

## Seminar Highlights



FARNET TRANSNATIONAL SEMINAR FOR FLAGS  
WEIDEN, GERMANY 20 – 22 NOVEMBER 2017

# Integrating aquaculture within local communities

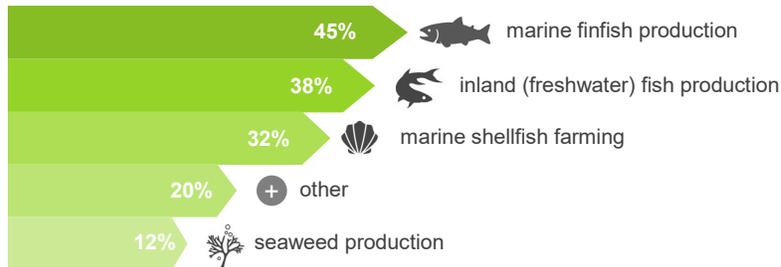
**Organisers:** FARNET, at the initiative of the European Commission

**Hosts:** Bavarian State Ministry of Food, Agriculture and Forestry, with the help of the Tirschenreuth FLAG

**Participants:** Over 100 Managing Authorities, National Networks, experts and FLAG representatives from all 20 Member States implementing fisheries CLLD

Fostering an environmentally-sustainable, resource efficient, innovative, competitive and knowledge-based aquaculture is one of the priorities of the EMFF. Aquaculture producers are present in many FLAG areas, both coastal and inland, and a number of FLAGs are already working with the sector. Strengthening linkages between aquaculture and its area, improving its acceptability by the society and addressing consumer concerns are amongst key aspects where FLAGs can make a contribution. They can also help develop synergies between aquaculture and other blue growth sectors (fisheries, processing, catering/restaurant industry, tourism, biotechnology etc.), facilitate ecosystem services provided by aquaculture as well as help address environmental and climate-change related concerns.

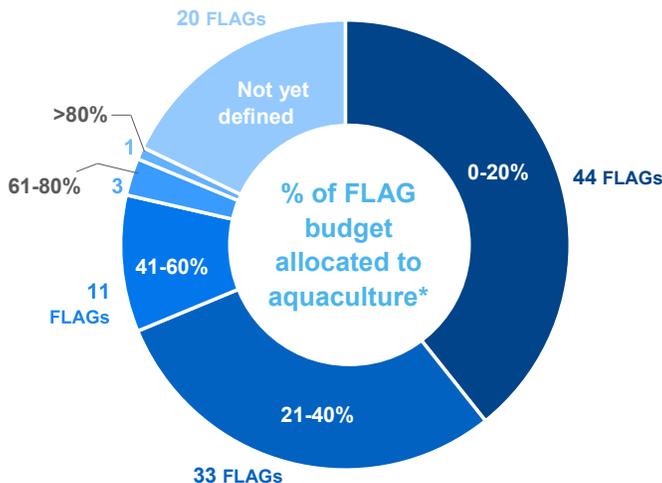
### Types of aquaculture in FLAG areas\*



The maritime economy is on the cusp of major development, there is a strong need for a sustainable agenda! We are working with Member States to address barriers that prevent EU aquaculture growth and to exchange good practices, in this context local action is very important.

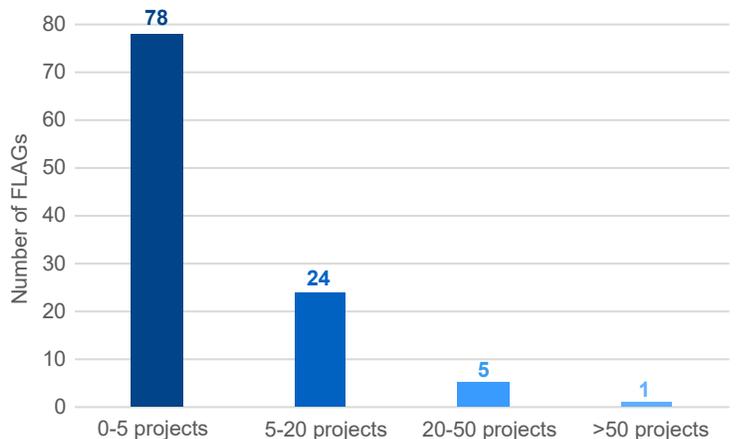
- Bernhard Friess, *Director for Maritime Policy and Blue Economy, DG MARE*

## OVERVIEW



\*Based on registration data from 112 FLAGs

### Number of aquaculture projects that FLAGs have supported\*



## Why do aquaculture producers need FLAGs?

Aquaculture producers in the EU face a number of **challenges**; many of them can be addressed with the help of FLAGs. The participants identified the following key challenges as most important for producers in their areas:

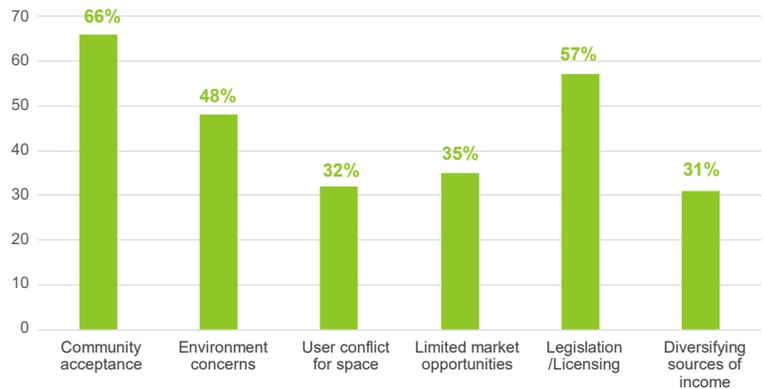
- **social/community acceptance**: aquaculture's potential to deliver high quality products is often not recognised; the sector can have a negative image
- **environmental concerns**: aquaculture can be perceived as a source of pollution, disease or biodiversity loss; it can also suffer from pollution caused by other actors
- **user conflict for space**: aquaculture producers can have difficulties finding space for their production, especially in areas with high attractiveness for other purposes such as tourism, leisure or housing
- **limited market opportunities**: very few producers sell their products locally or manage to diversify their market channels, many supply their fish only to highly competitive supra-national markets
- **legislation/licencing**: many producers find the administrative and regulatory system complex and unfriendly; licencing procedures are slow (this is partly linked with lack of social acceptance)
- **diversifying sources of income**: additional income activities (seaweed production, processing, gastronomy, tourism...) can be necessary for some aquaculture producers but they can lack the necessary contacts or skills
- **protected predators**: protected fish-eating predators (such as cormorants) can cause serious damages
- **lack of adapted financial instruments** and bureaucracy linked with applying for funding

### How FLAGs can help address these challenges:

- ✓ Help producers to improve the social acceptance of aquaculture and its products, especially at the local level, by working with different community members
- ✓ Promote fish farming as an economically attractive and interesting career for the young, and which is compatible with family and community life
- ✓ Educate consumers on the origin and quality of their fish and on the difference between locally produced and imported fish
- ✓ Help aquaculture start-ups overcome negative attitudes of existing fisheries and aquaculture enterprises who can fear adverse impacts on their activity
- ✓ Address challenges linked with climate change by promoting new technologies for biological water cleaning, new species needing less oxygen/water, recirculated or closed production systems...
- ✓ Raise skills of producers and support them to market their fish better, combatting the image that it is "inferior quality" to wild fish
- ✓ Encourage innovation and cooperation with other sectors, including with research stakeholders, in order to develop an environmentally sustainable and accepted activity

## WORKING GROUPS

### Key challenges for aquaculture producers that FLAGs can help to address\*



\*Based on participant poll taken during seminar



**Courtney Hough**  
Federation of European Aquaculture Producers (FEAP)

European aquaculture plays an important role in contributing to our **food security** but must be safeguarded and supported. In fact, we currently import over half of the aquaculture products consumed in the EU. FLAGs can achieve things at local level that cannot be done at EU level. Developing synergies between EU-wide campaigns such as "Farmed in the EU" and local action can ensure greater impacts.



**Manuela Pomares**  
Foredunes

The association Foredunes offers an example of local action that can contribute to better **awareness and understanding** of aquaculture – and a better image of the sector. Foredunes organises educational activities for children, teaching them about how sea bass and sea bream is raised in the area as well as offering the possibility to catch and taste the fish. This is helping to improve the image of the sector and its produce.



**Adam Hughes**  
Scottish Association for Marine Science (SAMS)

Developing aquaculture can bring **risks and opportunities** to local communities. While potential risks range from visual impacts and environmental challenges to high investment costs and conflicts over use of space, the presence of aquaculture can mean jobs, revenue and recognition for local communities, as well as having a range of knock-on benefits such as creating marine innovation hubs and a whole series of auxiliary economic activities.



**Jens Kjerulf Petersen**  
Institute of Aquatic Resources,  
Technical University of Denmark (DTU)

**Social acceptance** of aquaculture is the over-riding challenge to its development. This is linked to low levels of knowledge and trust between the sector and the community. Moreover, some interest groups, NGOs and media convey a negative image of aquaculture. However, many of these issues can be managed, for example though combining finfish aquaculture with mitigation farming of mussels and seaweed. Community involvement in cultivating sea gardens can also help to connect the public with the concept of producing seafood.

Aquaculture can contribute in many ways to local socio-economic development. It provides jobs even in very remote areas, where there are few other employment opportunities; in some places it can even be a major employer.

Aquaculture can also boost local revenues: even where the production sector itself is highly concentrated, the supply chain often involves many local SMEs which depend on aquaculture for their income. Aquaculture can contribute to the common image of the area, attracting tourists and helping to strengthen the sense of identity of the local population. It can also have a positive impact on food security, with communities being able to produce their own food.

In some regions, aquaculture can attract public investment to remote areas and thus prevent their depopulation. The sector can also help strengthen linkages with science: aquaculture research institutions are often located near the production sites, while students can benefit from traineeships on the aquaculture farms.



**Nina Mrkonja**  
Plodovi mora FLAG, Croatia

In my FLAG area, 32% of the population is employed by aquaculture but other sectors such as tourism are weak. Our FLAG wants to connect aquaculture to local tourism and identity as we are proud of our aquaculture. For example, we will put in place a viewing platform near tuna cages where people can observe the fish and learn about aquaculture.



**Davide Cao**  
East Sardinia FLAG, Italy

In East Sardinia, where there is a strong presence of sustainable aquaculture, gastronomy and ititourism are ways to diversify income. Our FLAG organises events at the different lagoons which are open to the public. There is even a food truck that travels between the lagoons. In this way, the FLAG is helping to ensure a common "branding" of the region.

## How FLAGs can build links between the community and aquaculture

- ✔ Organise open days and visits to aquaculture farms
- ✔ Participate in fairs and markets, set up tasting sessions and culinary activities, take part in festivals
- ✔ Launch promotional campaigns to improve local consumption, endorse aquaculture and its products as a healthy and quality food source for the community
- ✔ Develop local fish branding and better labelling of aquaculture products as well as new technologies such as QR codes and Apps to help consumers make an informed choice
- ✔ Coach fish farmers to diversify their production and reach out to local consumers
- ✔ Carry out an analysis of local consumer habits to tailor activities that will lead to change
- ✔ Train fish farmers on providing services to tourists; integrate aquaculture into local tourism, facilitate contacts with the tourist sector
- ✔ Organise for advocacy to develop a special legislation for small-scale producers to help overcome the legislative barriers
- ✔ Create collaboration networks between local businesses and research centres
- ✔ Develop collaboration between aquaculture and fisheries (e.g. coordinated marketing; aquaculture start-ups by fishermen...); facilitate knowledge and experience exchange

## WORKING GROUPS

The **Tirschenreuth FLAG** launched [various projects](#) with local fish farmers, restaurant owners, schools, businesses and other active local actors to make aquaculture central to the area's development, identity and tourism industry:

- The Phantastic Carp Trail: colourful art sculptures to be discovered throughout the region and two fish-themed playgrounds
- Stairway to Heaven viewing platform to appreciate the land of 1000 ponds with information panels on local flora and fauna and fish farmers
- **FISCHtival open air festival** of concerts and food promoting the activities of the pond fishing association
- Interactive digital museum about the local history of aquaculture and aquariums exhibiting local species
- Training courses for fish farmers to become certified guides to show visitors their work life and the importance of traditional aquaculture



## Project & Knowledge Hubs

### Duckweed for fish feed

*Kainnu Koillismaa FLAG, Finland*

Taking advantage of nutrients dissolved in water on fish farms by cultivating duckweed as an aquatic crop in the ponds. It removes unwanted substances from the water and is harvested for protein-rich feed.



### From crushed shells to 3D printing

*North Sardinia FLAG, Italy*

Local high school students and teachers were reusing crushed shells as mineral supplements for poultry and soil fertilization. Now, they've taken the project further by using crushed shells for 3D printing, producing any items such as jewellery, tiles etc.

### Biodegradable meshes for mussel cultivation

*Ria de Arousa FLAG, Spain*

Putting in place biodegradable mesh for mussel cultivation, a local company's organic mussel production contributes to solving environmental problems while opening a new line of production.



### Reconnecting the land and the sea

*West FLAG, Ireland*

A group of shellfish farmers, shellfish exporters, inshore fishermen, and marine heritage enthusiasts have formed a community-based organisation to improve the quality of life, environment, economy and maritime heritage around its bay.

### Tomatofish

*Mecklenburgische Seenplatte-Müritz FLAG, Germany*

An innovative way to grow fish and tomatoes together in one integrated system: the aquaponics system. Fish waste provides an organic food source for plants, which, in return, naturally filter the water.



### Detecting toxic marine microalgae

*Pyrénées-Méditerranée FLAG, France*

An oyster farm, regularly affected by toxic phytoplankton contamination which leads to economic losses, teamed up with research institution to detect toxic marine microalgae and anticipate its proliferation.

### Cultivating microalgae for oil extraction

*Costa da Morte FLAG, Spain*

A young producer set up a start-up company to cultivate microalgae on land specifically for oil extraction. The oil, high in omega-3, will then be used as a pharmaceutical-grade and standardized nutrient and as raw material for human consumption.



### Fish farm activities for the entire community

*Our Krajna and Paluki FLAG, Poland*

In cooperation with a fish farm and other actors, the FLAG organised activities such as live demos, carp filleting shows, bird camps and cross-country running, helping the farm take on a more active role in the community while increasing direct sales.

### Combining functionality with recreational activities

*Braila FLAG, Romania*

An aquaculture farm has set up a restaurant and a pontoon. The pontoon, built from floating modules with an anchoring system and a bridge, unites the functionality of the restaurant with fishing and recreational activities happening on the lake around it.



### Community sea gardens

*Djursland FLAG, Denmark*

A voluntary association was created to set up a sustainable sea garden near the port for local community members to grow shellfish and seaweed on a small-scale. A dynamic network of about 80 gardeners has taken root, bringing new life into the harbour.



The aquaculture industry is hugely influenced by the social and environmental contexts that surround it, and not simply by the products and services it provides. FLAGs can collaborate on the [Farmed in the EU](#) campaign that connects fish farmers to their local communities by bringing them into their local schools to speak about their work and explore issues related to food production, the environment, and the different business and career opportunities aquaculture offers. When it comes to aquaculture, a lack of knowledge makes it harder to be socially accepted.

- Dario Dubolino, *Policy Officer - Aquaculture, DG MARE*