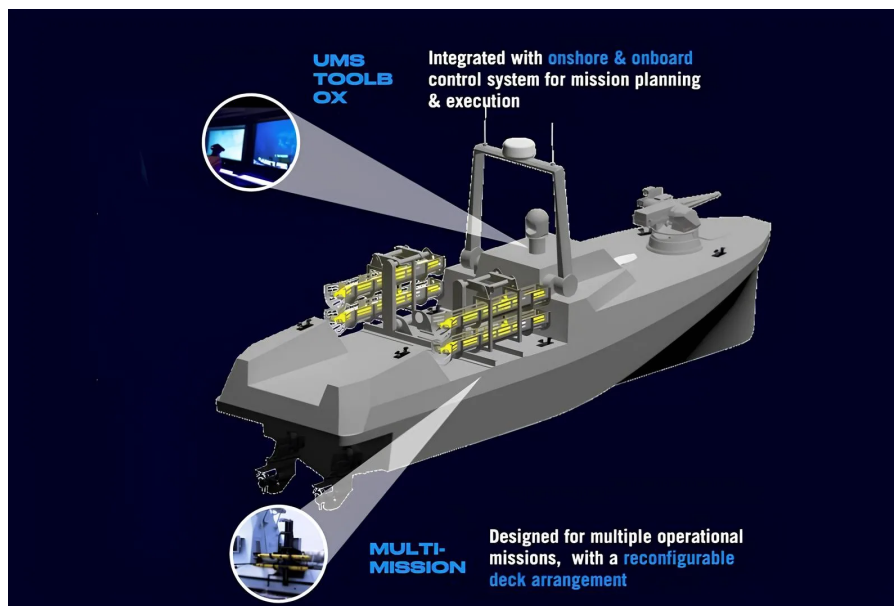




Fincantieri and IDS: the new frontier of autonomous underwater missions

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Since 2021, the year of its acquisition by **Fincantieri**, the [IDS \(Ingegneria Dei Sistemi\) company](#) has progressively focused its activities in the underwater domain. Already active in the fields of robotics, radar systems, and electromagnetic engineering, IDS has transformed into the “digital brain” of the group's underwater platforms and services.

The main task is the development of digital mission systems, autonomy frameworks, and control interfaces to govern unmanned assets. The goal is clear: to tackle missions characterized by long distances, limited communications, unpredictable seabeds, and changing operational conditions.

UMS: a multi-domain orchestration platform

The flagship of the company is the **UMS (Underwater Management System)**, conceived not only as software but as a true mission orchestration platform.

The UMS allows for planning, simulating, monitoring, and reprogramming assets in multiple

domains – maritime, aerial, terrestrial, and cyber – with predictive capabilities, AI to support decisions, and digital twin simulations to reduce operational risks.

The system, already selected by the Directorate of Naval Armaments (NAVARM) to equip the new **FREMM EVO** frigates, represents a modular and scalable standard for the Italian Navy. Additionally, a containerized version is in development, designed for expeditionary missions or integration on units already in service.

UMS | A platform for multi-mission & multi-domain decision-making

Scalable and modular software to be deployed on different hardware system

- UMS playing a key role in the tactical command and control (C2), acting as multidomain central system to manage & coordinate assets
- Ensuring seamless communication between unmanned vehicles & ship's central systems (CMS), creating a unified command structure

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USV: the new generation of naval drones

Alongside the software, IDS is working on physical platforms: the **USV (Unmanned Surface Vessels)**. The first unit, named **SAND**, was built in 2019 and used in numerous international exercises, including NATO ones.

The new generation includes an **11-meter USV** designed to operate in open sea for over 100 hours, with capabilities for launching and recovering underwater drones, communication relay functions, and the possibility of remote light armament. The modular configuration allows the ship to be adapted for surveillance missions, anti-submarine warfare, drone countermeasures, and protection of critical infrastructure.

Directly integrated with the UMS, the USV becomes part of a coordinated network of assets, capable of reacting in real-time to threats or environmental changes.



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A strategic transformation

For Fincantieri, IDS represents the cornerstone of the digital transformation of the underwater domain. In a context where missions are becoming increasingly **network-centric**, data-driven, and autonomous, the technologies developed ensure not only cutting-edge platforms but above all **future-ready solutions**.

The UMS-USV combination is set to significantly enhance the capabilities of the Italian Navy, also strengthening Fincantieri's role as a global player in maritime innovation.