



NETCCOBAMS progress
12.07.2020

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NETCCOBAMS is meant to:

- *Supports Parties, Scientific Committee, Partners and Industries to aggregate data regarding cetaceans, their habitats, and human activities representing a threat for conservation*
- *Use these data to enable science-based decisions for cetacean conservation.*

[→ https://accobams.sinay.fr](https://accobams.sinay.fr)

Long term vision

ACCOBAMS challenges



INCREASE AWARENESS WITH / ON DATA

There is a huge amount of data that are under-explored about maritime activities, environment and cetaceans

Collect this data and share them is a huge challenge to bring awareness on threats to cetaceans



AGGREGATE DATA IN ONE PLACE

Retrieve in one place all data regarding targeted species monitoring, human activities & environmental impact



DATA SCIENTIFIC VALIDATION

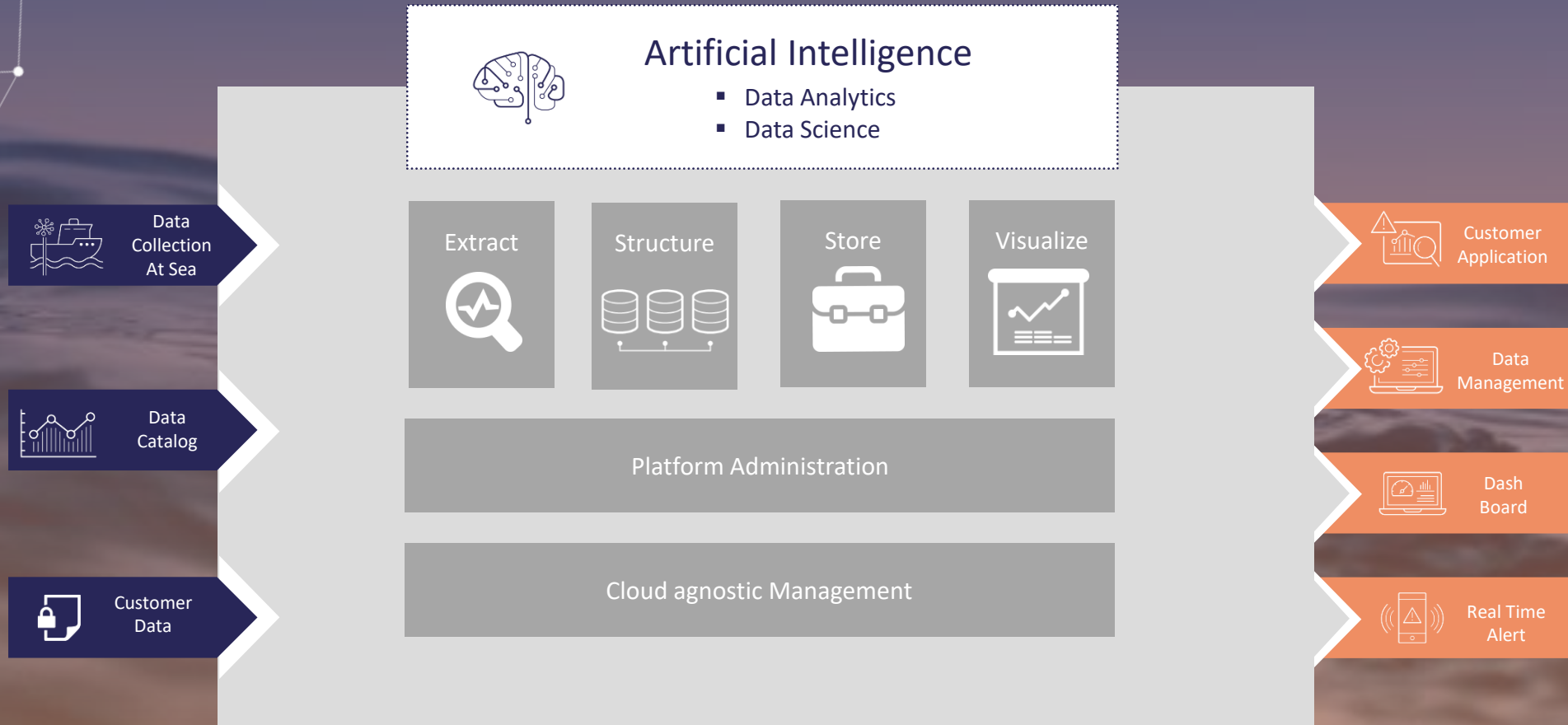
Ensure to work and communicate about data that has been scientifically generated and analyzed



TAKE DECISION BASED ON INSIGHTFUL DATA

Enable governments of each signatory countries to generate concrete actions based on reliable data

INTRO: HOW NETCCOBAMS IS BUILT → SINAY PLATFORM



Topics addressed in the Platform



NOISE RISK



SEA TEMPERATURE



PLASTIC & POLLUTANTS

SUPPORTING SCIENCE-BASED DECISION MAKING

USERS:

- 1. Administrators:** Secretariat for general administration of the platform
- 2. Group of experts:** Add new data sets and contribute to co-construction workshop in a second step
- 3. Parties and Scientific Committee, Partners:** to consult and **use** information
- 4. Public:** Some information may be publicly available



OVERVIEW - SHIPPING NOISE MAPPING

Fifth Meeting of ACCOBAMS Nat x Accobams dashboard x +

accobams.sinay.fr/acoustic

SINAY MARITIME DATA SOLUTION **ACCOBAMS**

EN Demo Log out

Acoustic

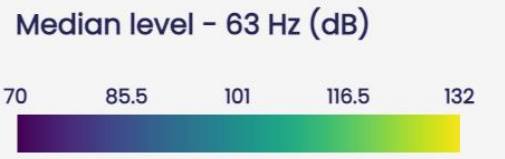
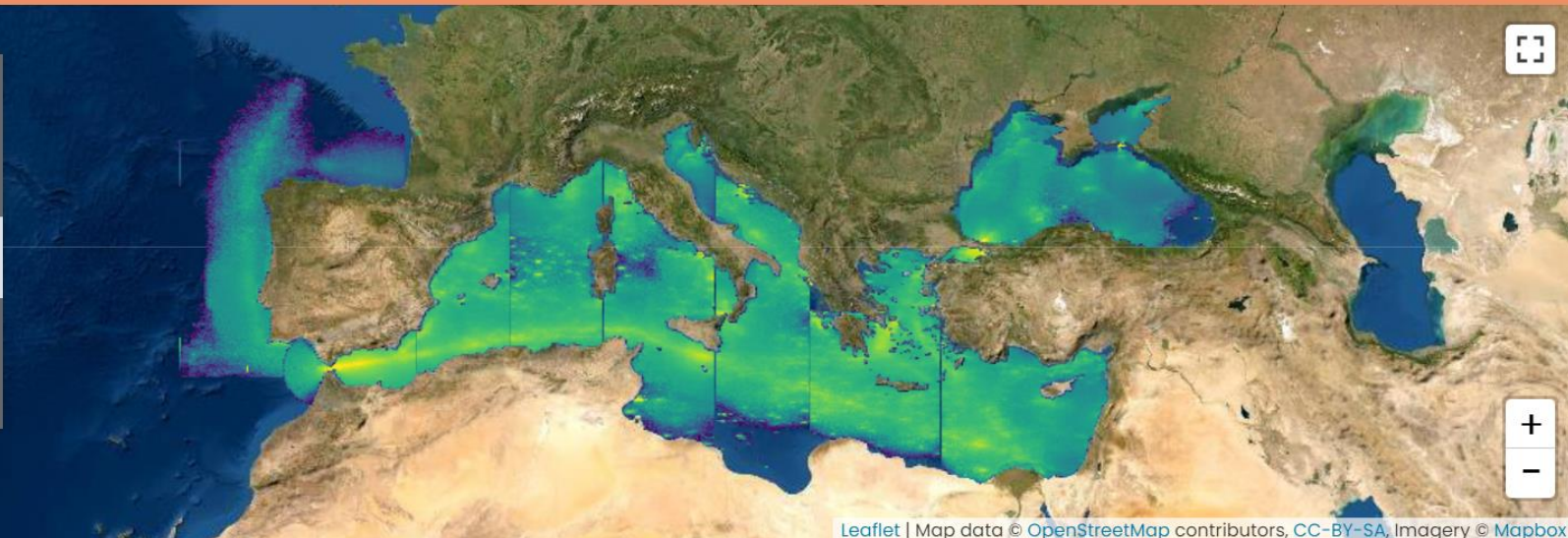
Cuvier's beaked whale

Acoustic

Study period: from 01/01/2018 to 01/14/2018

Shipping noise levels - 63 Hz

- Average level - 63 Hz
- Median level - 63 Hz
- Max level - 63 Hz



Credits & metadata

The acoustic wave propagation model is RAM (Parabolic equation)
 The SL (Source Level) model is Simard's model
 The maps show the acoustic noise level at the surface

The resolution of the calculation is as follows:

- Angle at turn of each source is 1 degree
- Propagation distance from each source is 400 km
- Horizontal resolution is 100 m
- Vertical resolution is 2 m
- Period is 01/01/2018 to 01/14/2018





OVERVIEW - HABITAT MAPPING (interim)

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accobams.sinay.fr/acoustic

SINAY MARITIME DATA SOLUTION **ACCOBAMS**

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Acoustic

Habitat suitability

- Fin whale
- Sperm whale
- Cuvier's beaked whale
- Long-finned pilot whale
- Risso's dolphin
- Common bottlenose dolphin
- Striped dolphin
- Short-beaked common dolphin

Leaflet | Map data © OpenStreetMap contributors, CC-BY-SA, Imagery © Mapbox

Fin whale (p)

0 0.25 0.5 0.75 1

Credits & metadata

Marine mammals habitat suitability
Correlative species distribution model using gradient boosting regression trees (GBM).

Study period: 2018





OVERVIEW – RISK AREAS: Permanent deafness

Fifth Meeting of ACCOBAMS Nat x Accobams dashboard x +

← → ↻ 🔒 accobams.sinay.fr/acoustic

SINAY MARITIME DATA SOLUTION **ACCOBAMS**

EN Demo Log out

Acoustic

Acoustic risks

Study period: from 01/01/2018 to 01/14/2018

Fin whale

- Risk of permanent threshold shift at 63Hz
- Risk of temporary threshold shift at 63Hz
- Risk of permanent threshold shift at 125Hz



30.107 km²

Risk of permanent threshold shift at 63Hz

Credits & metadata

Cetacean Critical Habitats (acoustic risks)
 Defined as combinations between a habitat suitability of a cetacean species of 70% or higher, and a 95th percentile Power-Spectral-Density (PSD) of over 112 dB (TTS) or over 130 dB (PTS).

Results are available for both 63 Hz and 125 Hz noise frequencies.
Resolution: 1/100°





OVERVIEW - RISK AREAS: Temporary deafness

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accobams.sinay.fr/acoustic

SINAY MARITIME DATA SOLUTION **ACCOBAMS**

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Acoustic

Fin whale

- Risk of permanent threshold shift at 63Hz
- Risk of temporary threshold shift at 63Hz
- Risk of permanent threshold shift at 125Hz
- Risk of temporary threshold shift at 125Hz

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165.871 km²
Risk of temporary threshold shift at 63Hz

Credits & metadata

Cetacean Critical Habitats (acoustic risks)
Defined as combinations between a habitat suitability of a cetacean species of 70% or higher, and a 95th percentile Power-Spectral-Density (PSD) of over 112 dB (TTS) or over 130 dB (PTS).

Results are available for both 63 Hz and 125 Hz noise frequencies.
Resolution: 1/100°





OVERVIEW – AGGREGATION OF DATA RELEVANT FOR THE ACCOBAMS COMMUNITY

Fifth Meeting of ACCOBAMS Nat x Accobams dashboard x +

← → ↻ 🔒 accobams.sinay.fr/acoustic

SINAY MARITIME DATA SOLUTION **ACCOBAMS**

EN Demo Log out

Acoustic



241.573 km²
Risk of temporary threshold shift at 63Hz

Credits & metadata

Cetacean Critical Habitats (acoustic risks)
Defined as combinations between a habitat suitability of a cetacean species of 70% or higher, and a 95th percentile Power-Spectral-Density (PSD) of over 112 dB (TTS) or over 130 dB (PTS).

Results are available for both 63 Hz and 125 Hz noise frequencies.
Resolution: 1/100°





OVERVIEW – SEA SURFACE TEMPERATURE FROM SATELLITE SENSING

SINAY Platform x Accobams dashboard x +

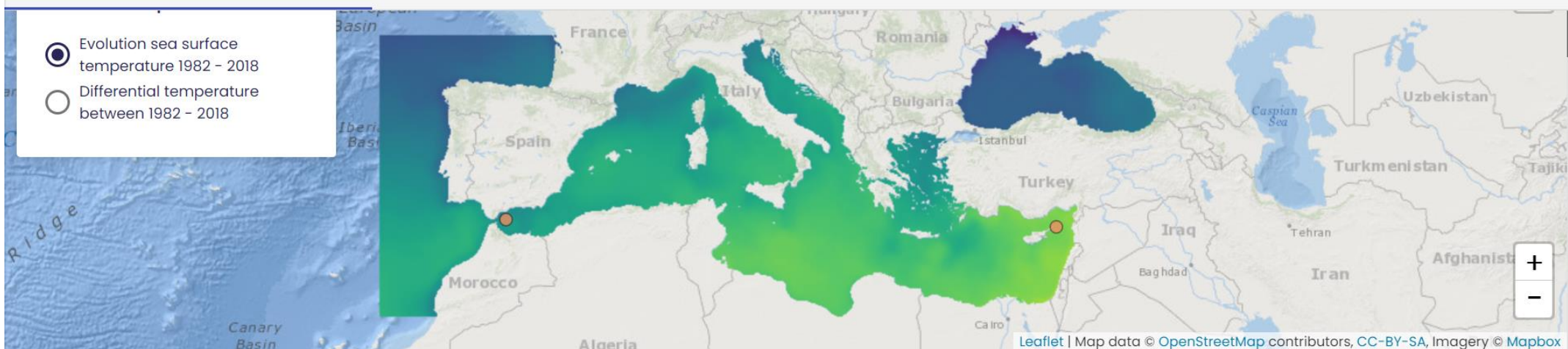
accobams.sinay.fr/temperature

SINAY MARITIME DATA SOLUTION **ACCOBAMS**

EN Demo Log out

Temperature

Map sea surface temperature Graph



Evolution sea surface temperature 1982 - 2018



Credits & metadata

Source: Copernicus Monitoring Environment Marine Service (CMEMS)

Resolution: 1/24°





OVERVIEW – SEA SURFACE TEMPERATURE FROM SATELLITE SENSING

SINAY Platform x Accobams dashboard x +

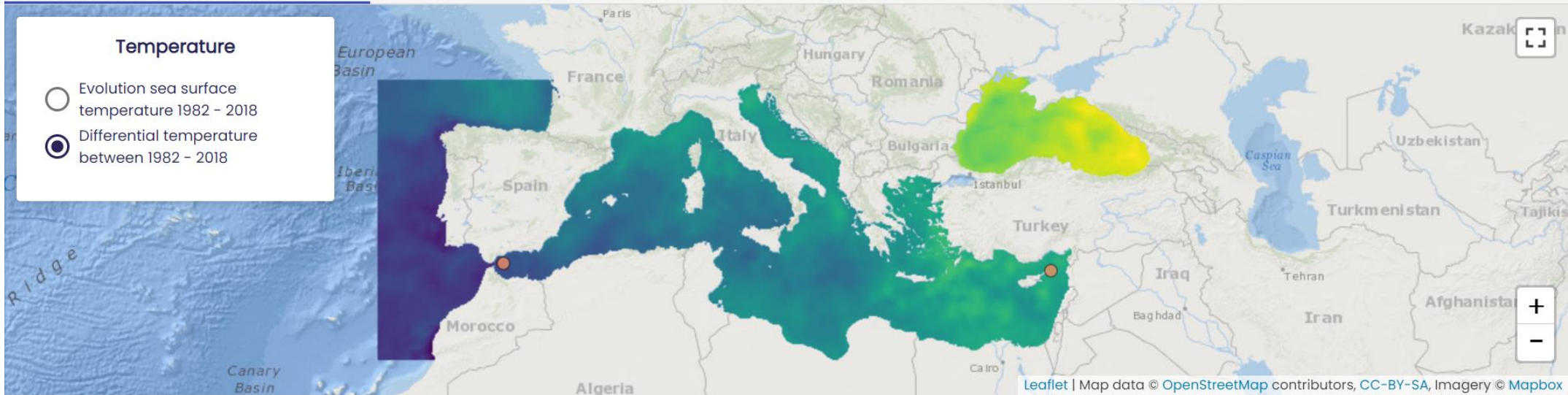
← → ↻ accobams.sinay.fr/temperature

SINAY MARITIME DATA SOLUTION **ACCOBAMS**

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Temperature

Map sea surface temperature Graph



Credits & metadata

Source: Copernicus Monitoring Environment Marine Service (CMEMS) Resolution: 1/24°





OVERVIEW - GIS Tool (Beta version)

← → ↻ sig.sinay.fr/map

SIG Tools sig.sinay.fr

Demo Logout

SINAY MARITIME DATA SOLUTION

Search places or add maps...

Map & Tools

Layers & Legend

- sinay
 - Human activities
 - Wrecks-Europe-2017
 - Offshore-Platforms-Europe-2018
 - Boreholes-Europe-2017
 - Beach-plastic-bags-Mediterranean-2015-2018
 - HydrocarbonExtractionLicenses-Europe-2016
 - TrafficDensity-World-2017
 - Windfarms-World-2017
 - Cables
- Show layer map tips
- Compare top layer
- ▼ Import layer
 - URL Enter URL to WMS, WMTS, WFS...
 - Connect

500 km Coordinates: 2782535 5342378 WGS 84 / Pseudo Mercator Scale: 1 : 25000000

QWC2 Demo | Terms of use



NETCCOBAMS to date

Habitat maps:

8 species

Policy

1 map of IMMAs

Noise maps:

6 noise maps

1 season

Climate change

28 years SST maps

Acoustic Risk map:

12 risk maps

3 species

1 season

GIS tools

Hundreds of databases:

- Biology,
- Ecology
- Human activities
- Physical env.

Habitat maps:

8 species

ASI maps

Noise maps:

6 noise maps

6 month update (& link to D11)

Acoustic Risk map:

12 risk maps

3 species

1 season

6 month update

Downloads

GIS tools

Hundreds of databases:

- Biology,
- Ecology
- Human activities
- Physical env.

More interactive

Management

Project search and visualisation

National Reports

Policy

1 map of IMMAs

More designated areas

Climate change

28 years SST maps

Yearly update

GET AN ACCESS !

<https://accobams.sinay.fr>

(email to johan.bourdais@sinay.fr to get an account and access the platform)

... and give us a feedback



SINAY

MARITIME DATA SOLUTION

Thank you

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www.sinay.ai