

COMPREHENSIVE UNDERGROUND MAPPING

Xplora provides an advanced Unexploded Ordnance (UXO) Risk Assessment service in compliance with Italian Regulation, designed to ensure maximum safety and efficiency during the planning and execution of infrastructure projects in areas potentially affected by unexploded ordnance.

By integrating non-invasive methodologies with advanced artificial intelligence algorithms, Xplora not only identifies genuine UXO-related anomalies, eliminating ambiguities and false positives, but also delivers objective and repeatable results, avoiding errors caused by the subjective interpretation of traditional heat maps by technical personnel.

The technical outputs include a shapefile compatible with GIS projects, featuring updated digital mapping of the area and a 3D representation of UXO to depths of up to 14 meters, as well as a technical report fully compliant with national regulations.

These tools provide a reliable and objective foundation for risk planning and mitigation. This approach not only enhances the effectiveness of interventions but also significantly reduces time and operational costs, limiting the need for extensive Explosive Ordnance Disposal (EOD) operations to areas with confirmed anomalies associated with UXO. Xplora's service is therefore an essential support for tackling projects in complex environments, such as densely urbanized or railway areas.

THE TECHNOLOGY



MULTI-SENSOR FUSION

Combining data from various sensors to create a highly accurate map of subsurface features.



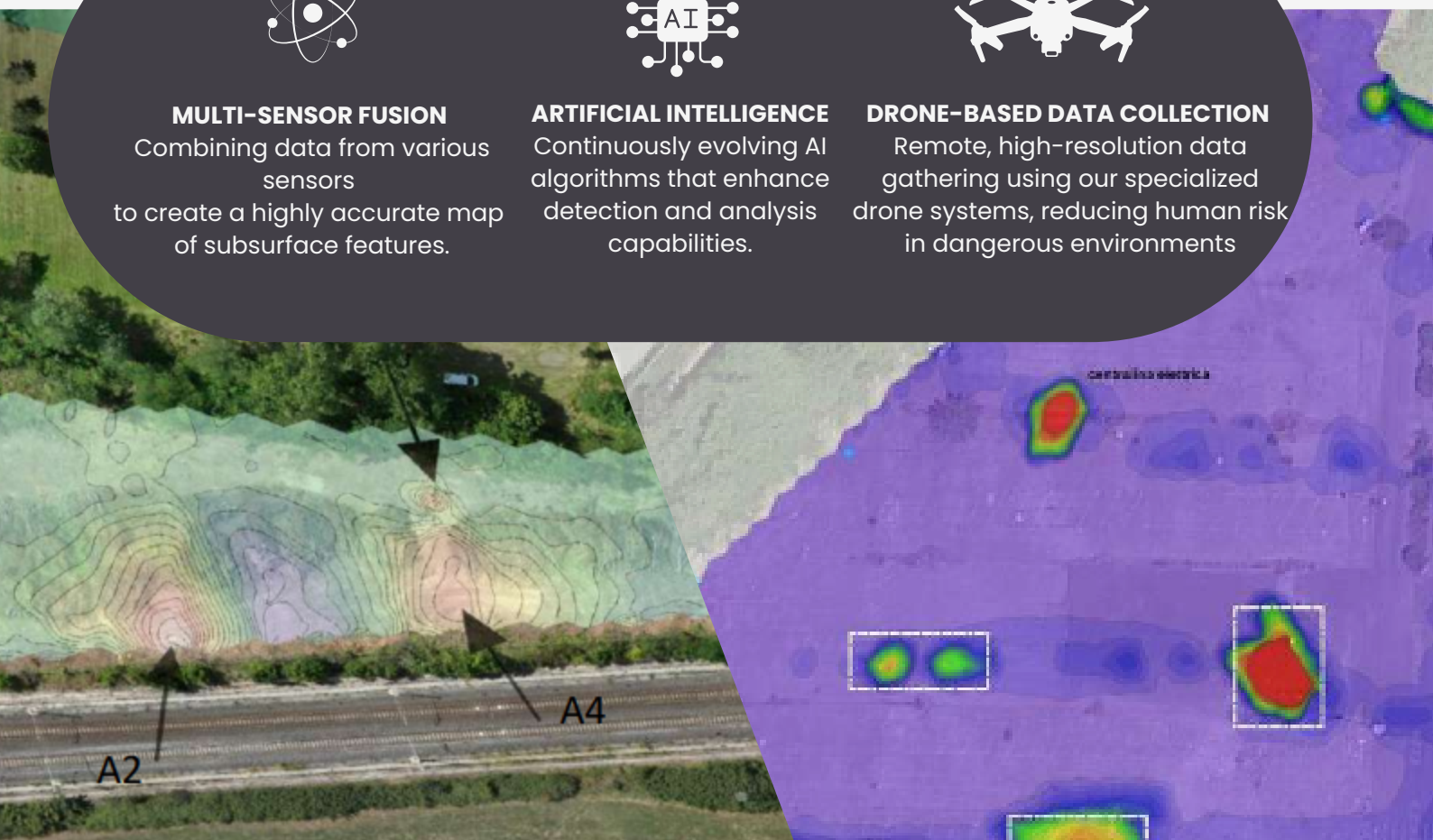
ARTIFICIAL INTELLIGENCE

Continuously evolving AI algorithms that enhance detection and analysis capabilities.



DRONE-BASED DATA COLLECTION

Remote, high-resolution data gathering using our specialized drone systems, reducing human risk in dangerous environments





LOCATION: Genova (GE)

DATE: 01/2023

TERRAIN: Field

PROJECT

Non-invasive instrumental survey using a drone to a depth of 2.5 meters below ground level for the detection of military remnants over an area of 5,000 square meters.

CHALLENGE

Due to the vast area and challenging ground conditions, the use of a drone was essential. The raw data collected were processed with Xplora software, which allowed the rapid identification of explosive remnants, ensuring a precise and non-invasive survey.

OUTPUT

- Three-dimensional map with characterization of ferromagnetic anomalies and identification of potential UXO-related risks for subsequent targeted clearance if required;
- Technical report in compliance with national regulations.

