



WIPSEA

Environmental Impact Digital Surveys thanks to AI

Blue Invest e-pitch session - 2021/11/24

WE HAVE A DREAM ! Humans live in Harmony with Wildlife



Do like us !
Use your skills to protect them !

Answer of François Sarano (the diver on this photo) to
Gwénaél Duclos (founder of Wipsea)
« what can we do to protect ocean wildlife? »
question in January 2010

OCEANS
UN FILM DE JACQUES PERRIN & JACQUES CLUZAUD

WIPSEA's value proposition

WIPSEA uses high resolution images and Deep Learning artificial intelligence to map megafauna and human activities.

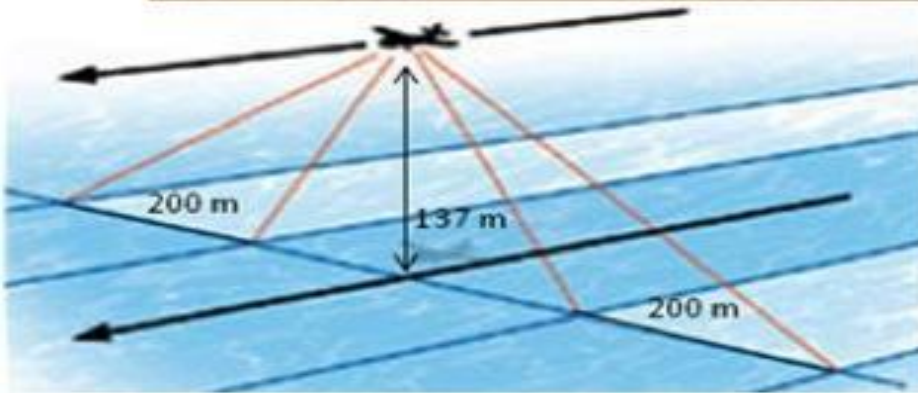
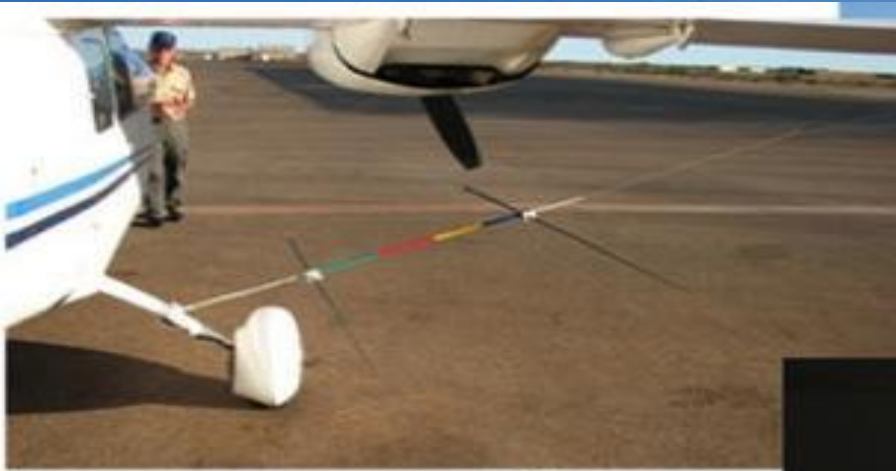


Photo credit : L'Avion Jaune



Photo - Areva

THE PROBLEM

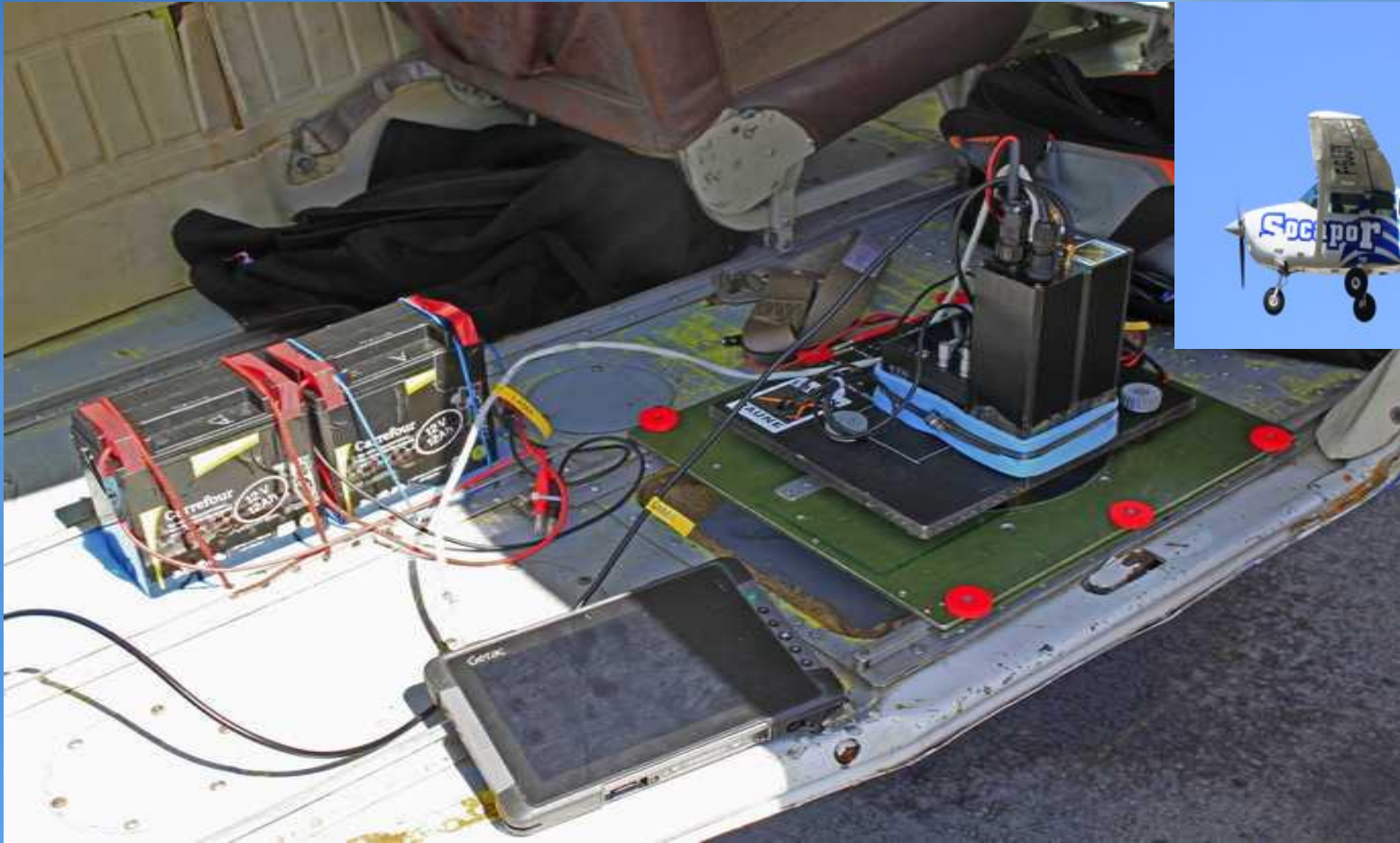


More and more organisations need to census megafauna : Marine Protected Areas (MPA), Offshore Wind Farms (OWF), Natural Parks
But : heavy to deploy, very expensive, not verifiable

THE SOLUTION

1) High resolution aerial imagery

- Shot with WIPSEA and/or partners cameras
- Verifiable with « picture proof »



2) Megafauna automatic detection and classification software solution (AI – Deep Learning) to manage Big Data

Harmony (Harmony_204alpha_on_semmacape_comm_photo)

File Edition Tools About

extractVT Import project Big Fish Sea Bird Dolphin

Project Information

Image : 2/4

Project counts :
Big Fish : 0 (0)
Sea Bird : 0 (0)
Dolphin : 20 (20)

Image counts :
Big Fish : 0 (0)
Sea Bird : 0 (0)
Dolphin : 8 (8)

Object score : 0.98203
Label : Dolphin

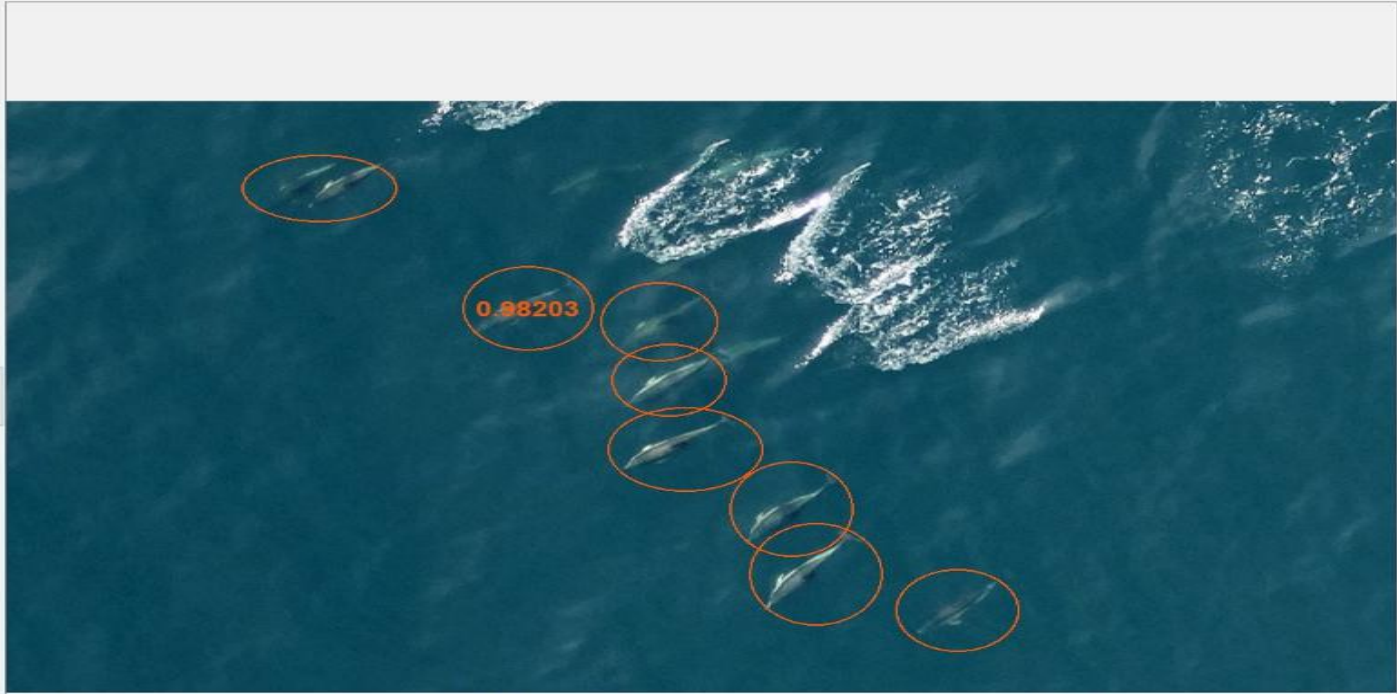


Photo Credit: SEMMACAPE project co-funded by ADEME – Irisa, France Energies Marines, OFB, WipSea and Ifremer

ADEME
Agence de l'Environnement
et de la Mer

UMR IRISA

FRANCE
ENERGIES
MARINES

OFB
OFFICE FRANÇAIS
DE LA BIODIVERSITÉ

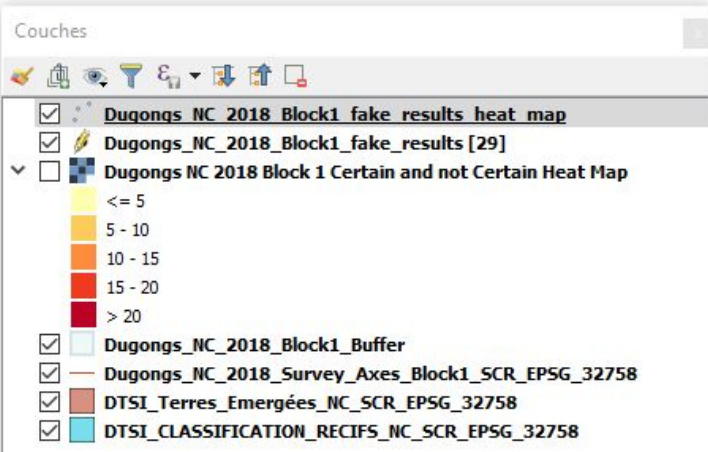
WIPSEA

Ifremer

3) Maps and abundance estimations for our customers



Block1 distribution map*
*Fake results due to confidentiality



2018 Dugongs census use case

Customer : Conservatory of Natural Areas of New Caledonia

Lagoon area : 20 000km²

Sampled area : 2 000km²

20 000 photos (80Mpixels each)

Partners : L'Avion Jaune (images acquisition)
Vertical Passion (local pilot and plane)

Budget : 70k€ HT (22k€ for L'Avion Jaune, 21k€ for Vertical Passion)

1 month on site, 4 months of data analysis, 1 month of report redaction

Lesson learnt : we need a partner for the maps and data restitution and
a project to compare human observations and digital based surveys
> SEMMACAPE R&D project



BUSINESS MODEL and PARTNERS



+



+



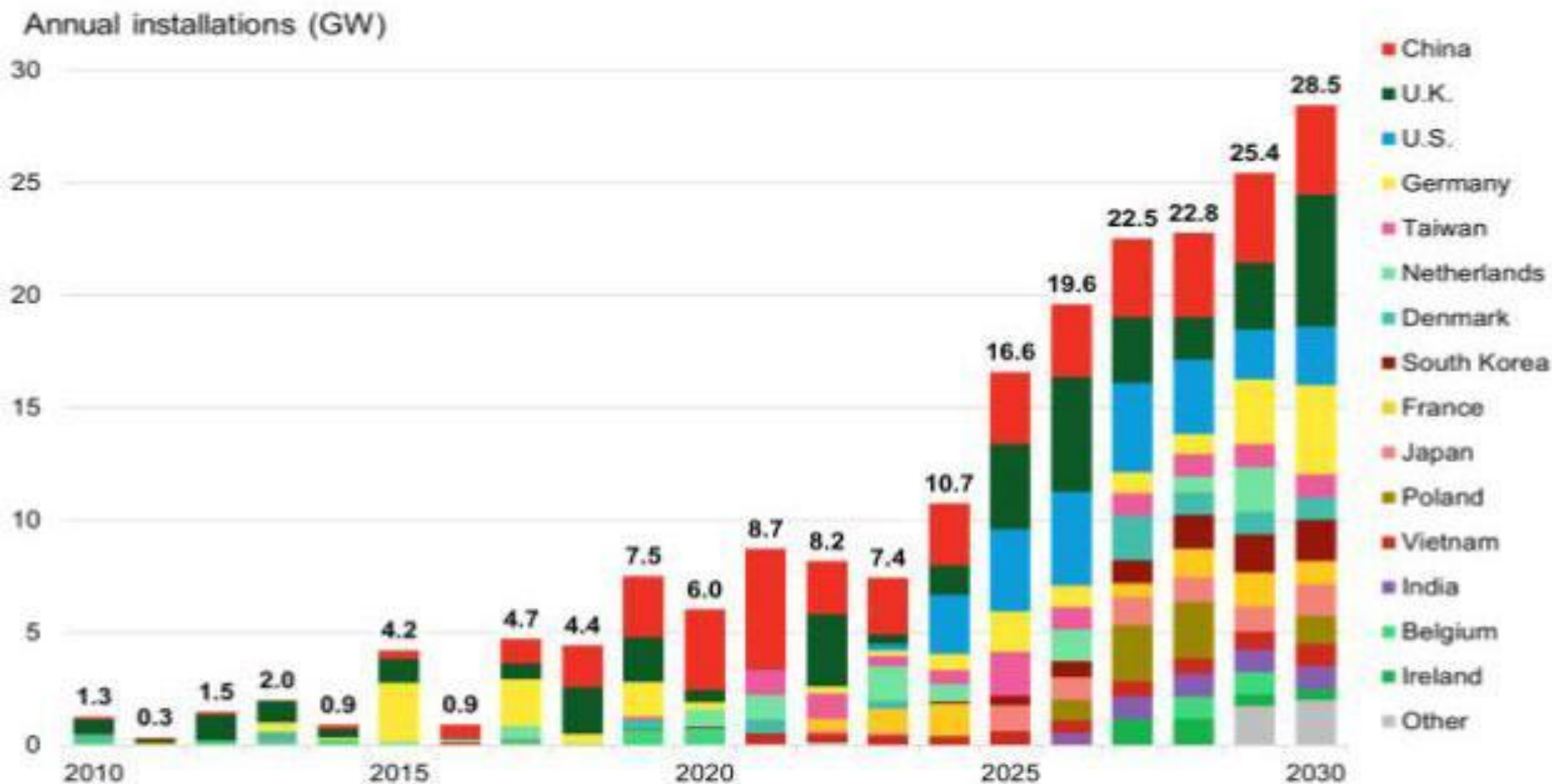
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- L'Avion Jaune : High resolution cameras operator
 - **WIPSEA business model: marine megafauna detection and classification on aerial imagery thanks to a proprietary neural network based on +100 000 offshore photos (from SEMMACAPE)**
 - Cohabys : Expertise in marine biology and environmental impact studies of offshore activities on marine megafauna
- > PIXSEA : aerial intelligence for marine environment

WORLD OFFSHORE WIND MARKET TRENDS

Annual offshore wind installations



Source: BloombergNEF. Note: 'Other' - Spain, Portugal, Italy, Finland, Sweden, Norway, Lithuania, Greece.

Marine Protected Areas growth

2017: MPAs cover about 6% of the ocean

Targets: 10% in 2020 and at least 30% in 2030



International
Marine Protected Areas
Congress Chile 2017



OWF Marine Megafauna Aerial Surveys

Market and customers



FRENCH OWF MARKET
Est. 1,15M€/year in
2024

2021-2024

EUROPE OWF MARKET
Est. 20M€/year in 2024

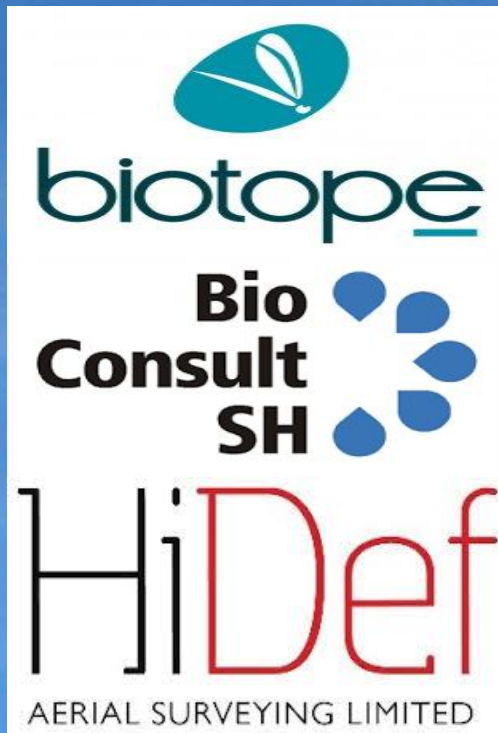
2024-2027

WORLD OWF MARKET
Est. >100M€/year in
2027

2027-

COMPETITORS

Innovative



=



+



+



Affordable

LEADERSHIP



Olivier CHAPPE
CTO



Gwenael DUCLOS
CEO & BizDev



Romain DAMBREVILLE
CRO



Pierre
Allain
Research
Engineer

WIPSEA is raising 500k€ to support its **growth**:
Business development in Europe and US on
Offshore Wind Farms market
and all over the world on
Marine Protected Areas market



Photo credit : L'Avion Jaune



Photo - Areva

WIPSEA is raising 500k€ to develop its R&D roadmap: Develop smart fishing gears and trawls with IFREMER in the context of « Game Of Trawls » project



WipSea is raising 500k€ to develop its
R&D roadmap:

Develop real time wildlife observatories with
our R&D partners (CTIFL, INRAe, OFB, FEM)
and possible BPI France co-fundings



R&D Roadmap

2020

2021

2022

2023

2024-26

SEMMACAPE

150 Mpix Camera
Post-Doc hired
100 000 photos

MIRAGE

1st Neural Network

SEMMACAPE

1st Neural Network

OWFSOMM

Application of
SEMMACAPE results
in Fécamp and
Courseulles OWFs
(TRL8-9)

MIRAGE

2nd Neural Network

SEMMACAPE

2nd Neural Network
Methods comparison

OWFSOMM

Application of
SEMMACAPE results
in Dieppe-Le Tréport
OWF (TBC)

MIRAGE

Real Time Processing
Tests on field

Game Of Trawls

Techno transfer from
UBS lab to WIPSEA
CNN Improvements
Tests on field (TRL8)

SEMMACAPE

Publications and
commercialisation

MIRAGE

Publications and
commercialisation

Game Of Trawls

Tests on field
Publications and
commercialisation

Neural Networks improvements

Real Time
Observatories
(TBC)

WildDrones (TBC)



Université
Bretagne Sud

ADEME



AGENCE DE LA
TRANSITION
ÉCOLOGIQUE



Ifremer



Thanks !



WIPSEA

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