

A wide-angle, fisheye photograph looking down the length of a large, circular tunnel. The tunnel walls are made of concrete with visible rebar protrusions. A series of bright lights are mounted along the left side of the tunnel, creating a strong perspective effect as they recede into the distance. A person is visible in the lower right quadrant, providing a sense of scale.

ARTECH Consultancy

www.artech-consultoria.com

Artech established in Spain by a group of engineers and geologists with a large experience in their corresponding activity areas such as underground projects, facilities, geotechnics and everything related to civil engineering.

The scope of activity encompasses the full range of underground construction, and the Company's mission is to provide a comprehensive, effective, personalized and qualitative engineering service.

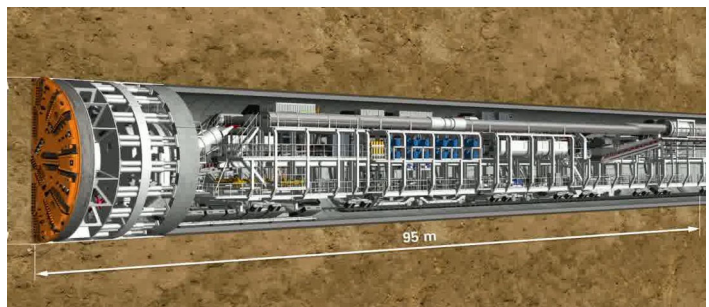
Our specialist fields are the following:

TUNNELS AND UNDERGROUND EXCAVATIONS

Tunnel cost estimation for budgetary and construction purposes.

Tunnel control assessments.

Work engineering supervision,
technical assistance and support
in underground work with
conventional and mechanised
methods.



GEOTECHNICS AND MONITORING

Geotechnical and Geophysical surveys.

Slope stability assessments.

Rock and Soil mechanics.

Containment structures.

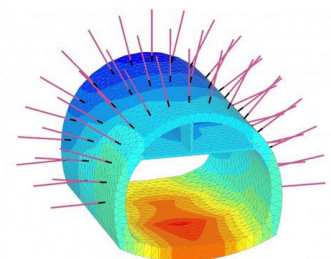
Foundations.

Tunnels and caverns design.

Hydrogeologic analysis.

Monitoring.

Calculations performed with geotechnical software.



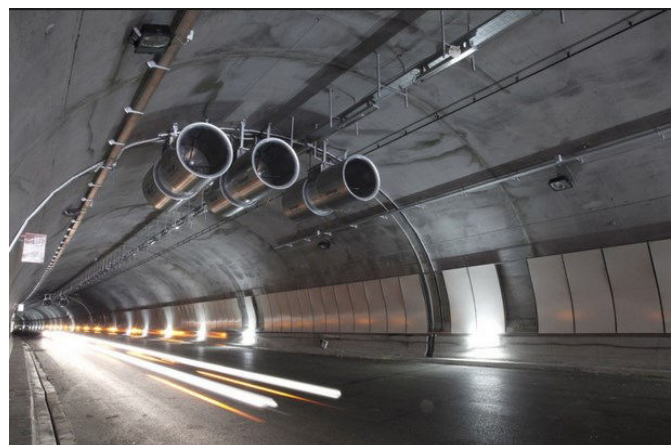
PROJECTS

- Project design and tendering documents revision.
- Financial engineering for Project development.
- Land engineering and technical inspection.
- Project Cost control.



TUNNEL INSTALLATIONS ENGINEERING

- Energy supply and Energy Distribution.
- Illumination.
- Ventilation for fire and smoke control.
- Fire-fighting systems, water supply network and Fire detection.
- Safety facilities.
- ITS Systems.
- SCADA systems.
- Technical inspections according to European Directives.
- Safety documentation and checklist.
- Hazard analysis.





Department Managers:

Octavi Alfonso; Facility Manager.

Fernando Aparicio; Construction Manager.

Otger Ferrer; Geotechnical Manager.

Toni Gil; Project Manager.

Jordi Planas; Construction Manager.

ARTECH Consultancy

Carretera Rubí 40, 2^{do} 8^a, Sant Cugat del Vallés (España)

00 34 93 008 80 97