Master Plan – Digital civil engineering atlas

A digital peek underground

Whether it's office buildings, town halls or schools – when it comes to communal construction, every new project requires a considerable amount of planning. This is especially true when civil engineers and other decision-makers need to assess what lies beneath the surface. The highly innovative civil engineering atlas Master Plan helps with both of these challenges: It provides a fully operable digital twin of a property's underground installations while storing all relevant project information in a secure, digital file – significantly increasing efficiency throughout the planning and execution stages of a public construction project for everyone involved.

How it works

Master Plan provides a holistic atlas of all existing underground infrastructure in a public property, such as its general structure or 3D-models of pipe locations and crossings. It allows civil engineers and other decision makers a detailed look at what's usually hidden under layers of concrete – and ensures that all required steps and measures can be planned in incredible detail, as well as in an efficient, cost-effective way. Master Plan also includes secure digital storage for all relevant information about a property, including geopositioning, the erector, age, maintenance information, preventive event management and alarm systems. If required, additional data like external databases, sensor data and geodata can easily be integrated. The platform also generates automatic reports and alerts based on individual user requirements, subsequently supplying users with evidence-based, real-time information and required action.

The Big Picture

Master Plan provides all-round technical and supervisory support for all kinds of communal construction projects, regardless of their size or location. The platform provides decision makers with a comprehensive amount of real-time data and facts, which allows for an accurate overview of existing infrastructure, better cost control, and streamlined project and asset management thanks to automated reporting and predictive modeling. More importantly, all relevant information can be collected in one central location, fully visualized and quickly distributed to all parties involved – from local mayors and engineers up to federal authorities and EU-regulators.

Quick Facts

- Solution area: **Organisations, Processes, Quality assurance and certification, Technological innovation**

- Administrative level: **District**

- Solution process: **Digitization and technology, Energy, Environment and sustainability, Mobility and transportation, Public service, Regional development and infrastructure, Science and research, Security and defense, Smart City**

- Technology: **Artificial Intelligence, Blockchain (incl. NFT), Digital twin, Information technology, Internet of Things, Networks, Platform technology, Sensor technology**