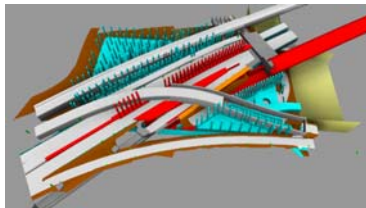


# DIGITAL PLANNING & BUILDING

We increase value creation along the entire project cycle through the targeted use of new technologies and innovative methods. We use digitalisation exactly where it opens up new, better ways for our customers. That's our guiding principle for digital planning and construction in infrastructure construction.

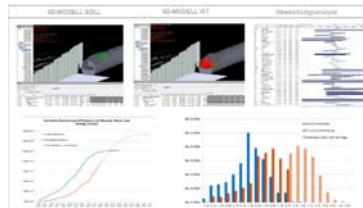
We combine expertise and substantial experience in rapid engineering, information and data modelling, digitisation of inventory and the integration of BIM, GIS and geological information. Together with our customers and partners, we create added value and help projects to succeed.



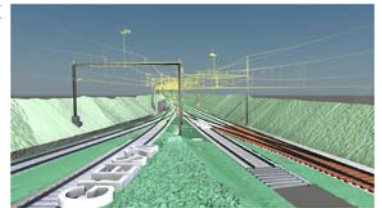
Multidisciplinary Coordination Model



Parametric building model



nD Model and Data Analysis



Georeferenced Rapid Engineering

## Our Services

### Management

- BIM Strategy Consulting
- Development of information management with BIM, GIS and geological data
- Support in the creation of EIA (Employee information requirements)
- Processes design and planning of project structure, providing BEP's (BIM Execution Plan) and Organisation of use cases
- Development of data structures CDE's (Common Data Environment)
- Planning and design of Infrastructure
- Conducting and guiding workshops

### Coordination

- General and domain coordination (Lean Construction)
- Data analysis and quality assurance
- Operation of ICE Session (integrated concurrent engineering)
- Supervision of VDC (Virtual Design and Construction)
- Coordination meetings (based on agile +Scrum methods)
- Monitoring of use cases
- BIM Coordination

### BIM to Field, Field to BIM

- Providing Machine data from BIM
- Feedback of machine data into data files
- As-Built Modelling
- Digital Construction Site Management

### Modelling and Modelling Applications

- Creation of parametric compartment models
- Rule based context analysis
- Rapid Engineering model and model analysis
- RetroBIM, creation of models based on data, plans, laser scans and point clouds
- 3D rendering, visualisation and animation
- Target-performance comparison using point clouds
- Creation of implicit geological models
- Visualisation of data and models (GIS, BIM geology, other data)

### nD model applications

- Model-based quantity take-off
- Model-based costing and tendering of services
- Creation of model-based time schedules and construction sequence simulation
- Design of construction logistics simulations
- 3D Printing of building models
- Generation of machine data from BIM models
- Development of efficient routines for the processing of inventory information
- Scripting and use of virtual programming languages

### Databases and data structures

- Evaluation of data transfer requirements between models and databases
- Efficient data management

## Our Competence

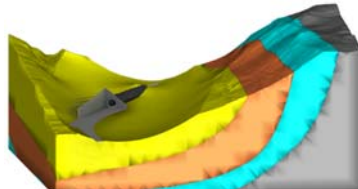
- Reliable partner on the way to the digitalisation of the building industry
- Your partner for efficient cooperation
- Management, structuring and coordination of your BIM project
- Establishment of a practical interface between the various disciplines

## Your Benefits

- Higher quality and transparency
- Development of efficient digital processes
- innovation
- Structured Data for the Project Lifecycle
- Improved collaboration in project teams
- Maximising value creation for each project phase



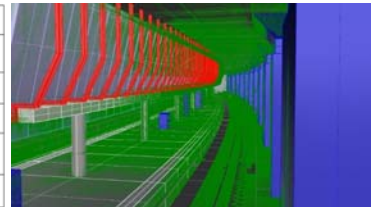
Scan2BIM



Geology Modelling



Process Management and Collaboration



Retro BIM

## Selected References

Project	FBE Melligen Switzerland	Project	Bözberg double track tunnel Switzerland
Services	BIM pilot project with focus on interface from data model to construction machine	Services	Overall project management and management of the joint venture (JV). 3D modelling, 3D geology model
Client	SBB, Infrastructure	Client	Implenia Schweiz AG, tunnel construction
Project	Main Station Airport Zurich Switzerland	Project	Stockholm Metro – Tunnelbana Sweden
Services	Survey of the station perimeter and creation of a BIM-compatible 3D model. Modelling and analysis of the clearance profile	Services	BIM-3D project with coordination and clash control based on the 3D model. Quantity determination with the help of the model.
Client	SBB, Infrastructure	Client	WSP, Stockholm
Project	Overburden Rosenberg - OLMA Switzerland	Project	Tunnel Rastatt Germany
Services	Inventory by laser scans. Inventory modeling, model-based quantity determination, coordination models, GIS+BIM platform. Connection between the model and the construction site	Services	DB's BIM pilot project on the Karlsruhe - Basel line. The focus is on the implementation of BIM for the final design and implementation phase.
Client	Civil Engineering Office Canton of St. Gallen	Client	DB

**We are pleased to advise you in detail.  
Talk with us.**



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