



FEDERATION OF
EUROPEAN
AQUACULTURE
PRODUCERS

ANNUAL REPORT

2012

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About FEAP

FEAP is the united voice of the European aquaculture production industry, being the Federation of National aquaculture associations in Europe that represent professional fish farming.

With 26 members drawn from 22 States across the European continent, the FEAP represents

- **>2 million tons of produce**
- **Ex-farm value of over € 8 billion**
- **100,000 direct jobs in coastal & rural areas**

FEAP works to support and promote the responsible development of the European aquaculture sector and, through a range of diversified actions, develops and provides the common positions and opinions of the European sector.

Focused on fish farming, FEAP represents a range of different farmed species that include:

- | | |
|------------|------------|
| • Trout | • Seabream |
| • Salmon | • Turbot |
| • Carp | • Cod |
| • Sea Bass | • Sturgeon |
| • Catfish | • Meagre |

European aquaculture rears many other species, both in fresh and salt water, and details on the levels of production reported can be found in 'Facts & Figures' at www.feap.info. Additional statistical information on aquaculture is provided by the FISHSTAT service of the Food and Agricultural Organization of the United Nations (www.fao.org) and the European Commission's Directorate General for Maritime Affairs and Fisheries – DG MARE (ec.europa.eu)

Established in 1969, FEAP has adapted to the numerous changes seen in European aquaculture and, in line with society's expectations, provides transparent information on activities and developments in this dynamic sector.

FEAP is run by professionals for professionals, meaning that all of its members are active in fish farming and its markets and is thus very aware of the main issues concerning aquaculture and its sustainable development in Europe.

FEAP's Mission

- Pursue and improve its coordination role of the goals of its National member associations and the aquaculture profession.
- Assure a pro-active position in front of all relevant authorities and interests
- Provide accurate information and sound rationale to policy and decision makers.
- Guarantee the communication of unbiased information on aquaculture processes and products to the consumer.
- Guarantee valid, consensual and timely responses to key issues.
- Develop the structure and operations required for the representation of a dynamic and visible sector at European and worldwide levels.



Introduction

European aquaculture delivers some 2.5 million tons of seafood and fish, with 1.3 million tons coming from EU States. The 2012 FEAP Annual Report gives a comprehensive overview of European fish farming and the issues affecting its development. Fish farming is a multifaceted livestock-rearing activity, which is done throughout Europe and depends on matching a wide range of influences for success. As in 2011, several case studies provide reference points, showing how the sector can react and develop.

In 2011, the FAO estimated the average global fish supply to be 18.8 kg per person per year (9.7 kg from fisheries, 9.1 kg from aquaculture). This represents a total demand of 131 million tons where a stable food fisheries supply is around 67 million tons; thus some 64 million tons comes from aquaculture. Moreover, with the increasing population forecast, by 2030 the total need is forecast to be >160 million tons. Global aquaculture production has to grow and reach 100 million tons, if fisheries landings stay the same. The FEAP is convinced that European aquaculture can provide a significant contribution to this target.

2012 has been marked by the consultations on the European Commission's proposals for a reform of the Common Fisheries Policy and the related instruments needed for its implementation. These include the creation of a new Advisory Council for Aquaculture. For the first time, FEAP introduced a new European event - 'Aquaculture in Motion' - which had the central theme 'How to Boost EU Aquaculture'.

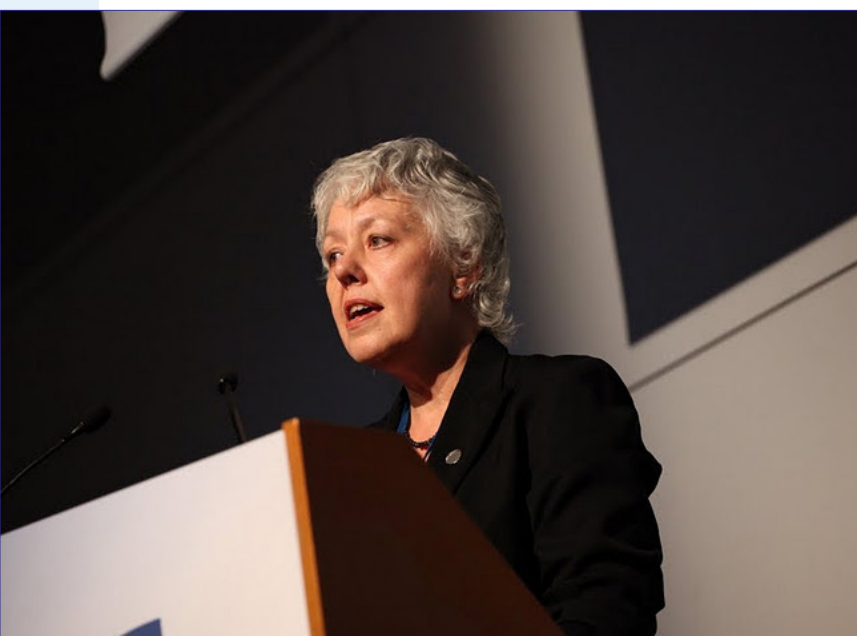
At this important and successful meeting, Director-General Lowri Evans of DG Mare and MEP Struan Stevenson provided their reflections on EU aquaculture while the FEAP President and several FEAP representatives gave the background on positions and progress on a wide range of issues that the FEAP has addressed in 2012.

The European Union imports 65% of its seafood needs and the aquaculture of fish and shellfish provides clear potential for developments that will reduce this deficit. Nonetheless, Europe and the Member States need to establish the enabling environment that will allow this, a position foreseen in the recent Strategic Guidelines published by the Commission.

This report highlights different issues that reflect the needs and concerns of the profession, combining technical, legislative and strategic topics - each of which affects how European fish farming can develop in the most sustainable way, including economic, environmental and economic considerations. These topics have been debated in both FEAP meetings and formal committees, using information and arguments developed by the FEAP member representatives.

FEAP promotes sectoral transparency to achieve the support of the positions of European aquaculture. We look forward to moving forward, working with the profession, the policy-makers and other stakeholders, and assure the sustainable development of European aquaculture.

Message from Lowri Evans, Director-General of DG Mare



Lowri Evans is Director-General in DG Maritime Affairs and Fisheries (DG MARE) of the European Commission since July 2010.

She is British and started her professional career in audit and accountancy at Deloitte Haskins & Sells accountancy. She joined the European commission in 1983 as Administrator in DG Financial Control.

Later on she worked as case officer in DG competition. Between 1993 and 1994 she was member of the cabinet of Commissioner Flynn.

In 1995 she moved to DG employment as head of unit. Five years later she became head of unit in DG competition and later director and deputy Director-General in DG competition.

What do you see as the major challenges for the European aquaculture sector?

There are four major challenges: first, administrative simplification, in particular linked to licensing procedures.

Aquaculture faces high administrative burdens, which risk stifling expansion. This is one of the key issues addressed in our Strategic Guidelines on aquaculture.

We have also asked a high level group of experts on administrative burdens to help us and the Member States to cut red tape while maintaining the existing high level of environmental and consumer protection. We will pay particular attention to SMEs in this context.

Second, limited access to space and water for new aquaculture activities. We know that sometimes new farms also face local opposition, resulting in further delays and uncertainties. The Commission is promoting an integrated approach to spatial planning, and one of our objectives is to ensure that the needs and potential of aquaculture are taken into account when making decisions on allocations of water and space.

Third, the quality and sustainability of EU aquaculture are major competitive assets

The image of aquaculture and its products sometimes suffers from a negative bias. The general public is not always aware of the contribution to biodiversity and land management that comes from aquaculture, and consumers are often not aware of the high standards and quality of EU aquaculture. We need to create the conditions for this potential competitive advantage to be adequately exploited. A better understanding of the EU aquaculture's high level of sustainability could also help improving social acceptance and reducing local opposition to new farms.

Last but not least, considering the high fragmentation of EU aquaculture, it is crucial for the sector to be effectively organised both at the national and EU level. Producer Organisations and the new Aquaculture Advisory Council can play a key role in in this sense.

Are you happy with the progress made in the aquaculture proposals in the CFP reform?

Both the European Parliament and Council have expressed a broad support for our approach in relation to aquaculture. Moreover, it is excellent to see a very constructive approach by all stakeholders. The broad consensus that we have reached on this topic has allowed us to proceed with the first steps of our cooperation, by publishing our Strategic Guidelines. This is the beginning of a new way of working together with the Member States and stakeholders that we hope will bear fruit.

How do you see DG Mare's role in the development of EU aquaculture?

We intend to promote aquaculture through a voluntary coordination between Member States. In this context, the Commission has just published Strategic Guidelines defining what we see as the main challenges and priorities for the development of aquaculture. We need clear targets and indicators to measure progress. Of course, the starting point and the strategy for aquaculture will differ among the Member States. This is natural. What we are trying to achieve is a better strategic framework that will guide the action of national and local authorities, all of them together, for the sustainable promotion of aquaculture. We would like to see the various departments involved work together to make aquaculture achieve its potential. Member States will now prepare their own national aquaculture plans. We will help them coordinate their activities and exchange best practices and know-how. The new Aquaculture Advisory Council will reinforce dialogue between stakeholders and policy makers.

In your view, what are the major strengths of the European aquaculture sector?

European aquaculture offers top quality products, respects strict environmental sustainability, animal health and consumer protection standards. We know that consumers are ready to pay a premium for products that are healthy, safe and sustainable. Of course, these qualities must be visible for EU aquaculture to become more competitive and attractive.

What are your hopes for the new Aquaculture Advisory Council?

We expect that the Advisory Council establishes itself quickly and becomes the reference point for exchanging good practice and formulating recommendations that help EU and national policy makers to better address the needs of the industry, consumers, and citizens. We also hope that it will provide a useful platform for producers, consumers and environmental NGOs to work together productively.

What do you think EU aquaculture will look like in 2020?

Our vision is that of an economically, socially and environmentally sustainable sector, which is able to compete on the international level and bring safe and high-quality seafood to our tables.

When we look at the growing demand for seafood, it is clear that there is a strong role that aquaculture can play in filling the gap between our consumption and what can be sustainably produced by our fisheries sector. So - more European fish, and more European jobs.

Message from Arnault Chaperon, FEAP President



The FEAP president is French and, after studying engineering, started his professional career at Sepia International with positions in Europe and Tunisia.

Since 1995, Arnault Chaperon has been the CEO in the companies 'AquaNord' and 'Viviers de France', and is currently director of farming operations in Norway Seafoods.

Arnault has been strongly involved in representative work, presiding the French Federation of Aquaculture and the Inter-professional Committee of French aquaculture Products (CIPA). At the European level, he has been President of FEAP since 2010, assuring representation in European Committees and also on the Board of the European Aquaculture Technology and Innovation Platform (EATiP).

What were the major achievements of FEAP in 2012 ?

I think that 2012 was a very important year for FEAP since, for the first time, aquaculture is respected as a core pillar of the new Common Fisheries Policy. Although a long time coming, this is a strong and logical signal because world aquaculture now provides nearly the same quantities as the fisheries industry.

Another important achievement is the recognition of the famous 'level playing field' in the European discussions.

European aquaculturists are not afraid of competition from imports; they just want the production and operating conditions to be transparent, complying with the same strict European rules that we observe. This is definitely not the case today.

We have continued to talk with one voice so as to defend the interests of our profession and 2012 has seen the proposals for a new European approach to our sector for the period 2014 – 2020. At the request of our members – the European aquaculture producers – we also have increased our in-house efforts in communication and promotion activities.

Communication was one of FEAP's priorities last year; what has been the outcome of this focus ?

To achieve our full intentions, the means at our disposal are not sufficient, although we have increased our efforts in this domain and, more specifically, with following concrete actions:

- An increased dialogue with the policy-makers and decision-takers in this period of European decisions that are crucial for our sector
- A new website www.feap.info which is both a communication tool for our members who need to be informed on the latest news, as well as a site where stakeholders can find the necessary information on European aquaculture that they are looking for.

- We have also prepared a series of fact sheets that allow us, after internal debates, to take a clear position on topics as diverse as predation by cormorants, the use of processed animal proteins in fish feeds, fish welfare and many other key issues.
- A quarterly newsletter allowing our members and stakeholders to follow the latest news and activities of FEAP.
- The organisation of a new European event **'Aquaculture in Motion'** that allowed important stakeholders and policy-makers to hear the clear and strong voice of European producers.

'Aquaculture in Motion', FEAP's new EU aquaculture event was a big success – what are the plans for this event in the future ?

'Aquaculture in Motion' was a great success and we will repeat the event in 2014. Nonetheless, we still feel that the importance given by policy-makers to aquaculture does not always reflect its contributions in jobs and production. The conclusions of 'Aquaculture in Motion' were very clear, showing and identifying the responsibilities of each - at the different levels - to successfully develop European aquaculture.

A short report on the conclusions and outcomes of this event follows on p. 8.

In your view, what are the major strengths of the European aquaculture sector ?

The greatest strength of the European aquaculture producers is to be at the heart of Europe with access to a huge market and consumers who want to eat fish, preferentially produced locally. Consumers must be clearly informed about the fish that they buy. We are very much in favour of informative, truthful labeling. Also, at retail level, we want a physical separation between genuinely fresh and defrosted products.

The second strength of European aquaculture production is its variety, supported by a huge amount of expertise relative to the fish species and farming methodologies. It is a conundrum that we are perhaps the best in exporting our technologies that allow competitors to sell their products in Europe !

I also want to stress that FEAP also provides a model for representation envied by many, and that it is unusual in sectors like ours to have a European organisation that is able to debate, decide and defend clear positions with one and the same voice.

How do you see the role of the European Commission in helping EU aquaculture ?

We are very proud that the conclusions of 'Aquaculture in Motion' were almost integrally included by Commissioner Maria Damanaki in her concluding remarks of 'EU Aquaculture, the path for growth', a meeting held in A Coruña (Spain) in November 2012.

However, it is not the time anymore for words, now we need action! There will be no development of European aquaculture if Europe and the Member States don't take up their responsibilities. The Strategic Guidelines under preparation should highlight these aspects.

There will be a new Advisory Council for Aquaculture, what hopes do you have for its function ?

The function and structure of this new AAC are not yet clearly defined. We have some concerns about the resources to be allocated to this new platform for debate and consultation between aquaculture professionals and related stakeholders. What is certain is that the AAC must be the official meeting point between the aquaculture professionals and the different Commission Directorates. It has to be a place where the different members should be representative and be accountable to the challenge that Europe must develop a sustainable aquaculture in the years to come.

For European aquaculture, this is an enormous challenge but be assured that FEAP is ready to play its part !

'Aquaculture in Motion' the new FEAP event



'AQUACULTURE IN MOTION', the first edition of this new European aquaculture event, was organised by FEAP in Brussels, 7th November 2012.

More than 100 participants from 20 different European countries attended the event in the SQUARE Brussels Meeting Centre.

The central theme for this inaugural event was 'How to boost the development of European Aquaculture?' and concentrated on how different professionals, stakeholders and decision-makers perceive the role of European aquaculture and how its development can be boosted so as to provide economic growth, jobs and added-value through the supply of high quality European aquaculture products.

All presentations can be seen at tinyurl.com/FEAPevent

The meeting was opened by Arnault Chaperon, FEAP President, who noted that that, after nearly 2 years of debate on aquaculture's position in the Common Fisheries Policy (CFP), it is time to move forward, answer questions, develop solutions and take decisions. Lowri Evans, Director-General at DG MARE and MEP Struan Stevenson, Vice-President of the Fisheries Committee of the European Parliament presented their positive and encouraging views on the role of aquaculture while noting the challenges and approaches of their institutions.

After a short presentation on the diversity of European aquaculture, François Simard (IUCN) and Professor Sachi Kaushik (INRA) talked about the role of aquaculture in society, discussing social and environmental aspects of the industry and the contributions of its products to public health.

Resource use in aquaculture, covering key issues such as feed supplies and ingredient sources, were covered in detail by Dr Andrew Jackson (IFFO) and Mr Karl Tore Maeland (FEFAC), giving prominence to the diversification of raw materials for the best diets.

The issues of access to space and licensing were presented by Javier Ojeda (FEAP/APROMAR) while the skill requirements of the profession were highlighted by David Bassett (FEAP/BTA).

'Aquaculture in Motion' the new FEAP event

The last session on 'aquaculture & the market' highlighted some hot topics of interest to the consumer (labelling and consumer information) presented by Camille Perrin (BEUC) while the 'level playing field' and the needs for improving sectoral competitiveness were presented by Gustavo Larrazábal (FEAP/EATiP).

Finally, FEAP presented its recommendations on how to boost the development of European aquaculture development. These recommendations emphasised the need for all stakeholders to assume their relevant responsibilities at European, National and Local levels in order to build a coherent framework that will support the sustainable development of European aquaculture.

At European level, the level playing field and consumer information are top priorities and a need for simplification and harmonisation of regulations is a must for future development. At the national level, a lot is expected from the national strategic development plans as well as simplification of licensing conditions.

It is expected of both producers and processors that they continue to provide healthy and sustainable products, that they become better organised (e.g. via Producers' Organisations), build on their knowledge and innovation and, last but not least, continue to invest in people and technology.

Strong support was given to realise the innovation needs of the profession that were recently published by EATiP in its Vision Document - 'The Future of European Aquaculture'.



In conclusion, there was general agreement that European aquaculture has a great story to tell but it must tell it better!

FEAP RECOMMENDATIONS

European policy-makers have 3 responsibilities :

- *Understand, promote and implement the Level Playing Field*
- *Decide on the information that the consumer wants and needs*
- *simplify and harmonise regulations*

Member States must commit to develop :

- *Effective National strategic development plans*
- *Access to space and licenses*
- *Simplified regulations*
- *Increased monitoring to reduce fraud and misleading perceptions*

European Producers must:

- *Produce healthy and sustainable products (assuming the previous items are resolved)*
- *Better organise themselves within the profession - more POs, more cooperative structures, better services*
- *Use knowledge & innovation to build cost-effective competitive advantage*
- *Invest in better installations and raise skills*

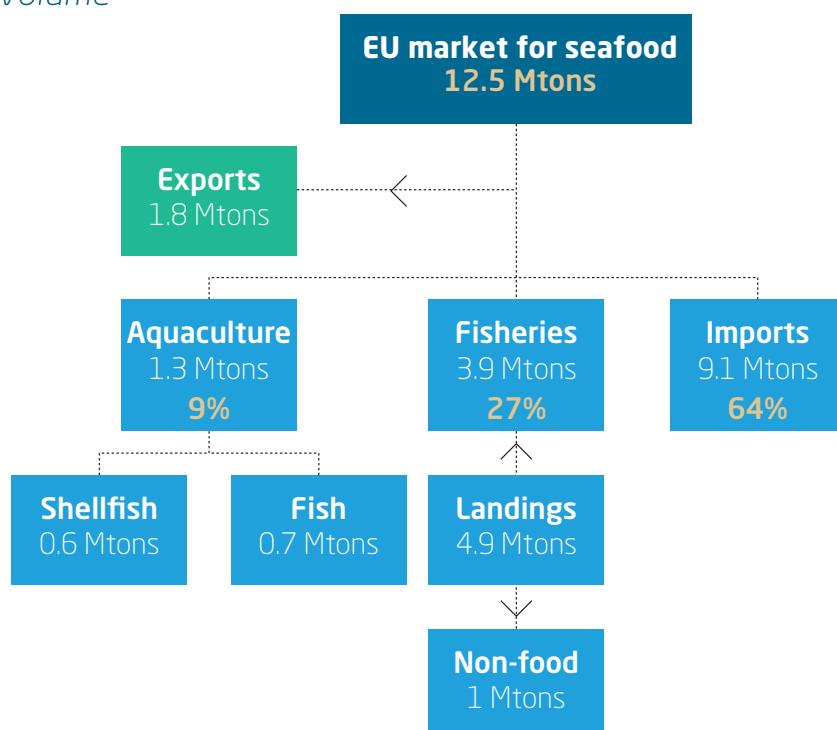


courtesy of Tres Mares - Galicia - Spain

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The European Seafood Market 2012

Structure & Volume



The EU market is the largest in the world for seafood and per capita annual consumption levels are around 25kg.¹

The consumption of fishery and aquaculture products varies a lot from one EU Member State to another. For aquaculture species, for example, salmon is the first choice for fish eaten in UK and Denmark, while seabream and seabass are the most popular species in Italy.

Portugal is the biggest consumer of seafood (more than 60kg/person/year) while Bulgaria consumes less than 5 kg/person/year.

EU aquaculture provides 1.3 million tons, split between fish and shellfish, representing about 25% of EU 'landings' (fisheries & aquaculture). The total quantity available of 12.5 million tons for consumption has been quite stable since 2006.

It is to be noted that a significant proportion of these imports comes from non-EU aquaculture that includes European sources (Norway, Turkey and Faroe Islands) and non-European sources (e.g. salmon from Chile, shrimps and fish from Asia).

Food security in the EU is receiving increasing attention where policy-makers are looking to encourage higher levels of food production in both agriculture and aquaculture.

Since fisheries landings are foreseen to be stable in the coming years, the current import level of 9.1 million tons (64% of supply) can only be reduced if EU aquaculture grows. Substantial changes to both strategic and practical approaches to aquaculture development are needed if this is to occur.

See also: <http://tinyurl.com/EU-facts-figures>

The challenge is to increase production while respecting the conditions of sustainable development

¹ A.I.P.C.E – C.E.P-EU Fish Processors and Traders Association 2012

European Fish Farming

This section provides summary data on fish aquaculture in Europe, separating information by the key production sectors, namely

- Marine cold water species
- Marine Mediterranean species
- Freshwater species

Since FEAP is not restricted to the European Union, the term 'European aquaculture' refers to the geographical area of Europe. The data collected by FEAP is published in the 'Facts & Figures' section of its website (www.feap.info).

Main issues affecting aquaculture

A combination of competitive market pressures, changing consumer preferences, strict environmental legislation and availability of licensed sites, have made the last decade a significant challenge for many of the sub-sectors of European aquaculture.

It is the FEAP's view that the main issues affecting the development of the European aquaculture sector are:

- Feeds (composition and cost)
- Health & Welfare of the stocks
- Access to space & licensing (for new/existing farms)
- The 'level playing field'

Feeds

The International Fishmeal and Fish oil Organisation (www.iffonet) has calculated that even though aquaculture has continued to grow the use of fishmeal and fish oil in aquaculture feeds has reduced due to decreasing inclusion levels in aquaculture feeds. A shift in raw material sources for fish meal production means that more than 25% now comes from by-products. More important than how much fish is used in feeding fish is: *Are all the raw materials coming from sustainable sources ?* (eg plant proteins, fish industry trimmings, hydrolysates, new sources...) For marine fishmeal & fish oil, *are they coming from responsibly managed fisheries?*

According to IFFO, about 40% of world production of marine ingredients are now certified and around 90% of the fishmeal and fish oil being used in Europe is certified.

Health & Welfare

Assuring the health and welfare of farmed fish is a governing factor of aquaculture development. Access to adequate and authorised veterinary treatments is of key importance and is currently being formalised in revised EU animal health law. This is described in more detail on p.28.

Access to Space

A key obstacle to growth and development of EU aquaculture is the availability of sites and associated licensing conditions. Aquaculture sites are quite special as they have to fulfil specific requirements:

- o ENVIRONMENTAL conditions: i.e. clean waters, matching the biological requirements of the fish, spare ecosystem carrying capacity, limited presence of predators
- o PHYSICAL conditions: proximity to the waterfront (river/sea), availability of sufficient water volumes, relative protection from sea energy, space for ancillary activities (landings, processing...), incompatibility with some activities

Access to such sites is difficult and for many reasons: They are often in public domain areas, requiring governmental leases with long, sometimes, expensive procedures, competition from other users (e.g. tourism) and, particularly, a lack of understanding of what aquaculture is and does.

Solutions include to work on the perception and reputation of aquaculture but, above all, to obtain a more streamlined approach to licensing and administration.

Level Playing Field

Achieving the level playing field is widely recognised as a basic condition for fair competition in both the market-place and for economic, social and environmental sustainability, allowing European producers to compete fairly.

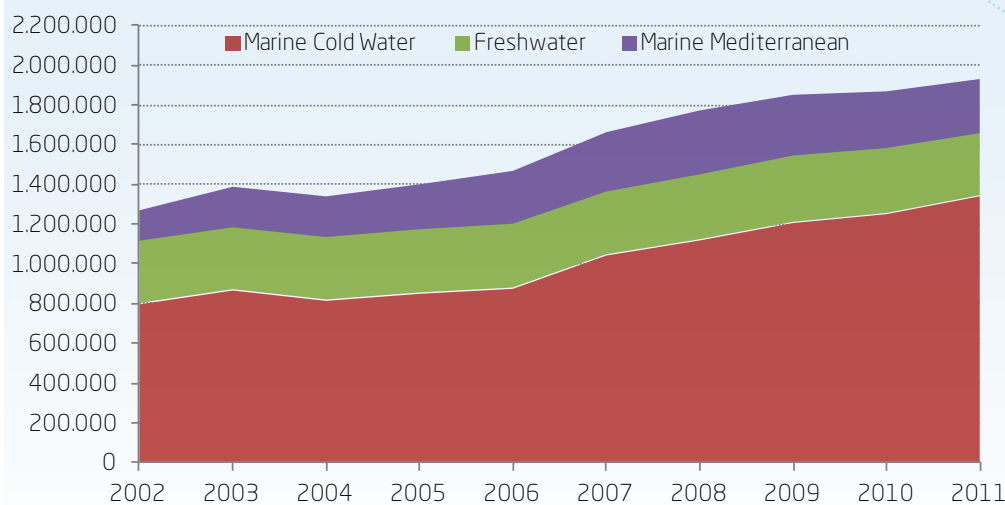
Fortunately, the European policy makers have taken up the level playing field as a key criterion in the reform of the CFP.

In conclusion, for European aquaculture to play a crucial role in the challenge of filling the food security gap between EU fish demand and supply, these obstacles need to be addressed and overcome.

European Aquaculture - 2011

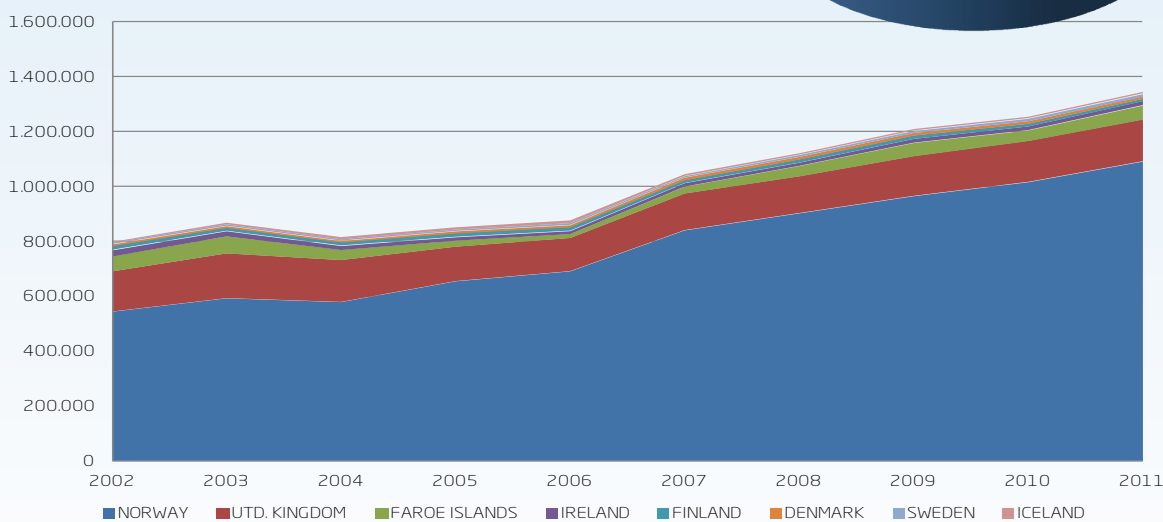
The total production of 1.9 million tons in 2011 is split up as follows: **marine coldwater species** are the largest sector, representing 69.5% of European production; this is followed by the **freshwater species** (16.5%) and the **marine 'Mediterranean'** marine species (14%).

Evolution of European Aquaculture Production by Sector



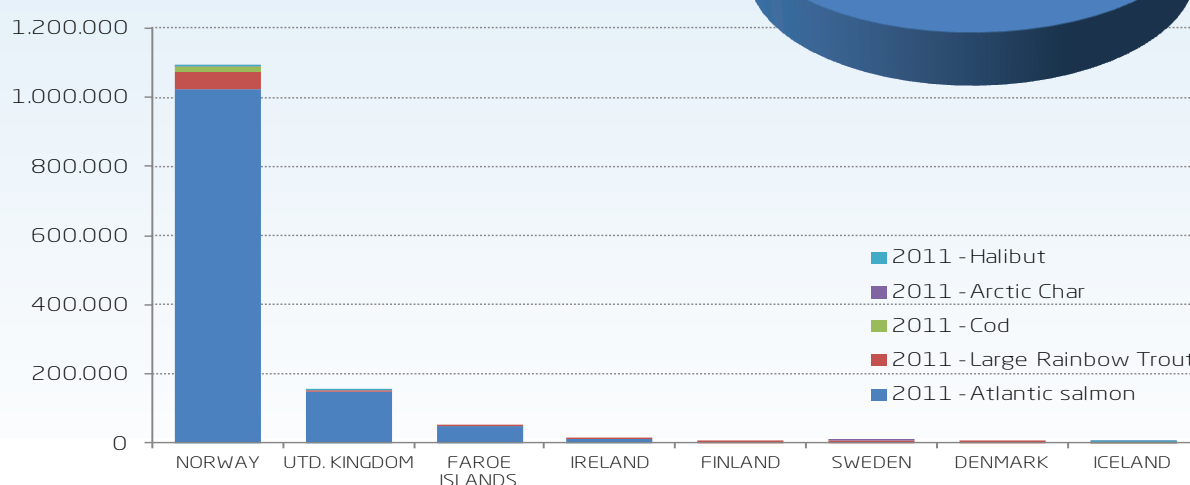
What these sectors represent - by country and by species - is explained in the following sections

Evolution of Marine Cold Water European Aquaculture Production (tons)



Marine Cold Water

Marine Cold Water Production in 2011 per Country & per Species



Key Observations

The production of farmed aquaculture products has continued to increase - with 7% increase in 2011 compared to 2010

Norway is the driving force in the expanded production, while the other producing countries have a more or less status quo situation. It is the continued growth of farmed Atlantic salmon that is the key factor for this position.

With its long coastline and ideal conditions for aquaculture production, Norway is by far the largest producer of farmed seafood in Northern Europe. The total Norwegian supply of farmed fish in 2011 was just above 1.1 million tons.

In general, prices for Norwegian salmon for several months in 2012 were lower than expected. The main reason for this was increased production levels as result of close to perfect temperature and biological conditions in all parts of Norway. Even if the production grew by approx 20% in 2012, the markets absorbed the increased volumes. For 2013, high price levels are expected due to colder sea temperatures and reduced production levels and with a demand much stronger than the supply.

The potential effects of fish that escape from fish farms, such as may happen from storm damage to cages, is a regular topic of debate; advances in cage and net technology, accompanied by improved supervisory measures, have significantly reduced escapes. The profession works closely with national and regional authorities to reach the highest standards possible.

The 4600 tons of Arctic charr are mainly produced in Iceland and Sweden

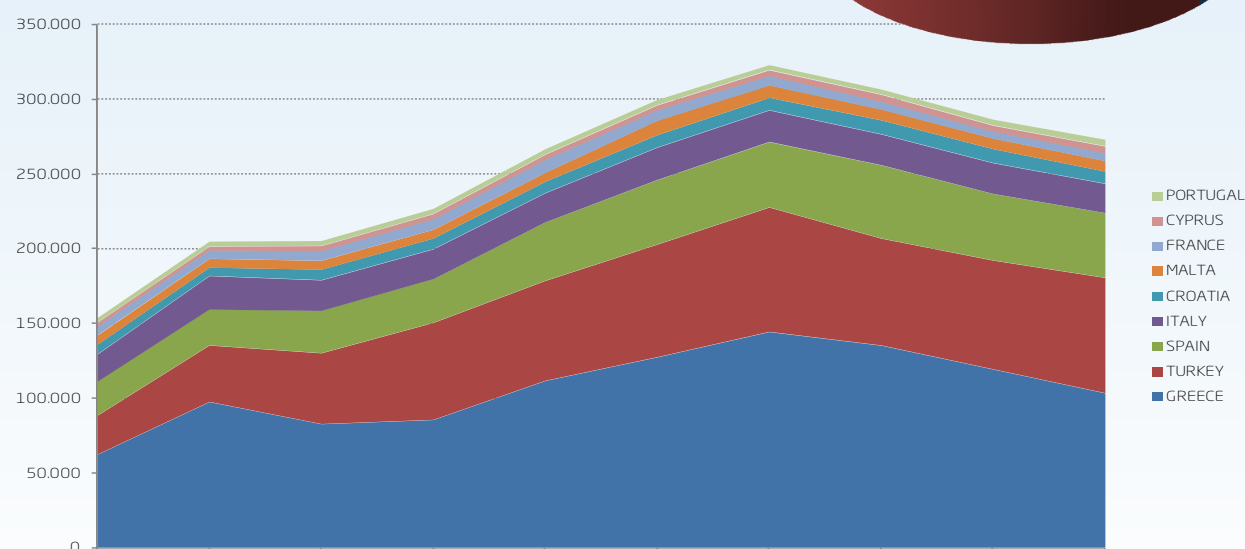
Halibut production has remained stable over the years, at around 1800 tons, and is steady in the market.

Producing farmed cod is a challenging activity these days. Even if some of the most troublesome biological constraints have been solved, cod farming remains an activity with a high production cost. Historical high quotas of wild cod in the North Atlantic led to a huge drop in the prices. For some cod farming companies, the cost of production has been three times or more than the average market prices. Very few cod farming companies are now left in Norway and it is only those who are able to achieve a better price in the market - as result of product development or marketing - that are able to continue this activity.

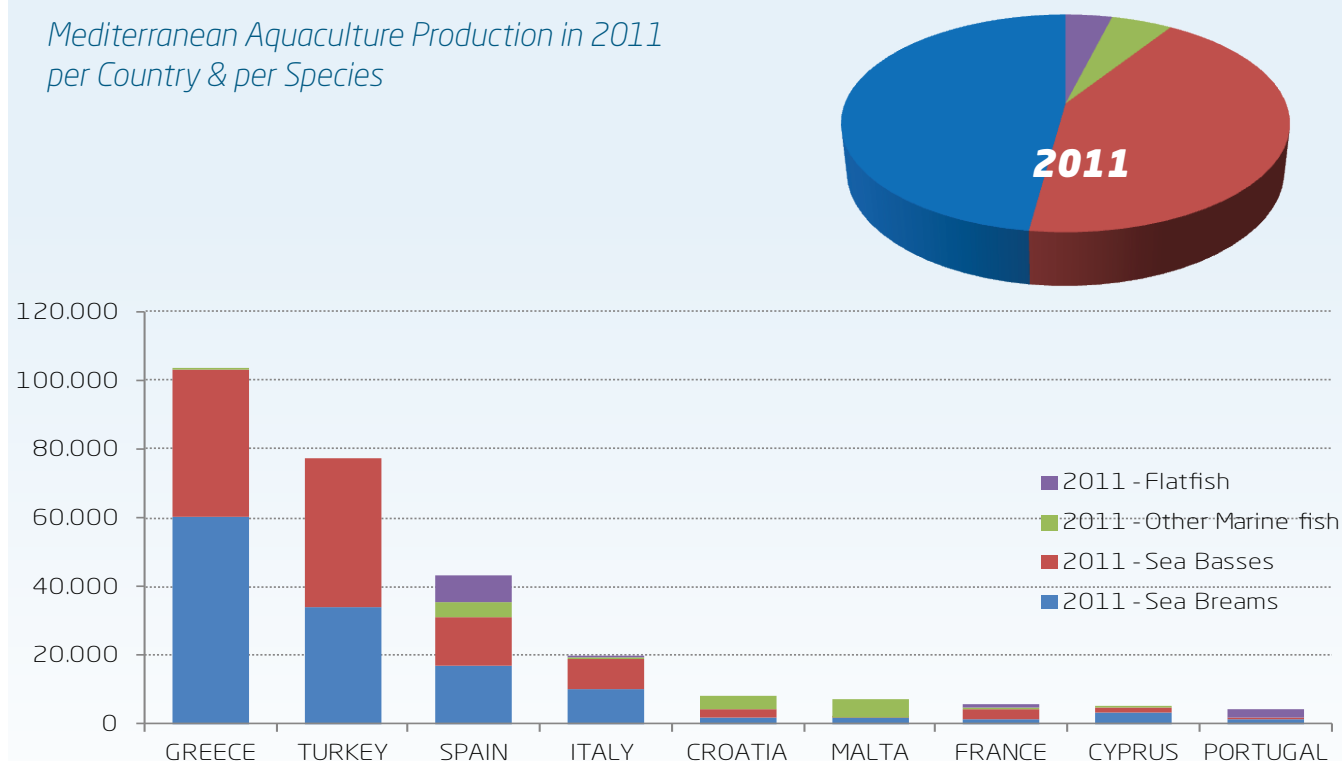
Marine Mediterranean

While termed 'Mediterranean', this component covers the coastal production of the southern European countries and incorporates a completely different range of fish species to those reared in northern waters.

Evolution of Marine Mediterranean Aquaculture Production (tons)



Mediterranean Aquaculture Production in 2011 per Country & per Species



Marine Mediterranean

Key Observations

Production in this segment dropped by 4.7% in 2011 compared to 2010. In 2012, production is expected to stay relatively stable with a small increase from 2011.

Major producers are Greece (38%) and Turkey (28%) followed by Spain (16%) and Italy (7%).

Dominant species are sea bream and seabass that account for 91% of the total marine Mediterranean production. The other marine fish species reared include Northern bluefin tuna – mainly produced in Malta, Croatia and Spain and meagre (Spain, France & Italy).

Turbot is the main flatfish produced, around 10,000 tons in Spain and Portugal, followed by sole, whose production is still small but steadily increasing.

The economic crisis in Europe has led to decreased consumer demand in large consumer markets such as Spain and Italy; tight financial conditions – notably with suppliers and on banking credit terms – have also meant that self-financing has been forced on some farms, made possible by selling down stocks. Others have moved towards added-value products and/or new markets, including Russia and the USA.

Prices have been at relatively sustainable levels but the increased costs of financing working capital have affected margins more than the lack of fish supplies to the markets.

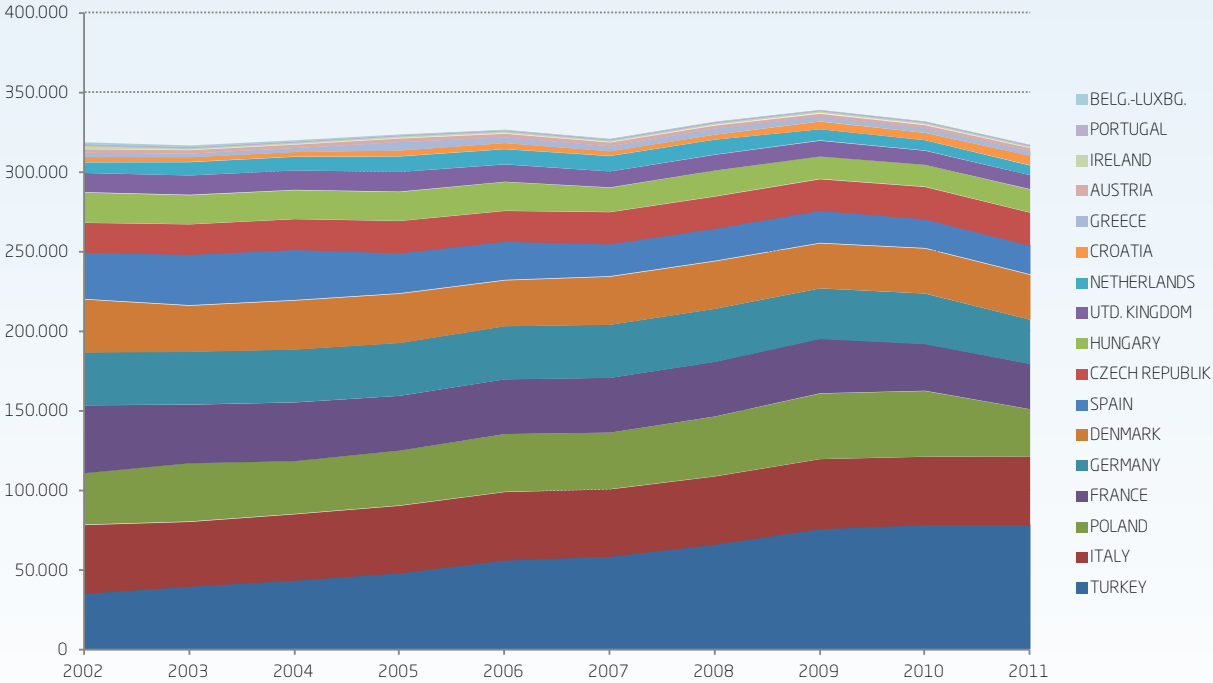
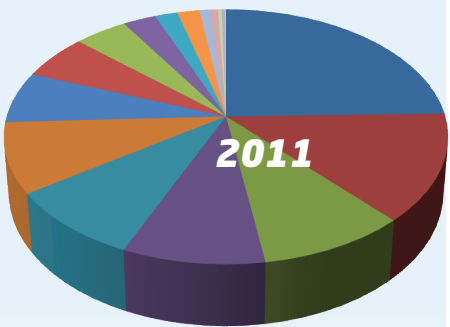
In looking forward to 2013, production stability should mean that prices should not drop to the low levels seen in 2008; price stability appears as the forecast.

Sectoral representatives believe that the positions forced by the economic crisis will open the way for new levels of cooperation and innovation within the sector.



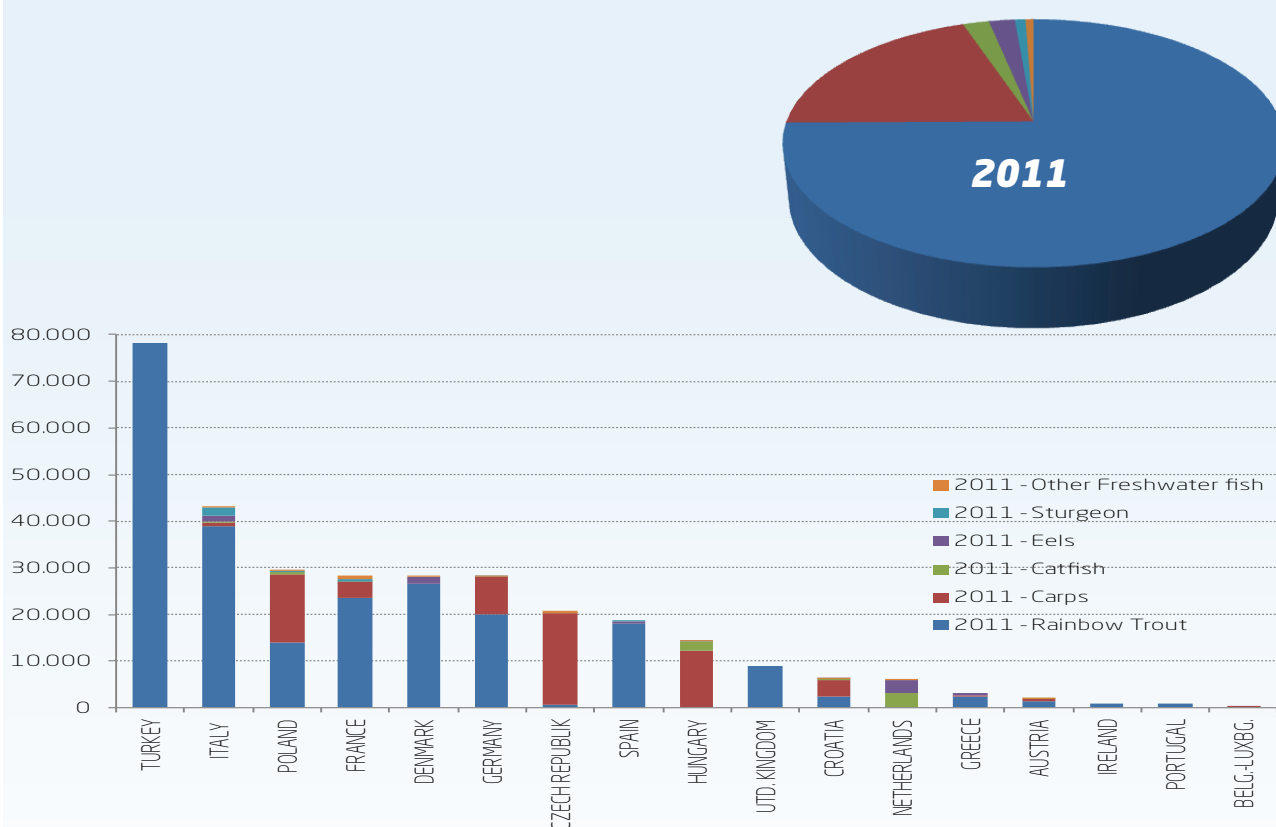
Freshwater

Evolution of Freshwater Aquaculture Production (tons)



Freshwater

Freshwater Aquaculture Production in 2011 per Country & per Species



Key Observations

Production in this segment dropped by 4.6% in 2011, compared to 2010, mainly in Poland and Germany.

While production data for Germany is difficult to estimate (many small scale farmers not included in official figures), trout production in Bavaria reduced because many producers switched from trout to charr, this species being less susceptible to VHS and IHN.

A major producer is Turkey (25%, trout), followed by Italy, Poland, France, Denmark and Germany.

Dominant species are portion-size rainbow trout (75%) followed by carps (20%); the other species (catfish, eels, sturgeon, tench, (pike)-perch) represent 2% or less.

No overall growth in trout production is anticipated in the EU, where succession of farms is a big issue, combined with access to water and legal constraints as well. In Germany in particular, while there is a good market for trout, younger people feel that there are easier ways to earn a living in other, more secure industries.

The most important carp producers are Czech Republic, Poland & Hungary.

The majority of catfish production happens in the Netherlands and Hungary.

The prices for freshwater fish have been relatively stagnant over the last few years, despite huge increases in the prices of raw materials for feeds.

Carp producers foresee a stable or slightly increasing market demand.

Cormorant predation for carp producers remains a very serious issue, without a coordinated solution although, in 2013, the European Commission published control guidelines.

ec.europa.eu/environment/nature/cormorants.htm

Eels are produced mainly in the Netherlands, Denmark and Italy.

Freshwater

A case study - the eel

SUSTAINABLE EEL FARMING

The European eel (*Anguilla anguilla*) is an interesting species. Adult eels are capable of swimming thousands of kilometers to reach their spawning grounds. The young are born in the Sargasso sea and then float across the Atlantic to attain fresh water where they continue their development. To this day, a lot is unknown about how they survive and thrive.

The eel population is currently under threat from pollution, natural predators and blocking migratory pathways. Due to the European coastline being well protected with flood defenses, young eels have difficulties in reaching freshwater and adult eels have even greater difficulty in swimming out to sea to make the return journey. It is believed that the number of young eels before the European coasts has decreased to 5% of the population of 1970. The recovery of the population was started a few years ago via several measures. The 'Sustainable Eel Group' is a Europe-wide conservation and science-led organisation working with partner bodies and individuals to accelerate the eel's recovery. Examples include the role of the fishing industry: on a yearly basis, eel fishermen release many millions of glass eels and elvers so that they can continue to grow and develop. Fishermen also help large numbers of adult eel to circumvent the barriers formed by dykes and pumping stations so they can reach the open sea and return to their spawning grounds. These are important ways to ensure the survival of the young eel population around the European coast. Also, fish farmers help by releasing the elvers they bought in, over the dykes once they have grown to be bigger and stronger. Furthermore, fish farms today only work with sustainable, fish-friendly farming systems.

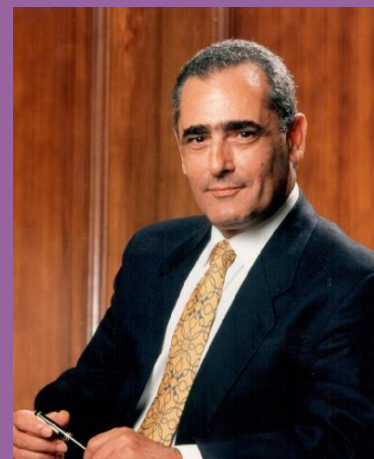
EU measures also include that, from 2008-2013, an important part of the glass eel caught in Southern Europe is meant to be released back into the rest of Europe, in waters that are connected with the natural migratory route to the breeding grounds. Also measures will be taken to unblock migratory pathways by modifying lock gates, screening hydro-electric power turbines and water pumps. Immediate ways to accelerate the recovery of the eel is to transfer glass and juvenile eels from areas of superabundance into their wider natural habitats and by catching and releasing adult silver eels over dykes and other obstacles with human support.



sources: www.dupan.nl - www.sustainableeelgroup.com

Mediterranean Fish farming

John Stephanis
Managing director - Selonda Aquaculture (Greece)



Courtesy of Selonda Aquaculture

The Evolution of a New Fish Farming Sector

Within European Aquaculture, the Mediterranean marine sector represents the latest major development, in which the farming of sea bass and sea bream has been integral to its success.

Mediterranean mariculture was born in the late 1970's, following a period of research and development that unblocked key technical issues.

The basic production model was based on that of the famed salmon in Norway and Scotland. A major difference compared to the "Northern" aquaculture products, where almost all fish hatch in fresh water from relatively large sized eggs, has been the difficulties encountered for the supply of purely marine fingerlings, that hatch from minuscule eggs as very simple larvae. Complicated and expensive hatchery techniques had to be developed in order to provide this fledging industry with its base starting stock. In addition, the development of appropriate feeds and veterinary treatments were needed before the industry could take off successfully.

Sea bass and sea bream were traditional high-value in-demand products, very much like salmon was. Aquaculture provided a boom in production that was followed, some say inevitably, by substantial decreases in sales values. During the last 12 years the industry has experienced three dramatic "boom and bust" cycles.

Mediterranean aquaculture takes place in European Union countries (Greece, Spain, Italy, France, Portugal, Cyprus), in North African countries (Tunisia, Morocco, Egypt) as well as in Croatia, Turkey, Israel and Saudi Arabia.

Production

In the first decade (1980-1990) the sector had to overcome severe start-up obstacles, one of which was the limited supply of fingerlings that were of poor quality, but managed to reach a production of 6.000 tons. The second decade (1991-2000) gave an amazing annual growth rate of 35% and arrived to a record output of 119.000 tons. By the third decade (2001 - 2010) the sector reduced its annual growth rate to 8% but produced 267.000 tons by 2010.

Marketing

Over 30 years have passed from the start-up of the Mediterranean mariculture sector but the marketing of sea bass and sea bream remains immature. Its products no longer occupy the high level niche position that it enjoyed at the beginning. We believe that this sector has huge potential for expansion provided it invests in more advanced marketing channels, abandoning gradually the traditional the selling of whole fish as well as its commodity position in respect of the multiple-retailers.

The above statement implies differentiation of the products and segmentation of the markets, either by primary processing or by branded added-value products.

Prices - ex -farm values per kg for sea bass and sea bream - have moved from as high as 12 €/kg in the early nineties to a quite stable level of 4-5 €/kg since 2000.



Croatian farm

The main players

From the beginning, Greece led the race within Mediterranean aquaculture, holding a 40 – 45% market share both for hatcheries (for juveniles/fingerlings) and market-size fish production.

Greek production reached a peak of 144,000 tons in 2008 but balanced during the last four years to a level of 100 – 120,000 tons of market-size fish. Turkish and Spanish production grew to 78,000 and 31,000 tons respectively.

Aquaculture became, over the years, a very important pillar of the Greek economy - becoming the N° 1 exporter with € 500 million (2012) export value (85% of production), as well as a major employer, in remote areas of the country.

Greek aquaculture grew with a large number of SME companies and during the 1990s, eight aquaculture companies were listed in the Athens Stock Exchange.

Over the last fifteen years, the fragmented Mediterranean aquaculture sector entered the *consolidation* process. Today, we can claim that this process is almost complete, taking into consideration, the recent dynamic entries:

- in Spain (Cooke (Canada) and Andromeda (Greece))
- in Turkey (Agromey, Sursan, Abalioglou)

as well as the newly-announced merger of Selonda Aquaculture with Dias.

Therefore, one can estimated that, for 80% of each country's production,

- in Greece, is realised by seven (7) companies
- in Spain, by four (4) companies
- in Turkey, by eight (8) companies

Growth Forecast

The vision of Mediterranean Aquaculture industry is by the year 2030 to provide annually 520 000 tons of seabream and seabass, which is a 110% increase over the production of 2010.



Diversification possibilities for European fish farming

For aquaculture to grow and strengthen, there is a need for more diversification in terms of products, technologies, and markets. This consideration is integral to the measures identified in the aquaculture components of the proposed Common Fisheries Policy (CFP), which notes that the 'EU must promote sustainable, competitive and diverse aquaculture, supported by the most advanced research and technology'.

We will focus here on 3 possibilities for diversification: into **new species**, into **new activities** - multifunctional fish farming - and finally into **integration with sustainable energy sources**.

New species

'New species with good market prospects' for aquaculture is a topic of high priority and relevance to both the CFP and EU 2020, and also as a measure to increase EU aquaculture production.

A wide range of marine and freshwater fish species have been promoted as having potential for European aquaculture, yet few have made the grade to commercial production.

In the EU, 91% of fish aquaculture comes from 5 species (salmon, trout, carp, sea bass and seabream) - source Fishstat (FAO) - 2012; another 6% from 6 species where annual production exceeds 2,000t (turbot, eel, African catfish, silver carp, bighead carp and sea trout). The remaining 3% is composed of 59 species, 50 of which represent less than 1,000 t/year.

There have been many attempts to introduce 'new' species - both freshwater and marine - looking for a 'new salmon', widely regarded as the major success of European aquaculture to date. A new European approach to aquaculture within a new CFP, where growth and diversification are core targets, has to be achieved with species that can be produced securely and predictively, reaching the right market with the right product(s) so as

to have competitive products that satisfy consumer demands, leading to long-term sectoral profitability and sustainability.

The position today, despite important research and diversification efforts, is that the major species reared in European aquaculture are very much the same as 10 years ago.



Seriola sp. - a candidate new species
- Courtesy Imares

Launching and successfully integrating a new species into European aquaculture is not a simple affair.

Once the biological and technical production profiles exist for a candidate species, consumer demand still has to be stimulated and, if established, accompanied with adequate supplies (from production), giving expected value (price-quality) to both the consumer and the producer. 'New' species are often treated initially as a competitor to existing species, possibly with lower prices to stimulate the initial demand. Many producers have been faced with this difficult situation - marrying the production profile to the realities of the market. The adaptability of new species to product development, using recognised market drivers and consumer preferences, is seen as a basic selection criterion for a 'new species' to be successful.

Multifunctional fish farming - Ferenc Levai, Aranypony, Hungary

One of the most common and traditional types of aquaculture in Central-Eastern Europe is extensive pond farming. The main species grown in these large earthen ponds is carp, along with a range of herbivorous and carnivorous fish in polyculture. The demand for most of these freshwater species has been constant over the past decades, with slight fluctuations, but the industry is not expecting any major change in consumer preferences and demand.



However, these farms can very often provide opportunities for diversification of activities. One of the first examples of this was Rétimajor, a large 1,000 hectare fish farm in the central part of Hungary. Due to its exceptional natural values and high level of environmental protection (Ramsar Site, Natura 2000, National Park area), the owners decided to open the farm to tourists and visitors, targeting primarily nature lovers. However, providing a nomadic campsite for these modern visitors was not an attractive option and appropriate infrastructure had to be developed to

accommodate every need. The extensive development work, over nearly 20 years, has resulted in facilities such as the country's only Museum of Natural Fisheries, a traditional fish restaurant, accommodation and conference rooms, a wellness center, and a family-friendly angling centre. Different types of accommodation suit the needs of all visitors, from businessmen to sport-fishing enthusiasts. Rétimajor also offers a wide range of locally grown food products that can all be consumed or purchased at the farm, mostly produced as organic produce.

The diversification model of Rétimajor has proven to be extremely successful and many fish farms around the country and the region have followed suit. Farms in Hungary, Czech Republic, Poland and Romania have successfully adapted their activities and, in many cases, improved the model of multifunctional fish farming, thus diversifying their activities. This model - adaptable to individual sites and circumstances - provides new opportunities for this traditional component of European fish farming.

Integration with sustainable energy sources



A nice example of how solar energy production can be integrated within a fish farm is demonstrated by trout producer 'Viviers de France' (www.viviersdefrance.com). The principle applied is that the fish farm rents the space above the fish tanks to a solar energy production company, which installs the solar panels to produce its energy at the farm - in return for the lease. Advantages are multiple: the production is very efficient because the panels do not heat underneath thanks to the cool water of the fish tanks, the installation offers a very good protection against predator birds, the water in the tanks heats less quickly in the summer and the fish like the shade!

New ideas include multifunctional wind power plants

The possible integration of marine farming into offshore wind farms for electricity generation is seen by many as an excellent opportunity for aquaculture in the future.



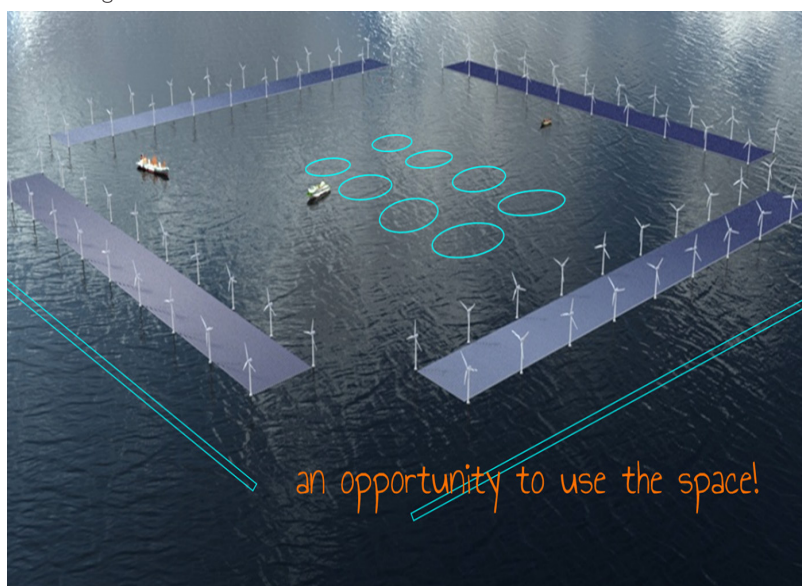
By 2020, the EU plans to have built wind power plants of 232,000 MW installed capacity, of which over 40,000 MW will be at sea.

Looking at the disadvantages of in-shore marine fish farming related to spatial planning - space is limited, competition of other maritime activities, environmental and social conflicts - one can imagine that these can be circumvented by integrating offshore farming within wind power plants.

The advantages are:

- Synergy between renewable energy, food production and ecology
- Use of existing infrastructure for wind power plants: anchors, platforms, transport equipment, electricity ...
- Use of a "calm" sea surface inside the wind farm
- The necessary infrastructure can be built on the floating platform : food storage, nets cleaning, equipment maintenance, dispatch centers for fish ...

Finally, this concept of multifunctional use of wind farms should cover biological, technical, economic and social-policy aspects. Possible technical solutions can be developed in collaboration with constructors, shipyards and farmers. A joint project with the energy sector seems a potential investment solution to be envisaged.





Courtesy of SSPO (Scotland)

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Strategic guidelines for the development of EU Aquaculture

Those who are involved with European aquaculture are familiar with the EC Strategy for the Sustainable Development of European aquaculture (2002) and its follow-up Communication on Boosting Aquaculture Development (2009). The proposals for the Reform of the CFP 2014-2020 have taken into account many of the FEAP's concerns and recommendations on how to develop and promote European aquaculture. Aquaculture sits on a fence between fisheries and agriculture policies and legislation, producing more than 35 different species – in freshwater and marine conditions. It is often technically complex, is subject to a wide range of legislative measures, has to work in harmony with the environment and is in a highly competitive marketplace. The FEAP has highlighted that European aquaculture can fill its potential if an 'enabling environment' can be established to allow its development.

Contrary to popular belief, 'Brussels' does not have the same level of control over aquaculture as it does for fisheries. This is mainly because EU fisheries stocks are a 'public good' that is managed at European level while aquaculture is predominantly a private professional activity where the stocks are the property of the operator. EU aquaculture also operates without the control conditions and support measures that are exercised in the Common Agriculture Policy. A common question is 'why is aquaculture in the CFP?' Principally, because its products are in the same marketplace as fisheries but the EC cannot impose quotas on production, provide subsidies for scrapping farms nor minimum prices for aquaculture! As a consequence, aquaculture found itself as the 'poor cousin' of fisheries in many situations, often subject to a simplified view of its activities and contributions.

The Europe 2020 Strategy has given a new framework and encouragement for aquaculture, due to recognition that it can contribute to sustainable growth, jobs and food security; it is an identified focus area of the 'Blue Growth' strategy for marine and maritime areas while the contribution of the freshwater sector to support biodiversity and provide environmental services is increasingly recognised.

To resolve the impasse between expectations and current realities, the EC has prepared Strategic Guidelines for the sustainable development of European aquaculture that give targets for different policy-makers and stakeholders so as to provide the conditions for growth (COM 2013/229)..

It has long been felt that EU environmental legislation has hindered EU aquaculture development; this has now been recognised and Guidelines to Member States on integration measures for aquaculture interests are to be prepared on the Water Framework Directive and the Marine Strategy Framework Directive, following those already made for Natura 2000.

The EC will thus assist Member State and Regional authorities to implement EU environmental legislation without posing additional burdens on aquaculture producers.

The main targets of the Guidelines are to develop measures that will

1. Simplify administrative procedures, specifically for licences and authorisations
2. Secure sustainable development and aquaculture growth through coordinated spatial planning
3. Enhance the competitiveness of EU aquaculture
4. Promote a level playing field for EU aquaculture operators, by exploiting competitive advantages

To achieve these targets, the main players will be the Member States and the European Commission, where new governance principles are proposed. These are based on 'open coordination' that will give a framework for the development of national aquaculture strategies, multi-annual plans and the coordination of policies between Member States. Avoiding 'boom and bust' scenarios is integral to this approach and exchanging know-how and best practices are seen as essential components for the success of this approach.

An additional player will be the new Aquaculture Advisory Council (see separate article) which will have specific tasks, notably to support structuring of production and marketing – including certification and labelling – and to contribute to self-regulatory initiatives and market intelligence.

The FEAP welcomes these proposals and sees that these reflect both the hopes and concerns of the fish farming professionals. They represent the results of long-standing consultation and debate with the Federation which will now support their integration into actions that will support growth and development.

Information for the consumer

Sources: BEUC - www.beuc.eu – FEAP Fact sheet.

European aquaculture produces healthy, highly nutritious and safe products in a sustainable way and respects the legislation as well as a myriad of quality or certification schemes. The problem is that the consumer cannot know/see this because the information provided is unclear, can be misleading or simply untruthful – leading to an uninformed purchase decision.

Consumers should have access to clear, precise and truthful information on the main characteristics of the fish they buy. In particular, labels should always indicate the accurate commercial name, the precise origin and the production method, whether the fish is sold fresh, frozen or prepared. Whether or not the fish has been defrosted is also important information to consumers, as is the date of catch or harvest.

Whilst EU law requires that the commercial name of the species, the means of production and the origin be given for raw and minimally processed fish, this no longer applies when the fish has been prepared or preserved.

Apart of providing complete and accurate information on the labels, tighter controls are also needed to combat fraud and mislabelling at all levels.

Many consumers want to buy fish that has been sustainably sourced but the multiplicity of labels makes it difficult to know what to buy. A set of transparent, harmonised minimum criteria will help to ensure that labels can be trusted while third party certification is an additional key to consumer trust.



In conclusion, one of the main ways to avoid massive delocalisation of production & processing (both for fisheries and aquaculture) is to inform the customer correctly and completely so as to make the right choice !

The new Advisory Committee on Aquaculture

The EC Advisory Committee on Fisheries & Aquaculture (ACFA) will finish its mandate in 2013, after 14 years of existence. This Committee and, more specifically for FEAP, its Working Group on Aquaculture have been the main conduits for consultation.

Within the reform proposals for the Common Fisheries Policy, the creation of an Aquaculture Advisory Council is foreseen. This follows the creation of Regional Advisory Councils for fisheries, initiated in 2004, which are seen as a mainstay of the CFP - seeking to involve stakeholders in the fisheries sector more closely in the decision-making process. There has been an extension of the original concept, since their role is seen not only to be in contributing to policy making but also to management.

A major change, compared to the Commission's ACFA, is that Advisory Councils (AC) have to be established by the stakeholders themselves, have a legal personality and established rules of procedure. Once established, an AC may apply to the Commission for financial support for operations - on the basis of an approved operating and financial plan. Effectively, this means that the stakeholders have to agree to the structure and its operating and financial plans - independent of the EC - before recognition and agreement to financial support.

In late 2012, discussions started on the creation, goals and format of an Advisory Council on Aquaculture (AAC) that will take up the interests followed previously by the ACFA, principally by the Working Group on Aquaculture. Advisory Councils should enable the Common Fisheries Policy to benefit from the knowledge and experience of all stakeholders and are established for each of the areas of competence set out (by the CFP). They are composed of a balanced representation of all (appropriate) stakeholders and must contribute to the achievement of the objectives established for its function and competence.

The AAC will be notably different to the others in that it will be European in nature - covering all Member States - and cover different stakeholders to those seen for fisheries. For example, feed manufacturers and veterinarians are integral interests to fish farming and the scope of European aquaculture extends to many other complementary activities that do not exist in fisheries.



Following FEAP's experience in ACFA, it was recognised that the opinions, recommendations and work achieved were the result of being functional and targeted in approach - as opposed to just giving advice. In addition, FEAP recognises that aquaculture needs to consult with DGs other than DG MARE, most notably DG SANCO (health and consumers), DG ENVIRONMENT and DG RESEARCH & INNOVATION. Overlapping, and sometimes conflicting, legislation that affects aquaculture is recognised as a longstanding issue. FEAP's position is that the new AAC should maintain and further the links established under ACFA, providing a solid base for consultation and issue resolution.

It is understood that the AAC will have defined tasks to achieve, although these will require to be clarified with the other stakeholders and the Commission. In cooperation with other European stakeholder groups, discussions have been initiated on the scope, structure and function of the AAC. There are a number of issues to resolve before progressing towards its creation, most notably on the identification and agreement of stakeholders to create the AAC; this will be done following European-level agreement on function, structure and budgetary support measures.

It is anticipated that finalisation of the AAC will be achieved in the latter part of 2013 where the questions concerning membership, organisational structure, operating budgets and the rules of procedure need to be answered prior to its creation.

The Commission recognises that dialogue is an essential component of achieving CFP objectives, through access to the knowledge and experience of stakeholders. The FEAP is pleased to see the recognition of aquaculture as being worthy of an independent Advisory Council. Nonetheless, the FEAP position is - as with ACFA - that the stakeholders also expect prompt actions and reactions from dialogue, demonstrating the benefits of these efforts to the core FEAP stakeholder, the European fish farmer.

New Animal Health Law

*Andrea Fabris · FEAP Health Commission
Fish Veterinarian - API, Italy.*



Directive 2006/88/EC, relating to veterinary policy measures for aquaculture animals, has not yet been fully implemented in some EU Member States; however, in the near future we will see new framework rules on animal health with a broader - more horizontal approach that will affect the veterinary approach.

From the beginning FEAP has followed the drafting of this New Animal Health Law - AHL - through its Fish Health Commission that has given regular guidance and opinions on its application to aquaculture.

Here are some of the new principles underlying the AHL, according to the intentions of the EU Commission; the AHL will be the main instrument for implementation of the Animal Health Strategy (2007-2013) and will be characterised by horizontal rules and principles, targeting transmissible diseases so as to simplify existing rules: both in number and in substance.

Aquatic animals - fish, crustaceans and molluscs - are included in the scope of the AHL, which will therefore have an impact on aquaculture activities.

In the perspective of DG SANCO, which oversees the drafting of the AHL, the approach will be to keep the principles of Directive 2006/88/EC, align this to the Lisbon Treaty and harmonise its content with terrestrial animals where appropriate.

There will be particular efforts towards simplification and clarification with:

- fewer definitions
- simplified rules - details in Delegated / Implementing acts
- added flexibility (in particular in respect of movements and disease control)
- reduce administrative burdens (registration, approval).

The legislation will include some new rules for disease control in aquatic animals with the definitions of: **highly contagious ("exotic") diseases** and **diseases listed for compulsory or voluntary eradication ("endemic")**; provision will be made for coordination by the EC of the National measures for both listed diseases and for non-listed diseases.

Animal health rules for movements will be also fixed by: record keeping and registers (including traceability), measures for not spreading diseases, disease prevention in transport, change of intended use, movement for export, specific animal health certifications (MS Derogations possible for national movements).

The FEAP Fish Health Commission reaffirmed the need for DG SANCO to take into account the particular nature of aquaculture and the specific needs of the sector. This position was made on the basis of experience, and monitoring actions during the implementation of Directive 2006/88/EC.

In particular, the main problems that have been highlighted by FEAP are those relating to:

- some specific definitions,
- fish health certification,
- diagnostic manual and related methods of sampling and analysis,
- and, above all, the criteria of disease listing.

On this last topic, DG SANCO has confirmed "the disease list is not written in stone" and it will be more flexible in the future.

As regards the timetable, the AHL proposal will be adopted by the Commission in the first half of 2013; trilogue discussions with the Council and the EP will follow and it is foreseen that a 36 months period will be needed before the adoption of detailed rules.

and it does not end with the AHL...

also looming on the horizon: upcoming revision of the legislation on Veterinary Medicines, connected to the revision of the Directive on Medicated Feed and the EU Animal Welfare Strategy...

no peace in view for the "rules on health" for our fish.

Organic aquaculture



Organic agriculture is based on the principles of health, ecology, fairness and care, and uses traditional techniques and principles for production. The use of fertilisers, pesticides and antibiotics are excluded – as are food additives, GMOs and hormones. For aquaculture, organic rules have been quite difficult to define and, following the development of several private organic aquaculture standards – some of which had different criteria – the EC prepared a Regulation (710/2009) setting detailed rules on organic aquaculture animal production. At the present, the EC intends to prepare a review of the Regulation so as to update this in coming years. In addition, Codex Alimentarius – the global internationally-recognised standards, codes of practice, guidelines and other recommendations relating to foods, food production and food safety – is also reviewing its Guidelines for organic aquaculture.

Organic aquaculture has developed and expanded although exact figures are difficult to obtain; estimates are that some 25,000 tons of farmed organic fish were produced globally in 2008 – mainly salmon, carp and trout.

The EC Regulation was the subject of wide stakeholder consultation and several FEAP representatives participated in the debates that led to the proposal. Many issues were recognised as being difficult to resolve without further study, given the high number of individual species reared in aquaculture and the absence of data. In addition, while certain technologies are seen as being eco-friendly (such as Recirculating Aquaculture Systems) they are not considered to be organic.

The FEAP welcomed the Regulation so as to obtain clarity on the conditions of organic aquaculture and to be able to provide opportunities for diversification and added-value, particularly applicable to smaller enterprises and local market opportunities.

Nonetheless, many challenges remain for those wishing to adapt to this approach.

One of the principle issues is that of feeds, particularly for 'carnivorous' fish. While fishmeal and fish oil used have to come from sustainable, certified fisheries, manufacturers also have to assure the absence of GM plant materials and have separate production lines for organic feeds.

Maximum stocking densities were also defined, alongside detailed conditions for the production and delivery of juveniles. The scope of disease prevention measures and veterinary treatments are specified, alongside a wide range of husbandry and management procedures.

Applying organic conditions tends to mean that production costs are higher – due to feed specifications and husbandry measures – and that productivity is lower. Justification of higher prices is valid but cannot be guaranteed by the marketplace. As a consequence, many producers have difficulties in making the choice between organic and 'normal' aquaculture procedures.

The situation is further complicated by the growth of additional labelling and certification schemes, such as Freedom Food – based mainly on welfare aspects, the GlobalGap aquaculture Standard and the Aquaculture Stewardship Council schemes. Standards are increasingly focused on sustainability – including eco-friendliness – and could be seen as being competitive with the organic standards that were initiated in the 1990s. During the discussions on the reform of the CFP, it was put forward that perhaps EU aquaculture should have its own sustainability label, which would need to be designed and developed.

Currently, the EC has called for an assessment of organic aquaculture so that the European Regulatory Framework can be developed. In addition to providing scientific advice on the current regulatory technical conditions, this upcoming project will also investigate the competitiveness of organic aquaculture as well as consumer perceptions.

It is intended that the scientific knowledge gained will be used to increase consumer confidence in organic aquaculture so that its development can be enabled.

Water Framework Directive



The Water Framework Directive (WFD) is integral to the future of aquaculture across Europe and the implementation of the WFD is closely followed by our industry.

Although the WFD is a central component for the protection and restoration of clean water across Europe, it is clear that Member States need better guidance at EU level to ensure compliance.

Aquaculture producers can be considered as the guardians and protectors of the aquatic ecosystem under their management and, therefore, of local water quality.

Not only do aquaculture producers require the highest quality waters, but also are often the first in a river basin to detect problems with water quality, or to detect pathogens or parasites in the aquatic environment. They monitor and assess water quality on a daily basis, carefully checking that water quality parameters are of an appropriate level and will not have a negative impact on their fish, the aquatic flora and fauna.

Aquaculture activities can also have positive effects on the natural environment, such as retention of water in the landscape and flood protection. This is particularly important in the large ponds used in extensive inland aquaculture

FEAP believes that an efficient network of national associations, working with local experts/advisors and scientists on the WFD, is needed for better interactions. Improved coordination between the different authorities/administrations dealing with the same water resource is also a key requirement.

The EU aquaculture industry has a long history of working with the scientific and environmental communities to address any potential negative impact of production – for example associated with water abstraction, effluent discharges or other changes to the aquatic environment – so as to proactively ensure that such impacts are averted.

With the future availability of EU freshwater likely to vary due to a number of factors, ranging from changes in demographics, land use and climate, it is important that aquaculture remains a key player in discussions relating to water policy. Aquaculture is, by definition, water dependent, for us it is what land and air are to terrestrial farmers, and any changes to water use will have a very significant impact on the profession.

The FEAP always highlights that aquaculture is a non-consumptive / water-neutral industry. Water is the medium in which we grow fish, and whilst abstraction volumes associated with aquaculture might appear to be high, the volume of water returned to the aquatic ecosystem is virtually 100% of what is taken out. As such, aquaculture occupies a special place in any discussions relating to sustainable abstraction, pricing for water use or general impact upon the aquatic environment by other 'industrial' water users.

A final point for consideration is that not all aquaculture production relates to farming for food. Various freshwater species are farmed for the purposes of restocking, recreational angling, and habitat conservation / restoration.

Aquaculture has an important role in maintaining the balance of the aquatic environment, helping to ensure that European citizens enjoy our rivers, lakes and other water bodies



Producer Organisations in the new CMO

Javier Ojeda · General manager · Apromar, Spain

In the application of EU Common Policies in both agriculture and fisheries, the key actors of the profession are Producer Organisations (POs). These official structures are designed to enable producers to cooperate and to manage their resources in a way that makes economic, as well as ecological, sense.

During the past two decades the aquaculture industry, particularly its fish farming component, has developed rapidly but has struggled to obtain an adequate fit in the European legislative framework, sitting somewhere on the fence between fisheries and agriculture, but with its feet on the fisheries side. Past Common Market Organisations (CMO) for fishery and aquaculture products have been unsuitable for the aquaculture component, allowing very poor opportunities for this industry. However, higher expectations have been set for the revised CMO that will be in place between 2014-2020. This new CMO should facilitate aquaculture PO members to achieve their activities in a sustainable way, improve the placing on the market of their products, and bring together relevant economic information for the benefit of their members and the sector.

In this sense, aquaculture POs should work to favour market stability, to promote the financial viability of responsible aquaculture producers and to communicate with customers, consumers and stakeholders.

Aquaculture is a very varied industry and its POs must be able to take this diversity into account. For this reason, POs should be officially offered access to a “toolbox” of instruments to enable them to meet their goals. The most appropriate actions that best fit a particular situation can then be selected.

Within the different components and activities of European aquaculture, POs seem particularly appropriate for situations such as the Mediterranean aquaculture industry that produces seabass and sea bream. This important sub-sector of EU fish farming has been traditionally trapped in severe “boom & bust” cycles that have handicapped its sustainable development.

One of the main reasons identified for this situation has been the existence of a highly fragmented industry, scattered throughout 7 EU Member States (plus 12 third countries) all of which sell their produce in the EU market. Seabass and sea bream POs could contribute to coordinating production planning, achieving market stability, through price equilibrium and, finally, promoting consumption.

Because of the high number of producing member states, transnational PO's and Associations of PO's could also provide solutions adapted to the scale of this important aquaculture industry.



FEAP'S ACTIVITIES

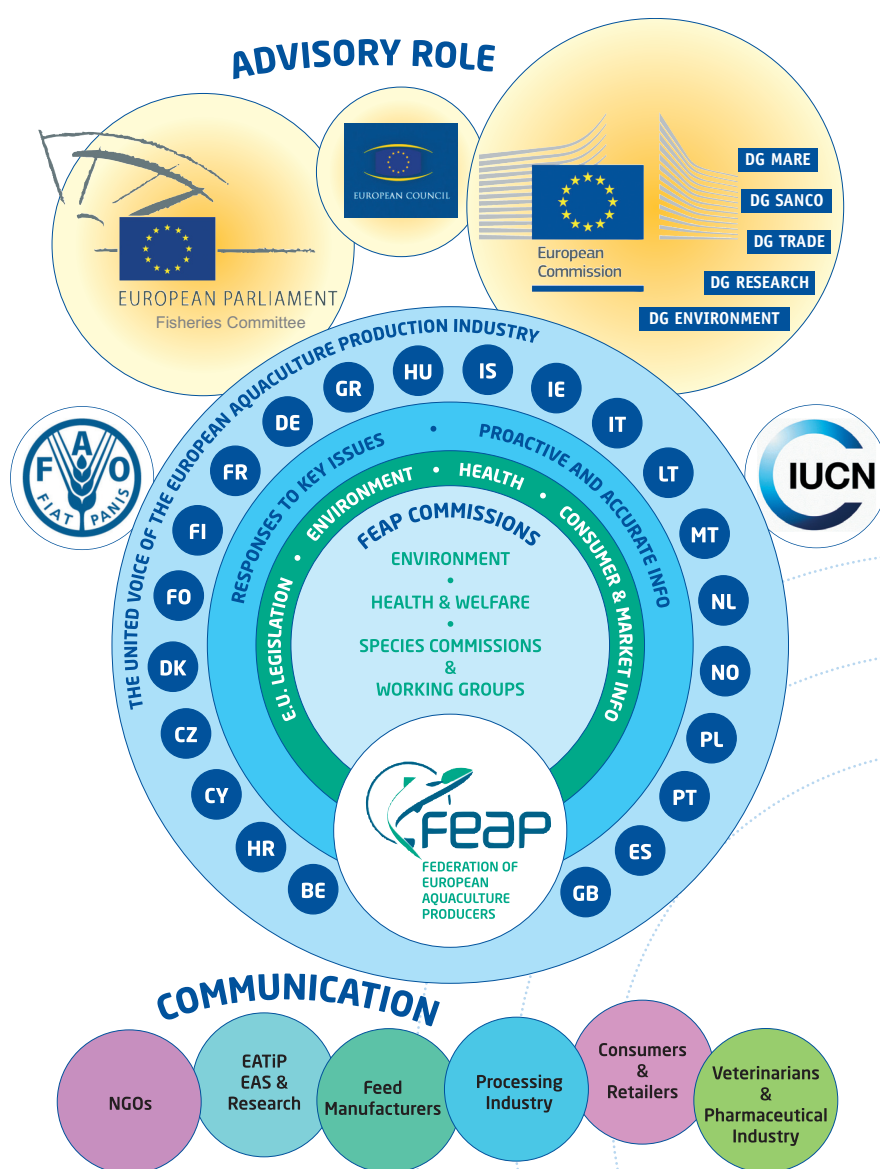


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The FEAP NETWORK

To achieve its objectives, FEAP works with formal and informal networks, principally European, although its links to both the FAO (Food & Aquaculture Organisation of the United Nations) and IUCN (International Union for the Conservation of Nature) give global aspects to the network.

Coordinated by the FEAP Secretariat, representatives of the FEAP Member Associations are the active players in FEAP activities.



Research & Innovation

The Future of European Aquaculture

European Aquaculture Technology and Innovation Platform



- A Vision
- The Strategic Research and Innovation Agenda
- Plans for Action



In October 2012, the European Aquaculture Technology and Innovation Platform presented its Strategic Research and Innovation Agenda (SRIA) to respond to its Vision for 'the Future of European Aquaculture'. This was achieved by the work of experts drawn from industry, the research community and other stakeholders, whose proposals were followed by the widest consultation ever achieved for European aquaculture. More than 400 experts contributed to this exercise. Consultation was made both in regional workshops and online so as to achieve the feedback required to consolidate the primary work. The workshops enabled the development of challenges, solutions, forecasts and effects for the main sectors of European aquaculture – providing substance to proposals and the ideas developed.

EATiP's Thematic Areas of work cover the complete aquaculture value chain and their initial Action Plans, in the form of outline work and projects, have also been drawn up, serving as recommendations for research and innovation funding in the near and mid-term future. Of note is the fact that the Action Plans target additional issues outside the research and innovation fields, notably policy and legislation, knowledge management and technology transfer. The complementary nature of the solutions proposed reinforces the need for a multidisciplinary approach to research and implementing innovation in European aquaculture.

Scenarios for the future gave the following common approaches, while accounting for and respecting the views of the different components of European aquaculture.

- The main species produced in each sector will continue to dominate production, while diversification will contribute to competitiveness in different ways
- Integrated multi-trophic aquaculture (IMTA), diversification in species and activity are all seen as opportunities
- Significant improvements in feed composition and conversion, combined with new management and operational technologies, will contribute to higher productivity
- Improved husbandry will target such characteristics as robustness, disease resistance and overall product quality, resulting in higher levels of performance and consumer acceptance
- The achievement and recognition of environmental sustainability, where new tools for governance are recommended, will be shared throughout European aquaculture.

The Thematic Areas of EATiP - representing the European Aquaculture Value Chain

- Product Quality, Consumer Safety and Health
- Technology and Systems
- Managing the Biological Life Cycle
- Sustainable Feed Production
- Integration with the Environment
- Knowledge Management
- Aquatic Animal Health and Welfare
- Socio-economics, Management & Governance

The Vision for 2030

in 2030, European aquaculture will be sustainable and globally competitive – a dynamic activity in coastal and inland economies, not only supplying significant amounts of high quality and nutritious food to the consumer but also diversifying to provide a range of new products and integrated services.

Aquaculture production will grow and diversify in Europe, following consumer and market demands, adapting to climatic and geographic circumstances, in harmony with nature and society.

This will be achieved by enhancing husbandry, welfare, technology and knowledge management while improving the understanding of the factors influencing development, be these technical, commercial or social, so as to assure the sustainability of European aquaculture and its global role in technological leadership.

The Vision of the European aquaculture industry is, by the year 2030, to provide annually 4.5 million tons of sustainable food products, worth € 14 billion, and supporting more than 150,000 direct jobs.

The full background and information used to develop this Vision can be seen at www.eatip.eu – Vision section.

The documentation includes the Strategic Research and Innovation Agenda and Plans of Action for each Thematic Area, which provide suggestions for both projects and actions that will enable the development of European aquaculture.

A major part of the preparatory work for this was enabled by the EU FP7 project 'Aquainnova', in which many of the EATiP membership, including FEAP, participated.

The completion of 'Aquainnova' was made with a workshop that launched the Vision document, widely seen as a landmark document for European aquaculture, to over 100 participants and more than 1500 printed copies have been distributed as well as many web downloads - see www.tinyurl.com/EATiPVision.



Aquainnova



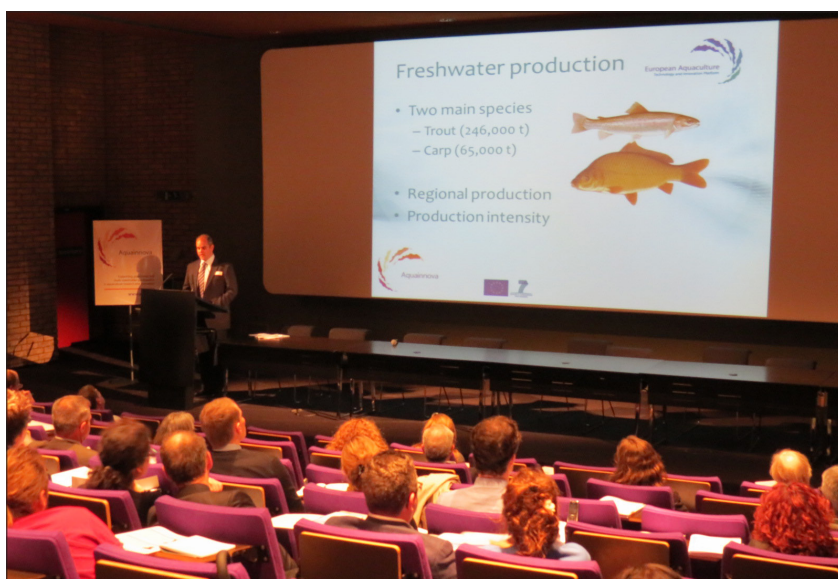
Taking these forward towards implementation is the main task for EATiP in the coming months and, following review of the European strategy on the role and function of European Technology Platforms and the arrival of Horizon 2020 – the new Research & Innovation Framework Programme, it is hoped that EATiP will have a strong and influential role in guiding industry-led research requirements.

Participation & Promotion

FEAP is actively involved in sectoral discussions on aquaculture as well as broader issues that affect the profession. FEAP representatives also participate in appropriate Conferences, Workshops and project meetings where aquaculture development is a focal point.

In 2012, FEAP participated in

- EU Presidency, Commission and Parliament meetings and workshops on aquaculture's position in the CFP, the Common Organisation of the Markets and the European Maritime & Fisheries Fund
- European Commission workshops on Advisory councils and Technology Platforms
- European conference 'Aquaculture: the Path for Growth' – A Coruña, Spain
- EATiP Vision launch – Brussels
- 'Aquaculture in Motion' – FEAP event, Brussels
- 'Aquaculture Europe 2012', the principle conference on European Aquaculture, and several national aquaculture events:
 - Les Journées Piscicoles - Paris
 - Aquaculture Conference on Certification – Bremerhaven
 - Scottish Shellfish Growers Conference – Oban
- Economics of Ocean Acidification - impacts on fisheries & aquaculture - Monaco
- European conference on the BioEconomy - Copenhagen
- Aquamed project Meetings – Paris & Rome
- AquaTnet Network Meeting – Istanbul



The FEAP organised its 2012 Annual General Meeting in Inverness (Scotland) in May and its Presidents' Meeting in Brussels (Belgium) in November.

Constructive dialogue with the International Fishmeal and Fish Oil Organisation (IFFO) and the Fish Feed Committee of the European Federation of Compound Feed Manufacturers (FEFAC) were among the highlights of these meetings.

*The **45th Annual General Meeting** will be held in Malahide (Ireland) on May 24-25 2013, hosted by the Irish Farmers' Association - Aquaculture division, to provide the positions for FEAP's future work.*

*The **Presidents' Meeting** will be in Brussels in late 2013.*



The Future: what brings 2013?

2013 will be an important year for FEAP with the anticipated finalisation of the core legislation affecting European aquaculture, the Common Fisheries Policy.

While consultation efforts finished in 2012, there are still some loose ends – notably on implementation measures in the Common Organisation of the Markets (COM) for fisheries and aquaculture products and the European Maritime and Fisheries Fund (EMFF), the financial instrument. The final decisions will be taken following trilogue debate between the Council, the Commission and the Parliament during 2013, so that the new Policy and instruments can commence in 2014.

FEAP will continue to participate in the Advisory Committee on Fisheries and Aquaculture (ACFA) so as to communicate its members' concerns although it is uncertain as to when the new Aquaculture Advisory Council will be created and start working. It is understood that the EC will use expert groups for specific tasks in the interim period and for general issues that affect both fisheries and aquaculture.

Membership conditions of FEAP have been modified so as to allow associate membership of non-European countries which should lead to a widened profile of the FEAP structure in 2013.

In 2013, FEAP's consultation efforts will thus focus on

- Contributing to the creation of the new Aquaculture Advisory Council and the formulation of its objectives and activities
- Continuing to promote the 'level playing field' concept and objectives
- Review, with the FEFAC Fish Feed Committee and IUCN, the conditions and options available for the manufacture of compound fish feeds
- Continued dialogue with the EC on the availability of veterinary treatments and biocides, in consultation with the Federation of European Veterinarians
- Furthering the incorporation of aquaculture interests and activities within new Guidelines for the Water Framework Directive and the Marine Strategy Framework Directive
- Promoting the targets of the Vision and Strategic Research and Innovation Agenda developed by the EATiP
- Integration of aquaculture within the European framework of the development of the BioEconomy

Contact us

The office holders of FEAP are:

- Arnault Chaperon (France): President
- Paul Birger Torgnes (Norway): Vice president
- Gustavo Larrazábal (Spain): Vice president
- Marco Gilmozzi (Italy): Vice president
- Bernhard Feneis (Germany): Vice president
- John Stephanis (Greece): Past president

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CROATIA	Croatian Chamber of Economy – Aquaculture Unit
CYPRUS	Cyprus Mariculture Association
CZECH REPUBLIC	Rybarske Sdruzeni Ceske Republiky
DENMARK	Dansk Akvakultur
FAROE ISLANDS	Faroese Fish Farmers
FINLAND	Suomen Kalankasvattajaliitto
FINLAND	Ålands Fiskodlarförening
FRANCE	Fédération Française d'Aquaculture
GERMANY	Verband der Deutschen Binnenfischerei
GREECE	Federation of Greek Maricultures
HUNGARY	Hungarian Fish Farmers Association
ICELAND	Icelandic Aquaculture Association
IRELAND	Irish Salmon Growers Association
ITALY	Associazione Piscicoltori Italiani
LITHUANIA	Akvakultūros produktų uždarosios recirkuliacinės sistemos gamintojų asociacija
MALTA	Federation of Maltese Aquaculture Producers
NETHERLANDS	Productschap Vis
NORWAY	Norwegian Seafood Federation
POLAND	Stowarzyszenie Producentów Ryb Lososiowatych
PORTUGAL	Associação de Aquaculturas de Portugal
SPAIN	Asociación Empresarial de Productores de Cultivos Marinos
SPAIN	Organización de Productores de Acuicultura Continental
UNITED KINGDOM	Scottish Salmon Producers Organisation
UNITED KINGDOM	Shetland Aquaculture
UNITED KINGDOM	British Trout Association

