



**IDS GeoRadar** 

Company Presentation



#### **IDS GeoRadar is Part of Hexagon Geosystems**

Shaping Smart Change in Some of the Largest and Most Vital Industries in

the World

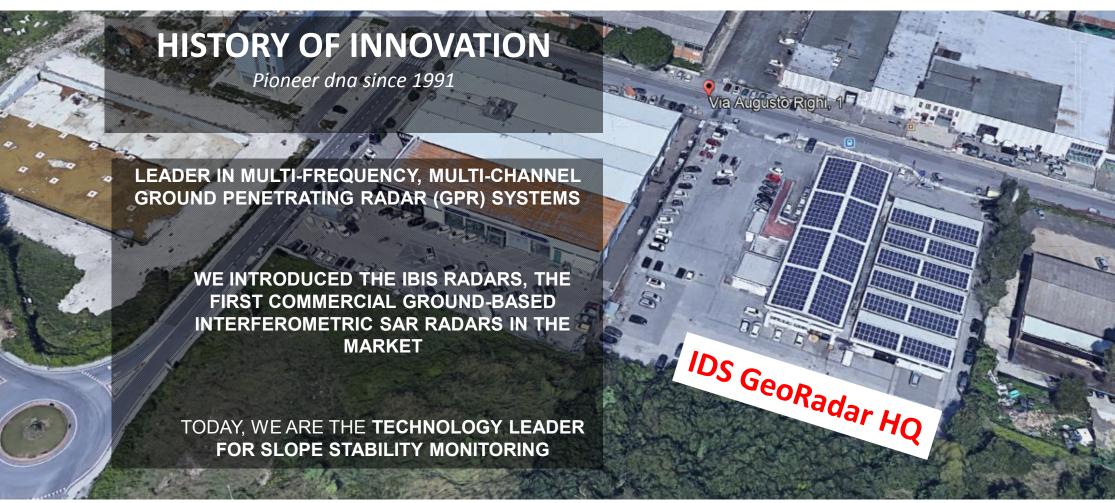
#### 3.5 bn EUR in sales | Approx. 19,000 employees in 50 countries | 10-12% of net sales invested in R&D

# HEXAGON DIVISIONS HEXAGON OVERVIEW AGRICULTURE GEOSPATIAL GEOSYSTEMS MANUFACTURING INTELLIGENCE MINING POSITIONING INTELLIGENCE PPM SAFETY & INFRASTRUCTURE JOIN US FOR HXGN LIVE 12-15 JUNE, 2018





#### Who we are?









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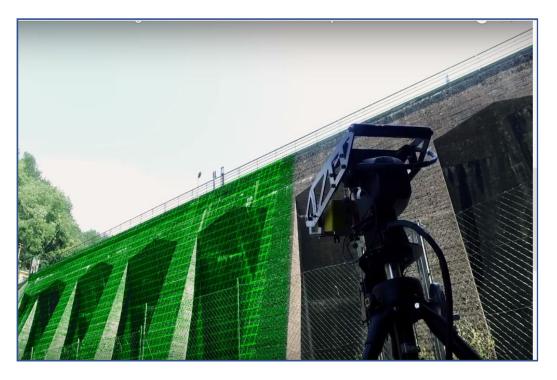
# **Keys technologies**

#### **GROUND PENETRATING RADAR**



# HIGH-RESOLUTION SUBSURFACE INVESTIGATION OF THE HEARTH

#### **GROUND BASED INTERFEROMETRIC RADAR**



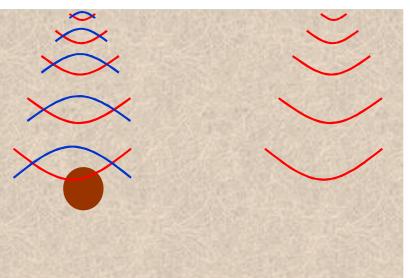
SIMPLIFY CRITICAL MONITORING





- ✓ The radar transmits a pulse of EM wave through an antenna transmitter (TX)
- ✓ The EM energy reflected back from any discontinuity (target) is detected and recorded by the antenna receiver (RX).
- ✓ The time delay (in nsec) contains information on the target depth; time delay depends on subsoil velocity of propagation of EM wave
- ✓ The penetration depth of any EM signal and its resolution depends on antenna frequency, the power the EM wave transmitter, and the electrical properties of the ground.





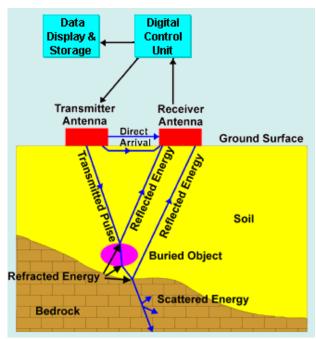


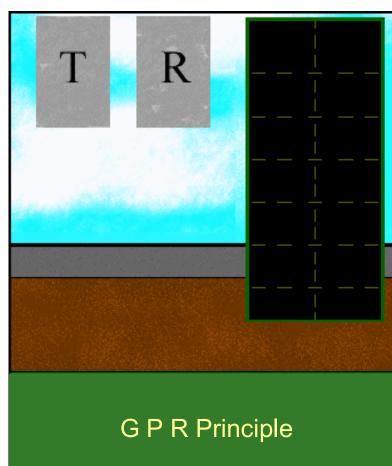


#### Radar Map Generation

**GPR** is a method for shallow, high-resolution, subsurface investigations of the earth.

**GPR** uses high frequency pulsed electromagnetic waves (from 25 MHz to 3,000 MHz) to collect subsurface information, to outline the geometry of the subsoil.

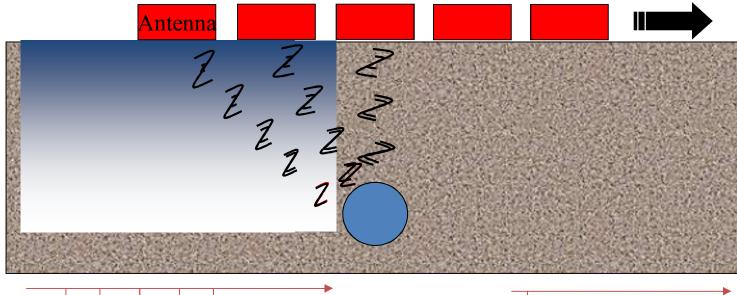


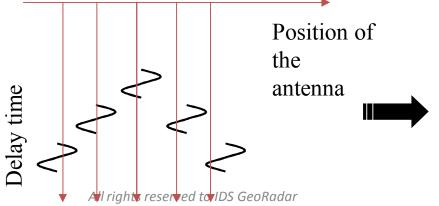


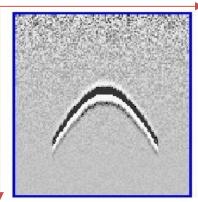




#### **Radar Map Generation**



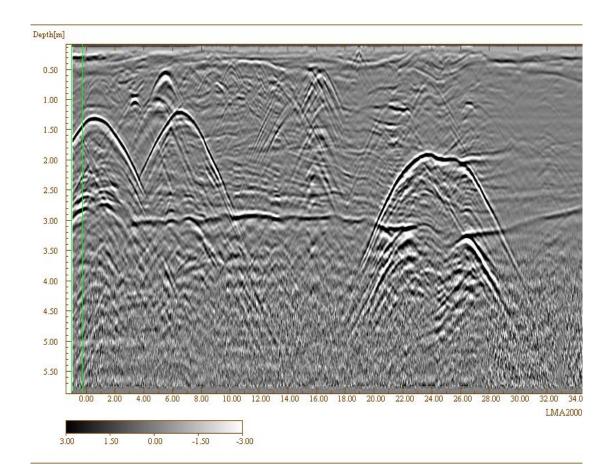








## Data interpretation of geological features





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#### **Market of IDS GeoRadar today**

Served by two business units: Geosystems and Mining





**Mining** 

**Utility Detection and Mapping** 

**Structural and Slope Monitoring** 



Railway Maintenance



**Construction Engineering** 



Road Maintenance



Geology & Environment



**Archaelogy** 

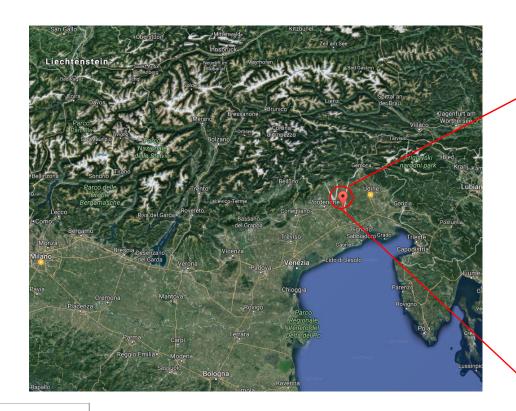










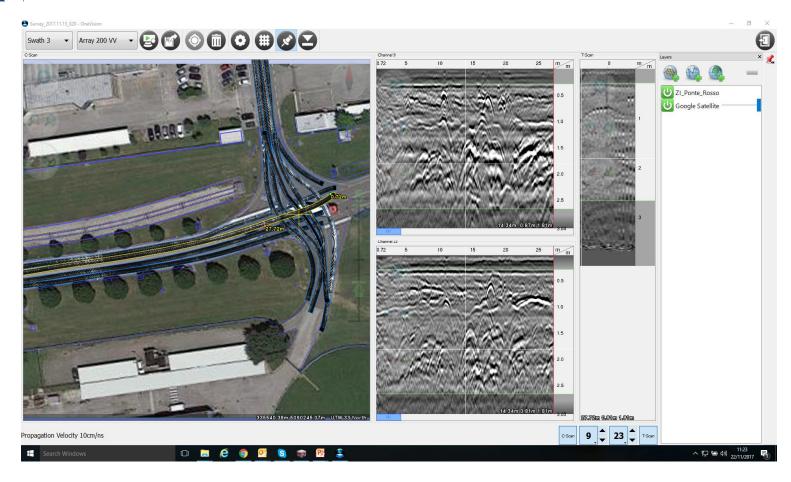


Zona industriale Ponte rosso - Pordenone II riquadro in rosso è l'area investigata



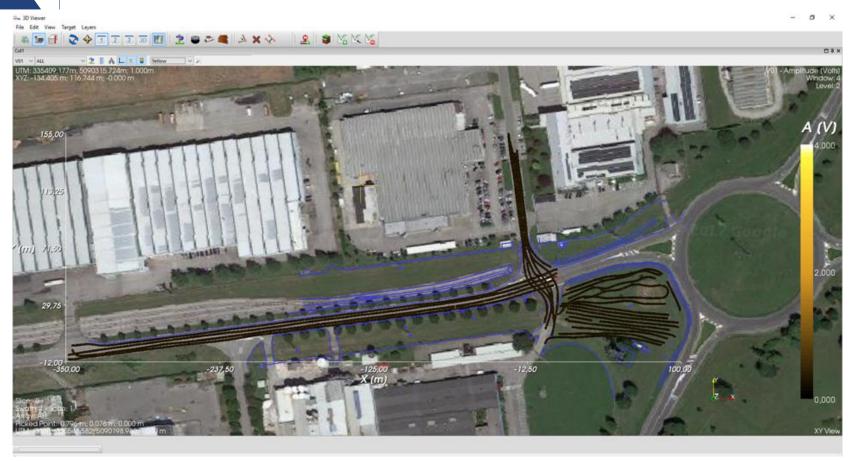






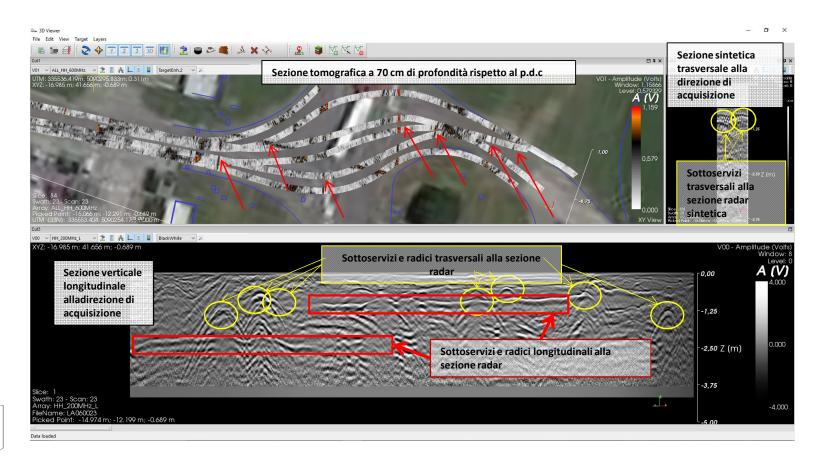






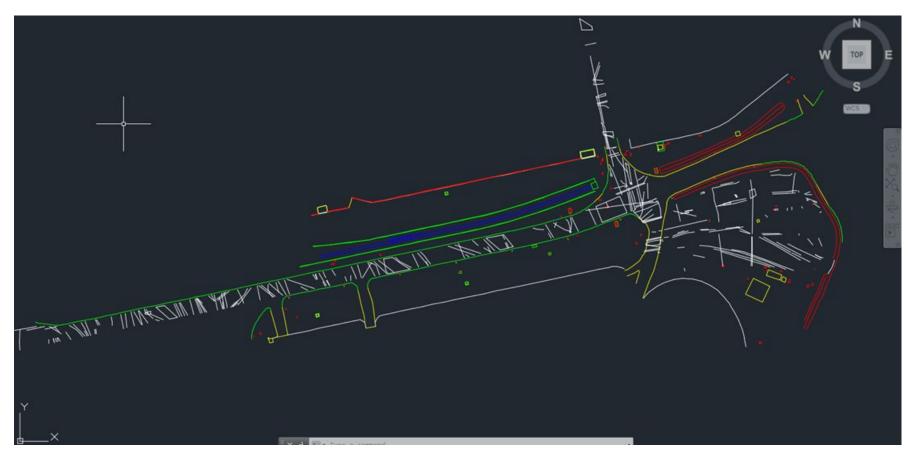






















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# Grazie per l'attenzione

