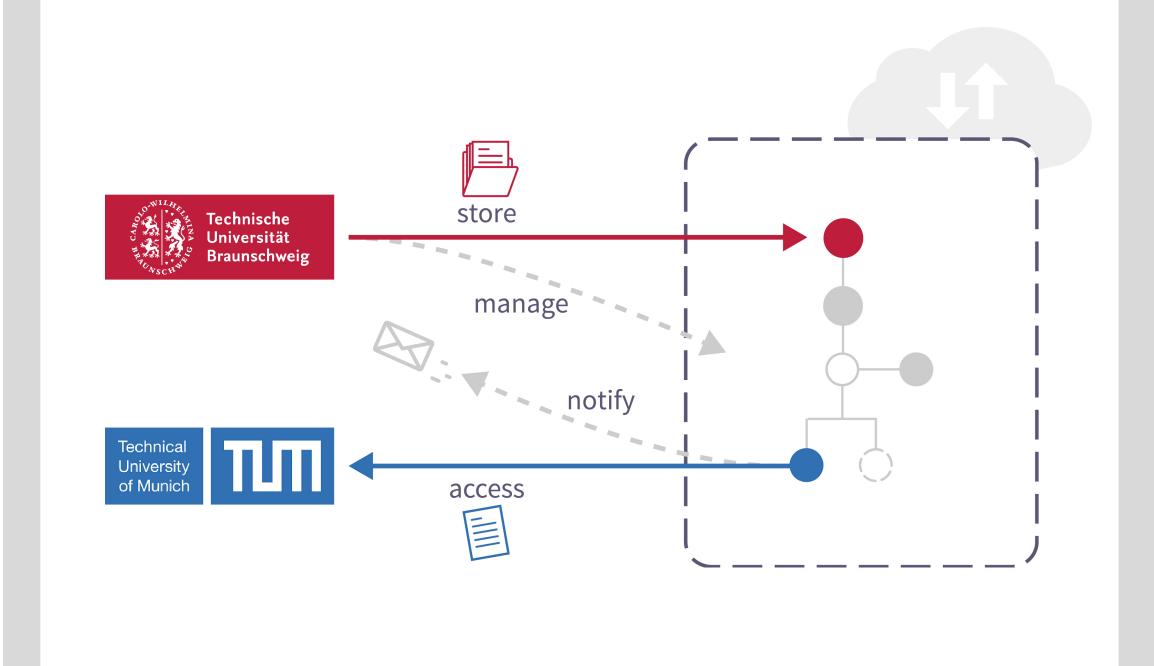
One aspect of the project comprises services facilitation, the fostering of internal collaboration, and the construction of a virtual common research environment to support the research projects in handling, storing and sharing data, and collaborative document handling. This includes backup and archive services for the long-term storage of research data. Work on this aspect is being conducted in cooperation with the Leibniz

Supercomputing Centre and in close consultation with the Gauß-IT Center of TU Braunschweig.

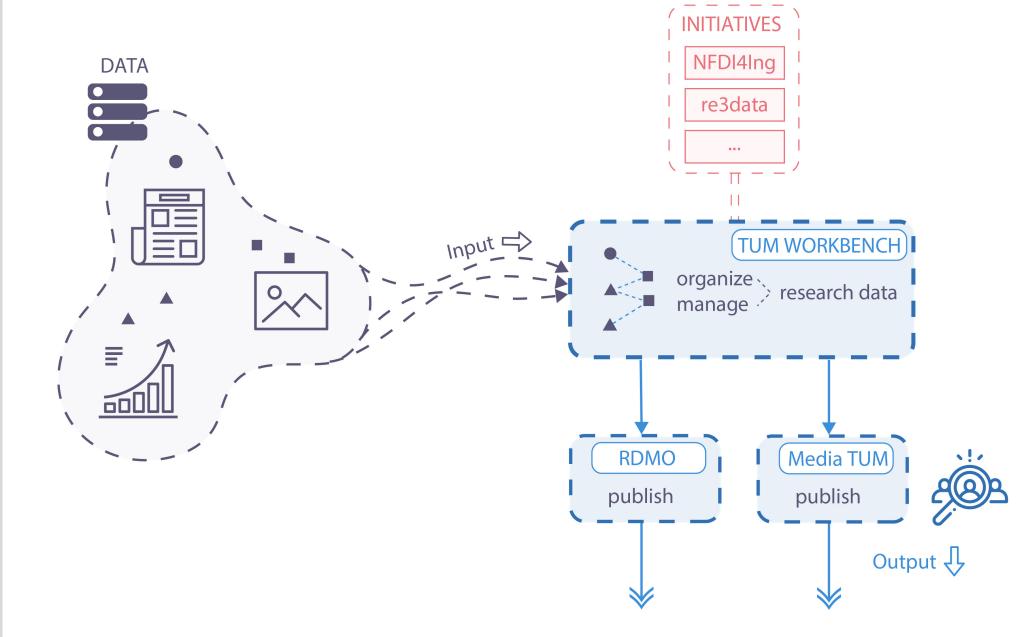
Another aspect of this project, which is of central importance, is the efficient and long-term usability of research data generated, the specific support of its members' research data management, and the demand-oriented targeted transfer of research data to both University Libraries as well as an intensive exchange with initiatives (e.g. NFDI). In addition to the conception of a research data management plan, a training and qualification program for the fundamentals of reproducible research and data management will be conceived and implemented in close cooperation with both university libraries.

#### Methods

- Conducting surveys to record domain specific requirements for a collaborative virtual platform such as the scope of data, storage space requirements and technical parameters.
- Development of criteria catalogues and structured surveys to record existing data and data generated during the project including data size, format, and alternative data formats.
- Conception of training events and preparation of documents in close coordination with ProLehre TUM.



Virtual Common Research Environment Left: two locations Right: configurable web-based collaborative platform



Research Data Management & Publication Platform

## Working Packages

Virtual Common Research Environment

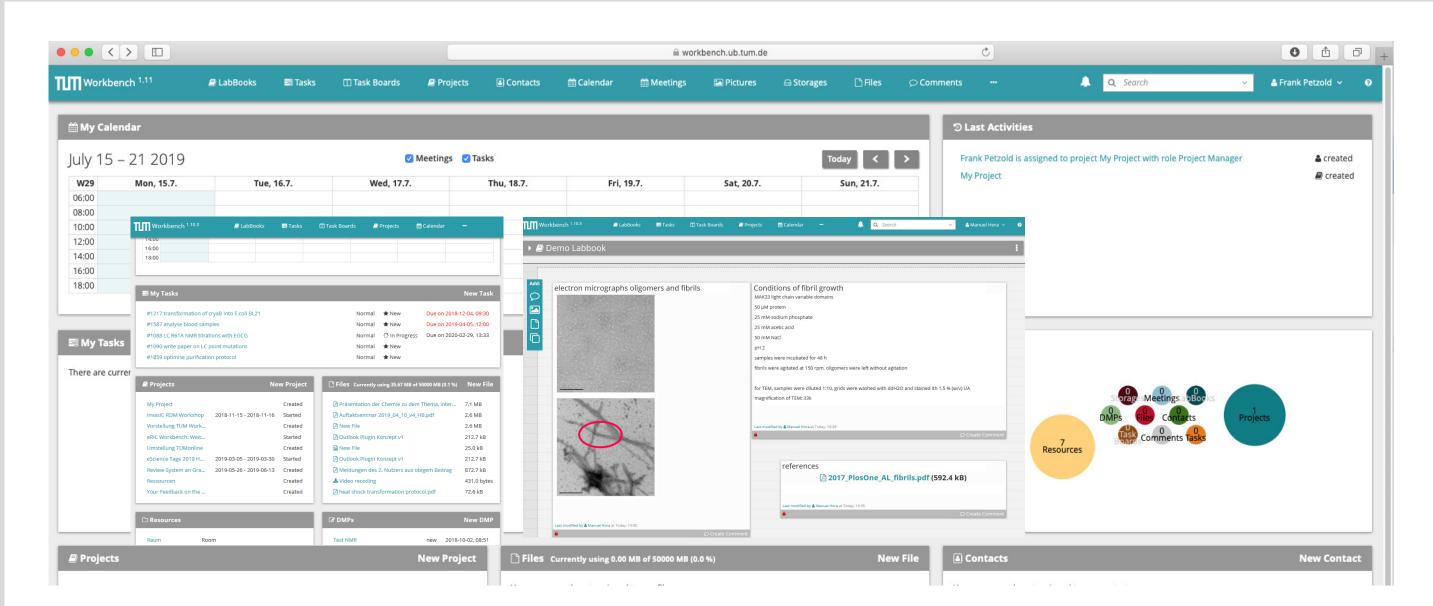
- Requirements analysis and identification of data structures and access rights, etc.
- Development of a customisable collaborative research environment.
- Consultation and support of a common policy for data use, training courses, etc.

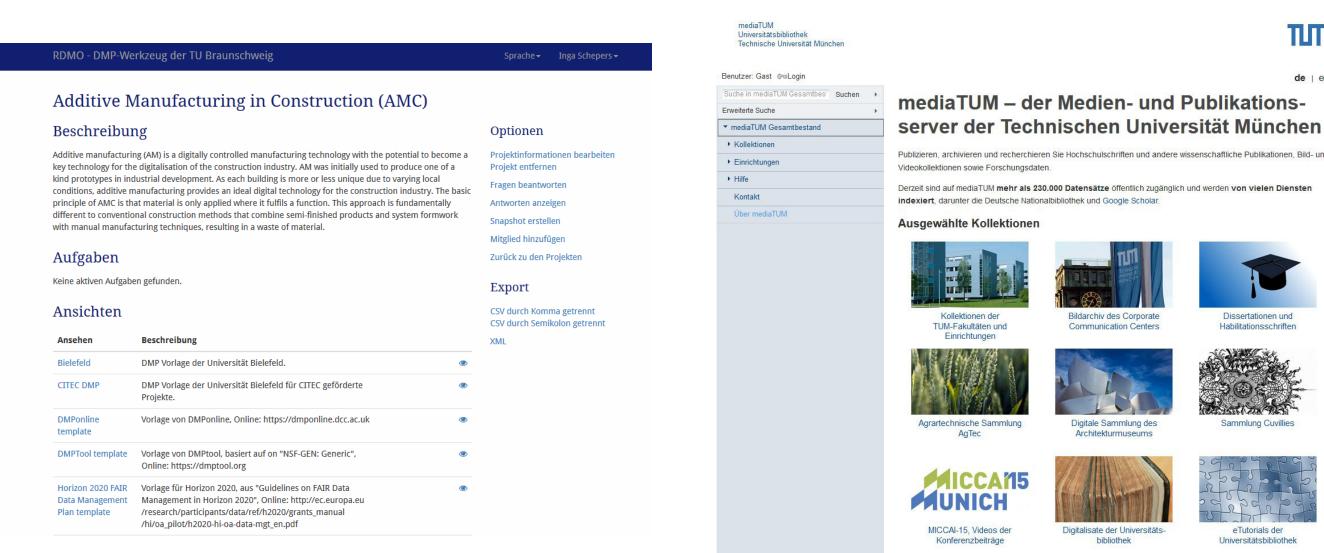
Research Data Management & Publication Platform

- Data collection of existing data and data generated during the project.
- Development of a research data management plan and publishing guidelines.
- Support of services and evaluation in cooperation with other initiatives.

#### Role

- Development of the central component for the exchange of information and data for this geographically distant and complex institutional cooperation.
- Development and advisory function in the domain of IT infrastructure through the operation and management of the TRR central information and data infrastructure.
- Establishment and management of a publication platform and development of a publication strategy for the TRR 277 in closed cooperation with both university libraries as well as the development of requirements for long-term archiving in close cooperation with national and international initiatives (e.g. NFDI).
- Development and provision of training courses and workshops for all researchers in the field of IT infrastructure and research data publication.





Top: TUM workbench Left: Research Data Management Organiser (RDMO) Right: mediaTUM







