

**Title:** Analyzing the current biobank IT landscape at Austrian BBMRI Node partners

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**Introduction:** As part of the BBMRI.at project we analyzed the current biobank IT landscape at Austrian BBMRI Node biobanks. This is the initial step of implementing the solution which will connect the Austrian Biobank-IT systems to BBMRI-ERIC Platforms.

**Methods:** We performed the analysis by means of distributing a self-developed in-depth questionnaire consisting of 67 questions covering the following topics: (1) the biobank system as a whole, in particular, its main components, the biobank IT team and its duties, and the available system documentation; (2) the stored data, in particular the biobank data model, the internal regulations and external standards, data security and privacy; (3) the communication Interfaces, in particular system input and output and external data sources; (4) the data flow, in particular the events occurring in the biobank system, and the standardized processes for data input, output, or management.

To supplement the questionnaire with live questioning, interviews with the IT representatives of the Biobanks were organized covering system components and interfaces, biobank data, communicating with external systems, IT team organization, and external regulations.

**Results:** The biobank representatives provided detailed answers to both questionnaire and live interviews. The IT infrastructures and architectures are very heterogeneous, and an in-depth analysis is currently planned. New standards like OMOP or FHIR are currently low prioritized at the local sites due to the lack of resources.

**Discussion:** the answers to the questionnaire and the results of the interviews will be used to form the requirements to the NN Biobank Data Communication Platform and to guide its implementation.