

INDRA AND THE XUNTA DE GALICIA DEVELOP A PIONEERING NAVAL DRONE TO PROTECT THE MARINE ENVIRONMENT

- **The 10.5 meter long by 3.5 meter wide unmanned/remote controlled vessel, has been designed to monitor water quality and protect fisheries and marine biodiversity**
- **It has a robot that collects samples, measures different water quality parameters and transmits the data in real time, multiplying the level of monitoring and reducing costs**
- **It is a system developed entirely in Galicia with local companies. Indra fulfills its commitment to act as a driving force in the industrial sector**

Madrid, November 19, 2020 - Indra and the Xunta de Galicia have completed the development of the first unmanned/remote controlled vessel in the market designed to monitor water quality and protect fisheries and biodiversity in coastal areas.

The system has been developed within the MAR 2 Solutions Program of the Civil UAV's Initiative directed by the Galician Innovation Agency (GAIN).

This innovative marine drone performs water quality measurements autonomously and efficiently, making it the best environmental coastguard developed to date.

With a length of 10.5 meters and a beam of 3.5 meters, it has a range of 320 nautical miles, and is prepared to be piloted remotely from a land station or to follow a predefined route autonomously.

On board, it carries a robotic system with instruments to collect samples from water columns at different depths in the predefined geographical points. It then filters the different layers and obtains samples of phytoplankton and chlorophyll, all without the need for human involvement.

All the data collected in the process is transmitted to an information system that centralizes the data and makes it available to users for study. It also stores all samples in refrigeration for subsequent transfer to the laboratory.

The system has passed an extensive battery of tests in the estuary of Vigo and Pontevedra, in which it has demonstrated its capabilities and has fine-tuned all its systems.

Indra, which in this project has worked in a joint venture with Sixtema and Adantia, has relied on the Galician companies Seadrone and Aimen for the development of the system. Seadrone designed and directed the building of this ship and developed the remote control system and deployment of a multiparametric oceanographic probe, while Aimen designed and built the robotic system for the collection and storage of water samples at different depths. Construction was carried out by Montajes Cancelas with the participation of Amura, Norinvest, Carpinautic and Carper, among other local companies.

This vessel is part of an integral solution of environmental surveillance of waters, which is completed with the system based on a multi-rotor aerial drone that Indra, Sixtema and Adantia already developed this year within the first phase of the Mar2 project to analyze the waters and collect samples in reservoirs.

About the Civil UAVs Initiative

Promoted by the Xunta de Galicia, the Civil UAVs Initiative has mobilized 165 million Euros distributed in four major programs. The first one is focused on the creation and improvement of aeronautical infrastructures and Rozas' airbase to facilitate the development of the sector in the region; the second one is an R&D program with an investment of 115 million to work on the development of new products, technologies and solutions; the third pillar is implemented through eleven pre-commercial tenders for

solutions based on the use of UAVs aimed at improving land and rural management, maritime control and air traffic; and the last is the business incubation and acceleration program, which has recently been launched by the Business Factory Aero to attract and support projects from companies and startups anywhere in the world.

About Indra

Indra (www.indracompany.com) is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers world-wide. It is a world-leader in providing proprietary solutions in specific segments in Transport and Defence markets. Indra is an international leader in the Defence industry for the development of critical projects for national defence of the countries for which it works, for its participation in major European programs and in the framework of NATO and its export capacity. It is the Spanish national coordinator in the European Defence Program FCAS. It is also a leading firm in Digital Transformation Consultancy and Information Technologies in Spain and Latin America through its affiliate Minsait. In the 2019 financial year, Indra achieved revenue of €3.204 billion, with more than 49,000 employees, a local presence in 46 countries and business operations in over 140 countries.