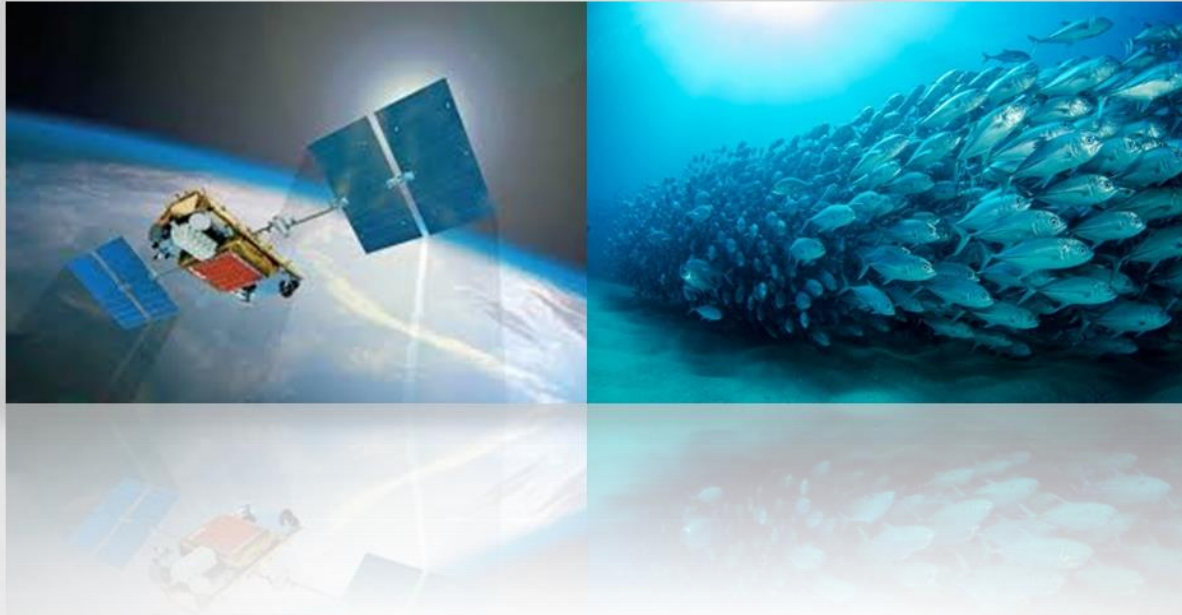


Map2Fish



# Map2Fish

## Fish stock service for tourism



planetek  
hellas

**Daniela Iasillo**  
*Strategic Development Manager Copernicus*

# Map2Fish Study – an idea for Fishing Tourism

How EO can support the tourism in the Mediterranean sea area ?

Map2Fish replays to the fishing tourism operators as well as professional and amateur anglers, every day question : “Where will I go to fish?” or” Where will I go the tourists to fish?”.

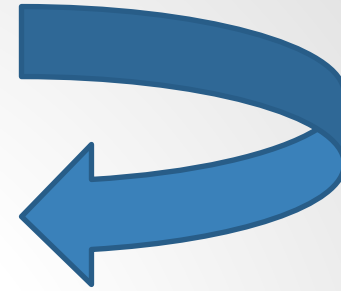
Every day, they need:

- the weather predictions (including sea state, which is not always available)
- the situation in some specific bays/coasts in the nearby areas
- combine them together with their previous experience (if any) and finally decide where to go exactly.



# Map2Fish – to enhance the fishing experience

**From** this complex, time consuming and subjective methodology that not always lead to sufficient results (a good catch and/or satisfied tourists).



Our proposed solution **minimizes** the complexity of the everyday decision-making life of these customers.



# Why Greece ?

- The navy of the Greeks and the largest number of fishing vessels in Europe (more than 15.000).
- The great tradition, from Antiquity to today, in Professional Fishing, as well as in the construction of beautiful Traditional fishing boats.
- The longest coastline in the Mediterranean (more than 16300 km, twice as Italy, three times as Spain), mild climate, popular tourist destinations, etc.

The screenshot displays the website for 'Fishing Trips', featuring a map of Greece with numerous fishing boat icons indicating various destinations. The website includes a navigation menu with options like 'Φωτογραφίες', 'Χαίρος', 'Επικοινωνία', 'Μαγειρική', and 'Προσθέστε την επιχείρησή σας στο Site'. Text on the page mentions 'ΚΑΝΟΝΙΣΤΕ ΤΟ ΨΑΡΕΜΑ ΣΟΥ ΣΤΗΝ ΑΝΑΤΟΛΙΚΗ ΜΕΣΟΓΕΙΟ' and 'Other activities: Εκδρομές & Ταξίδια | Δουλειά | Μπαρ - Εστιατόρια | Ψάρες - Ανορθ'. A sidebar on the right shows a 'Tweet' button and logos for 'elounda mare hotel' and 'porto elounda'. The bottom left corner features the 'planetek hellas' logo.

# Map2Fish – from satellite the solution

## Daily/hourly now&forecasts

- **Probability of fish concentration**
- **Sea Surface temperature (with contours)**
- **Chlorophyll concentration**
- **Dissolved oxygen**
- **Water transparency**
- **Waves**
- **Currents**

Map2Fish (dev)

Map2Fish

A fishing experience

Save time and effort - Increase your catch

All fishermen professional and amateur, face the same question every day: "Where will I go to fish?" The existing approach to answer this question is quite complicated. Every day, they need to search for the weather predictions, sea state and assume based on these, what will be the situation in some specific areas, combine them together with their previous experience (if any) and finally decide where to go exactly.

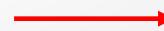
All this complex, time consuming and subjective methodology does not always lead to sufficient results. Map2Fish minimizes the complexity of the everyday decision-making without needing to combine huge amounts of information. It provides easy access to forecasts for the fish concentration probabilities, but also for other parameters like sea temperature, dissolved oxygen, waves, winds, and currents. Map2Fish saves time and effort by providing also efficiency on the travelling logistics and places to go fishing, resulting in cost reduction.

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MAP2FISH IS  
FINANCED BY ESA  
UNDER CONTRACT NO.  
4000128456/19/NL/M  
M/FF

DARE TO COMPARE  
IN WATER BOAT HIRE

WIN A TROPICAL  
TRAVEL VOUCHER  
FOR \$2000  
MORE INFO

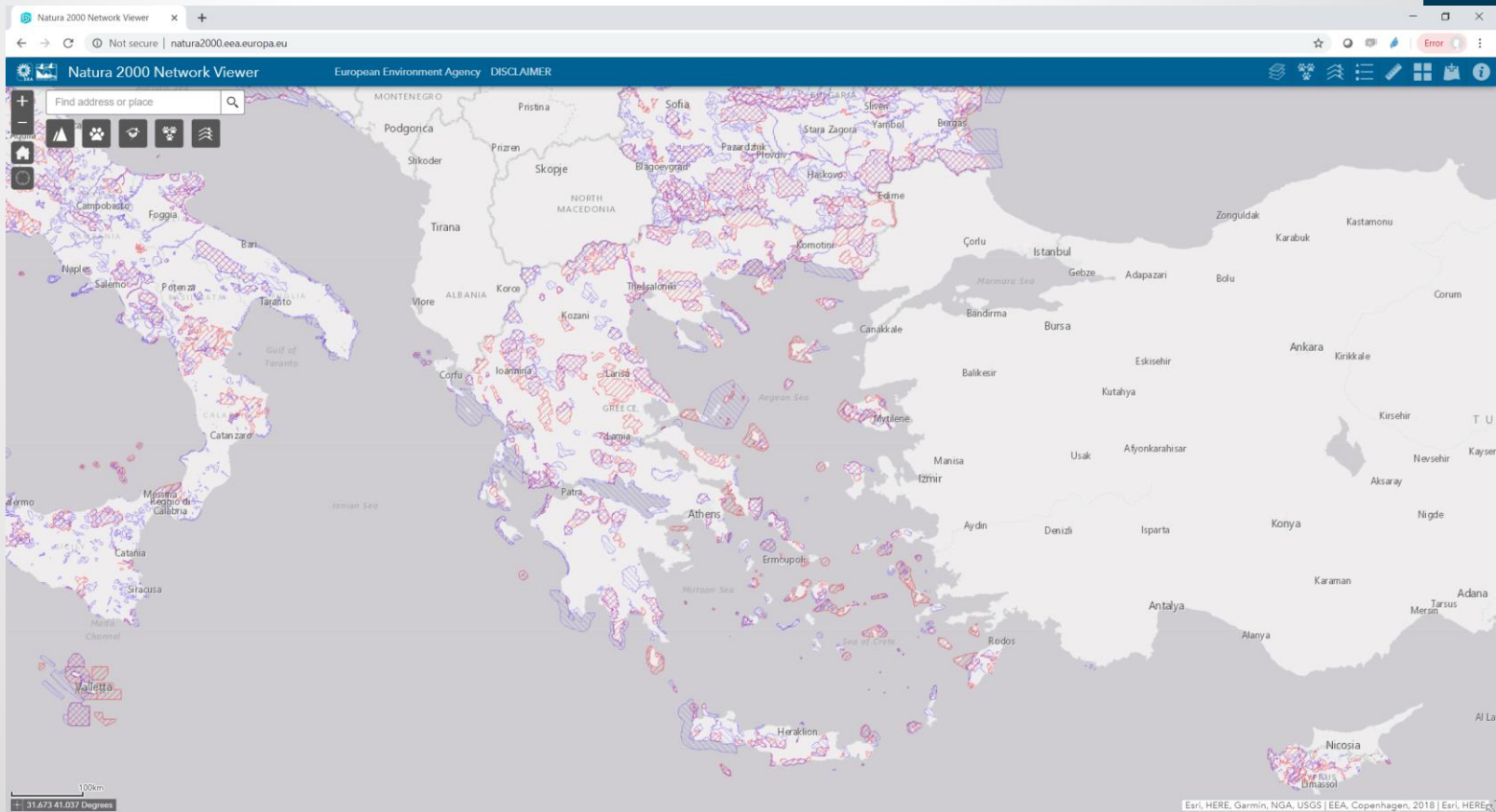
**Map2Fish service (and mobile application) delivers to customers and users, forecasts not only for the fish concentration probabilities, but also for other parameters like sea temperature, winds, and currents.**



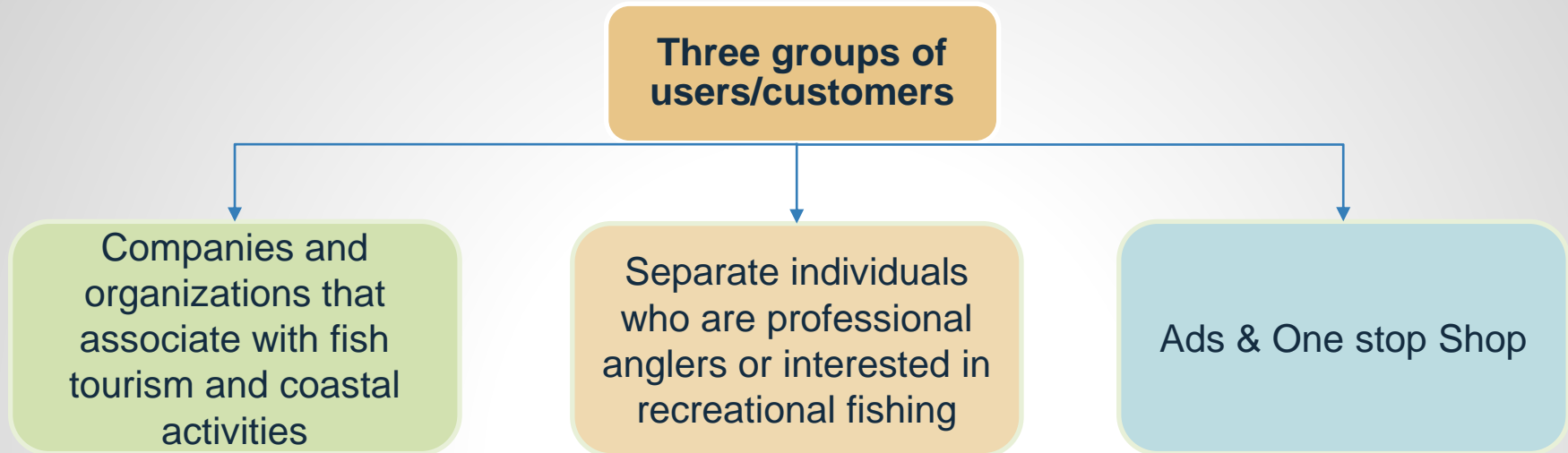
- **Less complex service**
- **Less time consuming**
- **Increase efficiency**
- **Better resolution**

# Sustainable approach

- Mask Marine protected areas
- No information outside fishing period



# Stakeholder Analysis and User Requirements Definition



- **Decentralized Administration of Peloponnese, Western Greece and Ionian**
- **Karatarakis Hotels**





Dear Sir/Madam,  
we would like to invite you to the Workshop  
to be held in **Corfu**,  
on **09/12/2019** at **17:00**  
in the conference room of the Corfu Mare hotel.

The duration of the briefing / discussion is 2 hours.

The meeting will take place in the framework of the MAP2FISH project in collaboration with ESA - European Space Agency

For any information or clarification please contact us at mail: [Spastra@planetek.gr](mailto:Spastra@planetek.gr); t: 2152157390

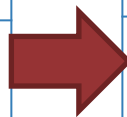


- **1 company that operates in the touristic industry and want to offer some more exclusive services to their clients and enhance their touristic experience**
- **2 users that represented the local amateur fishermen association (also amateur fishermen themselves owing a boat)**
- **6 amateur fishermen that own a boat**
- **1 professional angler**
- **And FishingTrip.eu**



# Customer/Stakeholder Analysis

ID	User Need	Source
UN-0100	Users have the need to maximise their fishing success.	FishingTrips, Fishermen
UN-0200	Users have the need to find new fishing spots.	FishingTrips, Fishermen
UN-0300	Users have the need of a service that will be low-cost, effortless and near real time.	All
UN-0400	Raise of profits through the quality and advertisement of a company's work	Touristic companies
UN-0500	Users have the need to access provided maps and data by means of a modern and user-friendly geographic interface.	All
UN-0600	For better results and safety, users need to have access to weather and solunar/tidal forecasts.	All
UN-0700	Users and mostly amateur fishermen, they want to connect with other fishermen and share experiences and successes.	All
UN-0800	Users, both amateur and professional, need to keep track of their fishing trips and their results.	All



ID	User Requirement Name	KPI	User Need Ref.
UR-0100	Water areas with high possibility in finding fish populations	Number of users that buy the full service/year	UN-0100 UN-0200 UN-0400
UR-0200	Monitoring of sea water parameters	Number of maps and update frequency	UN-0200 UN-0400
UR-0300	Easy and low-cost access to information	Number of registered End-Users/year	UN-0300
UR-0400	WebGIS Interface	Bounce Rate	UN-0500
UR-0500	Additional data	Bounce Rate	UN-0600
UR-0600	Social and sharing features	Number of users sending feedback	UN-0700
UR-0700	Fishing Log	Number of registered End-Users	UN800

# Service and System Definition

## Service definition

Map2Fish is a service that consists of:

- a WMS service, and
- a mobile web application

- Fish Concentration probability
- Sea Surface Temperature
- Chlorophyll concentration
- Dissolved Oxygen
- Water Transparency
- Waves
- Currents


- One Stop Shop
- Blog
- Advertisements
- What/ Where /When to fish

Map2Fish (production)

Blog

Home  
Maps  
Saved Maps  
Blog  
Fishing rules  
OneStopShop  
Settings  
Feedback  
About


## Ψάρεμα LRF στις "φωλιές" των σαργών!



Οι σαργοί είναι το ιδανικό ψάρι που θα αναζητήσουμε με μία σχετικά νέα για την χώρα μας τεχνική από ακτή, ένα πολύ ιδιαίτερο παρακλάδι του spinning, το οποίο γενικά ονομάζεται LRF (Light Rock Fishing).

Το πατρικό μου στην Κάλυμνο κοιτάει από ψηλά τη θάλασσα. Μεγάλωσα σε οικογένεια ναυτικών και ψαράδων. Έμαθα να ψαρεύω σε μια ηλικία που δε θυμάμαι, και τα ψάρια ήταν μέρος της ζωής μου από τότε που έχω τις πρώτες μου αναμνήσεις. Δίχως να το καταλάβω, όπως και τόσα άλλα παιδιά στην Κάλυμνο, μάθαινα τις συνήθειες της θάλασσας και των πλασμάτων της εμπειρικά, βιωματικά...

### Πρακτική Μετεωρολογία: Μερομήνια, πως βγαίνουν οι



Map2Fish (dev)

What/Where/When can I Fish

Home  
Maps  
Saved Maps  
Blog  
Fishing rules  
OneStopShop  
Settings  
Feedback  
About

Map2Fish is a tool that helps you to enhance your fishing experience and in parallel to exercise your hobby legitimately, with prudence and respect to the fish catches and the environment. This is an effort to concentrate in one place the overall amateur fishing regulations and to provide all the information in an effort to protect the Greek seas and local fisheries.

**For this month:**


#### APPROVED amateur fishing techniques and catches

- Fishes and cephalopods (octopus, squid, cuttlefish, etc.) up to 5 kg / day per fisherman, accordingly with approved minimum size specifications for species (e.g. minimum size for octopus 500gr, minimum size for grouper-Epinephelus marginatus 45cm.) Exception applies when the catch consists only of one fish.
- Fishing with hand net and hooks, no restrictions apply.
- Fishing with longlines up to 150 hooks per fisherman on boat and up to 300 hooks per boat regardless fishermen on board.

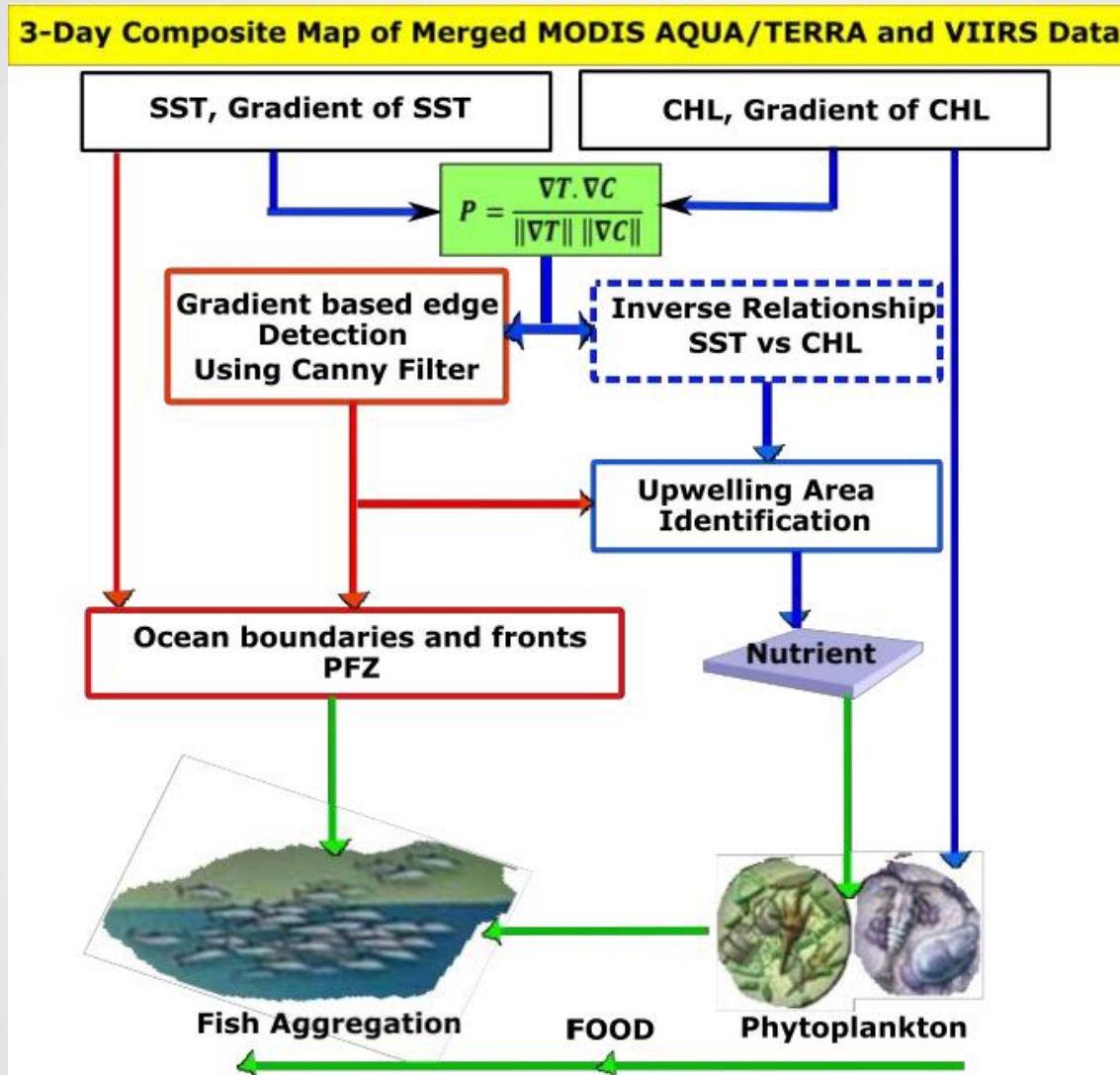
#### STRONGLY FORBIDDEN

- Fishing of red tuna (Thunnus thynnus)
- Fishing with longline and speargun 100m from the coast
- Fishing with longlines for migrating species (swordfish, tuna, etc)
- Catch more than one fish of the Serranidae family
- Fishing of minimum approved size fishes
- Trading and selling fishes

Prior to start fishing in any location in Greece, we advise you to get informed on the applied rules of amateur fishing for the country and contribute yourself to the common goal of clean and rich in fishes seas



# Probability of fish concentration



The core algorithm to estimate pelagic fish concentration probability will be derived from the study of Tijani et al, 2015, entitled "Fishing forecasting system in Adriatic sea – a model approach based on a normalized scalar product of the SST gradient and Chl gradient vectors" (proceeding in IGARSS IEEE, pp. 2257-2260)





# Competition as market/business validation

**FishTrack** [@FishTrack](#)

Home

About

Tips & Techniques

Fishing Charts

Photos

Instagram

Twitter

Reviews

Videos

Posts

Events

Community

Create a Page

**Photos**

4.3 out of 5 - Based on the opinion of 42 people

ABOUT FISHTRACK

Everything You need to Find Fish

Before any saltwater angler leaves the dock, they want to know two things: what are the current con...

See More

**Community** See All

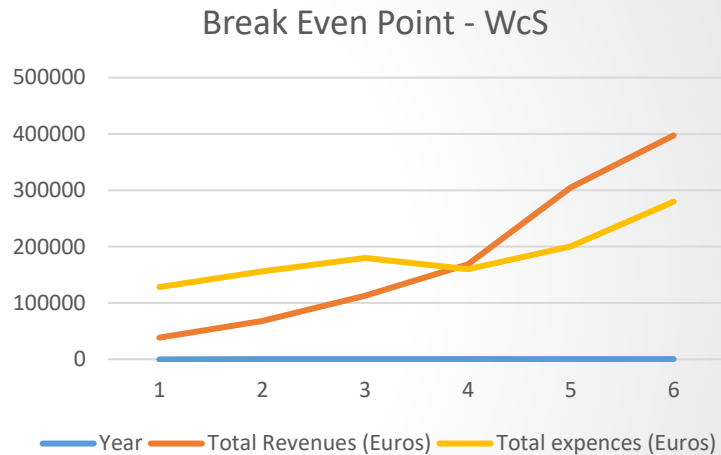
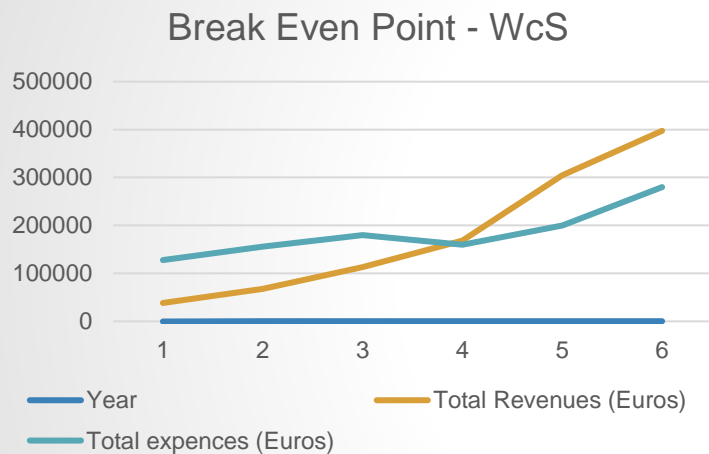
Invite your friends to like this Page

58,382 people like this

59,598 people follow this

# Business Plan (including financial projections)

- Presentation of the financial plan and financial projections for development and sales, including key financial indicators such as CAPEX, OPEX, Break Even Point, Net Present Value, financial projections for the next 5 years.

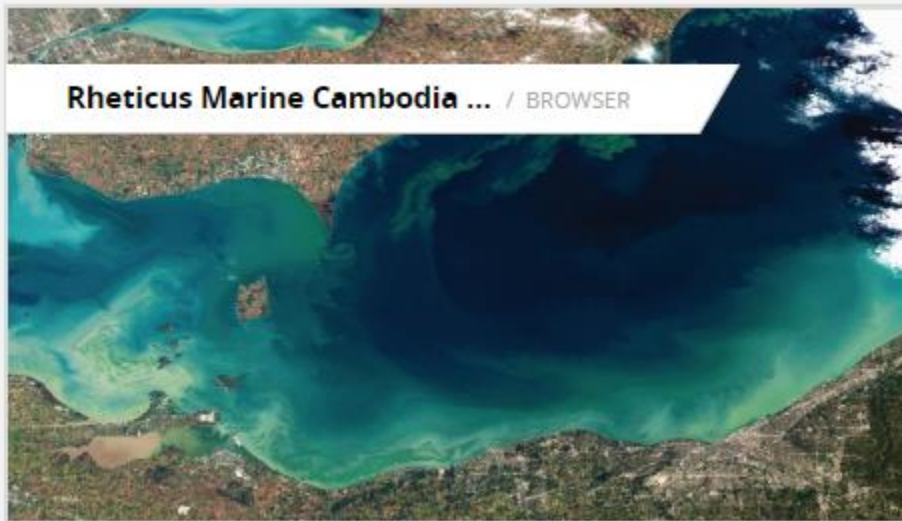


- BEP reached almost at 4 years of commercialization
- 1000 yearly subscription, 3000 monthly subscription, 20 WMS, 12.000 Ads&OneStopShop
- *Calculating also Planetek and ESA investment*
- *60% of every unit sold dedicated to OPEX*



# Fish stock Use Case for Cambodia fishing

- Asian Development Bank (ADB) is supporting the Cambodia Agriculture and Fishery Ministry to implement a new regulation for the fishing in territorial waters.
- The first step is an analysis of the fish stock trends for the last 10 years.
- This analysis is done with an algorithm that takes in input Sentinel 3 data and CMEMS products (Temperature, Chlorophyll, Currents, and wave height).



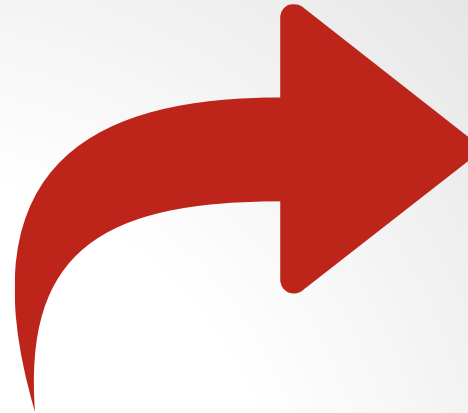




## Let's keep in touch

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