

# >BIO MED IT<

## BioMedIT: Switzerland's secure IT network for responsible health data processing

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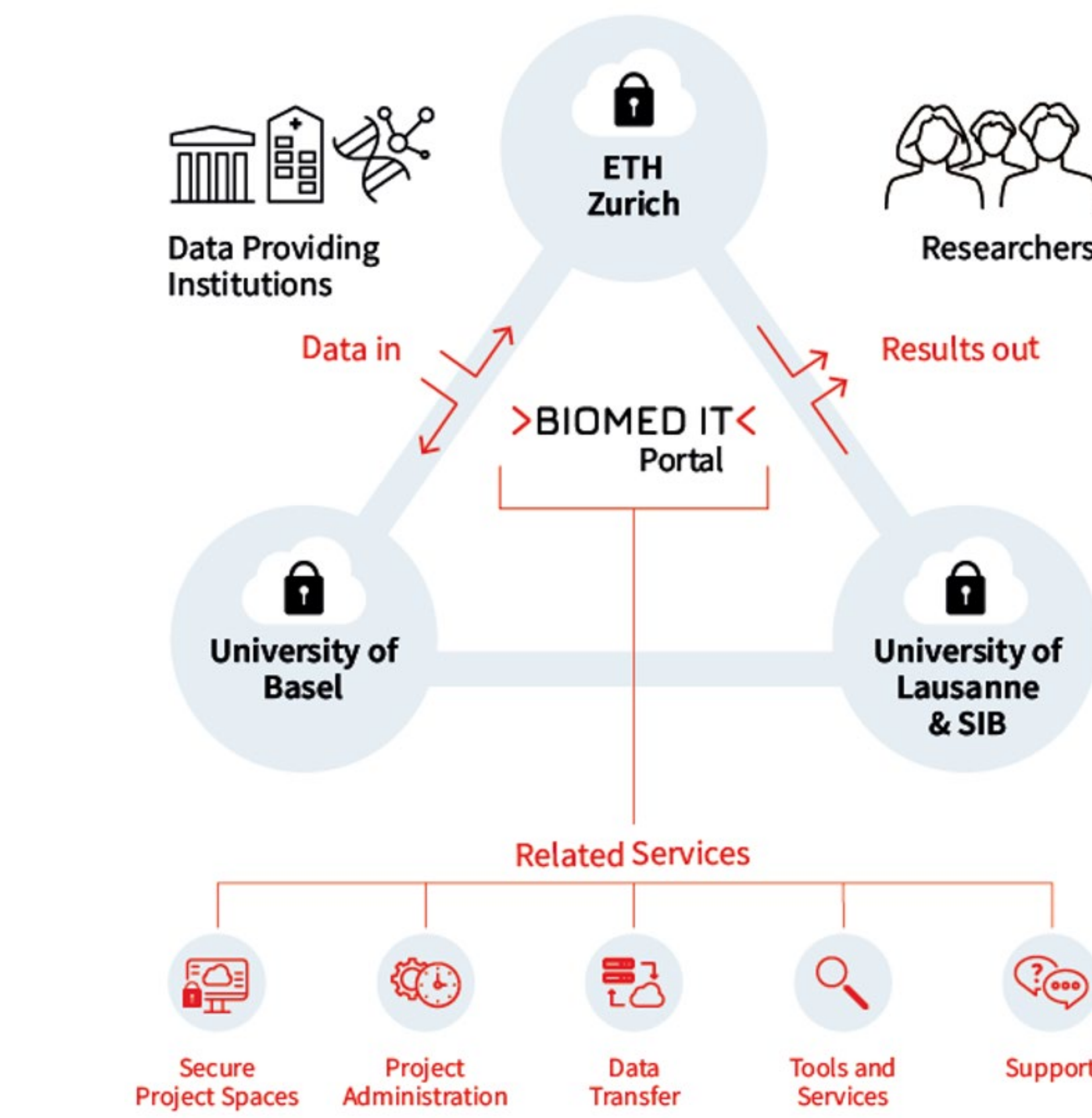
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Connecting researchers from across Switzerland with biomedical data to foster personalized health: This is the aim of the national secure computing network BioMedIT, set up by the SIB Swiss Institute of Bioinformatics in collaboration with ETH Zurich, University of Basel, and the University of Lausanne. Launched in 2017 as part of the Swiss Personalized Health Network (SPHN) initiative, the network is now fully operational with over 60 national and international health-related research projects running, from infection prediction to precision oncology.

### >BIOMED IT< sett

**BioMedIT secure encryption and transfer tool**

- Standardized data package and transfer from data providers to BioMedIT nodes
- Automation around GPG, tar, SFTP, etc.
- CLI and GUI version
- OpenSource & reusable, contributions welcome!



### >BIOMED IT< B-spaces

**BioMedIT secure research project spaces**

- Multi-tenancy setup: isolated project storage and compute, remote desktops
- Services accessible via *Strong Authentication*

### >BIOMED IT< Portal

**BioMedIT Portal: The one stop shop for accessing BioMedIT's secure services**

- Project administration
- User management
- Data Transfer Request management
- Access link to B-Spaces
- OpenSource & reusable, contributions welcome!

### BioMedIT Nodes

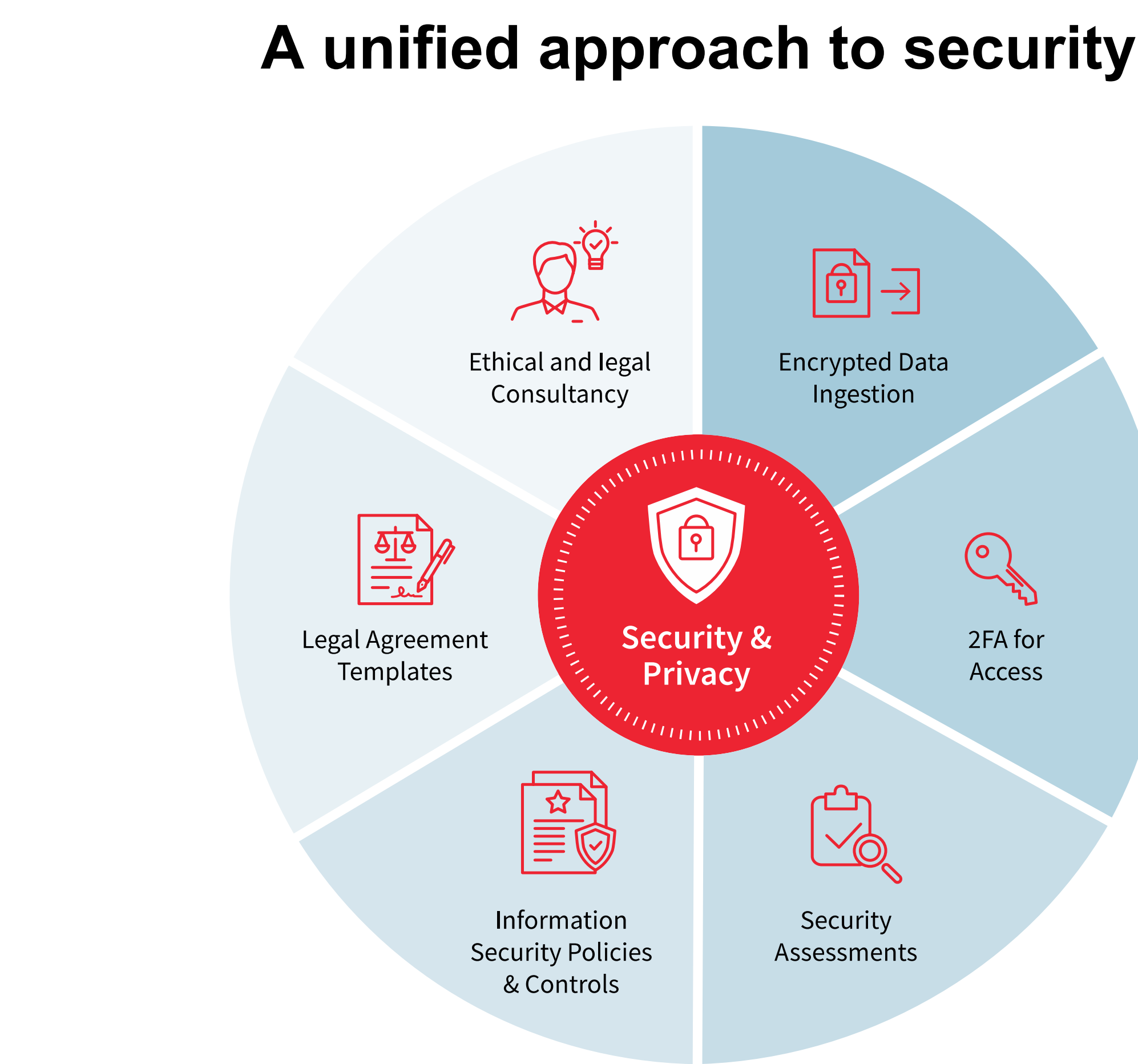
sciCORE	SENSA	SIS
 OpenStack 1.0 PB Storage Compute Capacity: •500 CPUs •8 GPUs •5 TB RAM HPC Scheduler: SLURM File System: CEPH, GlusterFS	 OpenStack 400TB Storage Compute Capacity: •800 CPUs •6 GPUs •3 TB RAM HPC Scheduler: SLURM File System: Weka, CEPH, Scality	 OpenStack 2.0 PB Storage Compute Capacity: •4400 CPUs •424 GPUs •41 TB RAM HPC Scheduler: SLURM File System: Luster file storage

### >BIOMED IT< Central Services

- DCC Git:** Secure code management service with CI/CD possibility
- DCC Container Registry:** Secure registry for OCI container management
- DCC WebProtégé:** Web-based, collaborative ontology development environment
- DCC Terminology Service:** Provision of SPHN compatible versions of Swiss & international terminologies
- DCC Keyserver:** GPG key management
- DCC Confluence:** Secure collaborative space for users and working groups

### BioMedIT in numbers

- Aggregated Compute: 5K+ Cores, 425+ GPUs, 2.5+ PB storage
- Registered Users: 344
- Onboarded Data Providers: 24
- Production Data Transfers: 58
- Total Projects: 60 (national and intern.)



### Collaborations

BioMedIT enables national and intern. research collaborations