Goals of the FEAP

- To provide a forum for the National Associations that represent European Fish Farming
- To develop common opinions on issues of importance
- To communicate those opinions to the relevant authorities
- These opinions MUST be representative of the profession to be credible
The Federation is composed of National Aquaculture or Fish Farming Associations.

- 31 Associations represent 21 European Nations.
Member of the EU Commission’s Advisory Committee on Fisheries and Aquaculture
  - Active in the ACFA Working Groups on
    - Aquaculture
    - Markets
    - Issues of General Interest

Member of the Confederation of European Agriculture (Observer to the Council of Europe)
Liaison Status with the Food & Agriculture Organisation of the United Nations (FAO)

- Sub-Committee on Aquaculture of the Committee on Fisheries (COFI)
- European Inland Fisheries Advisory Committee (EIFAC)
- Aquaculture Committee of the General Fisheries Council of the Mediterranean (GFCM)

Active participant in initiatives of interest to the European fish farming sector
Production of European Fish Farming

<table>
<thead>
<tr>
<th>Year</th>
<th>EU production</th>
<th>Ex-EU production</th>
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<tbody>
<tr>
<td>1990</td>
<td>200,000</td>
<td>400,000</td>
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EU Fish Farming Development
Production and Value

Production (tons)

- 57,000 tons in 1970
- 125,000 tons in 1980
- 300,000 tons in 1990
- 520,000 tons in 2000

- ~12% of EU fisheries landings
- ~23% of value of EU fisheries

M€
**Accession effects on EU Fish Farming**

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<tbody>
<tr>
<td>Carps</td>
<td>18,394</td>
<td>17,987</td>
<td>17,930</td>
<td>17,700</td>
<td>17,700</td>
<td>18,100</td>
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<tr>
<td>Catfish</td>
<td>2,050</td>
<td>2,400</td>
<td>3,000</td>
<td>2,750</td>
<td>2,750</td>
<td>2,250</td>
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<tr>
<td>Eels</td>
<td>7,893</td>
<td>10,338</td>
<td>10,890</td>
<td>10,820</td>
<td>9,980</td>
<td>8,985</td>
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<tr>
<td>Sturgeon</td>
<td>572</td>
<td>463</td>
<td>514</td>
<td>135</td>
<td>156</td>
<td>150</td>
</tr>
<tr>
<td>Tilapias</td>
<td>300</td>
<td>300</td>
<td>200</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Trout</td>
<td>236,460</td>
<td>239,619</td>
<td>231,860</td>
<td>239,701</td>
<td>239,686</td>
<td>226,270</td>
</tr>
<tr>
<td>Grand Total</td>
<td>265,669</td>
<td>271,107</td>
<td>264,394</td>
<td>271,256</td>
<td>270,422</td>
<td>255,905</td>
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</tbody>
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**Difference**

|       | 56,632 | 56,516 | 65,031 | 72,664 | 70,793 | 67,194 |
Accession effects on EU Fish Farming

- **Major effect will be on freshwater fish farming - increased production of ~25%**
  - Major species – carps/inland fisheries
  - Major market effect – limited to inland markets

- **Marine species – low production effect**
  - Major market effect – should open new markets for affordable products
Fisheries and Fish Farming production in the EU

![Graph showing fish catches and fish farming production in the EU from 1992 to 2002. The Y-axis represents the quantities, ranging from 0 to 9,000. The X-axis represents the years from 1992 to 2002. The graph is divided into three sections: non-food fish catches, food fish catches + shellfish, and fish farming. Each year shows a different combination of these categories, with a general trend of increasing production over the years.]
Fisheries and Fish Farming production in the EU

Food fish Catches + Shellfish

Fisheries and Fish Farming production in the EU

Imports = €8,100 million in 1999
Meat consumption in the European Union

- Beef: 18%
- Fish: 21%
- Sheep/Goat: 3%
- Pigs: 39%
- Poultry: 19%
Common Fisheries Policy
  - Governs Fisheries
  - TACs & Quotas
  - Governs Aquaculture
    - Fish Farming & Shellfish
  - Governs conditions for marketing

>360 pieces of legislation affect European aquaculture

Aquaculture sectoral growth affected
Primary growth in fish farming

Strongest development for
- Salmon
- Trout
- Seabass
- Seabream

‘Minor’ species
- Turbot, eel, sturgeon, charr...
Growth seen for high value species (low fisheries supplies...)

Market demand existed

Growth due to

- Improved nutrition of stock
- Improved engineering & husbandry
- Improved productivity
- Improved affordability (prices, productivity)
The market for fish exists (27kg/p)

Dietary and preference changes
- Convenience & price

Concentration of sales (Multiples)
- Quality
- Safety
- Traceability

Purchase decision = value for money
Criticism

- Farmed products are not as good as ‘wild’
- ‘Mad’ fish
- ‘Packed full of dangerous chemicals’
- ‘Frankenfish’
- Visual pollution
- ‘Farmed and Dangerous’

Increasing ‘bollotics’
Legitimate concerns are being addressed
- Effects of escapes (Biodiversity)
- Food safety issues (Contaminants)
- Interactions (Effects of wastes...)
- Availability/Replacement of fishmeals and oils

Evident requirement for RTD
Wild fish: 5 to 10 kg of wild prey fish to produce 1 kg of live carnivorous fish (cod, hake, plaice, salmon, …)

Farmed fish: 2 to 4 kg of wild pelagic fish [under quotas] to produce 1 kg of live farmed carnivorous fish (salmon, trout, bass, bream, turbot…)

100 kg of feed mix (protein, carbohydrate, oil) gives as edible meat quantity (Slinde 97):
- 65 kg salmon or
- 20 kg chicken or
- 13 kg pork

Efficiency: feed utilisation
Dioxins and PCBs

- Fish meal, fish oil, fish feeds and fish flesh have limited dioxins levels (Directive 2001/102/EC)
- Control plans are enforced by and fish meal / oil suppliers (IFFO), feed manufacturers, professional organisations, Member States
- Control campaign by DGAL in France 2001 on trout
  - 58 samples
  - Dioxins: 0.17 pg TEQWHO/g live weight (legal limit 4 pg)
  - Dioxin like PCBs: 0.58 pg TEQWHO/g live weight
- GMO ingredients
  - General use of GMO free products in the main feed producing countries
- Canthaxanthin pigment utilisation
  - Legal limits exclude any health hazard (actual: max 80 ppm in fishfeed)
  - Strong trend toward Astaxanthin and natural pigment use
Responsibility & Sustainability

- Identifying challenges are not the only concern
- Clear, coherent development strategies are needed
- Understanding real impacts and identified causes
- Improved, appropriate regulatory frameworks are required
- Agreement on collective actions and responsible measures is required
Effects of Marine Aquaculture on Fisheries in Europe?

- Direct effect is minimal on EU fisheries (stocks)
- Market effects (Price reductions) influenced by
  - Imports
  - Supply chain (Processors, retailers)
  - Consumer demand/preferences
  - Fish farm & Fisheries production (EU and non EU)
  - Competitive products
Effects of Marine Aquaculture on Fisheries in Europe?

- Production of affordable fish is not a crime (Treaty of Rome)
- Growth potential of EU Fish farming is limited by several factors (Climate, geography, sites...)
- Off-shore production provides a solution
  - Panacea at present
If adequate stocks are available, fishing will always be more economic than farming.

Economics, market demand and the consumer will decide.

Working together will provide the best platform for the sustainability of both sectors.