European Commission

Innovations in eco-tourism

Construction of artificial reef diving parks in Crete

Greece

‘Diving Parks of Crete’ used EMFF funds to construct innovative diving parks using artificial reefs, to attract visitors while revitalizing underwater biodiversity.

A joint initiative led by the Heraklion Chamber of Commerce and local municipalities, the ‘Stalis Diving Park project’ has **created an underwater diving route of 40 artificial reefs** off the coast of Stalis on the island of Crete.

The reefs **form two diving routes for scuba divers, generating tourism and enhancing the local economy**. The park also features mooring and markings for boats, and advanced monitoring equipment supports scientific research and park management.

Developed by Hellenic Centre for Marine Research’s spin-off ‘ARIA-Maritime’, the structures are designed to **mimic natural habitats, attract marine life and boost biodiversity**.

The project is **revitalizing marine ecosystems and promoting sustainable diving tourism**, and is transforming the area into a safe haven for diverse marine species and the revival of biodiversity.

In summer of 2025, the Stalis Diving Park was available for free trial use by diving centres while this new ecotourism activity undergoes further development.

MAIN OUTCOMES OF THE PROJECT (RESULTS / EXPECTED RESULTS)

- The project expects to attract 5,000 divers and generate €200,000 in revenue annually;
- The artificial reefs will boost biomass and diversity of local marine life, with a significant increase in fish populations expected within a few months;
- Strict fishing bans and artificial reefs on Stalis’ sandy sea beds are expected to spark a significant revival of marine life, rebuild the underwater ecosystem and safeguard long-term local biodiversity;
- Promoting diving tourism will enhance the local economy and drive sustainable blue growth.

FACTS AND FIGURES

Total project cost: €222,300

- EMFF contribution: €94,477

BENEFICIARY NAME AND CONTACT INFORMATION

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Καταδυτικά πάρκα Κρήτης
ΑΜΚΕ
Diving Parks of Crete

Επιμελητήριο Ηρακλείου
Heraklion Chamber of Commerce & Industry

Αναπτυξιακή Ηρακλείου
HERAKLION
DEVELOPMENT AGENCY

FAMENET

European Commission

Innovations in on-board catch monitoring and data collection

‘VISTools’ Fisheries Information System and Tools

Belgium

Using an innovative system of onboard smart sensors, ‘VISTools’ monitors catch details, fuel consumption, and fishing location in real-time, giving skippers and shipowners valuable insights into their operations.

All images: © Lancelot Blondeel

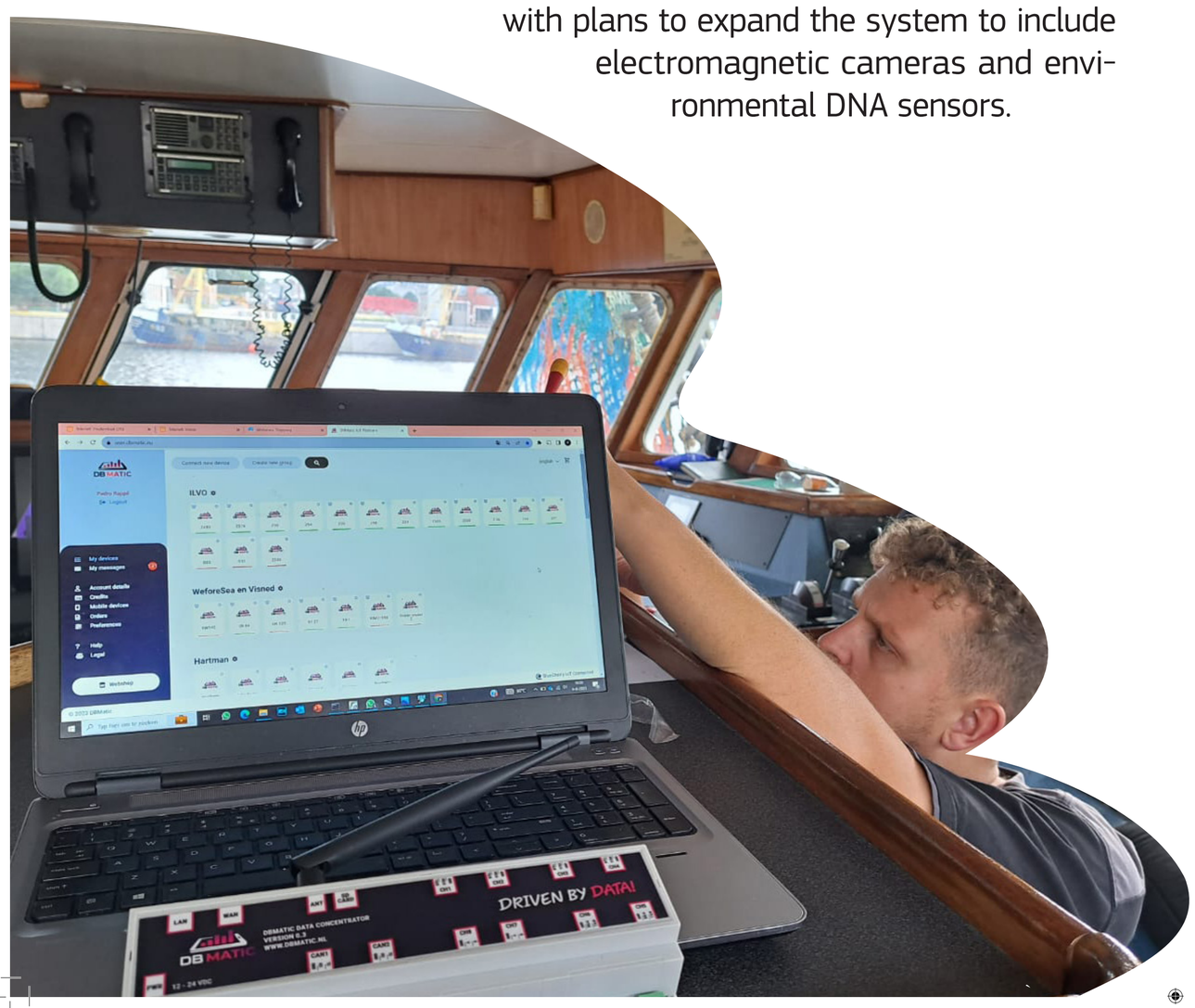
Fishers have traditionally relied on manual record-keeping, with skippers and shipowners using paper logs to track catches, fish box contents, and trip profitability.

The ‘VISTools’ project uses cutting-edge technology to make fishing more efficient and sustainable by **automating data collection of fishing boats.**

Through the **installation of innovative new smart sensors onboard**, fishers on the Belgian coast can **monitor catch details, fuel consumption, and location in real-time**, giving them valuable insights into their operations.

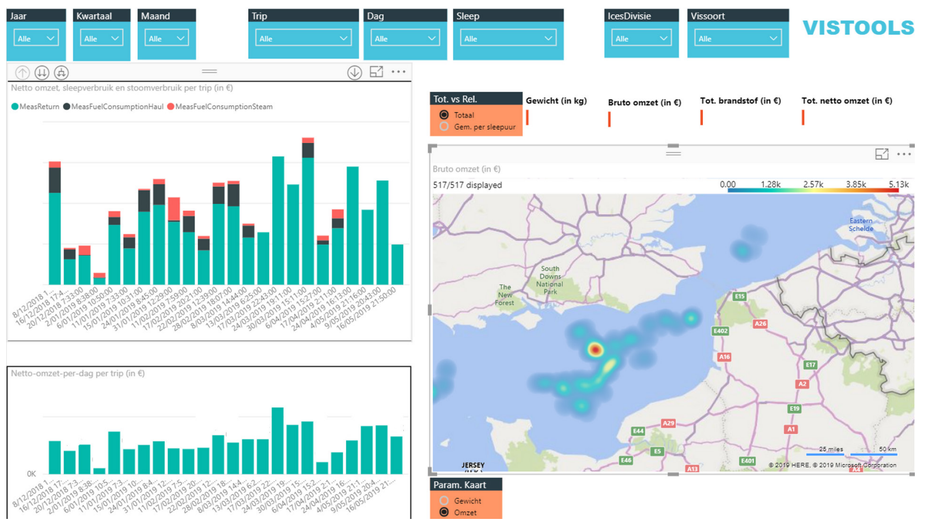
Tools like GIS mapping help **track catches more accurately across different fishing grounds**, and the system can be expanded with additional sensors that gather environmental data.

VISTools currently supports integration with weather stations and conductivity, temperature, depth, and turbidity sensors, with plans to expand the system to include electromagnetic cameras and environmental DNA sensors.



MAIN OUTCOMES OF THE PROJECT (RESULTS / EXPECTED RESULTS)

- **Real-time monitoring** of catch details, fuel consumption, and location on-board;
- **Automatic data collection can be combined with fish and fuel prices** to give a clearer picture of vessel performance;
- GIS mapping and tracking of catches;
- VISTools is being **used in 62% of Belgium’s fishing fleet.**



VISTools dashboard

FACTS AND FIGURES

Total project cost: €125,275 (publicly funded)

- EMFF/EMFAF grant: €62,638

BENEFICIARY NAME AND CONTACT INFORMATION

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For more information

Vlaanderen is landbouw en visserij

FAMENET

European Commission

Innovations in fisheries knowledge sharing

Fisheries Information Center

Estonia

Estonia's Fisheries Information Centre (FIC) aims to enhance the level of knowledge of fisheries and aquaculture entrepreneurs and the valorization of aquatic biological resources to improve economic and environmental sustainability. The Fisheries Information Centre will promote cooperation between operators, non-profit organisations and research and development institutions in the sector and promote awareness of fisheries among the public.

The FIC collects and analyses sector-specific data, organises and coordinates training, studies and pilot projects related to the sector's economic activities.

The FIC also collaborates with domestic and international organisations and institutions and disseminates sectoral information, advice and best practices through information materials and media.

Fisheries Information Centre activities include:

- Various public events, such as Open Fishing Harbour Day, Fish Week, etc.;
- Trainings, seminars and conferences on topics of interest to the sector;
- Applied studies with practical outputs to find quick solutions for the sector;
- Collection, analysis and publication of fisheries-related data (including visuals and links);
- Various manuals and guidelines for different segments of the sector;
- Cooperation with different international organisations (Eurofish, FAMENET, EFFOP, etc.).

MAIN OUTCOMES OF THE PROJECT

- Increasing fish consumption
- Higher income and turnover for the sector
- A more knowledgeable and skilled industry or sector
- Improved public image of fisheries and fishing

FACTS AND FIGURES

Total project cost: €8,657,000

- €3,121,000 for the fisheries knowledge transfer;
- €4,121,000 for the valorisation of aquatic biological resources knowledge transfer;
- €1,415,000 for the aquaculture knowledge transfer.

BENEFICIARY NAME AND CONTACT INFORMATION

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FAMENET

European Commission

Reduction of plastic waste from the brown shrimp fishery through gear modifications (DRopS)

Germany – Lower Saxony

The ‘DRopS’ project developed and tested trawl gear modifications to reduce net contact with the seabed, eliminating the need for ‘Dolly Ropes’ as abrasion protection and reducing plastic waste in North Sea brown shrimp fishery.

Innovative solutions against ocean waste:

Polyethylene ropes (‘Dolly Ropes’) on beam trawls in North Sea shrimp fishing protect nets from abrasion but fray quickly.

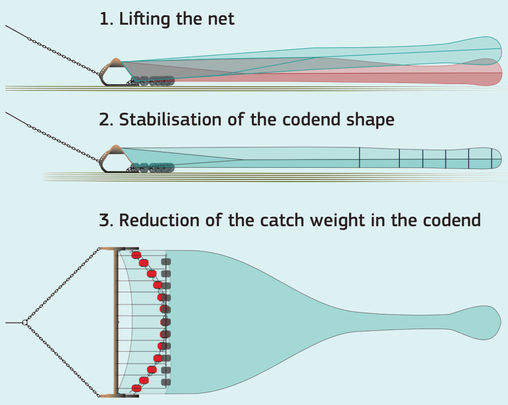
Broken parts enter the ecosystem and food chain, causing issues for fisheries and shipping. In beach litter monitoring, Dolly Ropes are among the most frequently found items.

In search of a solution, the ‘DRopS’ (Dolly Rope Suspension) project by the Thünen Institute of Baltic Sea Fisheries **developed and tested modifications to prevent nets from contacting the seabed, reducing fraying and ocean litter.**

The new methods can be modified and applied to other fisheries, for example flatfish fisheries in the North Sea, trawling in the Barents Sea, and some Mediterranean fisheries.

The cause

The solution



MAIN OUTCOMES OF THE PROJECT (RESULTS / EXPECTED RESULTS)

The project **identified the underlying reasons for the use of chafing gears** (an umbrella term that also includes Dolly Ropes).

Based on this analysis, **technical concepts were developed to prevent the nets from coming into contact with the seabed.**

Regarding the use of chafing gear and Dolly Ropes, it can be concluded:

- It is possible to **reduce/prevent codend contact with the seabed/chafing through gear modifications** without significant negative impacts on catches;
- **It is possible to use other materials** (than PE) if chafing protection is necessary (investigated in other projects);
- The use of Dolly Ropes is not required;
- The concepts are most likely transferable to other fisheries;
- If adequately supported (through funding / regulatory incentives/ bans), **the use of Dolly Ropes in fisheries could be terminated without a negative impact** on catch levels.

Based on these conclusions, a recommendation for policy implementation was developed.

FACTS AND FIGURES

Total project cost: €343,673

- EMFF grant: €257,754
- Lower Saxony state funding: €85,918
- Beneficiary contribution: €0

In addition, the German Ministry for Agriculture, Food and Regional Identities contributed to the project in terms of vessel time and scientific staff.

BENEFICIARY NAME AND CONTACT INFORMATION

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THÜNEN

FAMENET

European Commission

Innovations in animal health

Desalination Solutions for treating Amoebic Gill Disease in the Salmon Industry

Ireland

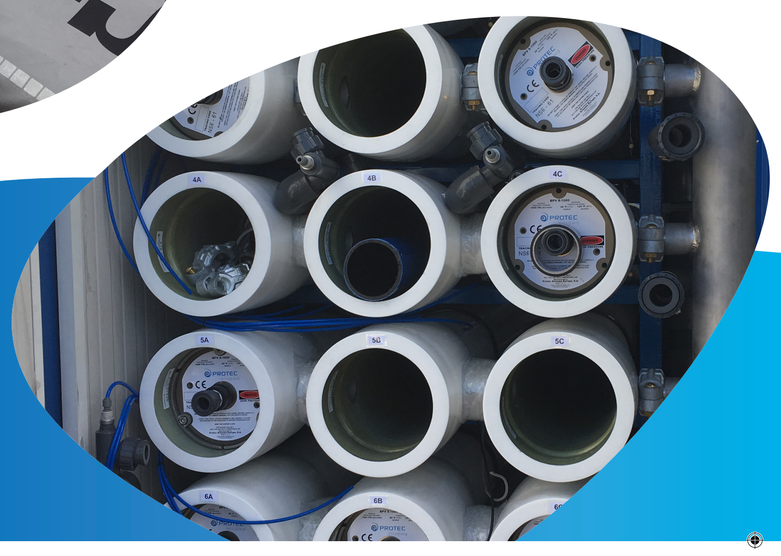
Ireland's Seafood Development Agency (Bord Iascaigh Mhara, BIM) tested different methods of desalination treatment to treat Amoebic Gill Disease in salmon farms, including the production and testing of a 500 cubic meter freshwater 'tow bag' and research into the efficacy of on-site desalination units.

Amoebic Gill Disease (AGD) is a common problem for salmon farms, causing significant losses.

Effective treatment involves bathing fish in a freshwater bath for 3-4 hours, If freshwater was not available at the site, safe transportation to farming sites is crucial if these highly effective, environmentally friendly, non-medical treatments are to be undertaken.

In coordination with the local salmon industry and manufacturers, beneficiaries **investigated the use of on-site desalination units to produce the required fresh water and further tested a 500 cubic meter freshwater 'tow bag' prototype to deliver water to sites** remote from desal units.

Both options were shown to be effective, efficient and environmentally benign methods for the **treatment of Amoebic Gill Disease at salmon farms**. An additional significant benefit was the **high efficacy of desalinated water in the treatment of sea lice**, when compared to surface water sources.



MAIN OUTCOMES OF THE PROJECT (RESULTS / EXPECTED RESULTS)

- Three-hour treatment with a salinity of 6.2 ppt **reduced average AGD gill scores** from 3.6 pre-treatment, to 0.4 one-week post-treatment;
- 87 percent of samples taken one-week post-treatment were **negative for Neoparamoeba perurans**, the causative agent of the disease;
- **Less suspended solids in filtered water** compared naturally sourced freshwater, allowing easy maintenance of dissolved oxygen during treatment;
- **Detachment of over 95 percent of sea lice after 2 hours**, a further 90-minute treatment in desalinated water renders sea lice unviable.

FACTS AND FIGURES

Total project cost: €127,488 (100% public cost)

- EMFF grant: €63,744

BENEFICIARY NAME AND CONTACT INFORMATION

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For more information

BIM Ireland's Seafood Development Agency

FAMENET

European Commission

Innovation for improving animal welfare in intensive turbot and sole production

FLATFARE

Portugal

The **FLATFARE** project, led by the company **FLATLANTIC (flat in the Atlantic)**, aims to innovate in the production of flatfish - turbot and sole by improving animal welfare and production efficiency.

The project **proposes advanced methodologies to identify knowledge gaps and address critical challenges in animal welfare**, such as fish sensitivity to noise, vibration, and electromagnetic fields, the low reproductive performance of captive-bred sole, the scarcity of prophylactic therapies, and the impact of extreme weather events on turbot farming.

With the **collaboration of five scientific institutions**, the FLATFARE project will introduce multidisciplinary solutions, including innovative environmental stimuli, especially designed vaccines for disease prevention, welfare biomarkers, and more sustainable farming technologies.

Aligned with the European Union's priorities in promoting sustainable aquaculture, the project highlights the importance of transferring scientific and technological knowledge to meet the concrete needs of the business sector.

Results will be disseminated through publications in international open-access scientific journals and participation in national and international aquaculture conferences.

MAIN OUTCOMES OF THE PROJECT (EXPECTED RESULTS)

- Development of scientific and technical framework for a **code of good practices** regarding acoustics, vibration, and electromagnetic fields in intensive turbot and sole production;
- Implementation of innovative disease control and prevention strategies, including the **development of specific vaccines**, automated vaccination systems, tools for assessing animal welfare, and rapid disease diagnostics;
- **Introduction of new farming technologies** that improve water quality, ensure sustainable production practices, and increase fish resilience to extreme weather events, optimizing zootechnical performance and reducing environmental impact;
- Dissemination of scientific and technological knowledge and **facilitation of knowledge transfer between academia and industry**;
- Increase in turbot production by approximately 13% by 2028, corresponding to roughly 400 tons per year.

FACTS AND FIGURES

Total project cost: €7,766,536.68 (including co-promoters)

- EMFAF grant: €4,260,806.83
- Beneficiary contribution: €1,679,669.82

BENEFICIARY NAME AND CONTACT INFORMATION

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Co-promoters:
University of Porto
University of Aveiro
University of Algarve
Lusófona University
i3S - Institute for Research and Innovation in Health

All images: © FLATLANTIC

For more information

FAMENET

European Commission

Innovative approaches for revitalizing artisanal fishing:

Kofradia Itsas Etxea: Highlighting the value of artisanal fishing in the Basque Country

Spain

Highlighting Basque Country's artisanal fishing industry through outreach, new products, gastronomy, and activities that foster generational renewal in the port of Donostia.

The Kofradia-Itsas Etxea project was created to **diversify and revitalize Gipuzkoa's artisanal fishing sector**, using the port of Donostia-San Sebastián as its reference point. The project has been extended to the entire Basque Gipuzkoa territory (Getaria, Hondarribia, Pasaia) and also in Bizkaia.

This strategic initiative seeks to **ensure generational renewal in inshore fishing**, showcasing the profession as a modern, sustainable, and exciting career option for new generations.

The project also **promotes the consumption of local and seasonal fish, highlighting fishing resources and traditional arts** through outreach activities, the development of new processed products, and the creation of a gastronomic space with full traceability 'from the fisherman to the table'.

The project is supported by a broad program of awareness-raising and educational activities, such as **guided tours of fish markets and guilds, school workshops, gastronomic experiences and pairings, as well as participation in fairs, media, and digital campaigns.**

In an innovative way, the project also incorporates fishing tourism and nautical tourism experiences, in collaboration with inshore vessels, to bring the realities of seafaring life closer to the public and diversify the sources of income for the artisanal fishing sector.

MAIN OUTCOMES OF THE PROJECT (RESULTS / EXPECTED RESULTS)

- **Contribution to generational renewal in artisanal fishing:** the 'Izan Arrantzale'('Be a Fisherman in basque') program and training activities reached more than **2500** young people in 3 years;
- **Promotion of consumption of seasonal and local fish** through 15 different outreach and awareness-raising activities reaching more than **2000** people;
- **Development and marketing of new prepared products:** conger eel soup and pudding, tuna and mackerel burgers, fish croquettes, among others to facilitate the cooking and encourage consumption among new generations;
- **Creation of an innovative gastronomic space**, ensuring complete traceability from boat to plate: 25,000 people enjoy this culinary experience every year;
- **Launch of pilot fishing tourism and marine tourism projects**, which diversify the sources of income for the artisanal sector.

FACTS AND FIGURES

Total project cost: €957,000

- EMFF/EMFAF grant: €718,000
- Beneficiary contribution: €239,000

BENEFICIARY NAME AND CONTACT INFORMATION

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FAMENET