



TunaDrone™

A technology initially conceived to support **free school tuna fishing**,
a **potential breakthrough** in **monitoring, control** and **surveillance**



SAFET Conference, Bangkok Feb 2019

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OUR COMPANY



COMPANY SET UP
IN NIGRÁN, SPAIN



2003

> 1/3 WORKFORCE
WORKING ON NEW DESIGNS



INNOVATION

ROBUSTNESS & RELIABILITY



IN-HOUSE
MANUFACTURING

PRESENCE IN >30 COUNTRIES



GLOBAL FOOTPRINT

GRUPO ARBULU



INTERNATIONAL GROUP
MARINE ELECTRONICS

DIVERSIFICATION



AQUACULTURE,
SECURITY & DEFENCE

OFFICES



IN WASHINGTON D.C
& SHANGHAI

GROWTH



AVG ANNUAL GROWTH >20%
YEAR AFTER YEAR



2017 ELITE AWARD FOR
BEST GROWTH STRATEGY

TURNOVER
43 M EUR



150 EMPLOYEES



UAVINSTRUMENTS

SPIN OFF FOR THE
DEVELOPMENT OF
UAV SYSTEMS

PARTNERSHIP WITH
WORLD LEADING COMPANY
IN ELECTRONIC MONITORING

ARCHIPELAGO
MARINE RESEARCH



STRATEGIC ALLIANCE
BEST-IN-CLASS MARINE
RESEARCH CENTRE



VISION

To become world leaders
in development and manufacturing of
technologically advanced electronic systems,
with focus on high quality
tracking & remote monitoring products
for harsh marine environments,
smart oceans and **sustainable fishing**



SMART OCEANS

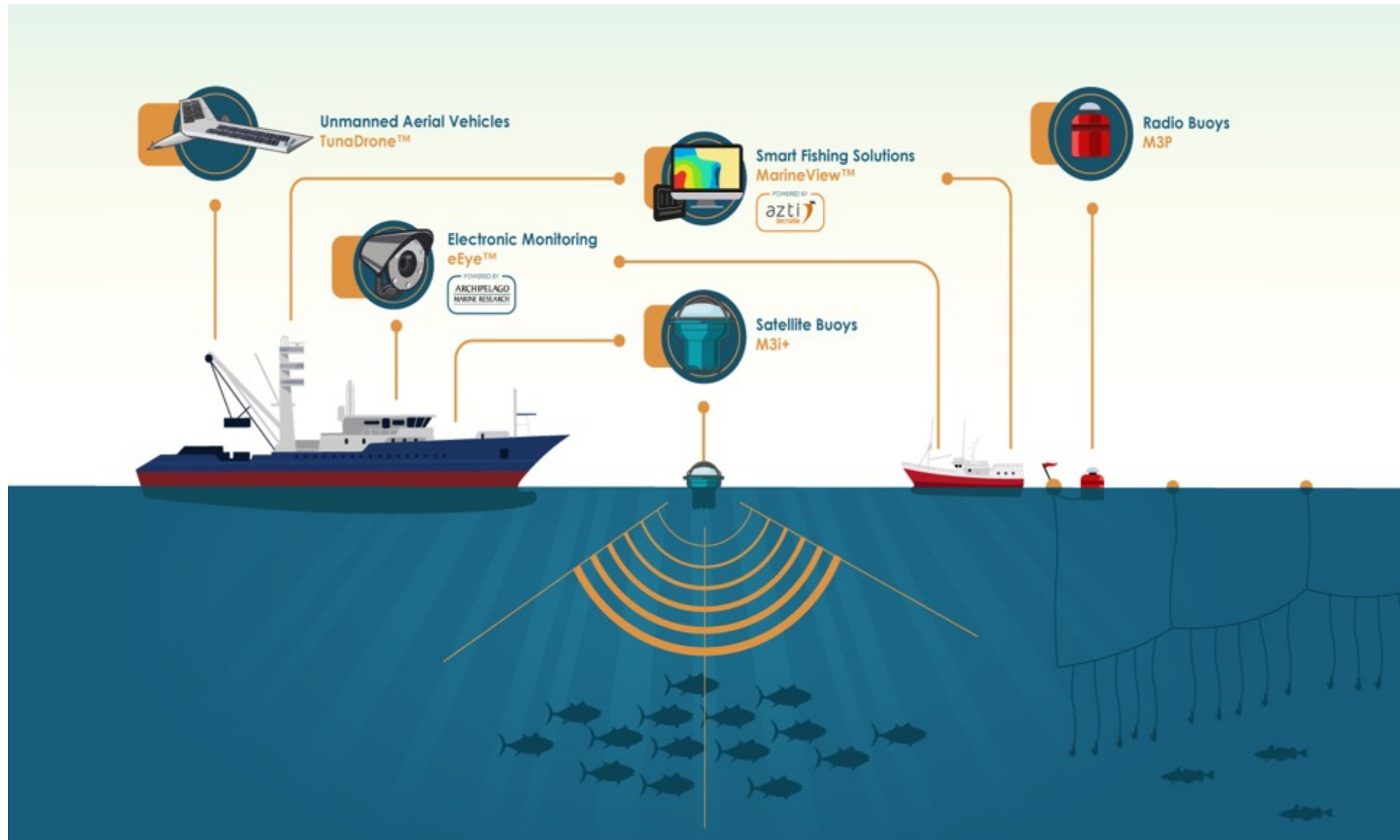


SUSTAINABLE FISHERIES

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OUR TECHNOLOGY

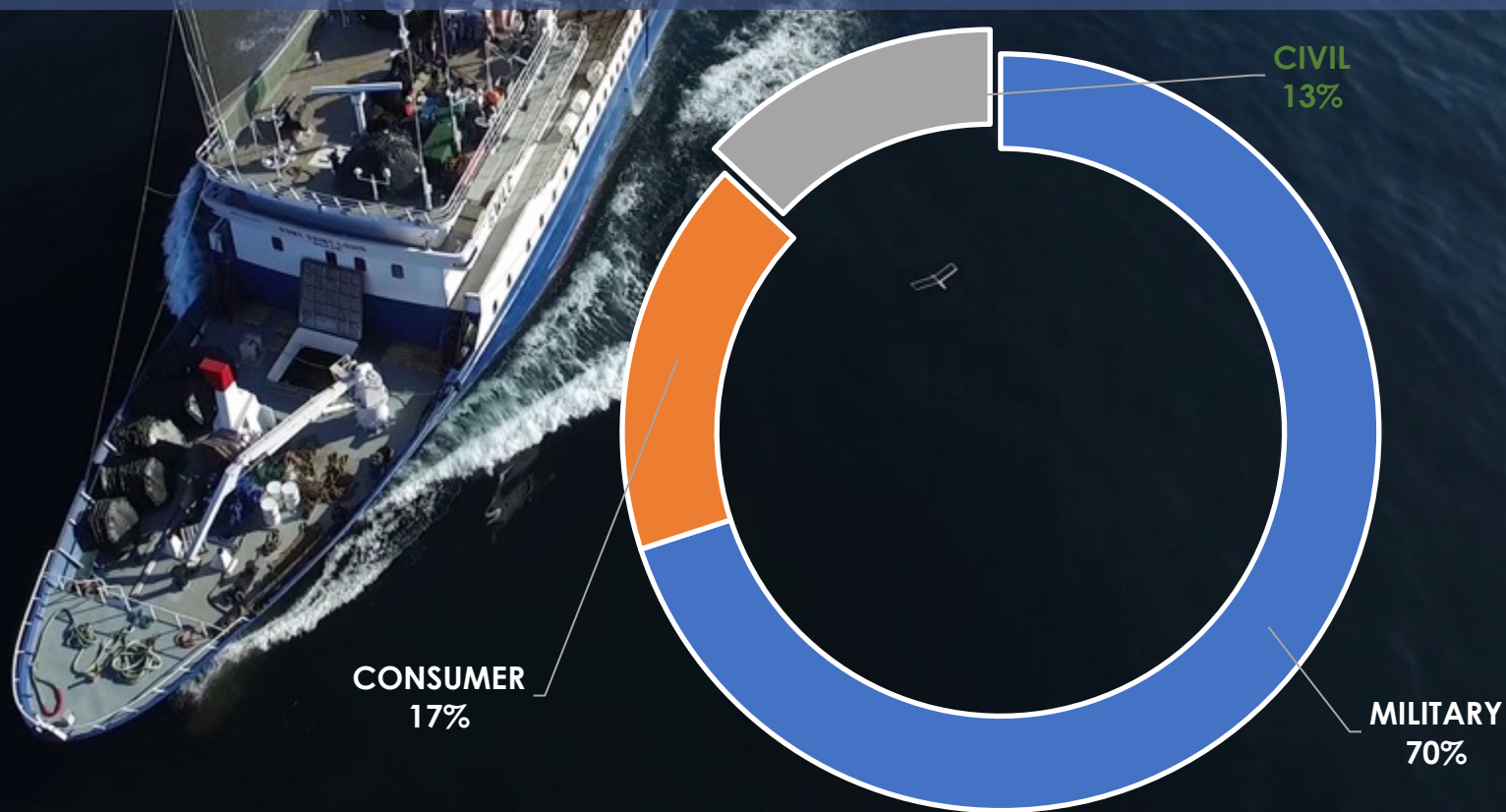


CIVIL DRONE MARKET FORECAST



Between now and 2021, we forecast a \$100 billion market opportunity for drones — helped by growing demand from the consumer and civil sectors

Source: Goldman Sachs Research



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TUNADRONE



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MOTIVATION



To provide a robust and efficient tool for easy scanning and scouting of flocks of birds and free schools of tuna



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100% OWN TECHNOLOGY



Designed from scratch bearing tuna fishermen in mind,
TunaDrone™ is a durable and reliable solution for intensive use



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SUB 2Kg CATEGORY



Beyond-line-of-sight, permission to operate without the need for certification, such as a remote pilot licence or a drone operators permit for the business



Fully automated launch, mission and recovery system, purpose made software for command & control allows for ease-of-use and safe operation

UAV LAUNCH AND RECOVERY SYSTEM



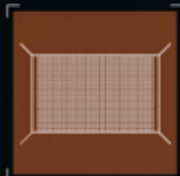
ANTENNA

A radio transmitter supplies an electric current to the antenna's terminals, and the antenna radiates the energy from the current as electromagnetic waves.



AUTOMATIC LAUNCHING SYSTEM

This launching system is powered by electric power. It can be easily transported, and it has the ability to launch the air vehicle.



RECOVERY NET

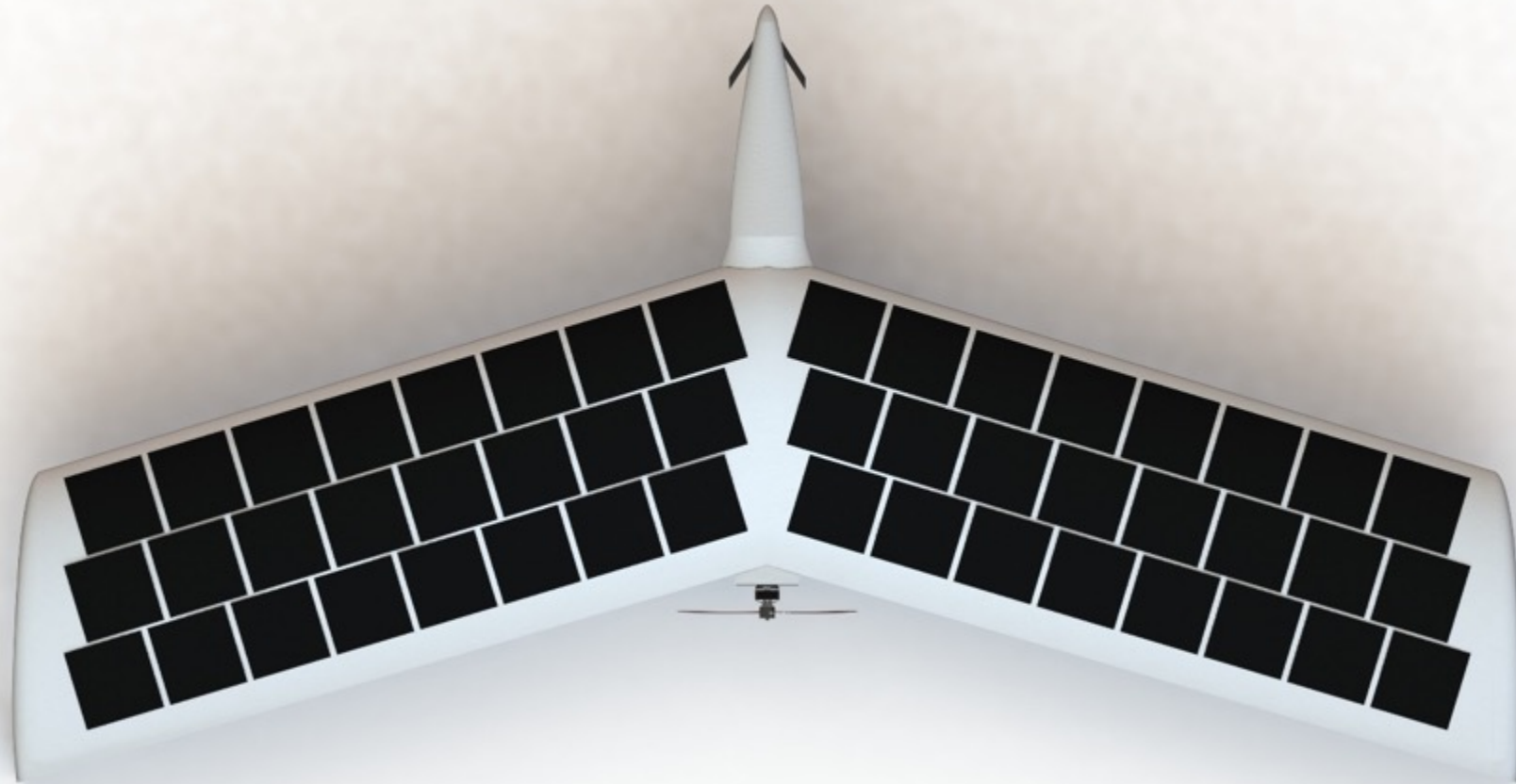
Consists of strong cord worked into an open, meshed fabric designed to catch the vehicle once it comes back to the boat.



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TUNADRONE 2.0



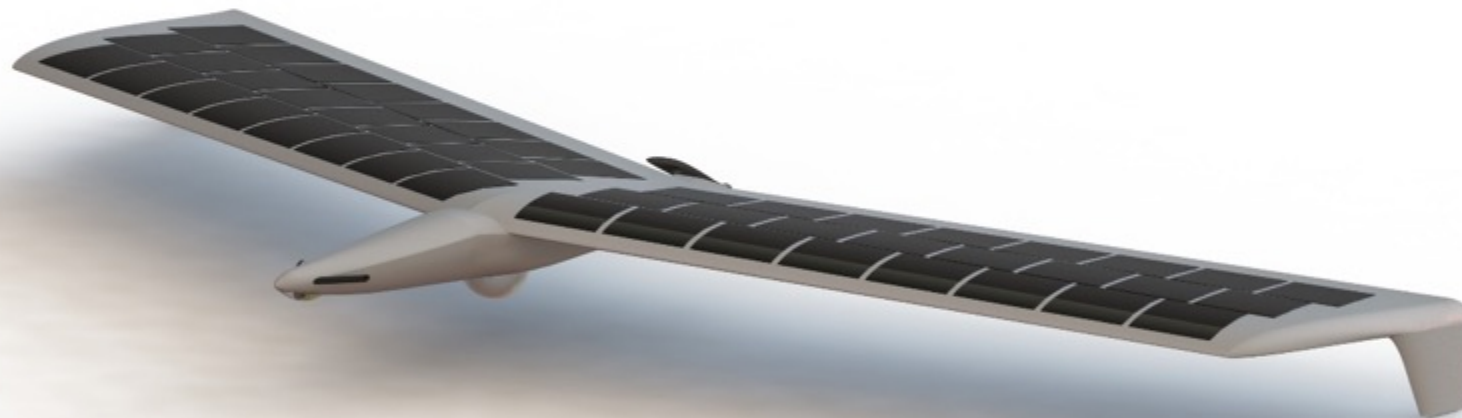
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TUNADRONE 2.0



An evolution of the original design, with increased wing area, autonomy, performance (>35 knots) and payload capabilities (MTOW 3,6kg)





- **Control of fishing sites** on specific fishing activities:
ship identification, entries & exits, time registry, type of gear, etc.
- Monitoring of fishing effort within **protected marine reserves**:
ship identification, entries & exits, time registry, type of gear, etc.
- **Fight against IUU** fishing, sighting of illegal fishing activities
- **Surveillance of aquaculture** production sites:
red tide alerts, fattening installations, shellfish harvesting areas, etc.

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UNMANNED SURFACE VEHICLE



An unmanned vehicle propelled by solar energy that can stay at sea for months gathering oceanographic data



UNMANNED SURFACE VEHICLE



An unmanned vehicle propelled by a jet engine and equipped with surveillance payloads (cameras, infrared, acoustics, etc.)



