

Civil Engineering & Infrastructure

Safeguarding your project investment

“Put your plans for
the future on a solid
foundation.”

Project planning and consulting





Social progress begins with vision.
In civil engineering and infrastructure, the realization of pioneering projects is a complex undertaking which must consider not only technical risks but also the interests of the many stakeholders.

High investments and individual risks are associated with all phases and subsections of infrastructure projects, calling for thorough planning and management.

What DMT offers to help you achieve your goals:

Comprehensive consulting and customized engineering solutions with a wide geotechnical services spectrum – our unmatched global experience since 1737 distinguishes us. As does the intelligent networking of project-relevant competences for consulting, planning, contracting, realization, monitoring, and operation. This provides the necessary security for investors, industrial businesses, the public sector, architecture and planning offices, project developers, and mining companies.

From infrastructure innovation and complex challenges in urban spaces to rehabilitation and real estate operation, our spectrum of consulting and service competence is so complete that we can always find the best solution – for your benefit and investment security. With reliably efficient planning and top quality standards, we stand for sustainably economical project success.

What you can expect:

- Committed, intelligent consulting
- Integrated German engineering
- Highly specialized and efficient measurement systems and methods
- High quality standards with corresponding certification

As a global group of 14 engineering and consulting companies with more than 30 locations all over the world, we are also the obvious choice for your project. Let us manage the realization of your projects and bring your ideas into the world reliably and successfully.

“Invest in security from the start – It’ll pay off in the end.”

Evaluation and monitoring



When you place your trust in our experience, it's for one good reason:
we know the world and its subsoil like nobody else.

We use modern monitoring systems to assess and keep a watchful eye on things – before, during and after construction – regardless of where in the world your project site is located.

This creates security for your projects and prevents nasty surprises or uncertainty. We go so far that we, for instance, worked with the ADAC (Europe's largest automobile association) to develop innovative security concepts and audit processes for tunnel systems, setting the first standards of their kind in Europe. The positive effects are not only reflected in decreasing accident rates but also the increased profitability of the operators.

DMT applies its complete services and extensive engineering competence to the entire life cycle of civil engineering constructions. We also provide our services in sensitive areas like mining rehabilitation, construction soil management, exploration and remedy of harmful environmental impact, as well as reconstruction, expansion, and dismantling. In the field of technical safety, we also test and monitor equipment installed on and in existing buildings and constructions.

The foundation for economic efficiency in infrastructure and site development projects is certainty concerning the characteristics of the geological environment and the resulting requirements.



Monitoring of a landslide,
Yangtze, 3 Gorges Reservoir, China

Budgets, schedules, structural analysis, material use – all this is derived from the insights of the DMT ground investigation service spectrum.

We use the most modern methods of high-resolution foundation ground and borehole geophysics, geology, hydrogeology, geodesy, geomonitoring, and innovative geo-measuring systems. Together with the relevant engineering services of geotechnics and special civil engineering, we ensure a successful conclusion right from the start of a project.

Our technical know-how and economic approach are of great help to investors during site development or structural change projects. We have comprehensive expertise in the sustainable management of brownfield and conversion sites as well as in the construction, operation, and aftercare of landfill sites and mining projects.

With our range of services for plant security, fire safety, explosion protection, environmental protection, cooling and climate-control technology, as well as drinking water hygiene, we assist real estate companies with the central challenge of managing operational risks, in an interdisciplinary fashion.

Our service spectrum for the evaluation and monitoring of your projects:

- Feasibility studies
- Due-diligence analysis
- Geological and geotechnical consulting
- Construction pit and mining planning
- Design and permit planning
- Service specification and contracting
- Engineering surveying and GIS services
- Construction monitoring and construction management
- Determination of capital and operating costs
- Environmental impact studies
- Safety concepts
- Fire safety
- Additional services

In addition, we support your individual needs in the areas of building and tunnel safety as well as fire safety and explosion protection with practical training and seminars.

“If it is possible, we have probably already done it.”

Project and risk management



Foundation consulting

We provide a 360-degree service: from the first phases of exploration and feasibility analysis via implementation and construction management all the way to training, as well as inspection. We even support in matters concerning the later operation of the facility.

Based on our expertise, we pursue a proven and integrated approach in project management and ensure that all phases of your project are optimized. Our project management permits us to provide reliable financial forecasts and production predictions at any given moment.

**As full-service provider we help you
in all areas of your project development
and infrastructure life cycle.**

We offer engineering, procurement, construction, management (EPCM) services for the management and support of large, complex, or sensitive construction projects. You can also rely on the fact that your project is managed by experienced engineers – proven professionals who ensure that everything is done on time and as specified. In our role as Owner’s Engineer we offer independent and multidisciplinary management and monitoring of third parties. This is of particular benefit to you when it comes to sensitive projects, like one we carried out in Mecca, where geophysical studies became necessary right next to the Kaaba during the time of the Hajj. A sensitive task which the Saudi client placed in the reliable hands of DMT.



Runway studies

Our highly qualified employees will work together with you in all key areas and supplement and reinforce your own resources. From planning and construction and the installation of technical equipment all the way to start-up and operation of your projects. Based on our worldwide, comprehensive experience with major projects, we are confident that there is no challenge we have not already overcome or couldn't accomplish for you.

We also follow a fully integrated approach in risk management. We identify and defuse commercial, operational, ecological, health and safety, as well as social risks over the entire project life cycle.

Our risk management services include:

- Management of commercial risks
- Management of operative risks
- Management of technical risks
- Management of environmental risks
- Management of health and safety risks
- Assessments and audits

“Why give us responsibility? Because it’s your project and you want it done right.”

Quality and innovation standards



In addition to legal and contractual obligations, you can also always count on the quality and safety standards of DMT and our parent company, TÜV NORD GROUP.

Increasing the quality of our services and environmental protection are integral components of our daily activities. The success of our work depends on stringent quality control and risk prevention measures and the pro-active approach of our entire staff.

The quality of our services is non-negotiable

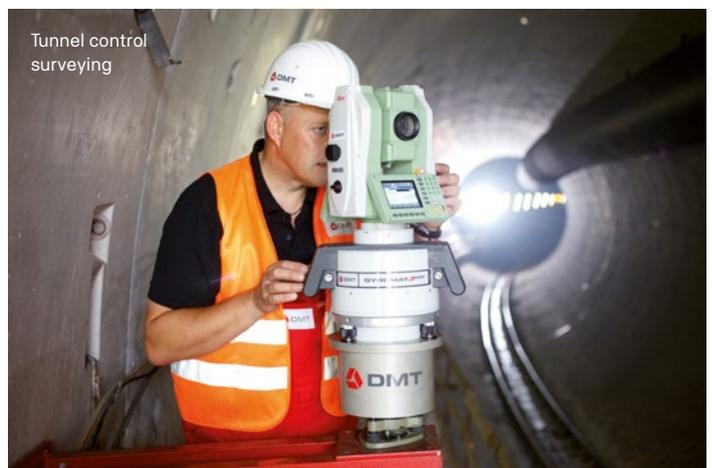
DMT engages in and promotes the exchange of technical know-how at our own professional events – the DMT Expert Talks. We cooperate with universities and research institutes, hold presentations, publish the latest insights, and implement a large number of research and development projects. This is DMT's way of ensuring high quality and innovation standards are maintained.

In order for you to achieve the highest level of planning security in all your modern construction, traffic, energy, and supply infrastructure projects, and thus a high level of investment security, you should also rely on the performance of German engineering – whether rail, power, water and waste water, roads, tunnels, bridges, buildings, landfills, or supply lines.

We use the most modern methods together with our own patented technology, like our innovative geophysical and geodetic survey systems. This is the only way we can be sure that even in the extreme weather conditions of, for instance, Iceland, our measurements have close to zero tolerance despite minus 15 °C exterior and 30 °C interior temperature at 98% relative humidity in the tunnel.

DMT experts are internationally renowned. Their accumulated expertise is enhanced by a wide range of specialized methods – your key to solid success. Especially when every little detail is essential, like in the complex infrastructure project in preparation for the Olympic Winter Games in Sochi. The high-elevation alpine environment and the strict deadlines for all construction measures demanded absolute professionalism and thus DMT.

The continuous education and training of our employees ensures our high standard and therefore our significance to project owners. Certification of our QM system pursuant to DIN EN ISO 9001 and our HSE system pursuant to SCC** are matter of course for us and thus guarantee optimal services for you, compliance with local laws, and calculable profitability.



The geodetic surveying gyroscope Gyromat 5000 is always in demand when absolute precision is a must. Its 3333rd measurement was performed on a superlative research facility: the European XFEL. A prerequisite for the complex installed in a more than 3 km long subterranean tunnel was perfect horizontal alignment, including accounting for the curvature of the earth.

**This could not have been done without
the most accurate surveying system
in the world for this kind of task –
designed and built by DMT.**

“A promise of feasibility is the first step to success.”

Investment security

With our knowledge and technological edge, we reduce the complexity of construction and infrastructure projects starting at the first consultation meeting.



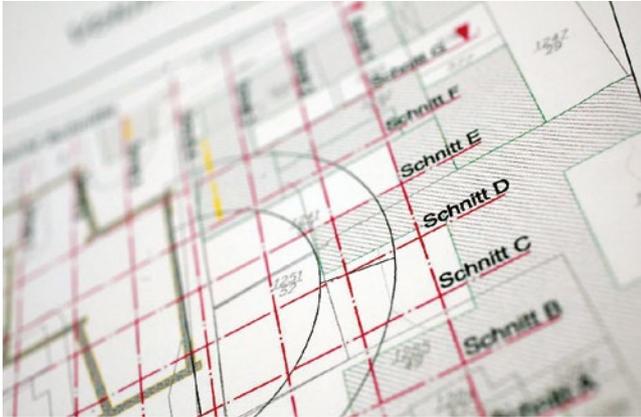
If need be, we (and thus you) have access to our large network of outstanding partners in industry, research, and education. As a result, we are able to achieve an unmatched service spectrum with the depth to make your life easier.

This allows us to guarantee reliable analyses and ensures the optimal implementation of all work you have entrusted to us. Even when things get too delicate for others, you can rely on our expertise.

We were confident enough to develop a safe construction pit design for investors in the middle of Berlin immediately next to a historically significant church with severe prior damage and to predict zero deformation of the church.

It should be clear by now: working with DMT minimizes risk and gives you an unusually high chance of success and planning security for your projects. Not only can you count on this, you can include it in your feasibility calculations.

Start securing your investment with an initial meeting. We look forward to hearing from you!



DMT services - overview



Exploration, surveying, and monitoring

- Geoinformation systems (GIS)
- Engineering surveying and remote sensing
- Surveying of inland and coastal waters
- Civil engineering and geotechnical investigation
- Geological and hydrogeological investigation
- Engineering geophysics investigation
- Abandoned mining research and investigation
- Study of contaminated sites
- Borehole surveying
- Automatic monitoring systems, online monitoring
- Special fire safety (stockpiles, landfills, and silos)

Planning

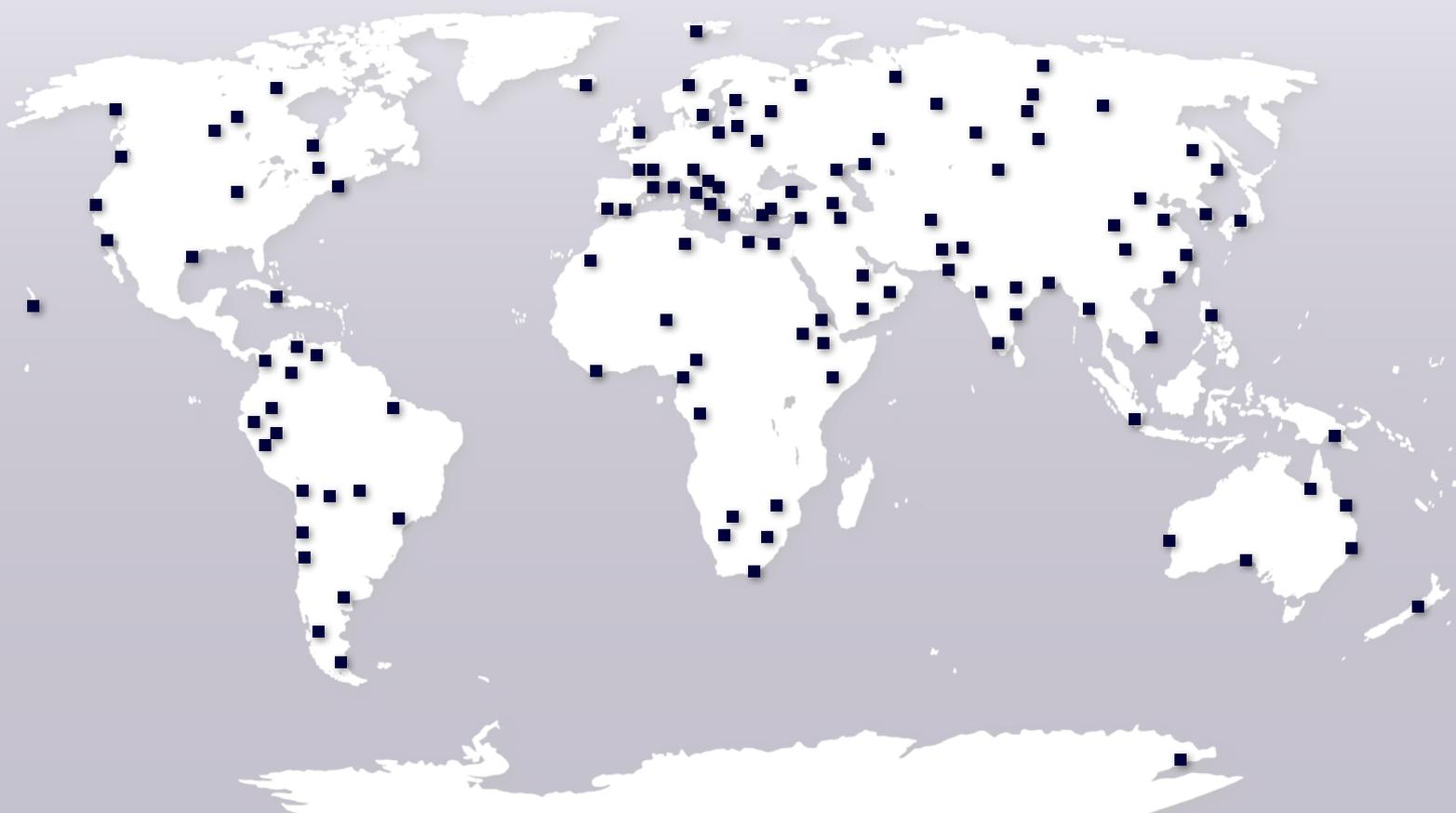
- Studies and assessments
- Ground and site assessments
- Geotechnical expert planning
- Planning for special civil engineering projects
- Hydrogeological planning
- Permit planning and acquisition of rights
- Route planning and route engineering
- Planning for technical building safety, fire and explosion protection, as well as hygiene
- Emission protection forecasts
- Technical project marketing and project communication

Construction

- Project management
- Construction management
- Ground water management
- Engineering and construction surveying
- HSE services
- Emission protection monitoring
- Inspection of fire safety equipment
- Geomonitoring and online monitoring systems
- Online citizen information systems
- Project communication

Operation

- Status measurement and analysis
- Rehabilitation and optimization planning
- Measurement sensors and systems
- Plant security inspections
- Engineering and control measurement
- Emission protection measurements and emission reduction
- Air, water, and technical hygiene studies
- Inspections for fire and explosion protection
- Inspection of cooling and climate control technology



Project locations of DMT around the world.

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