



GEOPHYSICS

Geophysical services are based on over 90 years of experience, offering a comprehensive range of high-resolution subsurface imaging and analysis services. Our multidisciplinary team provides unique expertise in geophysics, geology, geotechnical engineering, and 3D modeling. Our innovative approach and cutting-edge technologies allow us to meet your specific needs, from complex construction projects to sensitive environmental studies, on land, in river areas, and in coastal zones, both in France and internationally.

OUR INVESTIGATION TECHNIQUES TO ACHIEVE YOUR GOALS

ONSHORE, NEARSHORE, AND RIVERBED SEISMIC REFRACTION

Used for civil engineering projects, it locates the bedrock surface, characterizes rock masses, and determines in-situ seismic velocities.

HIGH AND ULTRA-HIGH RESOLUTION SEISMIC REFLECTION (P AND S WAVE)

P-waves are used for deep structure investigations in mining and geothermal applications. S-waves are used for high-resolution imaging of structures such as faults or cavities close to the surface (between 0 and 50 meters).

SURFACE WAVES (MASW)

An alternative to conventional seismic methods, allowing the calculation of shear wave velocities and geodynamic modules (Poisson's ratio, Young's modulus, etc.).

PASSIVE SEISMIC, POINT MEASUREMENTS (H/V), AND ARRAY (AVA)

H/V measurements can be used for ambient vibration measurements or for mapping the bedrock surface. AVA measurements provide an alternative method for calculating VS30 or shear wave velocity of a soil column up to several tens or even hundreds of meters.

DOWN-HOLE & CROSS-HOLE, SEISMIC TOMOGRAPHY BETWEEN BOREHOLES

Used to determine the mechanical properties of soils and rocks and detect potential anomalies.

ELECTRICAL PANELS

2D and/or 3D resistivity profiling of the subsurface, used in hydrogeology, environmental studies, and fractured zone detection.

GEOLOGICAL RADAR

Used for 2D or 3D subsurface imaging, cavity detection, geological structure mapping, and pavement inspection.

SPONTANEOUS AND INDUCED POLARIZATION MEASUREMENTS

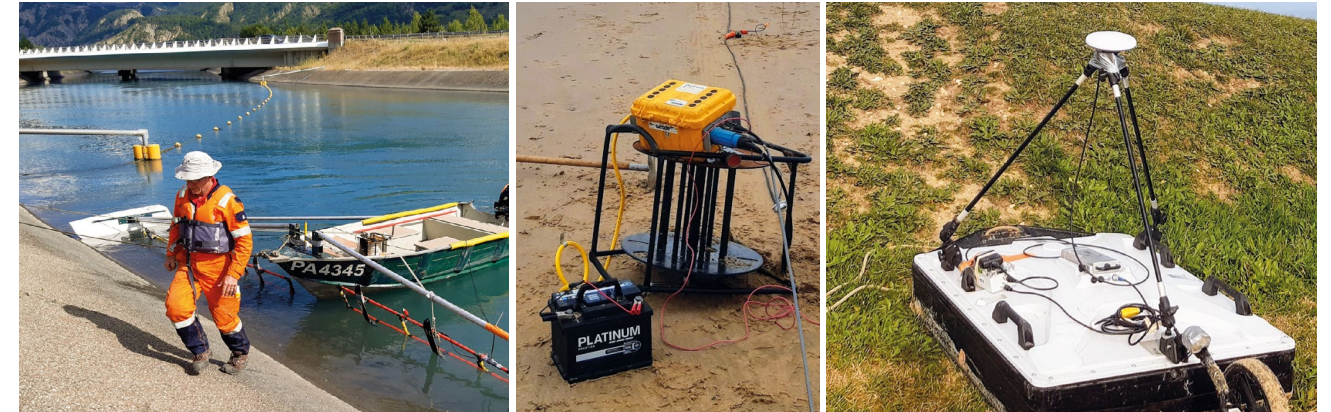
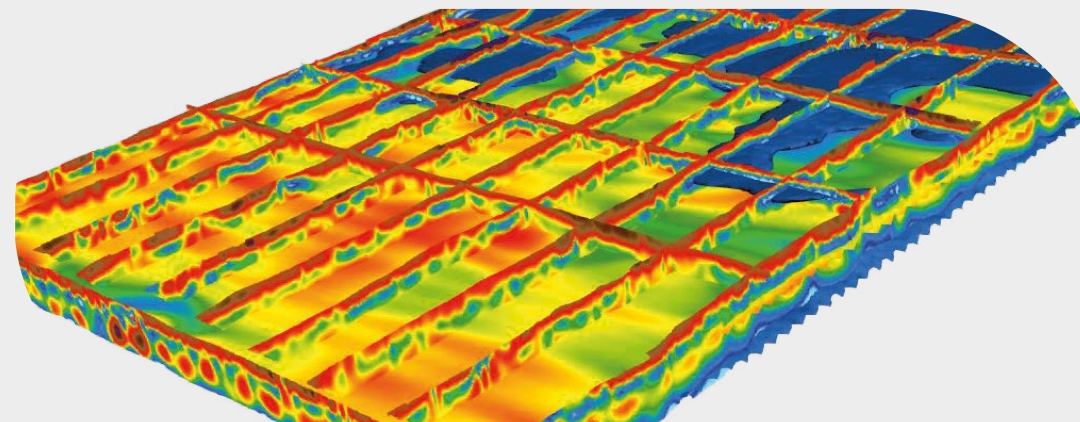
For estimating water saturation, leakage diagnostics, and natural hazards.

MICROGRAVIMETRY

For identifying local density anomalies to detect cavities.

ELECTROMAGNETISM

Used for characterizing shallow formations or pollutant detection.



OUR AREAS OF INTERVENTION

CIVIL ENGINEERING AND PUBLIC WORKS

FOUNDATIONS, TUNNELS, ROADS, BRIDGES, RAILWAYS, INDUSTRIAL AND CHEMICAL SITES.

ENVIRONMENT AND WATER

SOIL POLLUTION, WATER EXPLORATION, NATURAL HAZARD MANAGEMENT.

NATURAL RESOURCES AND ENERGY

DAMS, WIND FARM PROJECTS, CO2 STORAGE, SOLAR ARRAYS.

MARITIME AND FLUVIAL INFRASTRUCTURES

PORTS, LEVEE DIAGNOSTICS, CABLE ROUTES.

OUR ADDED VALUE

EXPERTISE AND INNOVATION

STATE-OF-THE-ART TECHNOLOGIES AND SPECIALIZED TEAMS TO TACKLE THE MOST COMPLEX CHALLENGES.

MULTIDISCIPLINARY APPROACH

COLLABORATION WITH GEOLOGISTS, GEOTECHNICIANS, AND ENGINEERS FOR COMPREHENSIVE SUBSURFACE EXPERTISE, INCLUDING DATA INTEGRATION.

RESPONSIVENESS AND COMMITMENT

A SINGLE POINT OF CONTACT FOR EFFECTIVE PROJECT MANAGEMENT.

TAILORED SOLUTIONS

INVESTIGATION METHODS ADAPTED TO EACH PROJECT AND BUDGET.

RISK AND UNCERTAINTY REDUCTION

BETTER SUBSURFACE KNOWLEDGE FOR OPTIMIZED PROJECT PLANNING AND COST REDUCTION.

OUR SERVICES

HIGH-RESOLUTION GEOPHYSICAL IMAGING

SEISMIC, ELECTRICAL, MAGNETIC, ELECTROMAGNETIC, MICROGRAVIMETRY, GRAVIMETRY, RADAR, THERMAL CONDUCTIVITY, ETC.

GEOLOGICAL RISKS

DETECTION OF FAULTS, CAVITY EXPLORATION, SEISMIC HAZARD, AND GEOLOGICAL STRUCTURE EVALUATION.

MECHANICAL PROPERTIES

VS MEASUREMENT, GEODYNAMIC MODULE CALCULATION, RIPPABILITY ESTIMATION.

DATA ANALYSIS, INTERPRETATION, AND 3D SUBSURFACE MODELING

INTEGRATION OF GEOPHYSICAL AND GEOLOGICAL DATA FOR A BETTER UNDERSTANDING OF THE LOCAL SUBSURFACE CONDITIONS.

ADVISORY CONSULTATION

TECHNICAL ASSISTANCE AND SPECIALIZED STUDIES, DECISION SUPPORT FOR PROJECT DESIGN AND IMPLEMENTATION.

MONITORING AND SURVEILLANCE

INFRASTRUCTURE CONTROL.





Find out more about
our services on our
website



OUR REFERENCES AROUND THE WORLD



Savoie Technolac - 34 allée du lac d'Aiguebelette
73 370 Le Bourget du Lac
FRANCE
cebtp.division.geophysique@groupeginger.com
www.ginger-cebtp.com

