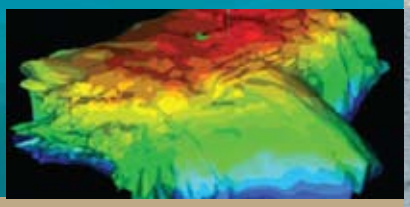


Laser cavity scanning, Austria

Electrical resistivity tomography survey, UAE

Fugro

Engineering Geophysics

MASW survey, Abu Dhabi

Comprehensive geophysical and geotechnical capability with centres of excellence worldwide

Borehole wireline logging, Germany

Rapid reliable subsurface information

Minimal damage or disruption

Environment
Engineering
Geotechnics

Site characterisation
Engineering properties
Void location

As a leading international geoscience company, Fugro can provide a comprehensive range of engineering and environmental geophysical information. The Fugro difference is the ability to bring both 'small company' expertise innovation and care, and 'big company' resources to your projects to maximise the chances of success.

Cone Penetration Testing, Germany. Geophysical applications of CPT include UXO mapping and investigation of ground anchors and sheet pile depth using magneto cone sensors.

Mapping voids in masonry walls, UK

EXPERIENCE AND CAPABILITY

We have considerable experience of surface and borehole geophysics and precision non-destructive investigation for construction, infrastructure and environmental applications. We can follow-up geophysical investigations with targeted geotechnical surveys including sampling, drilling, cone penetration testing and materials analysis in state of the art laboratories to ensure the most robust and cost-effective approach.

You can rest assured that work will be undertaken by well-equipped teams of specialists supported where necessary by local personnel from one of our 250 offices worldwide.

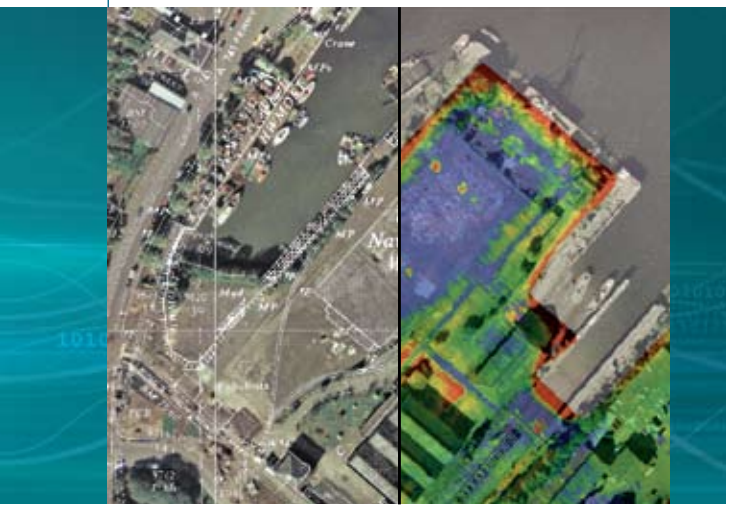
NON-DESTRUCTIVE INVESTIGATION

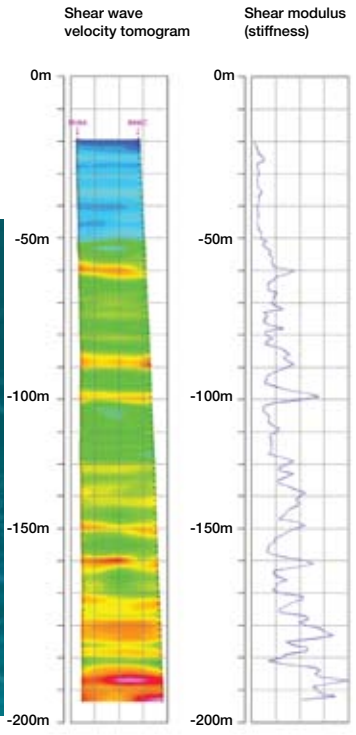
Expertise in non-destructive investigation of civil and structural infrastructure using sophisticated testing and high resolution imaging techniques.

Applications:

- Railway trackbed evaluation
- Bridges and tunnels
- Modern and heritage buildings
- Highway and airport pavement
- Foundation investigation
- Vibration monitoring

Electromagnetic mapping of buried obstructions, former industrial site, UK





Ground stiffness (shear modulus) information derived from cross-hole seismic tomography

Pavement evaluation, USA

GEOPHYSICAL GROUND INVESTIGATION

Geophysical investigation brings many benefits. Investigations may be phased to get the most from time and budget, for example starting with a rapid overview survey of a large site to characterise geology or map buried features. This may be followed by targeted surveys of anomalies to precisely define their nature and extent using high resolution imaging.

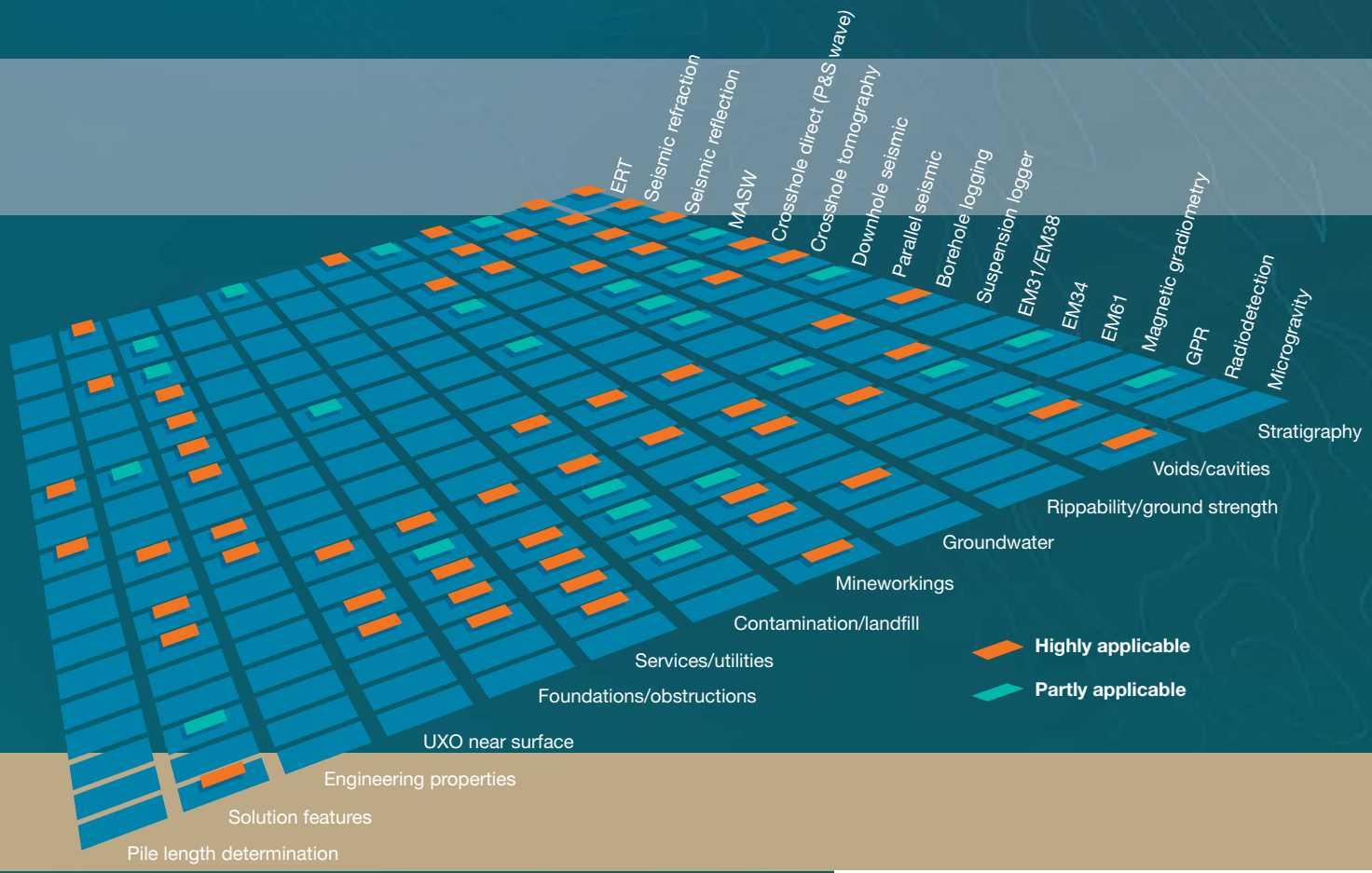
Information can be provided from the ground to depths ranging from less than a metre to several hundred metres with little or no damage or disruption. Sophisticated processing methods enable the viability of a survey to be modelled before work starts, during analysis to get the most from the data, and at the reporting stage to integrate results with other information such as digital maps, aerial photography, boreholes or CPTs.

Applications:
surface techniques

- Geotechnical investigations
- Geological surveys
- Groundwater / hydrogeological surveys
- Contaminant mapping
- Utility and subsurface obstructions including UXO
- Environmental site investigations
- Detection of former mineworkings
- Subsidence investigations
- Solution feature mapping
- Sediment investigation in ponds, lakes and rivers
- Airborne surveys for assessment of dams, levees and other linear assets
- Underwater sediment & morphology investigation

Applications:
borehole techniques

- In-situ evaluation of engineering properties
- Subsurface cavities
- Lithological profiles in open and cased boreholes
- Acoustic and optical borehole scanning
- Borehole orientation and geometry
- Density and porosity
- Identification and classification of aquifers
- Measurement of groundwater flow
- Depth related water sampling
- Logging for well design and completion
- Borehole casing and annulus inspection
- Hydraulic evaluation.



Fugro collects and interprets data relating to the Earth's surface, the structures built upon it and the soil and rocks beneath, and provides advice for the oil and gas, mining and construction industries.

Whether you need a walkover survey of a local site or a large scale integrated geophysical and geotechnical investigation on the other side of the world, we can deliver.

Key offices

Houston, USA
Berlin, Torgau, Germany
Cambridge, UK
Paris, France
Leidschendam, Netherlands
Bruck an der Mur, Austria
Dubai, UAE

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