### GECO-DMC s.r.l. STP

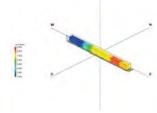












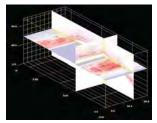


**GE-CO** is a technologically-advanced provider of 2D/3D/4D geophysical surveys acquisition and high-end data processing services to the main engineering construction and oil & gas industry.

#### Assisting you to know the subsurface:

If you want detailed information from the subsurface concerning geophysical and geotechnical techniques, we can service you. We can offer high and very high resolution imaging and analysis of the subsurface from depths below one meter to some kilometers. The solid experience in geophysical and geological sectors working on national and international projects in different type of environmental conditions, collaborating with the main big companies, confirm the **GE-CO** ability to organize, acquire and interpret complex investigations for the subsoil characterization of a wide type of projects ranging from civil engineering, natural resources and environmental tasks. Main geophysical know-hows include seismic, geo-electrical, ground-penetrating radar, electromagnetic, magneto-telluric and gravity techniques.

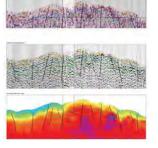




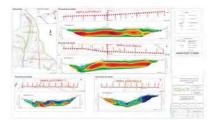
#### Why contact GECO?

- confirmed experience: more than 3000 projects around the word;
- innovation: we have financed in developing the services and technologies necessary to study complex subsurface problems in difficult surroundings;
- support: we can interpret the final results in a easy-to-read way and help you in all phases of your project with advancing modelling, competent opinion and professional recommendation.























#### Site characterization and optimization of geotechnical drilling:

Geophysical surveys can offer high resolution images useful to client to better understand the subsurface and optimizing the number and location of geotechnical test boreholes identifying drilling problems.

#### **Geohazards**

When there is alarm about the presence of geological hazards such as micro and macro cavities, tectonic structures, or pollutants we can detect these features and reported them into maps useful for design the better solution and minimize the risks. Typical applications include: deep and shallow faulting and fissures, sinkhole, caves and karstic solution phenomena, abandoned mine workings, tunnels and other man-made cavities, geologic structure for seismic risk evaluation, supporting to manage flood risk by investigating the integrity of dams, coastal structures and levees.



Geophysical techniques can offer a suite of quantitative data relating to the physical properties of the ground to enable the engineer to model rocks behavior in response to different loads. Main applications are suitable to improving buildings, bridges, dams, etc. foundations design, tunnel layout characterizations and structural analysis.

#### Natural resources & energy

GECO is a important global provider of data analysis applied to the exploration for natural resources and energy sector. We offer services to evaluate and plan the exploitation of natural resources and geothermal energy, with a high specialization in geophysical investigations. Seismic reflection method can reconstruct the buried geological structure (from the surface to some km of depth) and play a significant part in exploration for energy resources. Other geophysical methods can play a key role in exploration and characterization of subsurface resources including groundwater, coal and minerals and in ground investigations for planning and design wind generation schemes, waste storage sites and hydroelectric projects.

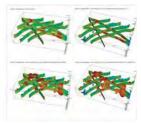




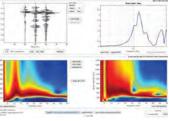




















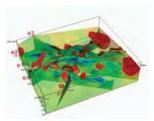


Geophysical investigation methods are suggested for their efficient, cost-effective, nonintrusive, and non-destructive nature. GECO has developed ground-breaking, trailblazing technologies and methods in-house to encounter the specific needs of our customers. Usual applications of surface and subsurface geophysical methods include:



- Buildings, bridges, dams, etc. foundations & Jet grouting
- Tunnels, pipe-lines, railways, roads, etc. layout characterization
- Seismic assessment of the subsoil
- Structural analysis of existing structures
- Monitoring
- Depth of bedrock
- Site survey analysis
- Geologic structural mapping and fault investigation
- Seismic risk evaluation
- Dike and levee inspection
- Mapping P&S wave velocity/dynamic modulo and rippability
- Void & Sinkhole
- Oil and gas exploration
- Co2 injection monitoring
- Evaluation of the potential exploitable resource
- Locating of geological structures potentially productive (faults etc.)
- Mineral deposit exploration
- Locating of polluting substances
- Definition of contaminant plume extension
- Evaluation of volumes of solid waste in landfill sites
- Structural verification of landfill sites
- Structural verification of impermeable diaphragms
- Hydrogeology
- Locating buried unexploded war's weapons:
- Locating of buried structures in archeology
- Analysis of building materials of existing structures
- Locating and mapping of network utilities
- Structural evaluation (concrete, pillar, asphalt, etc.)











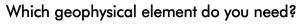


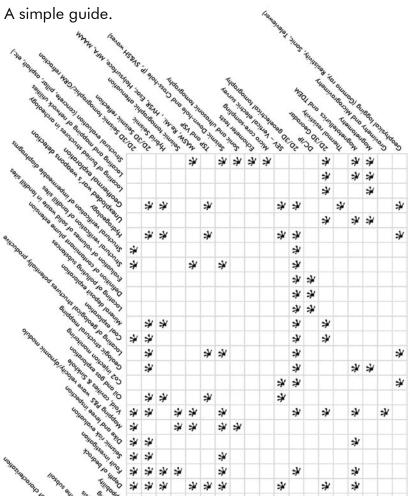




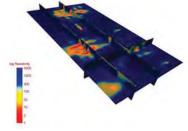






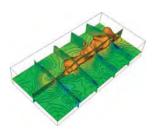












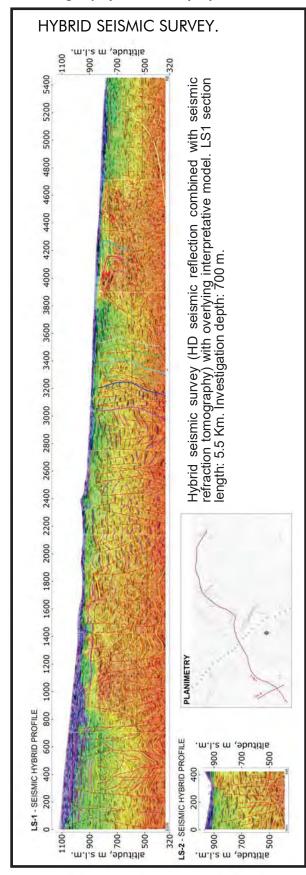


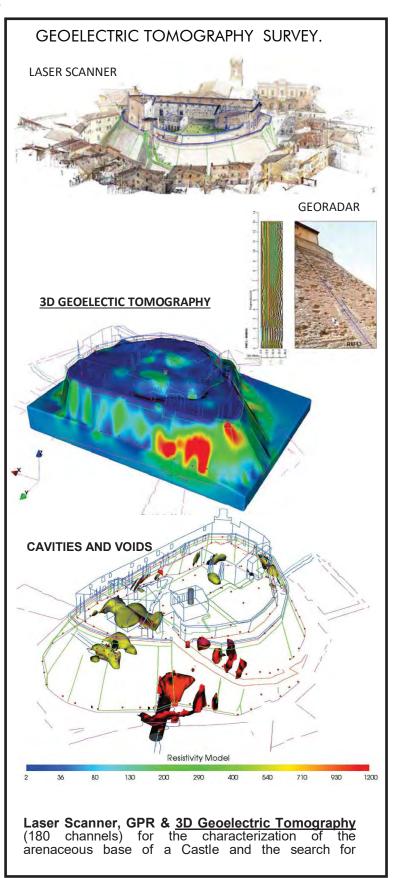






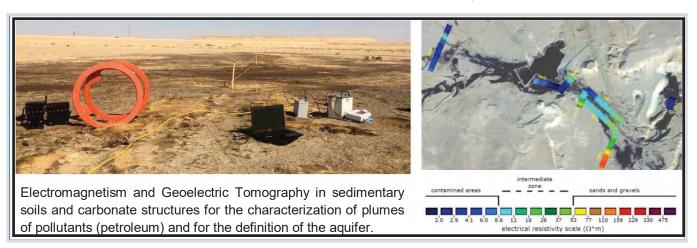
#### Some geophysical survey by GECO-DMC

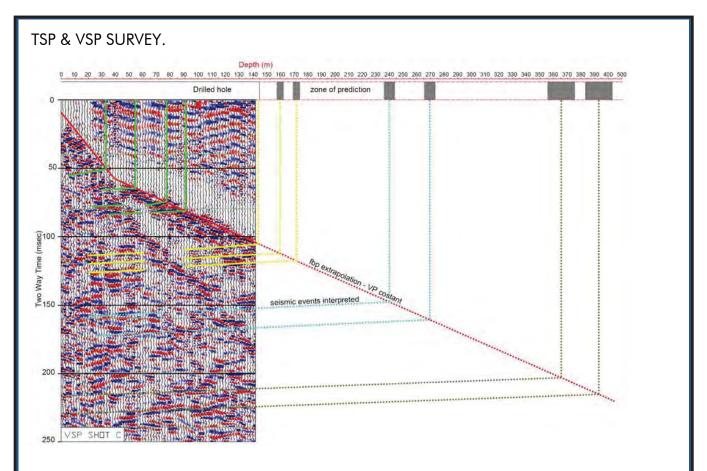






#### ELECTROMAGNETISM & GEOELECTRIC TOMOGRAPHY SURVEY.

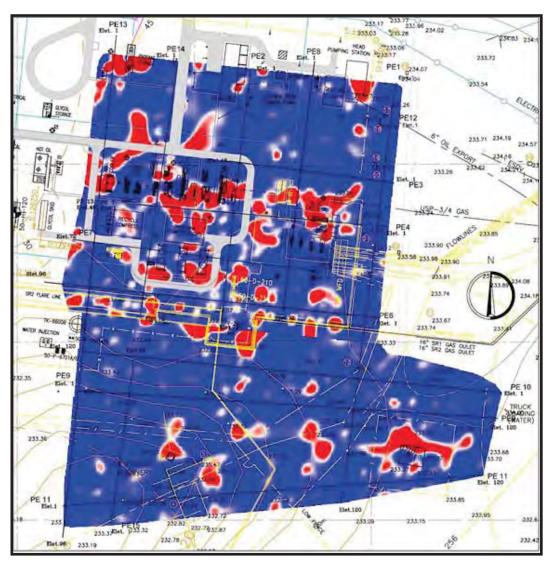




**TSP (Tunnel Seismic Prediction) & VSpP (Vertical Seismic profile Prediction) survey** are used to predict the presence of reflectors beyond the tunnel front or below the bottom of the well. In these cases a geophone string is positioned on the walls of the tunnel in a space included between the shot and the tunnel front or into the well. This method has the advantage of avoiding the near surface noise and a quite large depth of investigation (around 100 to 150 meters ahead the tunnel or the bottom of the well). The target of the required study is to predict the distance at which geological discontinuities are going to be encountered during advancement.

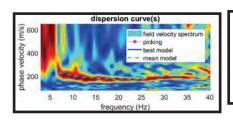


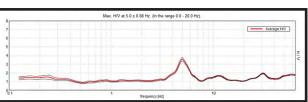
INDUCED POLARIZATION - IP.

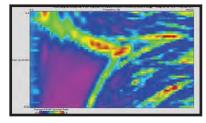


Map of chargeability anomalies (pollutions) within an industrial site.

#### SURFACE WAVES ANALYSIS





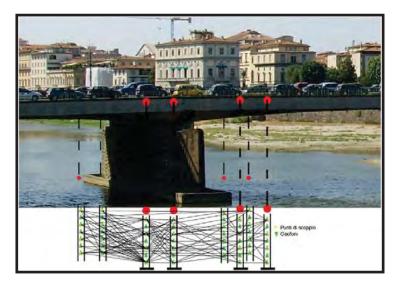


Active and passive seismic survey:

MASW, ESAC, MAAM, HS, REMI, HVSR, RLS technique for the definition of VSeq parameter, fondamental frequency and local seismic response analysis



#### SEISMIC SURVEY INTO HOLE



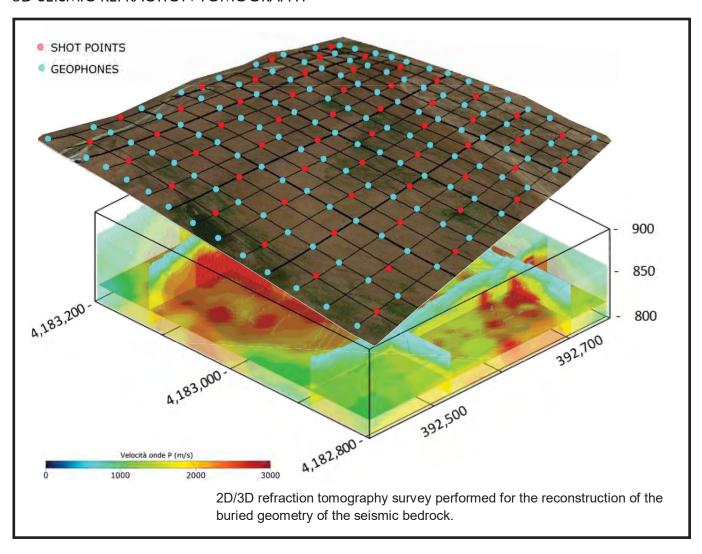
DOWN HOLE SEISMIC SURVEY

CROSS HOLE TESTING SURVEY

2D/3D/4D TOMOGRAPHYC CROSS HOLE

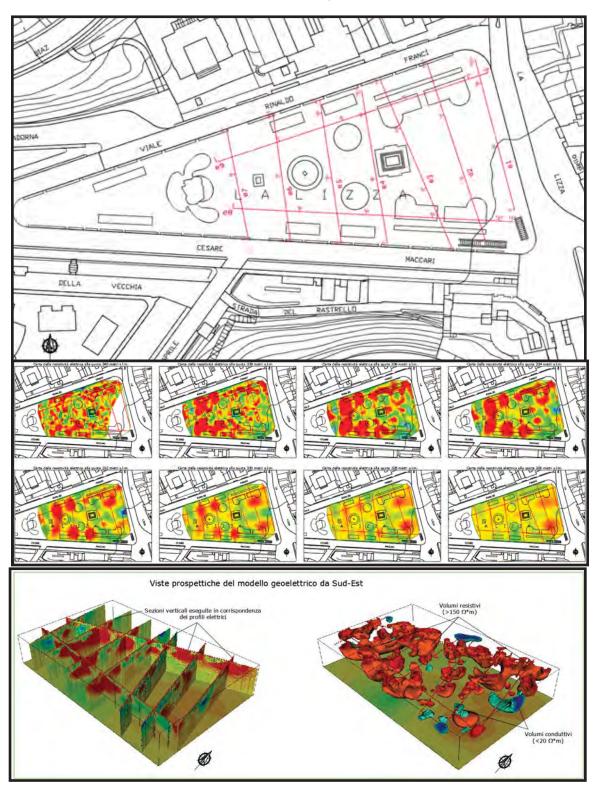
SONIC CROSS HOLE

#### 3D SEISMIC REFRACTION TOMOGRAPHY





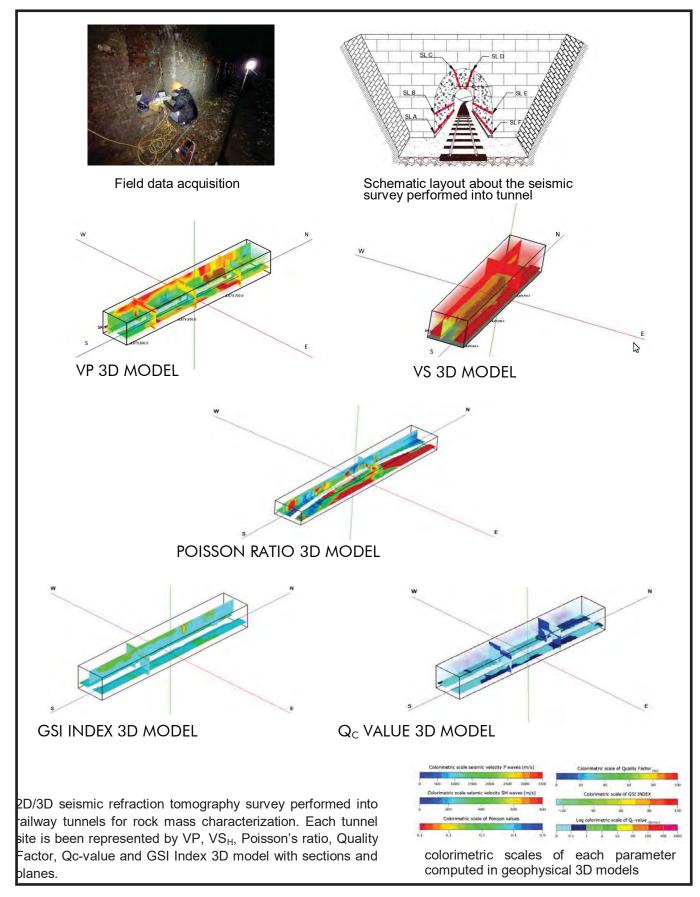
3D GEOELECTRIC TOMOGRAPHY SURVEY.



2D/3D geoelectric survey performed for an archaeological research.

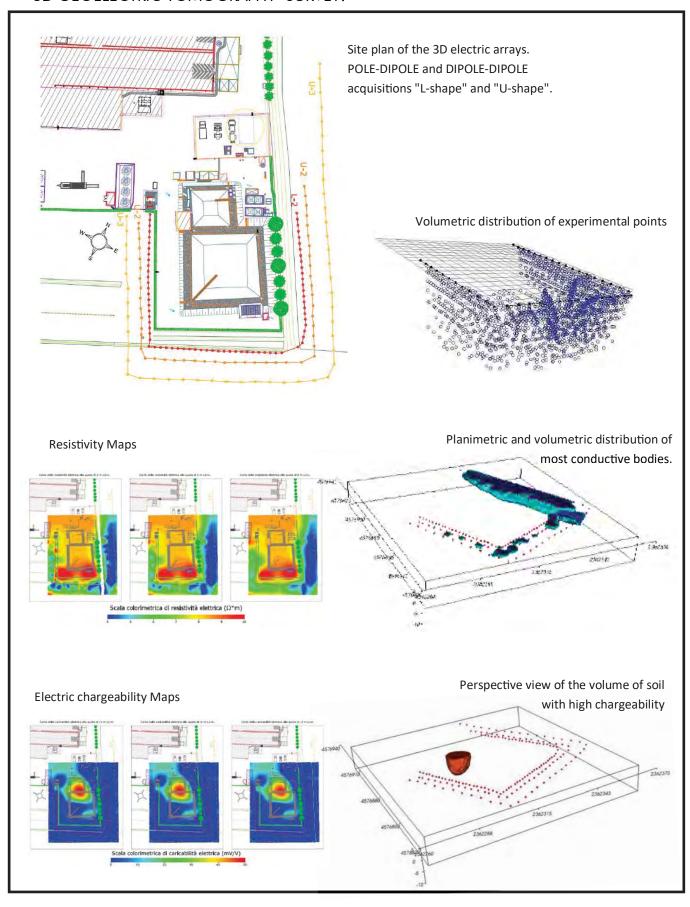


#### 3D P & S WAVES SEISMIC REFRACTION TOMOGRAPHY SURVEY





#### 3D GEOELECTRIC TOMOGRAPHY SURVEY.





NDT – NON DESTRUCTIVE TESTING ON CLS ELEMENTS

PACOMETER, SONREB and PULL OUT SURVEY





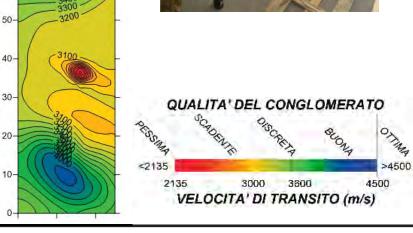


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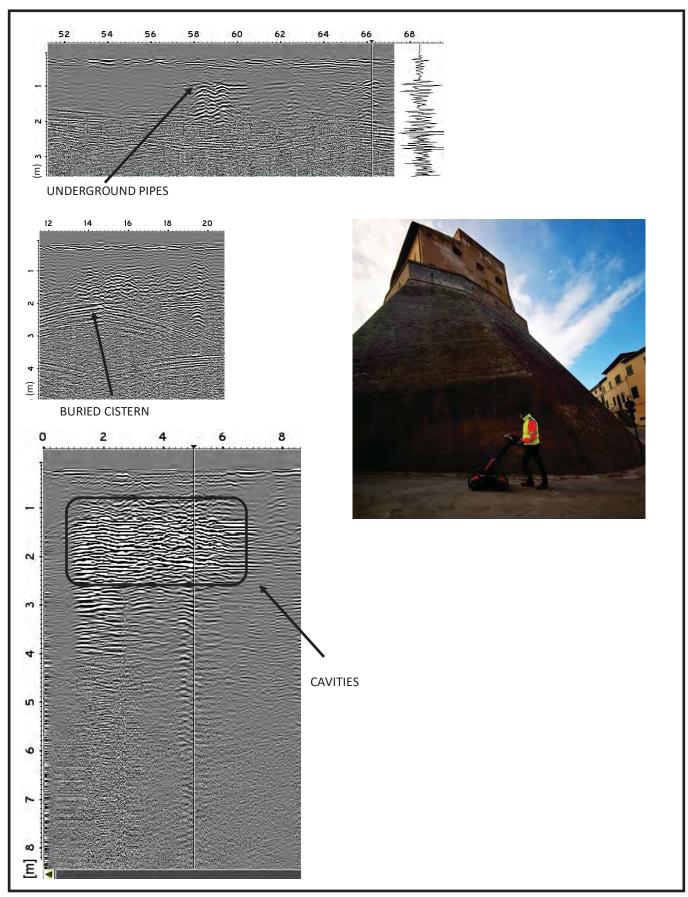
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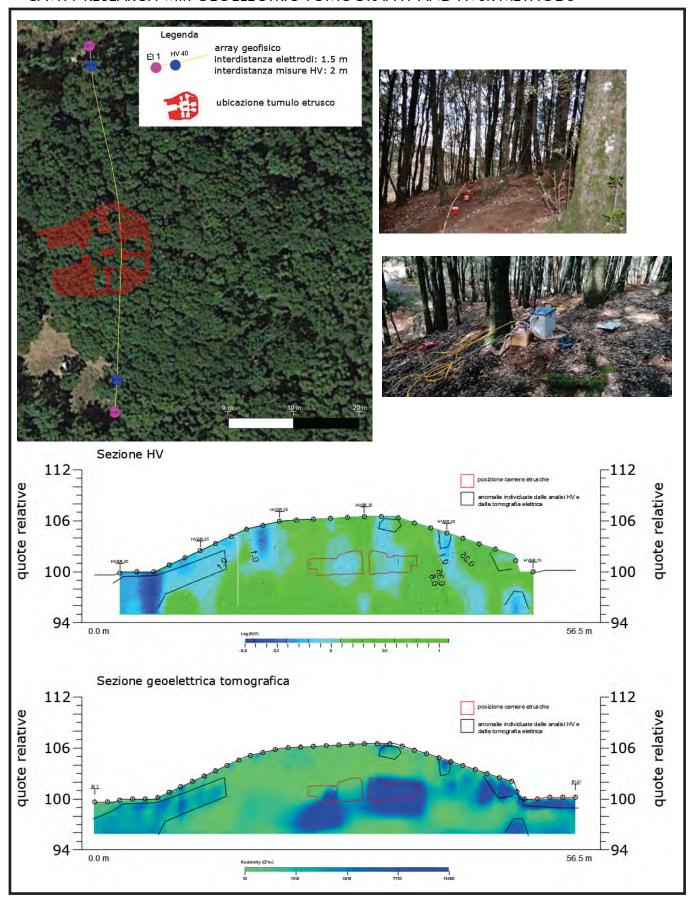


#### GEORADAR INVESTIGATION



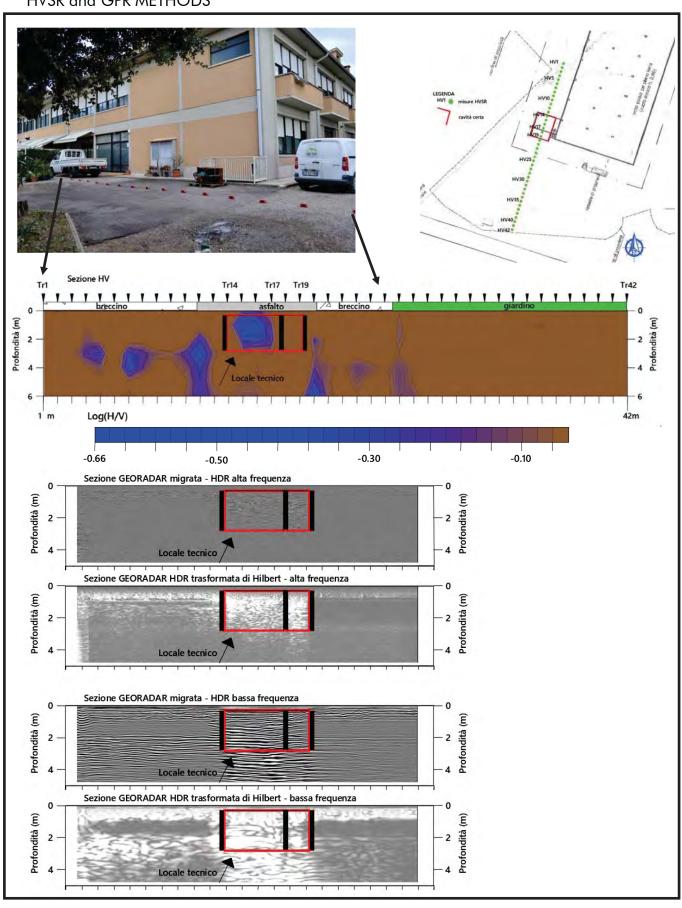


### CAVITY RESEARCH with GEOELECTRIC TOMOGRAPHY AND HVSR METHODS



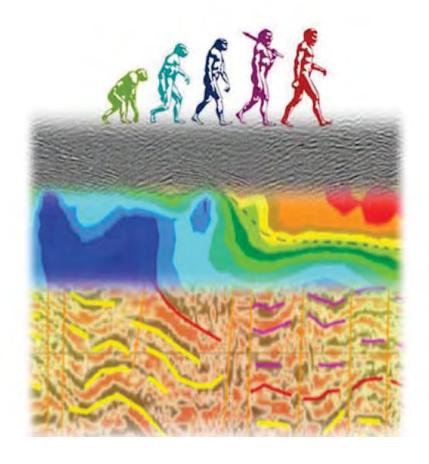


#### **HVSR and GPR METHODS**





### DISCOVERING THE DEEP





GECO-DMC s.r.l. STP via G. Lanza, 4 – 58100 Grosseto (GR) P.IVA / C.F. 01615070537

Web site: WWW.GECO-DMC.COM



#### Contact

Dr De Luca Johnny: deluca@geco-dmc.com

Dr Mencarini Stefano: mencarini@geco-dmc.com

Dr Cannucci Enrico: cannucci@geco-dmc.com