



Iqua Robotics



About Us

Iqua Robotics is a deep-tech company specializing in the design, development, and commercialization of Autonomous Underwater Vehicles (AUVs). Founded in 2016 as a spin-off from University of Girona, the company combines strong expertise in engineering, electronics, robotics, and computer vision with a research-driven culture at its core.

Iqua Robotics is recognized for its open-system approach, enabling researchers and industry professionals to seamlessly integrate custom sensors and payloads and adapt the vehicles to a wide range of applications. Its mission is to deliver versatile, high-quality underwater robotic solutions for exploration, mapping, and inspection missions.

What We Do

Iqua Robotics provides end-to-end underwater technology solutions, including:

Hovering AUVs: Iqua engineers and manufactures flagship vehicles like the Girona 500 (a reconfigurable, mid-sized AUV for depths up to 500m) and the Sparus II (a lightweight, maneuverable, torpedo-shaped AUV for shallow water operations up to 200m).

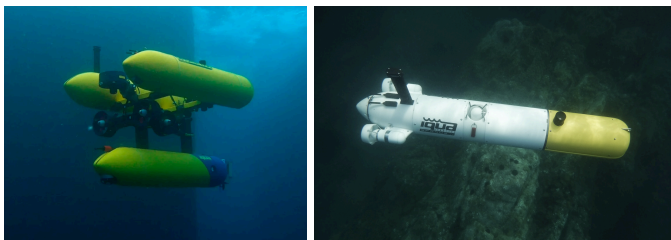


Figure 1: Girona 500 and Sparus II AUVs. (Iqua Robotics)

Payload integration: Iqua develops custom mechatronics, electronics, and software for specialized underwater sensors and applications.

Software solutions: Iqua offers innovative post-processing software, such as SoundTiles, which is used for creating high-resolution underwater maps from Forward Looking Sonar (FLS) data.

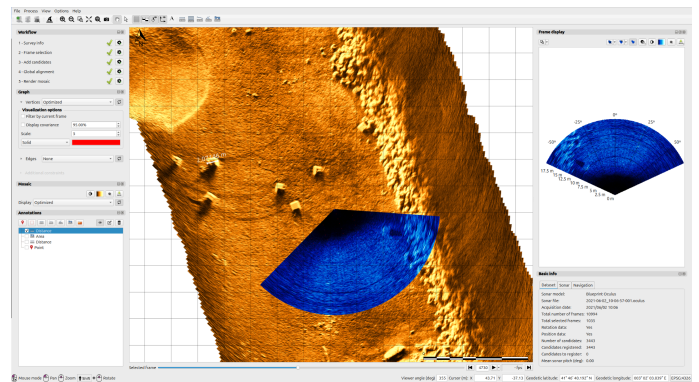


Figure 2: SoundTiles software for FLS mapping. (Iqua Robotics)

Engineering Services: Iqua provides high-level technical consultancy, field trials support, and training for underwater operations in sectors like marine science and defense.

Our Role in MMinE-SwEEPER

Within the MMinE-Sweeper project, Iqua Robotics contributes its expertise in autonomous underwater robotics, perception systems, and AI-driven mission autonomy for underwater operations.

Iqua Robotics provides expertise and best practices in seafloor mapping and object detection using AUVs equipped with optical and acoustic cameras. This contribution supports the development of reliable



sensing and perception methodologies for underwater target detection in challenging operational conditions.

The company focuses on the development of artificial intelligence methods for the classification and

identification of Unexploded Ordnance from optical and acoustic imagery. These AI-based approaches aim to improve detection accuracy, automate data interpretation, and enhance mission efficiency.

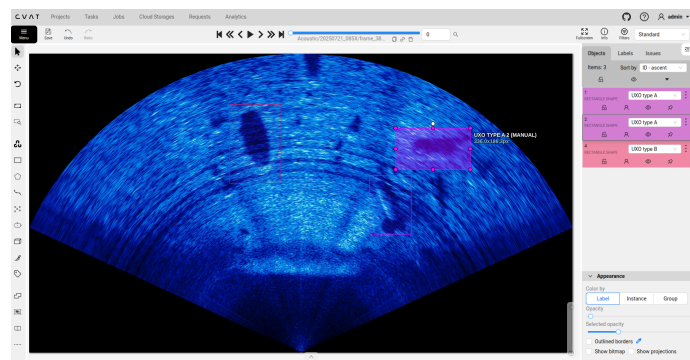
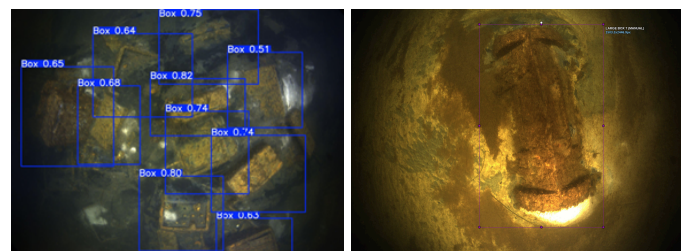


Figure 3: Example of AI detection algorithms and annotation tools on optical and acoustic images. (Iqua Robotics).

Iqua will contribute to the implementation of onboard, real-time processing of optical and acoustic camera data directly on AUV platforms, enabling online detection and classification capabilities. The company also develops adaptive mission execution frameworks that allow AUVs to dynamically react to detected targets during operations.

In addition, Iqua Robotics supports the cooperation and coordination between Unmanned Surface Vehicles (USVs) and AUVs to improve multi-platform mission effectiveness and operational autonomy.

Finally, the company will participate in project testing and validation activities through sea trials involving GEOMAR’s AUV platforms, developed by Iqua Robotics, contributing to the demonstration and assessment of the developed technologies in realistic operational scenarios.

Key Facts & Figures

- 10 years specializing in autonomous underwater vehicles and maritime robotics.
- Highly experienced team in engineering, robotics and computer vision.
- AUVs used across scientific research, industrial and defense applications.

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More information

For more information on MMinE-SwEEPER visit the [project website](#).

Or visit the central munition hub '[JPI Oceans Munitions Portal](#)' which presents the state of the science of research also considering its connection with politics and civil society.