The Gilt-Head Seabream Farming Use Case in Greece

Conducted by NAYS Ltd

SEA2SEE

Gilt-head seabream *(Sparus aurata)*

The **gilt-head seabream** (*Sparus aurata*) is a marine species commonly found in the Mediterranean Sea and the Eastern Atlantic Ocean, from the United Kingdom to the Canary Islands and along the European and African coasts.

It is known for its distinctive golden stripe between the eyes, giving it the common name "**gilt-head.**"

Photo credit:
Stephan Le Gallais

Seabream is highly valued in Mediterranean cuisine, where it is a popular and culturally significant food source.

This blend of **economic importance**, **international market demand**, **sustainability issues**, and **cultural significance** underpins SAE2SEE strategic focus on its farming use case.

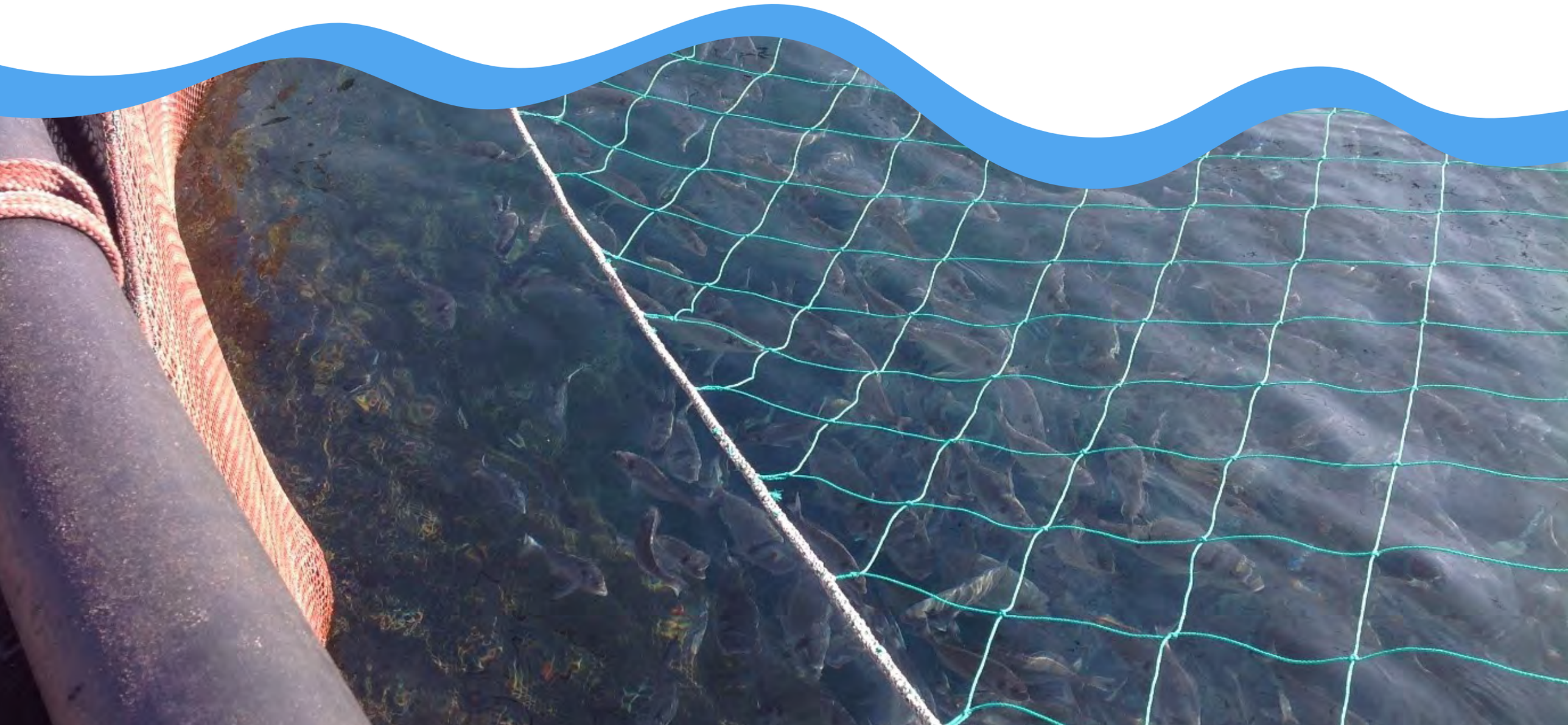
Sustainability is a significant focus in **Greek aquaculture**, with the importance of minimizing environmental impact and by following the EU sustainability guidelines.

Objective of the use case

SEA2SEE project aims to map, identify, and track the **seafood value chain** from aquaculture seafood production.

The pilot operates two marine fish farming sites in the **Southeast of Akrotiri Trachili**.

It engages stakeholders from aquaculture production, packaging, distribution, and retail sectors.



Objectives of the Greek use case

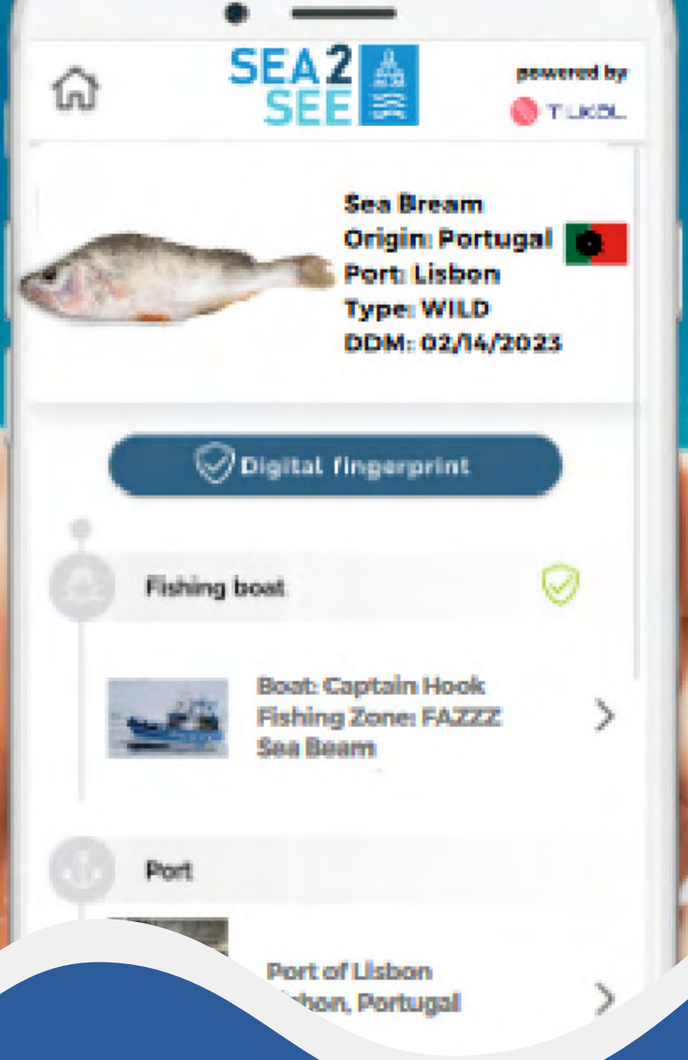
- To create a direct link between producers and consumers virtualizing the value chain of the seafood trade.
- To inform consumers about production conditions:
  - The sites utilize **floating fish cage systems**, with each site featuring circular cages of 40 and 60 m in perimeter.
  - Monitoring of water and seabed quality is conducted regularly through a dedicated environmental system with **monthly, seasonal, or annual analyses**.
  - Next to the farming sites, **the project includes onshore facilities for packaging the harvested fish** from both locations at Genitsari of Argolida located just 2 km from the marine farms.

Where are we now?

The Greek demonstrator site uploads data of the production phase in the **SmartWater** cloud.

The aquaculture producer uses **SmartWater Cloud Management Software** as a standard, for the management of all the daily operations (feeding, handling, health management etc.) of the fish produced.

The use of **SmartWater Cloud**, allows for the collection of all the **traceability data** from production activity.



The data are uploaded to the **SEA2SEE Traceability Platform** making it available to the value chain stakeholders.

A professional mobile Web app will collect data for the rest of the value chain phases: packaging, distribution, retail.
All collected data can be visualized in a spotlight web application.

The solution is currently being utilized in a testing environment for further refinement. The next step is its **full deployment in the Greek pilot**.

“**A blockchain traceability** solution is essential for Greek aquaculture in order to ensure transparency, quality assurance, and sustainability. Greek aquaculture relies heavily on exports. This international market demands a high level of trust and accountability regarding the quality and origin of products.

Blockchain can assist Greek producers in meeting complex regulatory requirements, making it easier to demonstrate compliance with international standards and respond to sustainability issues.

This type of tools can help to reduce fraud, and aligns the industry with modern expectations for **food safety and environmental accountability.**”

NAYS Team

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