

# Stream X

The GPR array solution for underground archaeological and environmental surveys



Stream X: *the dedicated solution designed to survey large areas*

# Stream X

The easiest way to capture underground utility assets

Stream X is a vehicle towed ground penetrating radar solution for extensive 3D mapping of buried structures and geological features. With its 2 m wide swath, high speed and unsurpassed resolution, Stream X is the ideal solution for mapping large archaeological sites, detecting underground structures, pipes and tanks, identifying and mapping cavities or even locating unexploded ordnance.

## STREAM X BENEFITS

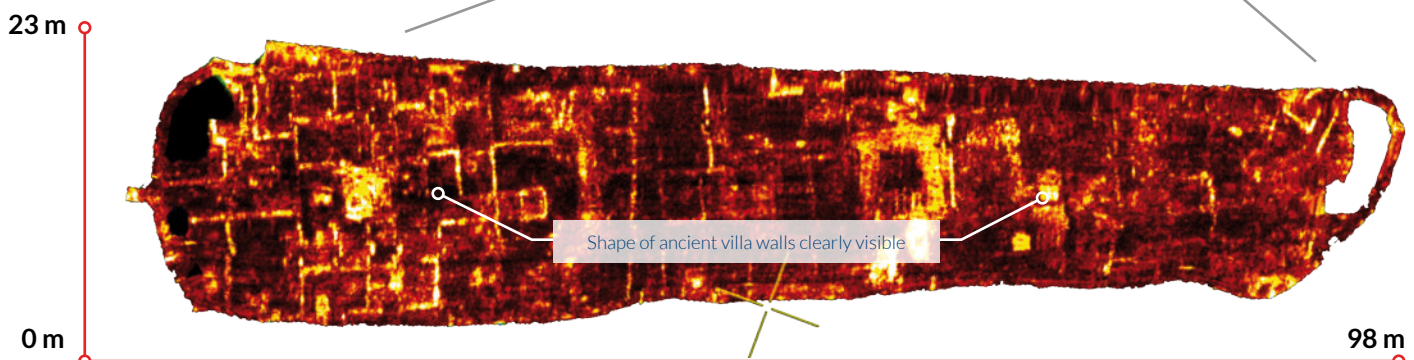
- **Cost savings** in underground investigation procedures while also providing more information on what is buried underground.
- **Increased performance:** Able to detect the presence and shape of anomalies present in the soil.
- **Fast and accurate** survey even in rough terrain.
- **High productivity:** up to 1 hectare/hour and a dedicated post processing platform.



Stream X survey

## STREAM X FEATURES

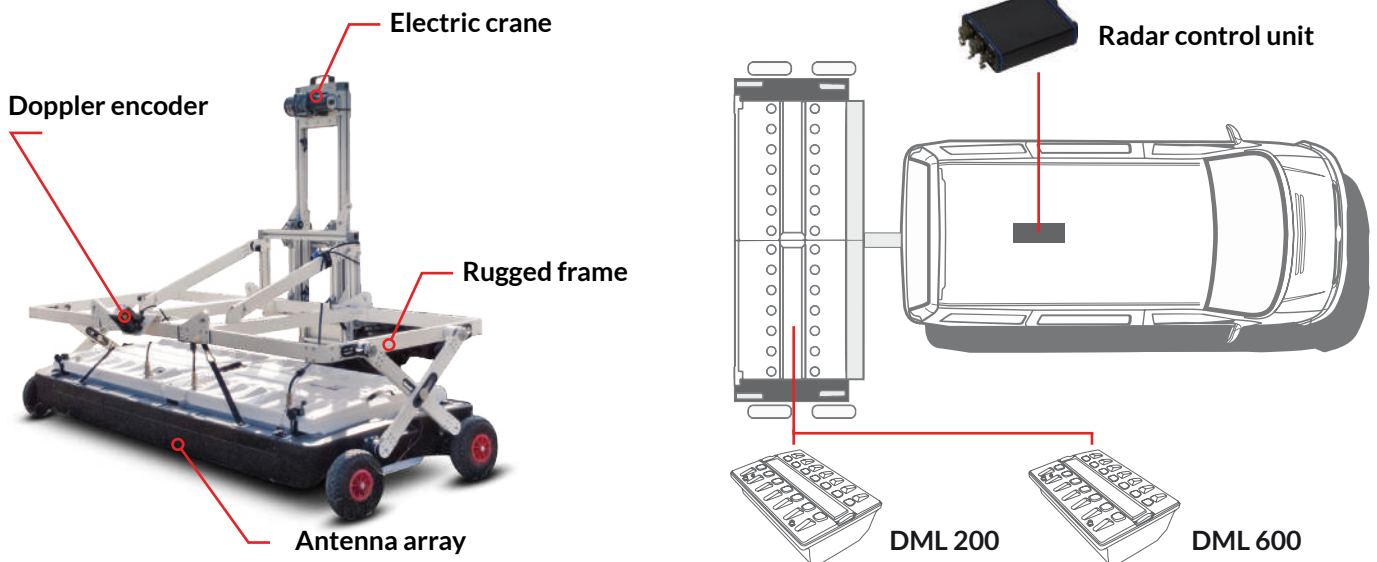
- **Massive array of antennas:** Stream X can be equipped with three different array configurations from 16 to 48 antennas. Antenna spacing can be as low as 4 cm; three times better than other competitors.
- **Different frequencies (200 MHz or 600 MHz):** Stream X can be equipped with a 16 antenna 200 MHz array in order to achieve the best penetration or with a 48 antenna 600 MHz array to maximize resolution.
- **Mechanical frame:** A solid mechanical frame which has been tested in several rough terrain conditions and harsh environments.
- **3D tomography:** The most defined underground 3D model currently available.
- **Advanced acquisition and navigation software** with real-time tomography and survey control with parameter editing.



Top view time slice at a depth of 60 cm of a Roman archaeological site

## STREAM X CONFIGURATION

Stream X is available with a 200 MHz antenna array for deep investigation or a dual 600 MHz array for high resolution shallow investigations. These are controlled by 1 to 4 multi-channel DAD FastWave radar control units and positioned using a survey wheel, total station or GPS. Stream X's provided software is able to acquire and display in real-time data from up to 48 antennas. It includes 2D and 3D tomography for an immediate visualization and detection of anomalies and the ability to automatically transfer target data to CAD or GIS maps.



### SYSTEM SPECIFICATIONS

- Recommended Laptop: Panasonic CF-20 or Cf-31
- Max Acquisition Speed (@STD Scan Interval): 36 km/h (22mph)
- Power Consumption: 28W - 200 MHz version  
Positioning: Doppler Radar and/or GPS or Total Station
- Number of Control Unit:  
1 DAD MCH @200 MHz | 4 DAD MCH @600 MHz
- Scan Rate Channel (@512 Samples/Scan): 87 scans/sec
- Scan Interval: 8 scans/m
- Power Supply: SLA Battery 12 VDC 12 Ah + electric crane

### ANTENNA SPECIFICATIONS

- IP Grade: IP65
- Scan Width: 1.80m
- Number of Channels: 15/44  
Antenna Center Frequencies: 200 MHz or 600 MHz
- Polarization: W
- Antenna Spacing: 12cm / 4cm
- Certification: EC, FCC, IC

### SOFTWARE SPECIFICATIONS

- OneVision Acquisition Software:
  - Real time tomography
  - Integrated navigator
  - Extensive survey management
  - System and survey set up
- IQMaps Post Processing Software:
  - Revolutionary interface that allows an immersive reality during post-processing phase
  - Large areas acquisition with no limit in software use even for acquisition of large areas
  - User friendly with ease of use and productivity dramatically increased (up to 30.000 sqm in a working day)
  - Georeferenced data: the new software has been developed with the precise aim to elaborate a georeferenced data after that it has been processed.



#### IDS GeoRadar

IDS GeoRadar, part of Hexagon, provides products and solutions, based on radar technology, for mining, civil engineering and monitoring applications. The company is a leading provider of Ground Penetrating Radar (GPR) and Interferometric Radar solutions worldwide.

IDS GeoRadar is committed to delivering best-in-class performance solutions and to the pursuit of product excellence, through the creation of application-specific, innovative and cost-efficient systems for a wide range of applications including mining, utility detection and mapping, civil engineering, geology, archaeology and public safety.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 23,000 employees in 50 countries and net sales of approximately 4.3bn EUR.

Learn more at [hexagon.com](https://hexagon.com) and follow us @HexagonAB.

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