SISMO ELETTRICA

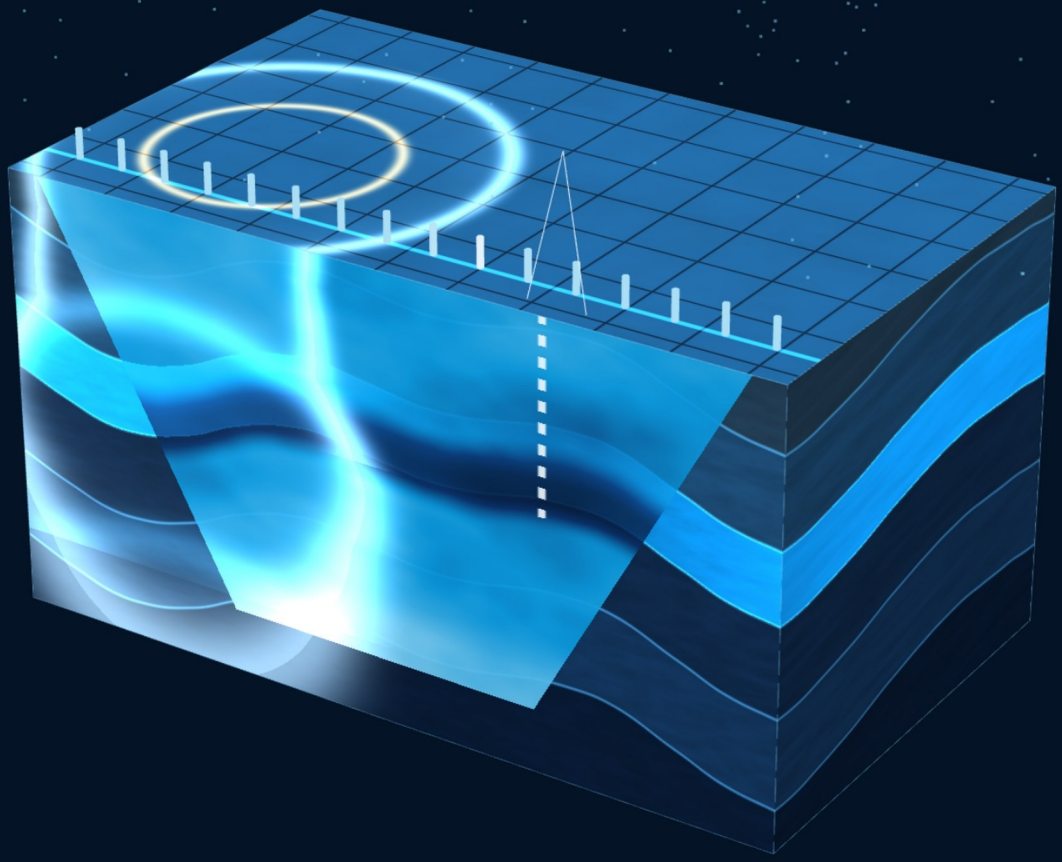
COMPANY BROCHURE
2026

GEOPHYSICS · AQUIFER AND GEOTHERMAL RESERVOIRS · MINERAL EXPLORATION

Seeing beneath the surface, before you drill

Integrated geophysical surveys for aquifer and geothermal reservoir exploration, mineral exploration, environmental and geotechnical work: from field survey to borehole logging.

NEW IN 2026 TEM2Go backpack TDEM · MALÅ 30-channel multi-antenna 3D GPR



Illustrative image

1,000 m
maximum depth, from field survey to borehole log

15+
surface and borehole survey techniques

96
channels for ERT and IP tomography

30
channels of the multi-antenna 3D GPR

SERVICES

TDEM with TEM2Go · Multi-antenna 3D GPR · Electrical ERT/IP · Seismic refraction and reflection · Down-hole and cross-hole · Seismoelectric · Mineral exploration · Penetration testing · Borehole logging · Video inspection

CONTACT

www.sismoelettrica.it
info@sismoelettrica.it

WHO WE ARE

Applied geophysics, from field to borehole

Sismoelettrica S.r.l. is an applied geophysics company specialised in technical consulting for traditional and innovative site investigations. We cover the whole chain: from preliminary surveys to well logging with multiparameter and sonic probes, through to borehole video inspection.

We carry out in-situ tests and seismic, electrical, electromagnetic and seismoelectric surveys, choosing each time the combination best suited to the geological setting and the objective.

Every project starts from a precise question and applies several independent methods on the same ground: results are cross-checked before money is spent on drilling.

In 2026 our equipment grows with **TEM2Go**, a backpack TDEM system for continuous profiles, and the company-owned **MALÅ 30-channel multi-antenna 3D GPR**.

Aquifer reservoirs **Geothermal reservoirs** **Minerals** **Hydrocarbons**
Environment and remediation **Geotechnics** **Utilities**

1,000 m
maximum depth of the chain, down to borehole logging

15+
survey techniques, at surface and in boreholes

96
channels for ERT and IP tomography

1 km
of continuous TDEM profile with TEM2Go in 10–15 minutes

2
university collaborations: UNIFI and UNISI

30
channels of the multi-antenna 3D GPR

The right method in the right place, so that every well and every euro invested in exploration delivers more.

Multi-method
Independent physical properties on the same ground

Science-based
Collaborations with Italian universities

Verifiable
Data and models delivered in open and GIS formats



ERT and IP acquisition


TDEM electromagnetic survey


Seismoelectric sounding

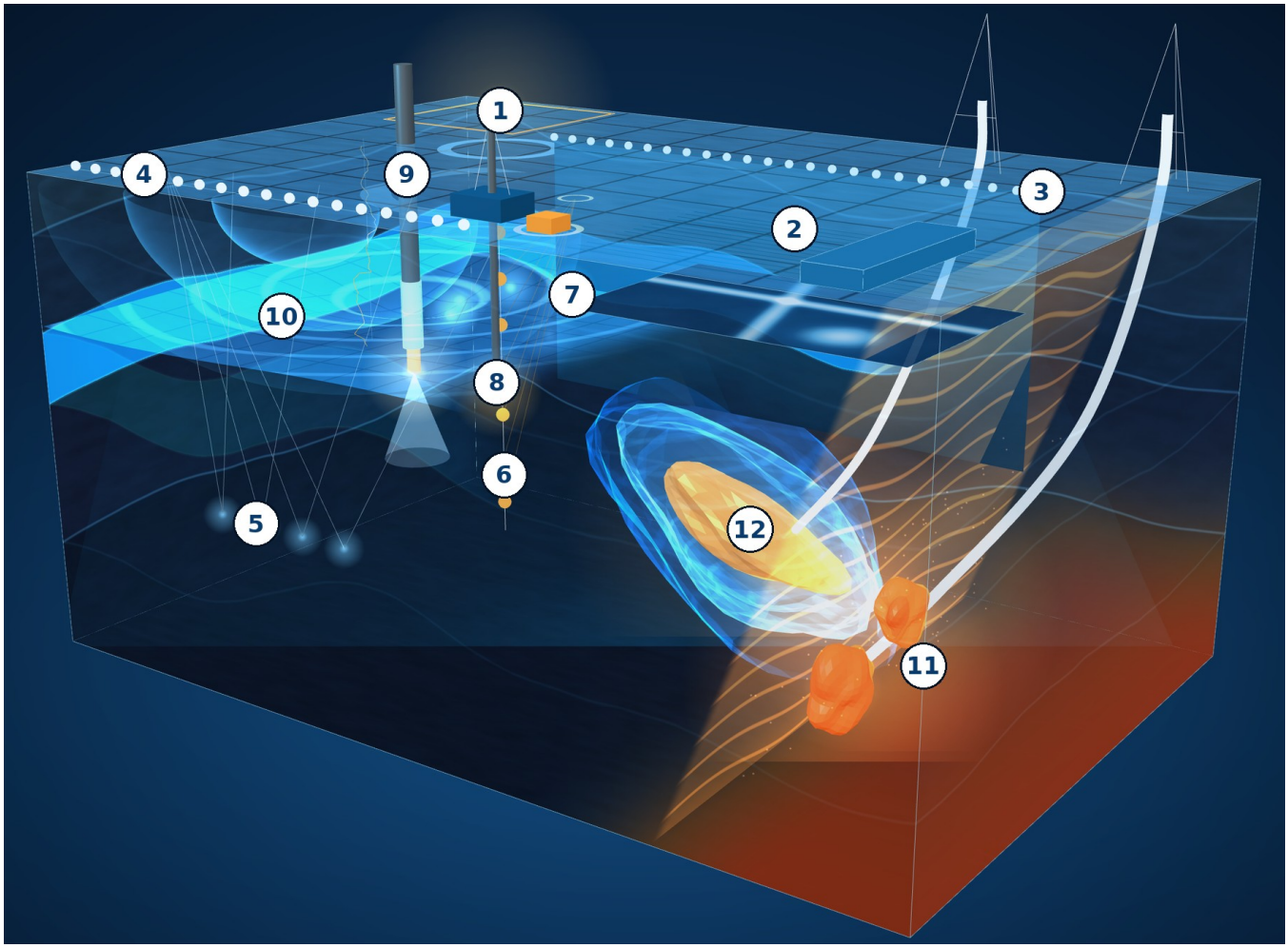

Penetration testing

Sismoelettrica field activities in Italy.

THE SUM OF OUR EXPERTISE

Every method, one subsurface model

Each method measures a different physical property. Combined in the same 3D model, they reduce uncertainty and show where to drill, from the surface down to 1,000 m.



ILLUSTRATIVE DIAGRAM Sismoelettrica methods integrated in a single 3D model. Numbers refer to the legend and chapters.

1	TDEM and TEM2Go ch. 03	5	Seismic reflection ch. 06	9	Borehole logging and video ch. 11
2	Multi-antenna 3D GPR ch. 04	6	Down-hole ch. 07	10	Aquifer reservoir ch. 08
3	3D ERT/IP electrical ch. 05	7	Seismoelectric method ch. 08	11	Geothermal reservoir ch. 08
4	Refraction, MASW and HVSR ch. 05	8	Penetration tests and CPTu ch. 09-10	12	Mineralised body ch. 12

One team for acquisition, processing and interpretation: data from every method converge in the 3D model (ch. 13).

WHAT WE DO

Ten services, one technical direction

We select and combine methods according to the objective, the depth and the geological setting. All data flow into a single interpretative model, signed by a geologist.

TDEM ch. 03
TDEM method, with TEM2Go
sTEM and WalkTEM2 down to 200–600 m; new for 2026, TEM2Go backpack: about 1 km in 10–15 min, 0–75 m.

GPR ch. 04
MALÅ 30-channel multi-antenna 3D GPR
Company-owned system: 3D volume and constant-depth maps of utilities, tanks and voids.

ERT ch. 05
Electrical ERT / IP
2D/3D tomography, VES, cross-hole, induced polarisation and self-potential.

SIS ch. 05
Seismic refraction and surface waves
P/SH refraction, MASW, ESAC, HVSR; Vs,eq according to NTC 2018.

RIF ch. 06
Seismic reflection
Continuous subsurface sections, down to several hundred metres.

DH ch. 07
Down-hole and cross-hole
Vp and Vs profiles measured in the borehole with a 3C geophone.

SE ch. 08
Seismoelectric surveys
Vertical soundings supporting the hydrogeological model, always combined with other methods.

CPT ch. 09
Penetration testing and CPTu
CPT, CPTe, CPTu, DPSH, DL30, SPT, seismic cone and dilatometer tests.

LOG ch. 11
Wells: logging and video
Multiparameter probes, FTC, FWS/CBL, caliper, borehole camera, drilling support.

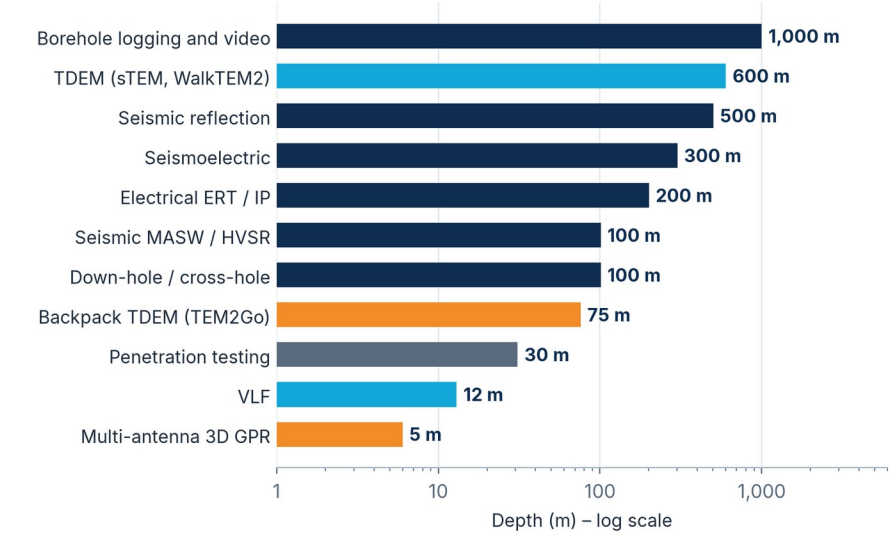
MIN ch. 12
Mineral exploration
3D IP/ERT, TDEM and seismics integrated into 3D models, in phases.

CONTENTS

01 COMPANY PROFILE
02 SERVICES
03 TDEM METHOD
04 MULTI-ANTENNA 3D GPR
05 SEISMIC AND ELECTRICAL METHODS
06 SEISMIC REFLECTION
07 BOREHOLE SEISMIC
08 SEISMOELECTRIC METHOD
09 PENETRATION TESTING
10 CPTU PIEZOCONE
11 WELLS · LOGGING AND VIDEO
12 MINERAL EXPLORATION
13 3D MODELS AND INTEGRATION
14 SCIENTIFIC COLLABORATIONS
15 RESEARCH IN EAST AFRICA
16 HOW WE WORK

INVESTIGATION DEPTH

From the first metre to 1,000 m in the borehole



Indicative depths, depending on configuration and ground conditions.

STEM · WALKTEM2 · TEM2GO, NEW FOR 2026

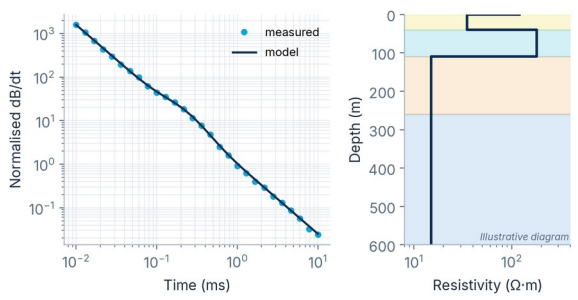
TDEM: from deep soundings to continuous profiles

The time-domain electromagnetic method (TDEM) induces currents in the ground and measures their decay: it detects aquifers, saline intrusion, clays and conductive mineralised bodies without galvanic contact with the ground. We apply it in two complementary configurations, with the same physics and the same interpretation.

CONFIGURATION A · STATIONS

Deep soundings with sTEM and WalkTEM2

Two 20 A systems with loops from 20×20 to 100×100 m, also in fixed-loop and profiler configurations. Typical depths of 200–600 m depending on loop size and resistivity.

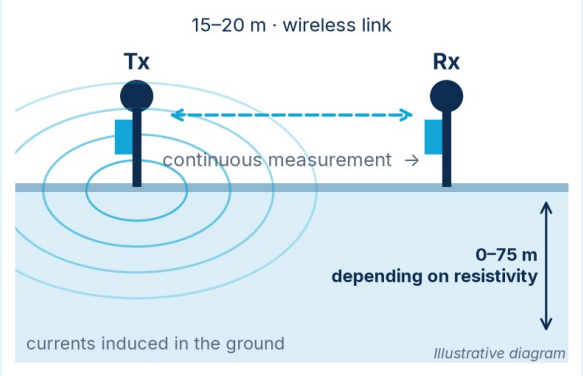


TDEM sounding: measured curve and layered model.

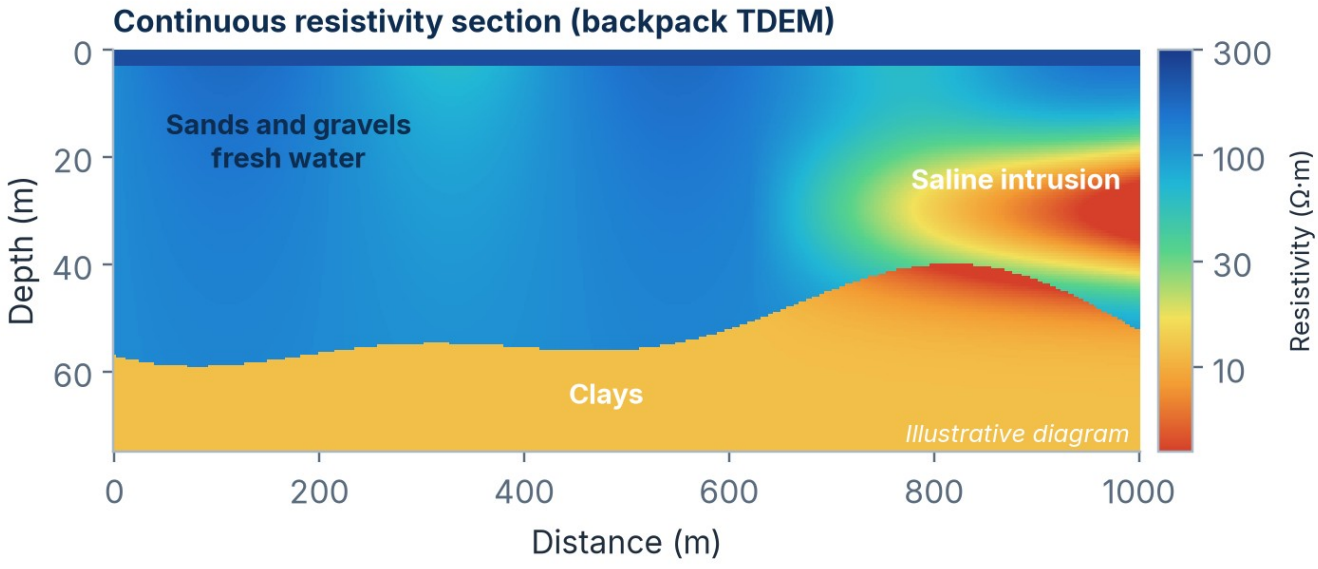
CONFIGURATION B · CONTINUOUS

TEM2Go, the backpack TDEM NEW IN 2026

Two operators: wireless transmitter and receiver 15–20 m apart, GPS on both units and real-time inversion in an app. About 1 km of profile in 10–15 minutes.[1]



	sTEM · WalkTEM2	TEM2Go
Depth	200–600 m	0–75 m
Output	station soundings, fixed-loop, profiler	about 1 km in 10–15 minutes
Logistics	ground loops from 20×20 to 100×100 m, 20 A	about 25 kg in total, two operators
Uses	aquifer and geothermal reservoirs, saline intrusion, minerals	shallow aquifers, MAR, construction sites, landfills, tailings



Continuous resistivity section over 1 km: sands and gravels with fresh water, saline intrusion wedge and basal clays.

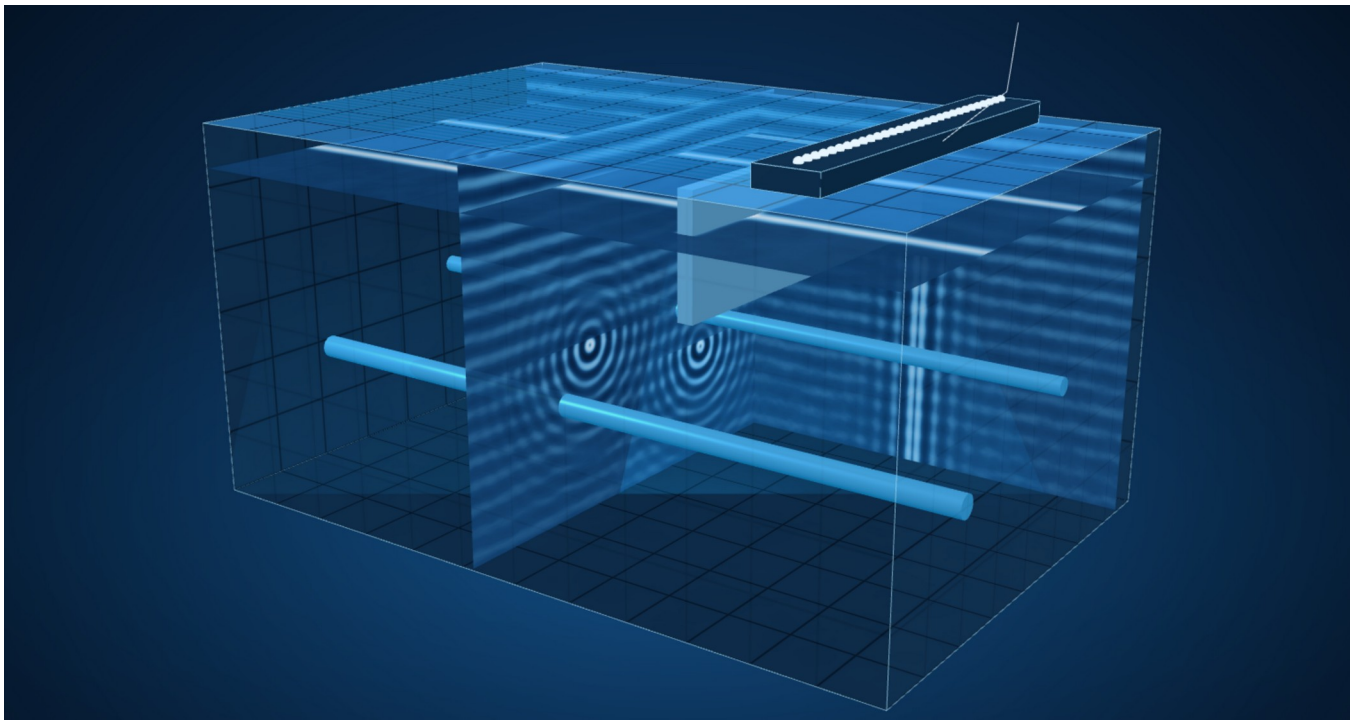
VLF COMPLEMENTARY — EMFAD UG12 receiver (0–160 kHz) with active 5–124 kHz transmitter: rapid mapping of fractures, veins and sub-vertical conductive bodies in the first few metres.

1 TEMcompany, TEM2Go · https://www.temcompany.com/products/tem2go/

COMPANY-OWNED EQUIPMENT

MALÅ 30-channel multi-antenna 3D GPR

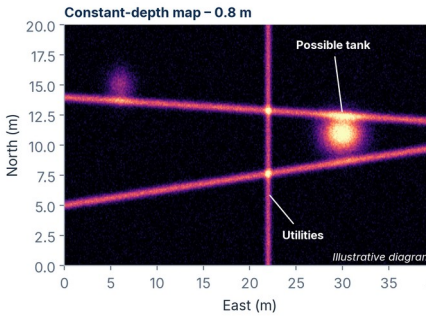
Our 30-channel MALÅ multi-antenna GPR acquires 30 closely spaced parallel profiles in a single pass. With GNSS or total-station positioning we obtain a continuous 3D volume, from which we derive constant-depth maps of utilities, buried tanks and voids.



ILLUSTRATIVE DIAGRAM 3D GPR volume: depth slice and vertical sections with hyperbolas from pipes and foundations.



MALÅ multi-channel GPR system: manufacturer reference image.[1]



Depth slice at 0.8 m: utility network and an anomaly consistent with a tank.

Integrated data

Surveys are carried out with our own equipment. Sismoelettrica acquires, processes and integrates GPR data with electrical, seismic and electromagnetic methods, signing the overall site interpretation.

How we work

- 30-channel MALÅ array with continuous coverage
- GNSS georeferencing, or total station indoors
- 3D processing and depth slices
- CAD and GIS deliverables

Applications

- Utilities and buried networks
- Tanks and basins at contaminated sites
- Cavities, voids and subsidence
- Preventive archaeology and pavements

30 channels
parallel profiles acquired in a single pass

0–5 m
typical investigation window, depending on soils

3D
continuous volume, not isolated profiles to interpolate

CAD · GIS
deliverables ready for designers and remediation

1 Guideline Geo · MALÅ · https://www.guidelinegeo.com/

PROVEN METHODS, LATEST-GENERATION INSTRUMENTS

Stratigraphy, stiffness and resistivity

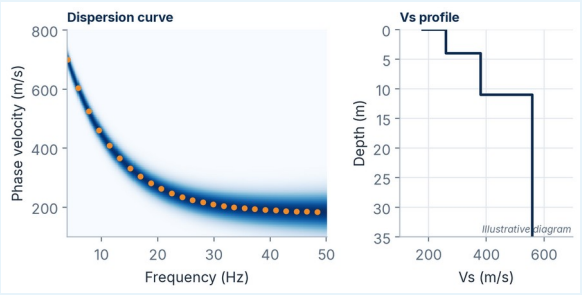
Seismic and electrical methods are the basis of every geological model: they define geometries, bedrock depth, site seismic parameters and resistivity changes related to lithology, water and contaminants.

SEISMIC

Active and passive waves

P- and Sh-wave refraction; MASW with Rayleigh and Love waves, ESAC and HVSR with joint MASW-HVSR and MASW-ESAC inversions to estimate Vs and Vs,eq according to NTC 2018. Seismic reflection and borehole tests are described in sections 06 and 07.

Seismograph	Sara Doremi, 24 bit, 54 channels
Tromographs	2 × SR04 Geobox
Geophones	24 horizontal and 60 vertical 4.5 Hz; borehole triaxial
Software	winMASW Academy



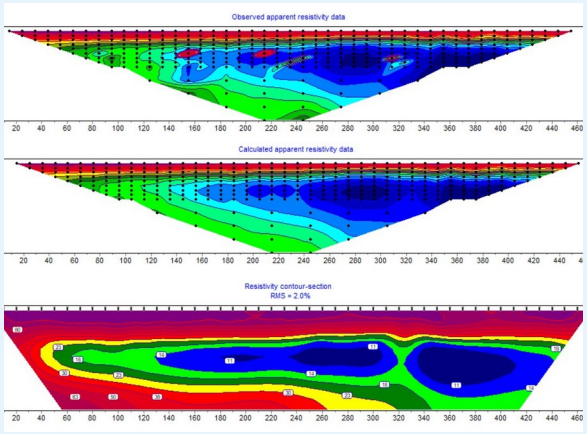
MASW dispersion curve and Vs profile.

ELECTRICAL

ERT and IP tomography

2D and 3D electrical tomography, VES and dipole soundings, cross-hole, induced polarisation and self-potential. In environmental work we estimate landfill waste thickness and locate leachate pockets and pathways.

Resistivity meter	MAE X612EM+, 96 channels
Cables	4 reels × 12 take-outs at 10 m
Software	EarthImager · Zond2D · ErtLab



2D electrical tomography: resistivity and chargeability.

Main applications

Vs,eq
Ground category
Design seismic action according to NTC 2018 for buildings and infrastructure.

f_0
Microzonation
HVSR resonance frequencies, site amplification and seismic bedrock depth.

ρ
Aquifer reservoirs
Aquifer geometry, cover thickness and fracture zones.

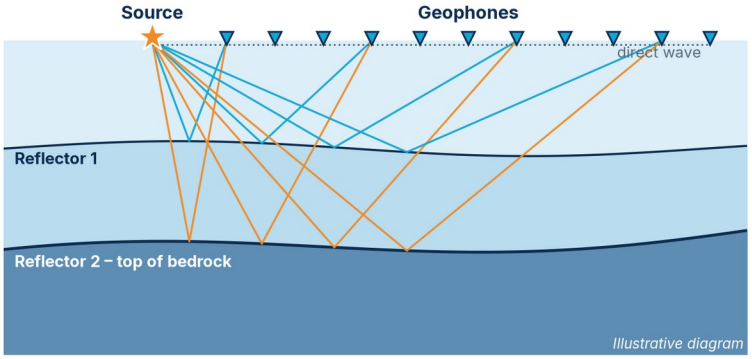
IP
Environment and minerals
Landfills, leachate, contaminant plumes and disseminated mineralisation.

Every seismic or electrical section is calibrated on available boreholes and logs, turning numbers into a geological model.

CONTINUOUS IMAGES OF THE SUBSURFACE

Echoes from the subsurface, in section

A seismic wave generated at the surface is reflected by interfaces between soils and rocks of different acoustic impedance. By recording the echoes along a geophone spread we build a continuous section of the discontinuities, from the first few tens of metres down to several hundred metres.



Measurement principle: rays reflected by the interfaces return to the surface geophones.

Principle

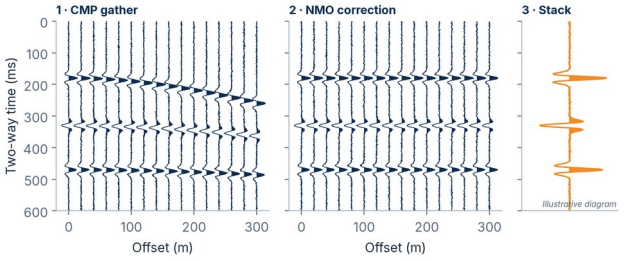
The acoustic impedance contrast (density × velocity) between two layers generates a reflected wave: the two-way travel time gives the depth of the interface.

Acquisition

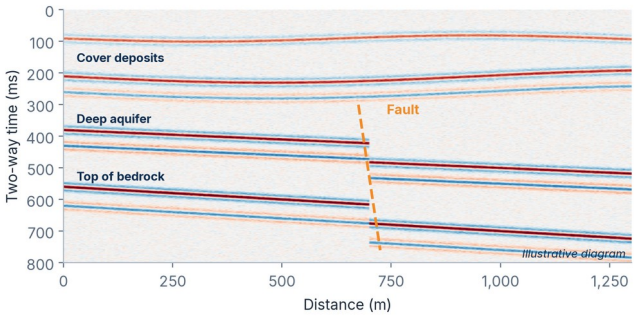
Multichannel spreads with a 54-channel Sara Doremi seismograph and 4.5 Hz geophones; sledgehammer or seismic gun source; multiple coverage with roll-along.

CMP and stack

Traces are sorted by common midpoint (CMP), corrected for normal moveout (NMO) using velocity analysis and summed (stack): the signal-to-noise ratio increases and the section becomes readable.



From CMP gather to stacked trace: NMO correction and stack.



Stacked section with time-to-depth conversion calibrated on boreholes: cover, deep reflectors and a fault.

Applications

Bedrock

Bedrock geometry

Depth and morphology of the bedrock beneath thick cover.

Faults

Faults and discontinuities

Throws, fracture zones and buried structures.

Aquifers

Deep aquifers

Geometry of reservoirs and permeable layers for deep wells.

Geothermal

Geothermal

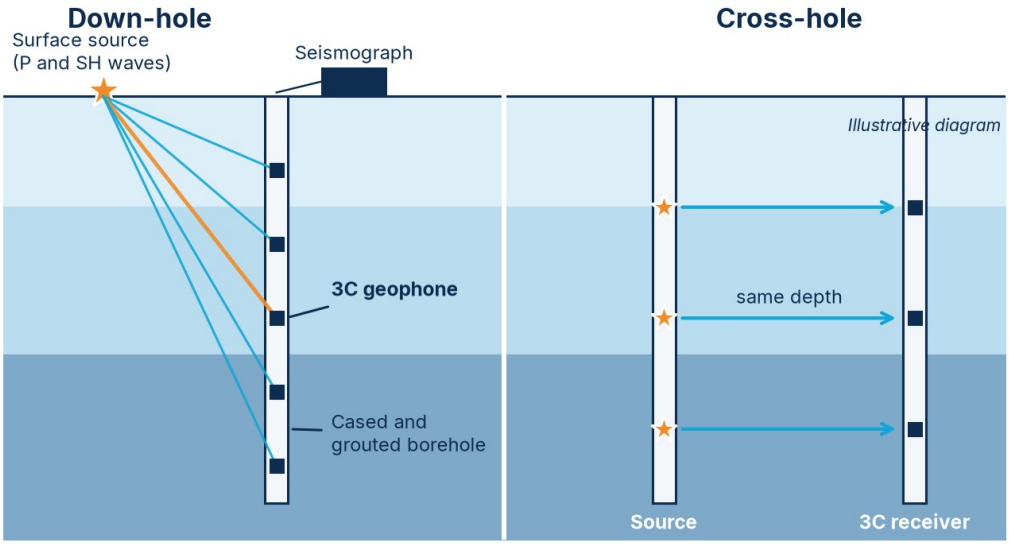
Structures and reservoirs for low- and medium-enthalpy systems.

The section is converted to depth and calibrated on boreholes, logs and borehole velocities, then integrated with TDEM and electrical data in the same model.

DOWN-HOLE · CROSS-HOLE · NTC 2018

Seismic velocities measured at depth

Borehole seismic tests directly measure P- and S-wave arrival times at known depths. They provide detailed Vp and Vs profiles, independent of the assumptions of surface methods, for site seismic characterisation and design.



Down-hole (surface source) and cross-hole (source and receiver in adjacent boreholes) configurations.

DOWN-HOLE

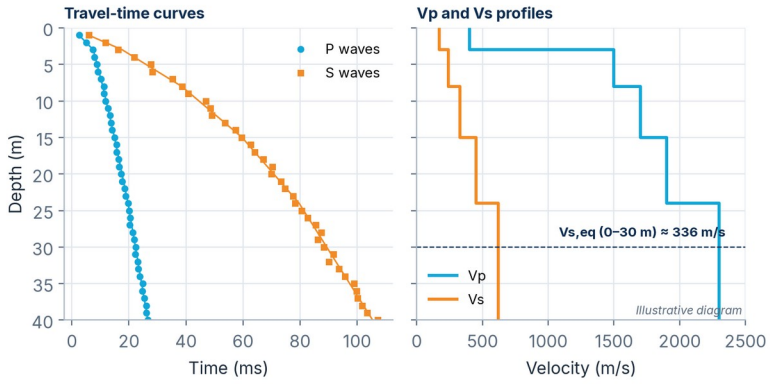
Surface source, geophone in the borehole

The source next to the wellhead generates P and polarised SH waves; a three-component (3C) geophone, clamped to the wall of the cased and grouted borehole, records the arrivals at regular intervals along the vertical.

CROSS-HOLE

Source and receiver at the same depth

Source and 3C geophone are lowered into two or more adjacent boreholes: velocities are measured horizontally, layer by layer, with high resolution in stratified ground.



P- and S-wave travel-time curves, interval velocity profiles and Vs,eq calculation.

Vs,eq according to D.M. 17/01/2018 (NTC 2018)

$$V_{S,eq} = H / \Sigma (h_i / V_{S,i})$$

H is the depth of the bedrock, i.e. the formation with Vs of at least 800 m/s; where bedrock is deeper than 30 m, H = 30 m is used. The value defines the ground category for the design seismic action.

3C
three-component borehole geophone

Vp · Vs
interval profiles from travel-time curves

Vs,eq
NTC 2018 ground category

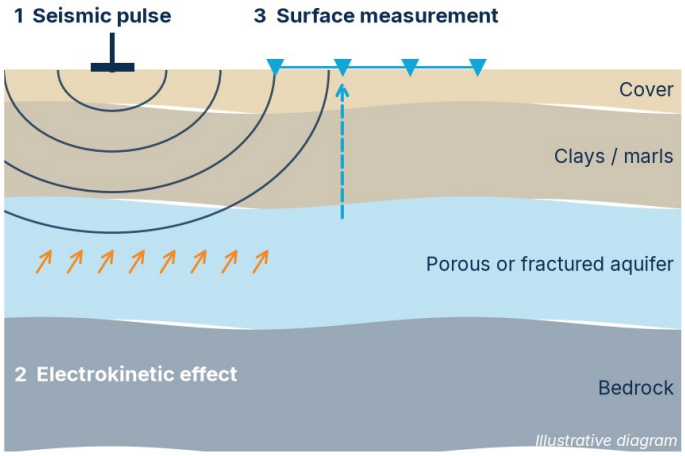
ν · G₀
dynamic Poisson's ratio and shear modulus

Borehole velocities calibrate MASW, HVSR and seismic reflection on the same site.

A COMPLEMENTARY METHOD

An extra dataset for the aquifer model

When a seismic wave passes through saturated porous or fractured rock, the relative motion between fluid and matrix generates a weak electric field measurable at the surface. The signal adds fluid-sensitive information that, read together with TDEM, electrical surveys and borehole logs, helps reduce ambiguity.



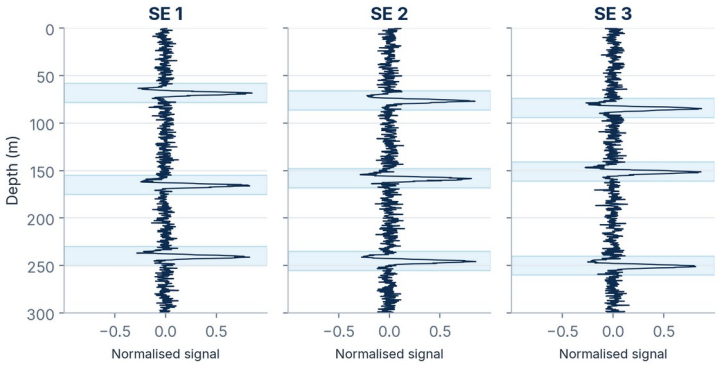
Measurement principle.

What we deliver

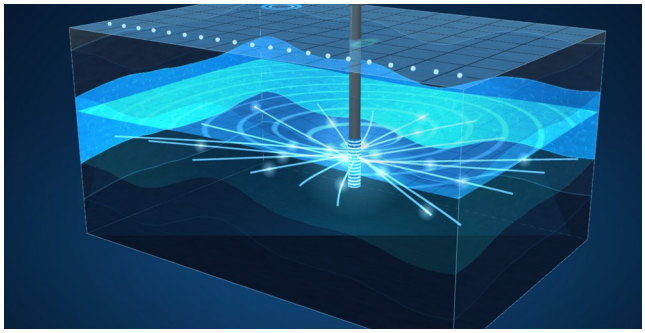
- Vertical soundings with intervals of hydrogeological interest
- Correlation with borehole logs and other methods
- Guidance supporting the location and depth of verification
- Uncertainties and limitations stated in the report

Where it applies

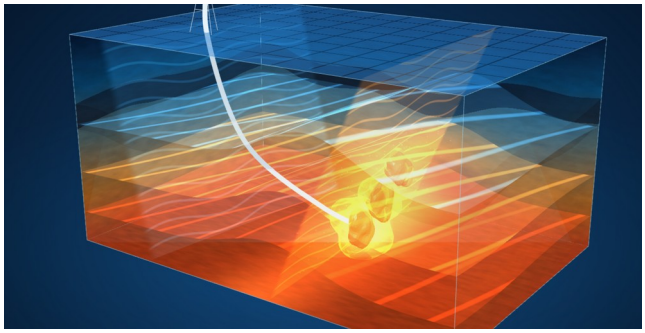
Aquifer and geothermal reservoir exploration (low and medium enthalpy), always within a multi-method programme.



Three vertical seismoelectric soundings: highlighted intervals are checked in the geological model together with the other methods.



ILLUSTRATIVE DIAGRAM **Aquifer reservoir** · gravels between clay layers, water table and screened well



ILLUSTRATIVE DIAGRAM **Geothermal reservoir** · thermal gradient, fault with rising fluids and deviated well

01
Acquisition

Controlled seismic source and electric receivers at the same point as the other surveys.

02
Interpretation

Joint reading with TDEM, ERT and available well data.

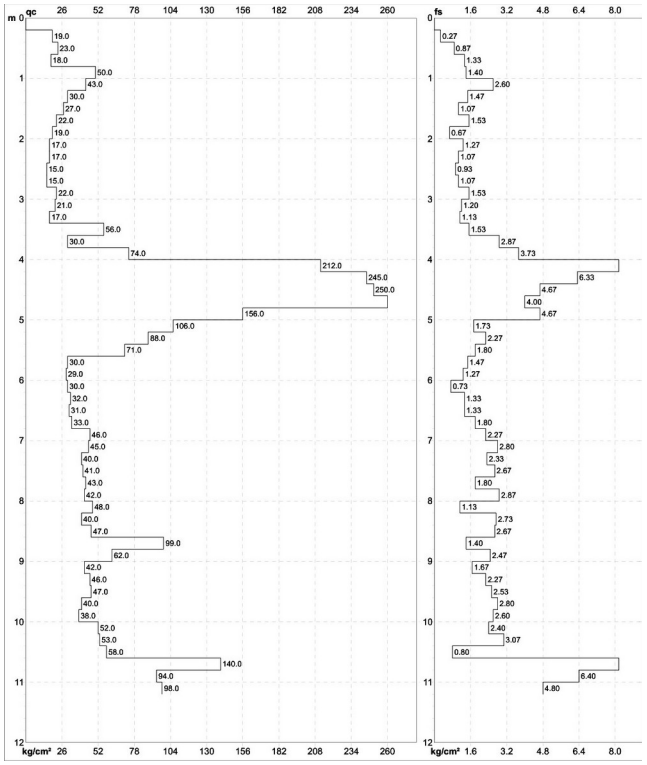
03
Verification

The model is compared with drilling results and borehole logs.

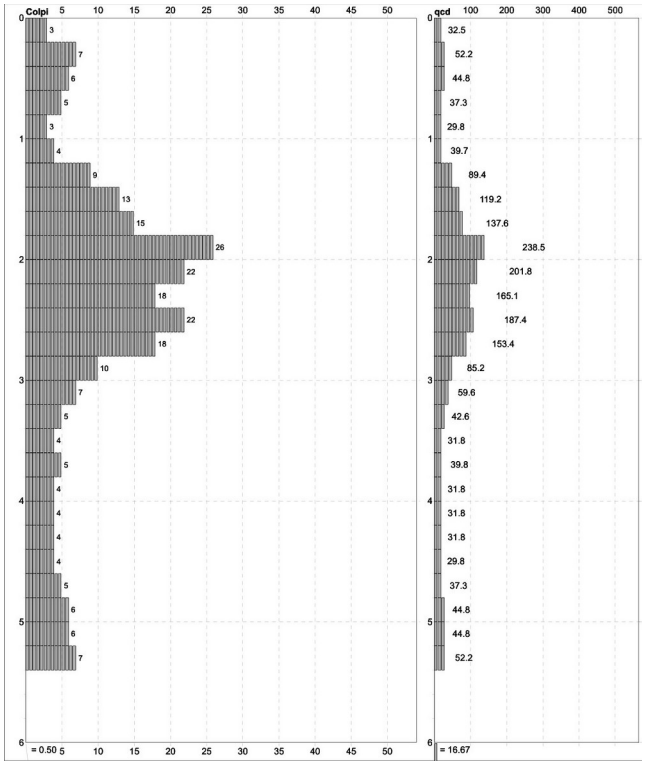
CPT · DPSH · SITE REPORTS

Direct tests, readable reports

With our tracked Pagani TG 63-200 penetrometer we perform static and dynamic tests. Each test is delivered with charts and tables linking resistance, depth and stratigraphy, ready for the geotechnical report.



CPT · Excerpt from an original report: cone resistance qc and sleeve friction fs.



DPSH · Excerpt from an original report: blow count per penetration interval.

Static tests
CPT, CPTe, CPTu with piezocone and seismic cone; dilatometer tests.

Dynamic tests
DPSH, DL30, SPT for coarse soils and rapid checks.

Integrated reading
Tests calibrate seismic and electrical surveys on the same site.

Client headers and identifying details removed. Report excerpts in the original language.

CPT · CPTu
static tests with mechanical, electric and piezocone tips

DPSH · DL30
super-heavy and light dynamic tests

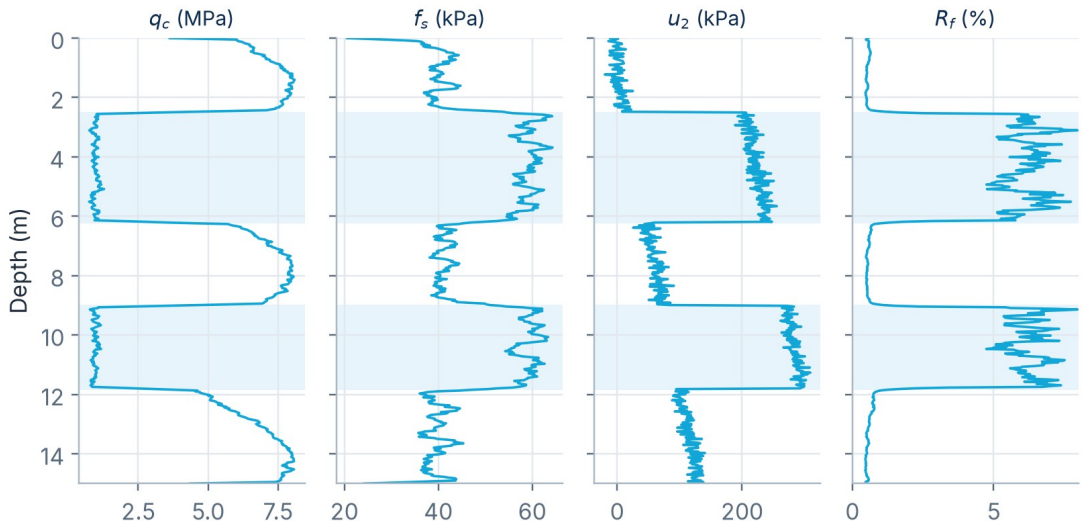
qc · fs · u_2
parameters measured and delivered continuously

PDF · ASCII
graphic reports and raw data for the designer

GEOTECHNICAL CHARACTERISATION

CPTu: resistance, friction and pore pressure

The piezocone continuously measures cone resistance, sleeve friction and pore pressure. Combining these parameters gives the soil behaviour classification used for foundation design and liquefaction assessment.



Illustrative CPTu output · simulated data.

qt

Corrected resistance

Cone resistance corrected for pore pressure.

u_2

Pore pressure

Identifies draining layers, clays and the water table.

Ic

Behaviour type

Soil behaviour type index (SBT).

Derived parameters

- Undrained shear strength and friction angle
- Relative density and overconsolidation ratio
- Deformation moduli for settlement analysis
- With seismic cone: Vs profile for ground category

Applications

- Foundations for buildings and infrastructure
- Liquefaction assessment
- Embankments, levees and earthworks
- Calibration of seismic and electrical surveys

1 Robertson P.K., Cabal K. – Guide to Cone Penetration Testing, 7th ed. 2024 · https://www.cpt-robertson.com/PublicationsPDF/CPT-Guide-7th-2024.pdf

GEOPHYSICAL LOGGING · VIDEO INSPECTION · DRILLING SUPPORT

Wells: geophysical logging and video inspection

We follow the well from siting to final testing: drilling support, geophysical logging and video inspection, in open and cased holes, down to 1,000 m.

Geophysical logging
Multiparameter probes to characterise the formations drilled and select the intervals to screen.

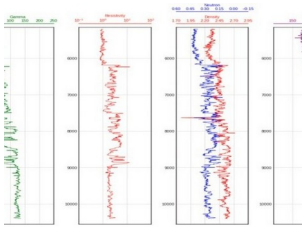
Fluids and cement bond
Fluid physico-chemical parameters (FTC), FWS sonic, CBL cement bond and caliper.

Video inspection
BCS V10 camera: well condition, blockages, encrustation, damage, screen position.

Drilling support
On-site presence, cuttings description and supervision through to completion.



Logging unit on site



Borehole geophysical logs



Video inspection report

Equipment
- Multiparameter probes
- FTC: fluids
- FWS: sonic
- CBL: cement bond
- Caliper
- BCS V10 camera

From exploration to well

1 **Desk study**
geology, existing data, constraints

2 **Surveys**
TDEM, ERT, seismic, SE

3 **Model**
well location and depth

4 **Drilling**
assistance and supervision

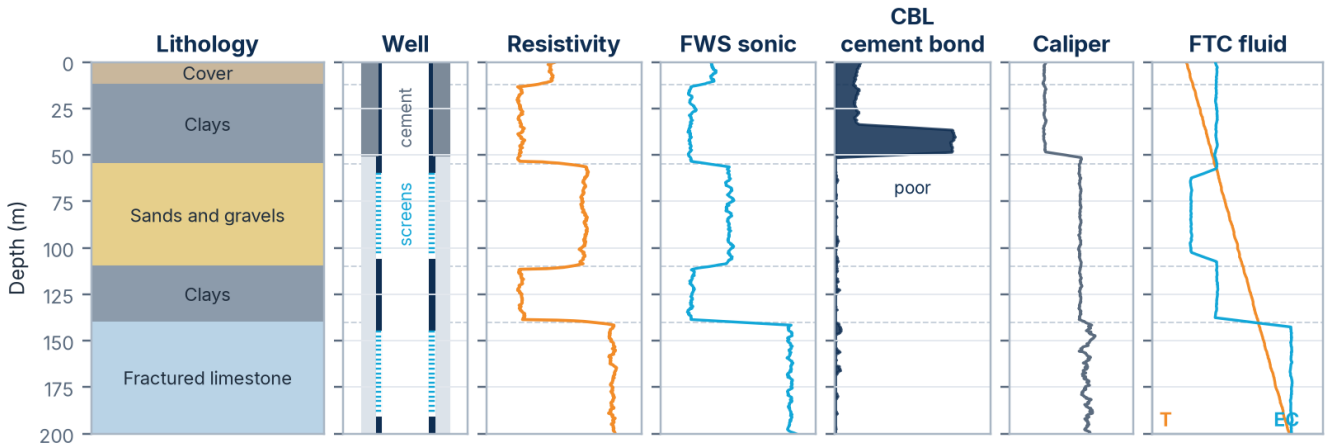
5 **Testing**
logging, video inspection, completion

1,000 m
depth for geophysical logging and video

Open · cased
measurements in open holes and completed wells

FTC · FWS · CBL
fluids, sonic and cement bond

BCS V10
camera for borehole video inspection



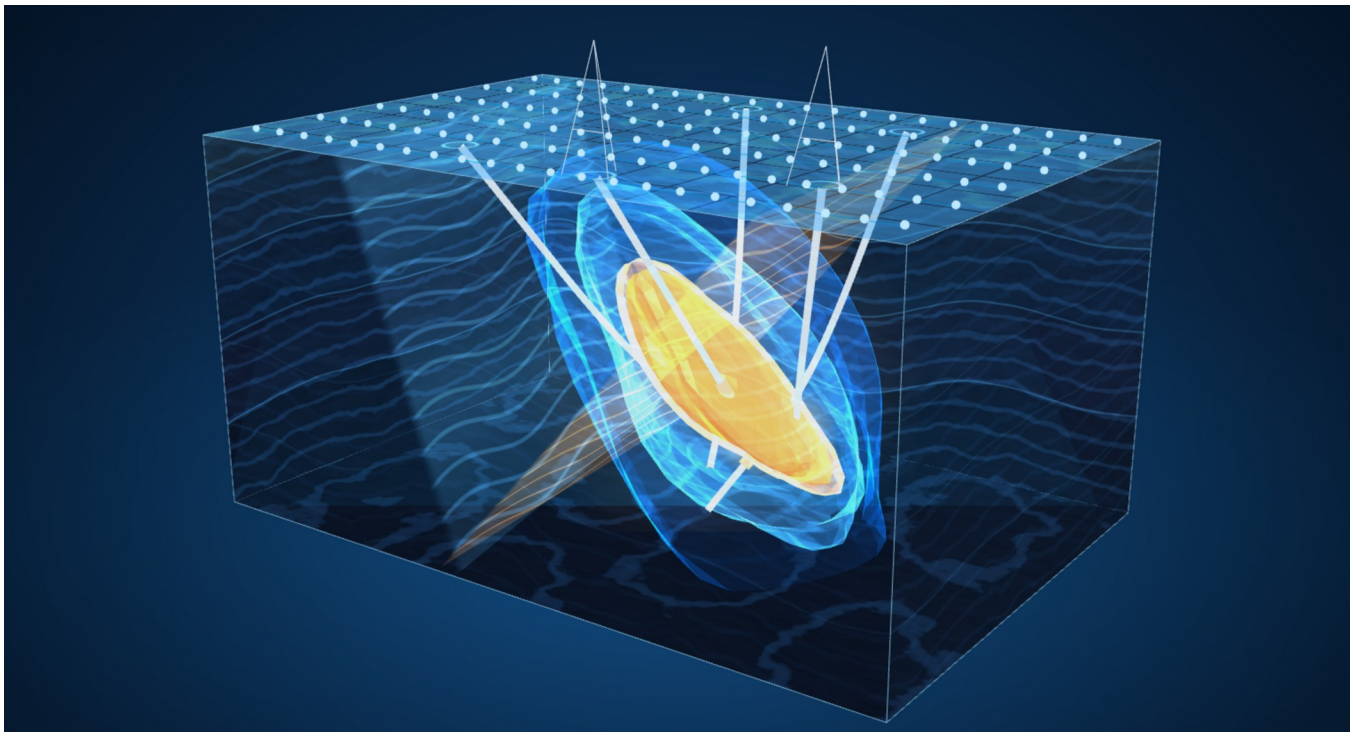
ILLUSTRATIVE DIAGRAM Example of borehole geophysical logs: lithology, completion with screens, resistivity, sonic, cement bond, caliper and fluid.

The well is the final test of the model: geophysical logs and video inspections confirm productive levels, screens and completion.

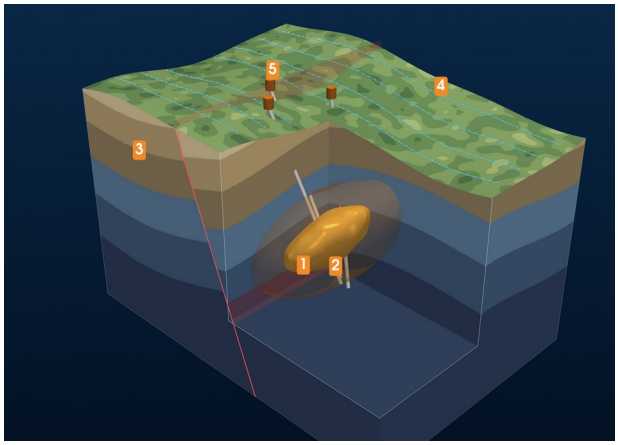
PHASED GEOPHYSICAL METHODS

Mineral exploration: from target to drill hole

In mineral exploration, geophysics helps decide where to drill. We combine methods sensitive to different physical properties – chargeability, resistivity, seismic velocity – and integrate them with geology, geochemistry and remote sensing in a 3D model, to be tested by drilling.



ILLUSTRATIVE DIAGRAM 3D block: conductive and chargeable body along a fault, with survey lines and verification holes.



1 Mineralised body
2 Alteration halo and IP chargeability
3 Fault
4 ERT/IP survey lines
5 Verification holes

ILLUSTRATIVE DIAGRAM

3D IP / ERT

Chargeability and resistivity in 2D and 3D: disseminated mineralisation, sulphides, clay and silica alteration.

TDEM

Deep conductors down to 200–600 m; continuous shallow profiles with TEM2Go.

Seismics

Refraction and reflection for bedrock geometry, faults and cover thickness.

Satellite and drone

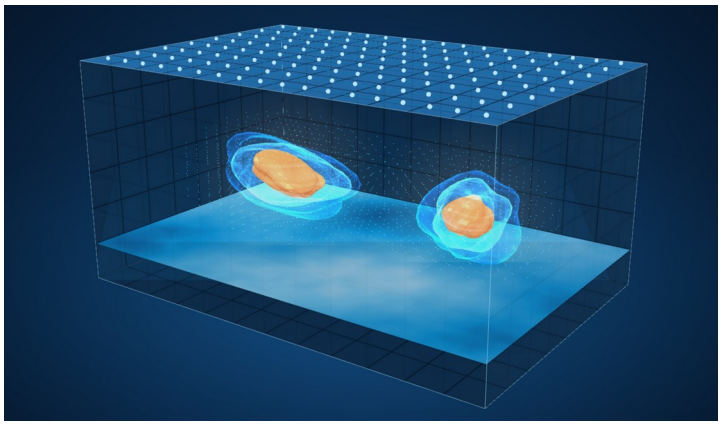
Through our university collaborations: multispectral, hyperspectral, drone magnetics, LiDAR.

The diagrams are illustrative and do not represent resources, tonnages or grades: the model shows where to test by drilling.

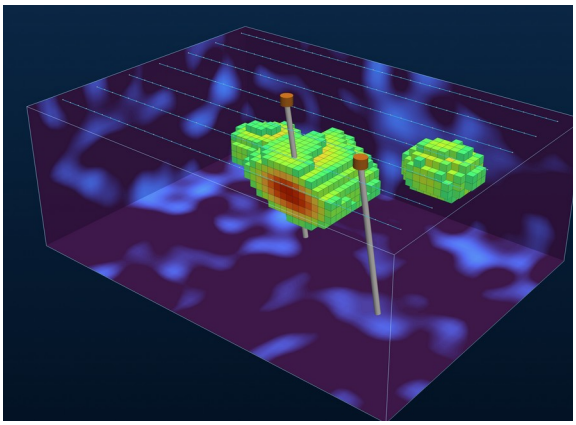
3D INVERSION · ISOSURFACES · INTEGRATED DATA

3D inversion of resistivity and chargeability

We acquire grids of parallel ERT/IP lines and invert them into a single 3D volume. Isosurfaces and cells of increasing chargeability show the shape, depth and continuity of anomalies, ready to be compared with geology, geochemistry and drilling.



Nested chargeability isosurfaces and resistivity slice.



Model cells above threshold, cut towards the core of the anomaly.

low chargeability — high

ILLUSTRATIVE DIAGRAM

01
3D grid
Parallel ERT/IP lines with a 96-channel resistivity meter, GNSS-referenced.

02
Inversion
3D resistivity and chargeability models, with sensitivity estimates.

03
Integration
TDEM, seismics, geology, geochemistry and drill data in the same model.

04
Targets
Drilling priorities, with stated uncertainties.

Predictive software

UNDER DEVELOPMENT AND VALIDATION

With our university collaborations we are developing a tool that combines satellite, geophysical, geological and geochemical data into maps supporting target selection. It is under development and validation: every indication is checked on the ground.

What we deliver

- 3D models in open formats (VTK, CSV, GIS)
- Sections and depth slices at chosen levels
- Target map with stated uncertainties
- Proposed drill-hole locations and inclinations

96
resistivity-meter channels for 3D grids

2D · 3D
resistivity and chargeability models

VTK · GIS
open formats, readable by any software

1
single model for all methods

No resource estimates: geophysics reduces exploration risk and guides drilling, which remains the final test.

APPLIED RESEARCH WITH UNIVERSITIES

The science behind every project

Sismoelettrica collaborates with two university centres on applied research in the water and mineral sectors. The collaborations combine the company's field geophysics with academic geochemistry, mineralogy and remote sensing, respecting each group's role.

UNIFI · DST

University of Florence
Department of Earth Sciences

Prof. Orlando Vaselli

GEOCHEMISTRY AND VOLCANOLOGY

Associate professor, former head of DST and president of the Italian Geochemical Society, with over 250 publications, including on the East African Rift.[1]

Prof. Pilario Costagliola

MINERAL GEORESOURCES

Associate professor of mineral georesources and applied mineralogy: metallogenesis, mineral prospecting and environmental mineralogy.[2]

- Geochemistry of waters, soils and hydrothermal systems
- Water isotopes; in-situ $\delta^{13}C$ in CO_2 and CH_4
- Mineralogy and petrography of rock samples

UNISI · CGT

Centre for GeoTechnologies, University of Siena
San Giovanni Valdarno

Prof. Riccardo Salvini

COLLABORATION CONTACT

Associate professor of engineering geology, expert in remote sensing and geomatics, with research in Italy, Brazil, UAE, Libya, Turkey, Egypt and Ethiopia.[3]

- Multispectral and hyperspectral satellite remote sensing
- Aerial and drone photogrammetry, laser scanning
- GNSS surveys and structural geological mapping
- GIS and spatial data management

Sismoelettrica
Field geophysics, data integration

UNIFI · DST
Geochemistry, mineralogy, isotopes

UNISI · CGT
Remote sensing, drone, GIS

SCOPE OF THE COLLABORATIONS

Applied research in East Africa in the water and mineral sectors: geological models, sampling and analysis of soils, sediments, rocks and waters, ground validation of satellite and drone targets, technical training.





Illustrative images

1 UNIFI – Faculty page, O. Vaselli · https://cercachi.unifi.it/p-doc2-0-0-A-3f2a3c32382e2c-0.html
2 UNIFI – Faculty page, P. Costagliola · https://cercachi.unifi.it/p-doc2-0-0-A-3f2a3d29372a2d-0.html
3 Centre for GeoTechnologies, University of Siena · https://geotecnologie.unisi.it/team-member/salvini-riccardo/

FROM SATELLITE DATA TO TARGET

A method to reduce exploration risk

Through our university collaborations we carry out research in East Africa in the water and mineral sectors. Work proceeds in phases: each phase narrows the area and increases resolution, so that the most expensive activities focus where the evidence is strongest.



1

Satellite

Multispectral, hyperspectral, radar, DEM and existing geological data

1,000–10,000 km²



2

Drone

Photogrammetry, magnetics, LiDAR and structural mapping

10–100 km²



3

On the ground

TDEM, ERT/IP, seismic and geochemical sampling

1–10 km²

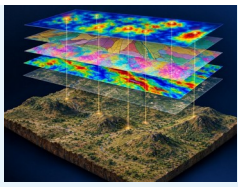


4

Laboratory

Geochemistry and mineralogy of samples

samples



5

Model

Map supporting target selection, with stated uncertainties

target

Illustrative images

Predictive software

UNDER DEVELOPMENT AND VALIDATION

With our university collaborations we are developing a tool that combines satellite, geophysical, geological and geochemical data into maps supporting target selection. The software is under development and validation: every indication is checked with ground surveys.

East Africa

Water sector: aquifer reservoir exploration and support for well siting.

Mineral sector: phased exploration, from satellite to field sampling.

Decision points, not blind spending.

Each phase ends with a technical review agreed with the client: continue, adjust or stop. Results are delivered in GIS formats so that the counterparts' geologists can check them independently.

Press coverage:

- https://www.dst.unifi.it/art-402-dal-9-al-13-ottobre-2025.html
- https://dailynews.co.tz/govt-italian-firm-partner-to-boost-mineral-exploration

WHY SISMOELETTRICA

Why carry out an on-site geophysical survey before drilling a well

A dry well or an off-target borehole costs far more than a well-designed survey. Our work helps decide where, how deep and whether to drill.

01
One responsible geologist
From proposal to final report, a single technical lead follows the project.

02
Independent methods
Resistivity, seismic velocity, electrokinetic response and GPR cross-check each other.

03
Own equipment
Fast mobilisation and direct control of data quality.

04
Transparent data
Raw data, models and uncertainties delivered in open, CAD and GIS formats.

05
From survey to well
Drilling support, logging and video inspection close the loop and verify the model.

06
Applied research
University collaborations bring up-to-date geochemical and remote-sensing methods to the field.



Who we work for

Farms and private clients	aquifer reservoirs and wells
Public bodies and water utilities	aquifer reservoirs and public wells
Engineering and geology firms	seismic and geotechnical characterisation
Environment and remediation	tanks, utilities, leachate
Geothermal	low and medium enthalpy
Mining companies	phased exploration

THEY CHOSE SISMOELETTRICA

Comune di Livigno · Comune di Firenze · Comune di Alto Reno Terme · Pizzarotti S.p.A. · Ingegnerie Toscane · Sorgenti Italiane · Riccoboni · CSO Scandicci and others

Tell us your objective: we will propose the most effective combination of methods and a quotation.

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SISMO ELETTRICA

INTEGRATED GEOPHYSICS

From field data to the decision to drill.

Dott. Geol. Francesco Cintelli

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VAT IT07015800480 · REA FI-673290 · Share capital €30,000 fully paid

2026