

About us

Multiconsult is one of the leading firms of consulting engineers and designers in Norway and Scandinavia, with expertise spanning a wide range of disciplines.

Staff

Multiconsult's resources comprise over 1400 employees. The broad and expert competence of the company's personnel ensures value for our clients.

The company staff maintains its high competence through participation in research and development work.

Clients and markets

Multiconsult has over 100 years of experience with consulting engineering in Norway and abroad.

We offer multidisciplinary consulting and engineering services to public and private clients nationwide and overseas. Over the years Multiconsult has carried out a wide number of international projects in more than 90 countries all over the world.

Multiconsult's services cover all project stages. Our clients are private investors, government institutions, public utilities or private corporations with finance from international institutions.

Fields of expertise

Multiconsult offers multidisciplinary consulting and engineering services in a wide range of disciplines.

Multiconsult is affiliated to the Federation of Consulting Engineers – FIDIC.

Multiconsult's business areas include

- Buildings & Properties
- Industry
- Oil & Gas
- Transportation & Infrastructure



Multiconsult

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Underground Construction Technology



”Our imagination is the limit to the use of underground solutions”

Multiconsult has been at the forefront of rock engineering and underground construction technology development for the last 3-4 decades, with extensive experience from numerous underground projects, large and small, both in Norway and overseas.

Multiconsult's experience from over 100 years working with underground facilities is that underground solutions are both functional and economic in addition to often being the only alternative where surface space is limited.

In cooperation with other disciplines our core staff of geologists and civil engineers are fully engaged with concept development, site investigations, feasibility studies, engineering and site follow-up of a broad range of underground projects. They represent the best available underground technology and capability, with recognised experience from national and international projects.

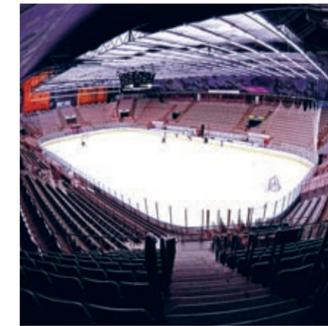
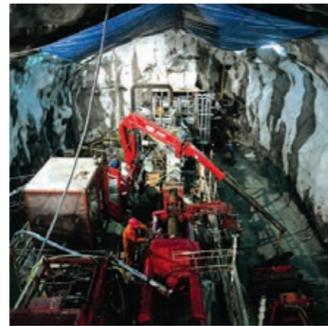
This competence is available to project developers, contractors or other consultant companies in the form of individual experts or teams of specialists that can participate in multidisciplinary projects at any phase. Particular benefit may be obtained where Multiconsult's civil engineering experience is combined with geo-knowledge and underground expertise in all project phases, from the first concept development and site investigations to commissioning and start up.

Our typical areas of underground experience include:

- Hydropower projects
- Water- and waste water tunnels and treatment plants
- Traffic tunnels, including road-, rail, metro- and sub-sea tunnels
- Oil and gas caverns
- Oil and gas shore approach pipeline tunnels
- Parking facilities
- Sports arenas
- Military and civil defence projects
- Telecom projects
- Industrial waste disposals
- Industrial freezing storages
- Crushing plants
- Services are offered in:
 - Geology, hydrogeology & environment
 - Soil mechanics and geotechnical engineering
 - Engineering geological mapping
 - Planning and execution of ground investigations
 - Engineering geological planning and design
 - Tunnel excavation methods, D&B, TBM, etc.
 - Rock stability analyses
 - Rock support, bolting, sprayed concrete, etc.
 - Ground water control and grouting design
 - Vibration and noise control

100 years

of experience for a wide area of underground solutions



Water supply and sewage

In urban areas, transportation of drinking water and sewage in tunnels is often the most economic solution. Also for treatment plants, pumping stations and basins, an underground location is often favourable regarding safety against contamination and sabotage.

Multiconsult has had design and construction supervision responsibility in a number of such projects including both TBM and drill and blast excavations

Oil and gas

The oil and gas industry utilize underground solutions for transportation (pipeline tunnels) and for storage of crude oil and petroleum products. Storage is often facilitated in unlined caverns well below the ground water level. Multiconsult has the expertise for investigations, design, and construction supervision, and extensive references from many such projects.

Traffic

The number of road tunnels in Norway is close to 1000, with a total length of more than 700 km. The longest road tunnel is more than 20 km. Many sub-sea tunnels are crossing fjords and linking islands to the mainland. Also a considerable number of railway tunnels have been built over the last 150 years. Multiconsult has been central to this development for more than 30 years.

Industrial production and storage

Underground solutions have been used for industrial facilities, e.g ammunition factories, and crushing plants. Underground solutions have also been extensively used for storage facilities. Storage of industrial waste in rock caverns has the advantage of high safety against possible contamination of the environment, as well as controlled conditions for monitoring. Storage of frozen goods in caverns is very safe with respect to the consequences of power failure.

Public facilities

Public facilities such as subway stations located underground are well known. In Norway, also a number of public air raid shelters combined with sports halls for peacetime use are constructed. In urban areas with limited surface space, underground parking is very convenient. Multiconsult has been an active participant in design and construction of such facilities for more than 30 years.

Hydropower

Hydropower development has to a great extent been underground. Waterways and power stations are mainly underground due to environmental, safety and cost reasons. Multiconsult have been a major operator in this important part of the construction market. For more than 30 years, Multiconsult has exported this knowledge to many countries around the world.

Protected installations

Military installations benefit from considerable security advantages when located in rock caverns and tunnels. Also telecommunication centres are built underground for protection of vital infrastructure. Multiconsult has undertaken geological investigations, design and construction supervision for many such installations.

