Beside the handling and physical storage of biomaterial samples, a properly run Biomaterial Bank requires a sound IT infrastructure. The RWTH cBMB has formed a dedicated IT team to accomplish all data related challenges. To provide the technical preconditions for this, the RWTH cBMB is closely cooperating also with the IT team of the University Hospital. All provided services are run on machines administrated by them. Additionally, a firewall and backup facilities are provided.

Data maintained in the RWTH cBMB is divided into four context dependent categories:
- Organizational data (OrgDAT)
- Personally Identifying data (IDAT)
- Medical data (MDAT)
- Sample Analytical data (ProbDAT)
These data types have been determined by the TMF in collaboration with the data privacy officers of the German federal states. For meeting the legislative requirements, three of them are stored distributed over several systems. Storing ProbDAT is currently not implemented.

To maintain the organizational data of a stored sample, it is registered in the Starlims Laboratory Information Management System. For each sample properties such as location, sending institute, receipt and extraction time, processing characteristics and further sample or project dependent properties are collected.

The self-developed IDTool provides a link between the pseudonymized research data, the samples and the personally identifying data. The use of asymmetric encryption ensures the protection against unauthorized disclosure of personally identifying data. Using the publicly available encrypted case or sample identifier, a pseudonymized combined view of the distributed data linked to a sample can be made available by the SAS-Datawarehouse.