Project no.: FP6-022771

PROFET POLICY

' FISH POLICY FLOW'

Instrument: FP6 Collective Research Projects

Thematic Priority: Integrating and strengthening the European Research Area – Specific Support Actions (SSA)

Workshop Summaries and recommendations
Deliverable 18

Due date of deliverable: After each workshop
Actual submission date: After workshops nr.3 to nr.9

1. Workshop nr.3 on Technical Conservation Measures – Dublin (Ireland), 13&14 September 2007
2. Workshop nr.4 on Mediterranean Marine Aquaculture – Athens (Greece), 22&23 November 2007
3. Workshop nr.5 on Continental Freshwater Aquaculture – Warsaw (Poland), 13&14 December 2007
4. Workshop nr.6 on Mediterranean Fisheries – Marseille (France), 12&13 June 2008
5. Workshop nr.7 on North Sea Fisheries – Copenhagen (Denmark), 23&24 June 2008
6. Workshop nr.8 on Southern Continental Freshwater Aquaculture – Treviso (Italy), 16&17 October 2008
7. Workshop nr.9 on Atlantic Fisheries, Marine Cage & shellfish Culture – south – Vigo (Spain), 20&21 November 2008

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PU	Public	
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

WORKSHOP SUMMARIES AND RECOMMENDATIONS

Deliverable 18 are the Workshop Summaries and Recommendations. These will be produced after each Workshop. The Summaries and Recommendations of all Workshop will be combined in the final report and put on an interactive CD summarising the results of the workshops, the presentations, the conclusions and recommendations (deliverable 31).

In this report are presented the Summaries and Recommendations of the last 7 workshops, i.e.:

1. Workshop nr.3 on Technical Conservation Measures
   Dublin (Ireland), 13 & 14 September 2007
2. Workshop nr.4 on Mediterranean Marine Aquaculture
   Athens (Greece), 22 & 23 November 2007
3. Workshop nr.5 on Continental Freshwater Aquaculture
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The Workshop Summaries and Recommendations of the 7 workshops have been uploaded on the Profet Policy website, and linked to the partners' website.

SUMMARY AND RECOMMENDATION OF THE WORKSHOP IN DUBLIN

1) Summary and recommendation of the workshop in Dublin written by Sean O'Donoghue, (KFO, Killibegs Fishermen Organisation).

- **TCMs Commission's proposals**

Regulation 850/98: A critical view:

- Too complex (codification in 2001, failed)
- Difficult to apply and enforce
- Accumulation of provisions without evaluation
- Not adapted to new regionalisation (as for RACs)
- Dispersed in different regulations

Why Aren't Current Technical Measures Working?

- Too complex
- Recovery Plans have added to this
- Most legal gear is unselective
- No encouragement for the adoption of responsible fishing practices
- Broad brush approach
- Catch composition regs - A discard charter!
- Don't suit mixed fisheries
- Extensive for some gears
- Little or none for others
- Everyone is to blame!

New regulation: Objectives

- Simplification.
- New structure: general principles / regional rules
- Regionalisation reflecting RACs area coverage
- Incorporation of environmental objectives
- Emphasis on discards
- Updating: periodical and easy
- Open to initiatives from stakeholders

The new proposal: Stakeholder involvement

- Consultation ('non papers') prior to proposal
- Regional structure as in RACs
- Regional rules, easy to update
- Fast-track adoption of stakeholders' proposals

- **TCM Proposals**

  - Target species and mesh size

Example: North Sea, towed gears
Target species (10): cod, haddock, hake, saithe, nephrops, sole, shrimp, sprat, sandeel, Norway pout

- Discards
- Real Time Closures
- One net rule
- Incentives
- Pelagic TCMs

- **Summary**

  - Technical measures have a role to play in stock sustainability
  - But current measures don't work
  - Most gears unselective
  - New approach with more flexibility and allow for evolution
  - Linkage with initiatives on discards and move to MSY
  - As well as the review of the cod recovery plan
  - And environmental directives and acts
  - All are linked and regulations must take account of this
  - Managers must commit to providing real and tangible incentives for responsible fishing
  - In return fishermen must be pro-active and adopt gears

- **Dissemination information, via:**

  - PROFET POLICY WEB SITE - www.profetpolicy.info
  - Technical leaflets
  - Workshops
  - Trade media
  - RACs/Organisations
  - Other suggestions

2) KFO Newsletter Issue 27-Dec.2007 – see next page

Editorial

by Sean O'Donoghue

CHIEF EXECUTIVE, KFO

A considerable amount of space in this issue of the KFO newsletter is devoted to technical conservation measures and to the very successful workshop on these measures organised by the KFO and IFA Aquaculture in the Clarion Hotel Dublin in September. At the workshop the Commission outlined its new proposals for technical measures (see article page two) and it was very heartening for the industry to hear the Commission accepting that the present very complex measures are ineffective and that the principles underpinning the new proposals fully take on board what the industry has advocated over the last number of years. The next and vitally important step in this process as highlighted by the stakeholders at the workshop is to ensure that the detail in the Commission's new proposals is drawn up with the active involvement of the industry and that the measures are simple and effective with a range of incentives in addition to sanctions provided to go the extra mile. Getting this right will go a long way to ensuring sustainable fisheries and resolving the discards issue.

Another important subject covered at the workshop was research completed and in the process of completion in the area of technical conservation measures (TCMs). The quality and usefulness from an industry perspective of the research presentations covering a wide range of issues (see article on research page two) was excellent. The workshop examined future research needs and set out a framework for that research. One of the key conclusions in the framework was to ensure a partnership approach in deciding future research needs between industry and the gear technologists/scientists. Informing the stakeholders of research results in a user friendly format was also one of the objectives of the workshop. I consider that the workshop delivered on this objective and overall gauging by the reaction of the attendees it was very worthwhile, with a keen interest shown by the stakeholders. I also wish to recognise the huge amount of time and effort put into organising this successful workshop by KFO staff member Nora Parke.

The Federation of Irish Fishermen (FIF) has continued to devote a considerable amount of time to the development of a new quota management system and on decommissioning proposals. FIF has held a series of meetings with a number of interested parties and has made considerable progress in further developing its ideas on its quota management proposals and has recently presented an updated version of these proposals to the Seafood Strategy Implementation Group. A prerequisite to implementing a new devolved quota management system is the immediate implementation of a demersal decommissioning scheme. Minister Coughlan met Commissioner Bourg recently to try to speed up the state aid clearance for the scheme. I am still hopeful that the scheme can be launched in October and provided the rates are set at an appropriate level, and that the taxation issues are resolved, I am confident that the scheme will be a success.

For the first time in three years the pelagic season has started without a major battle on the methodology to be used for weighing pelagic species to ensure that water is not weighed as fish. A series of meetings between the Sea Fisheries Protection Authority (SFPA), FIF and fish processors has led to a welcome agreement on the methodology to be used. It is very heartening to see that the industry and the SFPA can sit down together and resolve a difficult issue in a satisfactory manner to the benefit of both parties. This can only lead to improved working relations. On a separate issue relating to the SFPA Minister Coughlan has agreed with FIF that the 55 recommendations contained in the Poseidon Report on Control and Enforcement would be fully discussed with the industry prior to their implementation. The FIF looks forward to an early meeting with the Minister on the report.

A new, and in my view very exciting, concept of individual vessel cod avoidance plans is actively being discussed at North Western Waters Regional Advisory Council (NWWRAC). The proposal is that the vessel's cod avoidance plan would specify ways in which the vessel would operate in the coming year to avoid catching cod above that covered by the vessels' legitimate quota. This could be through: spatial avoidance, real time closures or temporal/seasonal avoidance, use of more selective gears or any other method devised by the vessel operator. It is envisaged that these plans would be vetted and approved by the member states and that they are real, transparent and fully enforceable. The proposed incentive if a vessel's cod avoidance plan is approved is that the vessel would be exempt from effort control measures for the coming year. Initial reactions to this concept have been positive from the Commission and I consider that this offers a real, effective way forward in recovering cod stocks rather than the existing days-at-sea regime.

UPCOMING EVENTS OCTOBER, NOVEMBER, DECEMBER 2007

DATE	MEETING	VENUE
4th-11th Oct	Advisory Committee Fisheries Management (ACFM)	Copenhagen
8th Oct	SFPA Consultative Committee	Clonakilty
9th Oct	ACFA Working Group III (Markets)	Brussels
18th Oct	Whitefish Quota Management Meeting	Cork
19th Oct	EAPO General Assembly	Kinsale
22nd-23rd Oct	Fisheries & Agriculture Council	Luxembourg
22nd-23rd Oct	Blue Whiting Coastal States	London
24th Oct	Pelagic RAC Working Groups	London
25th-26th Oct	Atlanto Scandia Herring Coastal States	London
29th-30th Oct	Mackerel Coastal States	Oslo
30th-31st Oct	NWWRAC Working Groups	Brussels
5th–9th Nov	Norwegian Negotiations 1st Round	Bergen
7th Nov	Seafood Strategy Implementation Group	Dublin
12th-16th Nov	NEAFC	London
14th Nov	Pelagic RAC Executive Committee	London
26th-27th Nov	Fisheries & Agriculture Council	Brussels
26th–30th Nov	Norwegian Negotiations 2nd Round	Brussels
6th Dec	ACFA Plenary	Brussels
18th-20th Dec	Fisheries & Agriculture Council	Brussels

Crab Update

Bad weather, financial chaos and increased effort in other regions, have contributed to a recent "soft" market for brown crab. Hopefully, we have now turned the corner and prices are showing an upward trend with an average €2.20/Kg delivered to France being about the same as mid-September last year. (This is an abbreviated report due to space constraints – expect a full report next issue!)

KFO and IFPO Embark on a Major Pilot Pelagic Environmental Gear Project

The KFO and IFPO have started a major pelagic environmental gear project. This fishing industry initiative will involve two net-making firms, KT Nets and Swan-Net Gundrys, in the development of practical gear solutions for the release of juvenile pelagic species and improving fuel efficiency. BIM will provide technical assistance in data collection and monitoring of the proposed gear trials within the pilot project. The project will be managed by the KFO/IFPO and involve 12 vessels. On board observation and data collection will be carried out by a combination of staff from BIM, KFO/IFPO and self-sampling by fishermen involved.

This project has two distinct parts with the overall objectives of improving the size selectivity of pelagic trawls/nets using flexible grid systems and to improve the fuel efficiency of pelagic trawls/nets through the use of novel trawl designs incorporating hexagonal mesh and turned 90°. These trawls will be used in the pelagic fisheries during the Autumn season.

SPEAKERS AT THE WORKSHOP

Sean O'Donoghue, CEO, KFO

Martin Howley, Chairman, KFO

Richie Flynn, IFA Aquaculture

Ernesto Penas-Ladas, DG Fish and Maritime Affairs

Conor O'Shea, Sea-Fisheries Protection Authority, Ireland, (SFPA)

Ronán Long, Jean Monnet Chair European Commercial Law, National University of Ireland Galway.

François Theret, DG Fish and Maritime Affairs

Simon Berrow, Irish Whale and Dolphin Group, (IWDG)

Michael Keatinge, Fisheries Development Manager, BIM

Dominic Rihan, Bord Iascaigh Mhara, (BIM)

Mike Park, CEO, Scottish White Fish Producers Association (SWFPA)

Alan McCulla, CEO, Anglo-North Irish Fish Producers Organisation (ANIFPO)

Bob van Marlen, Wageningen, Institute for Marine Resources and Ecosystem Studies (IMARES)

Joe McElwee, IFA Aquaculture

Tom Catchpole, Centre for Environment, Fisheries and Aquaculture Science (CEFAS)

Mike Breen, Fisheries Research Services (FRS), Aberdeen

Daniel Priour, French Research Institute for Exploitation of the Sea, (IFREMER)

Anthony Grehan, Marine Law and Ocean Policy Centre, National University of Ireland, Galway

Barry Eustace, Marine Institute, (MI)

Barrie Deas, CEO,National Federation of Fishermen's Organisations (NFFO)

Paul Trebilcock,CEO, Cornish Fish Producers Organisation, (CFPO)

Jacques Pichon, CEO, FROM.

Head Office: **Killybegs Fishermen's Organisation Ltd., Bruach na Mara, St. Catherine's Road, Killybegs, Co. Donegal. Tel: (074) 9731 089, (074) 9731 305, Fax: (074) 9731 577, Email: kfo@eircom.net Website: www.kfo.ie**
Dublin Office **Tel: (01) 825 8846, Fax: (01) 825 8847**

KFO news

Killybegs Fishermen's Organisation Ltd.

October 2007 Issue 27

HIGHLY SUCCESSFUL OUTCOME TO TECHNICAL CONSERVATION MEASURES WORKSHOP

Pictured from left to right are: **Sean O'Donoghue**, CEO, KFO; **Jacques Pichon**, Fond Régional d'Organisation du Marché du Poisson (FROM), Britttany; **François Theret**, DG Fish and Maritime Affairs; **Barrie Deas**, CEO, National Federation of Fishermen's Organisations (NFFO); **Dominic Rihan**, Bord Iascaigh Mhara, (BIM); **Simon Berrow**, Irish Whale and Dolphin Group, (IWDG); **Mike Breen**, Fisheries Research Services (FRS), Aberdeen.

The Killybegs Fishermen's Organisation Ltd (KFO), as a member of the European Association of Producer Organisations (EAPO), hosted a very successful workshop in Dublin on the 13th and 14th of September with the theme "Technical Conservation Measures (TCMs)." The workshop was held as part of the Sixth Framework Programme PROFET Policy project and was the third of nine workshops being held throughout Europe. PROFET Policy was set up to facilitate an exchange of views between national and European policy-makers and to review and publicise relevant research projects, making that information available in easily accessed formats. The primary objective of this process is for the fishing industry (stakeholders) to be able to convey their future research needs to the EU Commission. The workshop was opened by Minister John Browne, T.D., Minister for the Marine, and was attended by more than one hundred participants from all of the North East Atlantic and North Sea fishing nations. Most importantly, a good balance of fishery managers, scientists, environmentalists and fishermen were represented at the workshop.

With the objectives stated above in mind, KFO approached Mr Ernesto Penas-Lado and Mr François Theret of DG Fisheries and Maritime Affairs to address the workshop and give the current views of the EU Commission on TCMs and how they envisaged the structure and role of TCMs going forward. Conor O'Shea of the Sea-Fisheries Protection Authority outlined the difficulties of making the TCMs work but insisted they were a vital component to ensuring future sustainable fisheries and could be improved with better scientific input. Dr Ronan Long of NUI Galway made the very interesting point that fisheries bore a disproportionate burden of responsibility for the improvement of the marine environment because fisheries was "easier to identify and regulate than….others" and the problems of the fishing industry were not always as a result of the implementation of DG Fish and Maritime Affairs policies but could be due to EU Environmental policy or participation in other international treaties and agreements. The reaction of the NGO/environmentalist, as depicted by Dr Simon Berrow of the Irish Whale and Dolphin Group, was also to call for increased scientific research with full impact assessment of any new fishing method prior to licensing and, overall, a more holistic view of marine ecosystems and the relationship between fisheries and other predators.

The issues which were highlighted during these presentations were dealt with by a discussion group under the guidance of Martin Howley, Chairman, KFO, and the points made were carried forward to the final discussion session of the workshop.

In the pursuit of its objectives PROFET Policy workshops typically culminate in a discussion session whose purpose is to review the issues tackled at the workshop, make recommendations for future policies and attendant research programmes and suggest how to improve the dissemination of the knowledge gained from such research. The Moderator of the Discussion and Conclusions session, Sean O'Donoghue, invited a representative selection from the fishing industry, gear technology, DG Fish and Maritime Affairs, environmental and scientific backgrounds to form a panel. Each panel member was asked to give their feedback of the workshop on the basis of overall impressions, future research for TCMs, the future direction of Commission proposals and how to disseminate information to the people who need it. The discussion panel consisted of Jacques Pichon, CEO, FROM; François Theret, DG Fish and Maritime Affairs; Dominic Rihan, BIM; Simon Berrow, IWDG; Mike Breen, FRS, Aberdeen, and Barrie Deas, NFFO.

There was a general consensus that Regulation 850/98 had become unworkable – it was now too complex making it very difficult to apply and enforce with an excessive accumulation of provisions which needed evaluation and, in many instances, removal. Regulation 850/98 was designed prior to the regionalisation of management and this is probably the area that would be most difficult to rectify. Dominic Rihan, BIM, had given the workshop an overview of TCMs contribution to the implementation of the Commissions new proposals and pointed out that, in addition to their complexity, there are many anomalies such as legal unselective gear, uneven application of TCMs, "trade-off" of more days for smaller mesh sizes while there is no real incentive for fishermen to become part of the development and evolution of effective TCMs.

There was a lively debate from the floor with François Theret acknowledging the difficulty in simplifying the regulations. Intentions are good but the reality is still a long way from completion. However, the workshop participants felt that, by and large, the Commission representatives had been very open and receptive to their ideas. The workshop concluded with a request from the participants to the Commission to ensure that the stakeholders are actively involved in the detail of their new technical conservation proposals.

Commission Outlines Its Proposals for Technical Conservation Measures

When the KFO undertook to organise this workshop it was hoped that the EU Commission representatives who were invited to attend would be frank, honest and open regarding existing TCMs. The participants at the workshop could not have been disappointed because both Ernesto Penas-Lado and François Theret freely admitted that the existing regulations have become virtually unworkable. In an effort to remedy the situation they are currently preparing new proposals for technical measures in the Atlantic and the North Sea.

How do they intend bringing these changes about? Firstly, by extensive consultation with all stakeholders and François Theret drew our attention to the non-papers already considered by the RACs, STECF meetings which had looked at the effectiveness of closed areas and factors affecting cod-end selectivity, meeting the experts in the net-making industry and the input of scientific assessment such as the ICES-FAO Working Group on Fishing Technology and Fish Behaviour (2005). The proposals themselves will revolve around:

1. Clear and simple definitions – easier to understand and easier to enforce;
2. Conservation of regulated species – clearly specified fishing gear, minimum sizes and closed areas;
3. Protection of the marine environment – closed areas and more selective fishing gear;
4. Reduction of discards – an area where it is hoped the stakeholders will play a major role, involving time and area closures and elimination of such practices as "ghost fishing;"
5. Evaluation of the effectiveness of such TCMs and fast-tracking of the decision-making process where the application of TCMs needs to be altered.

Simplification of the legislation was a constant thread running through the Commission's proposals. Regulation 850/98 was singled out for particular attention – it is reckoned to be too complex and the 2001 attempt at codification was not successful. The constant amendments to this Regulation since it became law have led to an accumulation of provisions which have never been reviewed or evaluated, making it very difficult to understand and impossible to enforce. Also, it was enacted prior to the establishment of the RACs and does not lend itself to the increased regionalisation of fisheries management.

Going forward, the Commission would envisage the evaluation of all provisions and the deletion of those provisions which are no longer relevant, a reduction in lists of target species and unnecessary minimum landing sizes and a general reduction in micro-management. The new regulatory structure would be built around general principles which would be interpreted on a regional basis and would probably reflect the existing RAC areas. Environmental objectives will be incorporated and this will be reflected in the emphasis on discards. However, periodical and easy review of regulations will be an integral part of legislation going forward as will incorporation of stakeholder initiatives in a timely manner. Regionalisation of management will enable local solutions to be put in place without constant inappropriate additions to regulations which may solve a problem in one area but create problems in other areas. François Theret admitted that the plan to simplify the regulations was straightforward in theory but in reality it out was going to prove extremely difficult.

It is the view of the Commission that TCMs can improve selectivity, reduce discards, protect sensitive habitats and species, protect juveniles and spawners but TCMs cannot replace catch and effort limitations or bring about stock recovery on their own.

TCMs Can Play Important Role in Stock Sustainability

TCMs undoubtedly have a role to play in stock sustainability but have not been used to their maximum advantage up to now – it is time for a completely new approach. At the workshop Dominic Rihan, BIM, dealt with this proposition in great depth. In his opinion, existing TCMs are far too complex and made more so by the add-ons created by recovery plans. There is an unworkable mixture of over-arching, one-size-fits-all legislation coupled with endless contradictory amendments which encourage fishermen to circumvent regulations wherever possible since the feeling is that no matter what they do, they will be breaking some rule or other.

From the point of view of the gear technologist, experimental work up to now has only been a snapshot of the real work needed and should be given far greater priority with increased resources in the future. Fishermen are increasingly frustrated with what they see as a complete lack of understanding by both scientists and fishery managers - they have a wealth of experience and instinctive knowledge to bring to this field which is largely ignored. They, too, find the regulations impossible to figure out and feel that many so-called infringements are a matter of opinion on the part of enforcement agencies – nothing to encourage responsible participation in the industry in which they have invested their lives. But, of course, it isn't any better for the fishery managers, enforcement agencies or scientists – again the regulations are so complex nobody knows how accurate assessments are, if regulations are really being applied and the real effects TCMs are having on fish stocks.

Going forward, the EU Commission proposals to consolidate, improve and simplify regulations, with fishery management being applied on a regional basis should have a beneficial effect. Within this framework, it should be possible to structure the flexibility needed to allow for the evolution of more effective TCMs driven by the fishing industry itself. This needs to be reflected in improved gear selectivity but there must be a reward to the fisherman to use such gear and use it in a proactive manner rather than merely complying with a law in which he has no faith and less respect. Making the regulations more comprehensible is the first step in utilising TCMs more effectively in stock sustainability, to be followed by a move away from a landings-based to a catching-based regime. The immediate problems facing the fishing industry in the Atlantic and North Sea at the moment are the EU proposals on Discards, Recovery Plans and the move to Maximum Sustainable Yield (MSY) – all areas where TCMs have vital roles to play but not without considerable commitment to additional research and the commitment of the fishing sector. The links with other requirements such as environmental commitments, by-catches and incidental damage to habitats must be made more obvious. There is surely a need in this area for education in all sectors on the long-term needs and rewards of fishing in an environmentally friendly fashion.

Research on Technical Conservation Measures Yields Useful Results

Key objectives for the PROFET Policy project are to source and summarise, in simple language, research results in fisheries and aquaculture from the 5th and 6th Framework Programmes focusing on relevance to policy and to improve the flow of information from those research projects to all stakeholders. These objectives are being met by the hosting of events such as the KFO Technical Conservation Measures Workshop – research projects relevant to the workshop theme are reviewed, condensed into a user-friendly format and compiled into a Compendium of Technical Leaflets, and are also available on www.profetpolicy.info.

For the purposes of the Dublin workshop several of the more important research projects relevant to TCMs were selected for presentation and a senior member of the research team undertook to give an in-depth analysis of the background, work undertaken and results. The participants at the workshop were impressed by the volume and quality of the data available and agreed that events such as the KFO workshop are necessary to showcase fisheries investigations which would otherwise never be available to the stakeholders.

RECOVERY and NECESSITY are two major projects whose objectives are to modify and design fishing gear to prevent the accidental catching of juvenile or non-target species. They were reviewed and described in depth by Bob van Marlen of IMARES, the Scientific Co-ordinator for both projects.

Anthony Grehan of NUI, Galway, discussed the value of Marine Protected Areas (MPAs) – a concept with which the fishing industry has long been familiar. PROTECT is an interdisciplinary research project involving 17 European institutions aiming to strengthen the decision basis regarding potential use, selection, development and management of MPAs in Europe, as part of an ecosystem-based approach to fisheries management. The research is based around three case studies covering a range of ecological, economic and fisheries management scenarios.

The possibility of aquaculture contributing to re-stocking and thereby sustaining fisheries was discussed by Joe McElwee of IFA Aquaculture. Tom Catchpole described the EFIMAS project which will enable fishery managers to simulate the effect of changing various factors such as TCMs and thus make more informed decisions affecting not only fish stocks but also social and economic elements.

While it is important to modify gear to allow the escape of juvenile and non-target species, it is also important to be able to predict the success of such modifications. At the stock assessment level, it was demonstrated that failure to include escape mortality into the modelling process could result in fisheries managers overestimating the potential benefits of selective devices as technical conservation measures in a fishery. The SURVIVAL project, as described by Mike Breen, FRS, Aberdeen, has examined this issue and can provide fisheries managers with the survival rates of various species to ensure the most beneficial application of TCMs.

In a similar vein, Daniel Priour, presented the PREMECS II project where the main finding has been to develop a global model (PRESEMO) for predicting the selectivity of cod-ends. PRESEMO is a model-based method to assess selectivity without the need for experimental fishing. It is able to generate artificial selectivity data comparable to that produced by sea trials in assessing cod-end selectivity using the covered cod-end technique. This information can then be used to assess the impact of proposed technical conservation measures.

Having seen a wide cross-section of the completed and on-going research projects, the workshop heard from Dominic Rihan, BIM, how research could contribute to the future needs of TCMs. It was his opinion that a different approach was needed with greater emphasis on local management initiatives for particular areas or fisheries, a more collaborative attitude between managers, scientists and fishermen, target-based management which would consider all means of achieving sustainable fishing requirements and, to quote Dominic, "big projects for big problems."

Fishing Industry Gives Its Reaction To Commission's Proposals for TCMs

Fishermen were very well represented at this workshop and, in addition to individual input during the discussion sessions, their views were well expressed by excellent presentations from Mike Park, SWFPA; Alan McCulla, ANIFPO; Barrie Deas, NFFO, and Paul Trebilcock, CFPO.

Mike Park pointed out that the reaction of fishermen to TCMs is mostly negative because in almost all cases the introduction of, or adjustment of, technical measures results in a reduction of income, at least on a short-term basis. As he says "Very difficult to be green while in the red." Mike outlined the evolution of current TCMs from the perspective of the Scottish whitefish industry which are contained in Regulation 850/98. He would identify the adoption of the precautionary principle, an attempt to standardise regulations, more environmental concerns and the "command and control" school of thought, as being the main drivers in producing the TCMs as they are today. In Scotland, changes and improvements are coming as a result of national initiatives and are more a response to market demands and increased awareness of environmental issues. He poses the questions "What measures, if any, should the industry deploy from now on? Are the reasons for change the same as in the past?" Whatever the reason, Mike Park emphasises the need for a "bottom-up" approach to any new technical measures and any re-vamped regulation should have that factor built in; it should stop short of being prescriptive as this would not improve the buy-in of fishermen and the format should be national or regional as opposed to the system of micro-management which has caused so much difficulty.

Alan McCulla based his contribution on what can be achieved by working within the existing framework, flawed as it may be. The Northern Ireland fishermen he represents have been particularly badly hit by restrictions and closures in the Irish Sea in recent years and found that in many instances they were victims of lack of scientific data resulting in precautionary cut-backs. As far back as 2000 the fishing industry in the Irish Sea proposed its own closures to protect juvenile cod but at that time they were rejected – the situation has deteriorated even further now. This made them very aware of the need for good quality scientific data and out of this need was created the UK's Fisheries Science Partnership Programme. The first project under this scheme employed two trawlers in the Irish Sea to monitor cod and this work continues to contribute substantially to the cod recovery programme in that area. However, it was apparent the most important fishery remaining in the Irish Sea was the prawn fishery which was already implicated in causing an unacceptably high level of discards. It was vital that technical measures be put in place while there was still time to retain some level of control. The fishermen had already proposed additional technical measures and wanted trials carried out, and in early 2005 successfully applied for and got FIFG funding for feasibility studies on a variety of prawn trawl modifications. Aside from the valuable data being collected in this manner, other beneficial spin-offs have been improved relations between fishermen and scientists and the recognition by the EU and fishery managers that the knowledge and opinions of fishermen can play a very important part in refining TCMs and really making them work.

Barrie Deas addressed the workshop on the problem of lack of uptake of TCMs. He rightly points out that fishing is above all an economic activity and the initial cut-back in income which inevitably accompanies the introduction of a technical measure does not encourage uptake, which must be aligned with incentives if it is to be successful. He described the Cod Avoidance Plan being discussed at RAC level whereby vessels signing up to the plan would undertake to provide enhanced data, facilitate observers, use more selective gear and observe closed areas in return for less restrictive effort control. Such arrangements which acknowledge the input of fishermen are more effective, easily managed and lead to greater refinement of the selective gear.

Paul Trebilcock has also been involved in the UK Industry/Science Partnership since 2003. Through his organisation, Cornish Fish Producers Organisation Ltd., vessels from the South West of England have been involved in Monkfish and Sole surveys, selective gear for Celtic Sea Cod, Hake and Benthic Release Panel Trials. As was found in the Irish Sea, these projects have led to improved relations between scientists and fishermen, a greater understanding of the assessment process, improved data which contributes to better stock management and continuous improvement to gear selectivity. This partnership role has been very successful and should be developed further in the area of TCMs to avoid ineffective and counter-productive regulations.

Pelagic Industry to Seek Marine Stewardship Council Certification

The Marine Stewardship Council (MSC) has developed an environmental standard for sustainable fishing 'The Principles and Criteria for Sustainable Fishing,' and is based on the FAO Code of Conduct for Responsible Fisheries. The MSC has several independent third party certifying bodies that will assess fisheries against this standard. Processors wishing to sell MSC products must undergo a 'Chain of Custody' certification process that guarantees traceability of MSC-labelled seafood, ensuring that it has been separated from non-certified product at every stage of production, from the boat to the plant.

The MSC has grown enormously in the last five years and currently certifies 22 fisheries, has 26 fisheries under full assessment, and 20-30 fisheries in the confidential pre-assessment stage. To date, the certified fisheries account for approximately seven per cent of the world's edible seafood catch, which is over four million tonnes of seafood. Currently around 600 seafood products bear the MSC logo (see below).

In September 2002 the Pelagic Freezer-Trawler Association applied for MSC certification for the North Sea herring fishery, which it achieved in 2006. The fact that this major player has been certified has exerted considerable pressure on other stakeholders, as the relatively small numbers of large-scale buyers are now demanding that all producers attain this certification. The Scottish Pelagic Sustainability Group has recently followed suit (comprising Scottish mid-water RSW trawler fleet) and has commenced the assessment stage for North Sea herring and Western mackerel.

A number of Irish pelagic fishermen and processors now recognise that they also need certification from the MSC to maintain robust market presence. To progress this, two pelagic stakeholder meetings have recently been held at the KFO. Three certifiers have provided quotes for certification of the mackerel, herring and horse mackerel fisheries and a project is currently being written in a bid to seek funding. It has been estimated that the entire process will take 12-16 months and will involve close co-operation between fishermen and processors. It is likely that a dedicated small industry focussed group, similar to 'The Scottish Pelagic Sustainability Group' will be set up to ensure efficient progression to certification.

Pelagic Regional Advisory Council Finalises its Recommendations on Herring TACs for 2008

The Pelagic RAC has issued its TACs recommendations on a number of herring stocks for 2008. The herring stocks of interest to Ireland are listed below.

Celtic Sea herring

Recommendation for herring of the Celtic Sea and Div VIIj is:

- The TAC for 2008 should be set at the same level as 2007;
- The Commission is to take note of the Irish industry proposed plan for the stock with the request to forward this plan to ICES for scientific scrutiny.

Herring VIa North

Recommendation for herring of Div VIa North (west of Scotland) is:

- The Pelagic RAC will formulate a recommendation on this stock in Oct/Nov 2007 when more explicit plans with regard to the assessment are expected to be available;
- In the meantime, the Pelagic RAC recommends a TAC of 30,600 t, which represents a 10 per cent cut of the TAC of 2007.

Horse Mackerel Management Plans

The management plan for western horse mackerel is progressing well. The Pelagic RAC has submitted the plan to ICES for evaluation and is expecting a positive answer.

Herring VIa South, VIIb, c

The ACFM advice for this stock is that a rebuilding plan be put in place or there should be no fishing. The rebuilding plan should be evaluated with respect to the precautionary approach. The KFO does not agree with this assessment and explained at the RAC meeting that together with scientists from the Marine Institute in Ireland, a pilot acoustic study has been designed to try to establish a better stock size estimate. Three pairs of commercial vessels will carry out the pilot acoustic study, with acoustic specialists on board. The survey will be conducted in Nov/Dec 2007 and Jan/Feb 2008 and will incorporate industry information and concerns.

Final recommendation for herring of Div VIa South and VIIbc is:

- The Commission is to take note of a proposal for a pilot study which has been designed to improve the acoustic surveys and hence come to a better assessment of the stock;
- Pending the outcome of the new stock assessment, the TAC for 2008 should be set at the same level as 2007.

SUMMARY AND RECOMMENDATION OF THE WORKSHOP IN ATHENS

Summary and recommendation of the workshop written by Courtney Hough, FEAP

I.A. RTD (Practical)

- Mediterranean sustainability guidelines seen as important doc
    - Need to bring these into reality & practise (new Code? Certifiable?)
- Fish Health – major topic
    - Need: epidemiological studies
    - Need: practical stress/best welfare indicators
    - Need: best husbandry practises
    - Need: strategies for combating viral diseases
- Research needed on fast-growing species & improved performance of established ones (selection? Genetics??? – no clear suggestion)
- Deformities remains a big issue for Mediterranean hatcheries
    - Trend of fewer but larger hatcheries
    - Need: Uniform diagnostics
- Concern raised with regard to the omega 3 level of fish fed with substituted ingredients in the feed (i.e. substitution would lead to weaker nutrient profile of fish)
- Research in the direction of identifying genetic strains of fish more susceptible/welcoming to feed substitution was mentioned as an important issue.
- Production of biolipid and bioproteins from natural gas was proposed as a possible alternative source of feed ingredient substitutes
- Lessons to be learnt from the salmonid industry with regard to treatment and health management of the fish stock. (networking/crossover)

I.B. Managerial/Commercial

- Consumer studies on drivers/barriers (Seafood Plus) – limited awareness of aquaculture
    - Better marketing, more consumer information needed
    - Communication needs improvement
- Potential for 'new species' not clear
- Proactive rather than reactive approach required in fish health management
- The promotion of organic fish in the market must be done in a cautious and responsible manner as not to harm the image of the 'conventionally' produced fish.
- Within the issue of image of the industry and its products, the need of common eu labelling standards was stresses by a number of speakers and participants.

I.C. Social/Political

- Long standing issues of importance must be supported by policy makers – l**icensing, spatial planning, support & guidance to RTD** (spatial planning a regular topic)
    - Site selection and carrying capacity needs support data
    - Clearer position on MPAs and aquaculture potential needed
    - Marine policy could play an important role here
- **Constructive cooperation between producers and relevant stakeholders must be established**
- **Potential need for an aquaculture observatory (to follow developments)**
- **Aquaculture should be an equal rights user** (point comes back regularly)
- **Need: Better Coordination of RTD – quantifiable objectives, efficient evaluation mechanisms (of results)**
- Key factor remains **communication** by explaining sustainability (a better choice)
- The issue of access to research funds was raised, along with the problem of limited funding capacities for SMEs (and Associations under FP7 rules)
- Everyone stressed the fact that demand for fish will increase and that capture fisheries cannot supply the market. Aquaculture is here to fill the market gap with high quality products
- Mediterranean aquaculture has an important role to play in the wider European aquaculture environment.

SUMMARY AND RECOMMENDATION OF THE WORKSHOP IN WARSAW

Summary and recommendation of the workshop written by Courtney Hough, FEAP

I.A. RTD (Practical)

- Impact of alien species (Impasse); ongoing project interlinks to alien species regulation. Looking for guidelines on quarantine and best stock enhancement practises.
- Potential for using fish farm waste – has scope for certain products. Probably needs refining and clarity in results.
    - **Recommendation** to address disease content/impact in waste discharge and treatment
    - **Recommendation** to asses impact/use/value of sludge (concentrated farm waste)
- 'Sustainaqua' – special focus on water treatment/recirculation in functional farms – use less water for same or higher production.
    - RAS has a role – but very slow on implementation – how can users benefit from this R&D on site (cost/benefit)
    - Model farms in Denmark best example to date
- Improved consumer communication needed – works well in France, Italy, Spain etc. (e.g. Test achats network) – Newer Member States not so well established on this front
- Malformations rest a major 'quality' and productivity issue;
    - need to look at dietary availability and legislation on supplements (some conflicts)in feeds
    - feed components/supplements still an issue

I.B. Managerial/Commercial

- Natura2000/Birds Directive – major problem for inland farmers
- FEAP/IUCN Guidelines on Mediterranean (Sustainability indicators) mentioned (addressing farmers/decision-makers): Can this model be applied to continental Freshwater aquaculture?
    - FEAP/IUCN agreement expanded to include freshwater in Oct 2008
    - Similar approach would need funding
- Presentations on eel production referred to Eel Management plans and difficulties encountered in this sector.
    - Glass eel/elver production? In hatcheries? To counter export of glass eel?
- Measuring and proving sustainability a big issue for the sector
    - Role for improving CONSENSUS indicators?
- Sturgeon seen as big opportunity – mainly for caviar production – but all of a sturgeon can be used (cf. pigs) – applications in other areas (cosmetics, pharmaceuticals…)
- Technology transfer and skill development remains an issue, particularly if difficult to get younger people into the sector

I.C. Social/Political

- Water Framework Directive rather scary as fish farmers seen as 'industrial polluters' – many freshwater farmers throughout Europe still not sure how WFD will affect their fish farm
  Need for a full impact study? Water charges based on volume 'use' would kill the business.
  Use based on transit vs. evaporation?
  Close consultation required on WFD developments needed (e.g. classification of water bodies)
  Role of large ponds (inland Europe) in water catchment – Natura 2000 (needs promotion)
  Benefits if water quality improves in passage through ponds
  Pond Farmers should be seen as partners in WFD implementation
- Spatial planning a big issue: no regional policies for freshwater aquaculture
- Fish Health; risk-based surveillance and compartmentalisation); monitoring of health status of surrounding water. Overlap with principles of WFD. Does this need examination?
- Availability of land & water, environmental interactions dominate thinking; pond farms need large space for small production levels. Scope for development (inc productivity)
    - Need to quantify costs to meet environmental references – establish [economic] tolerance levels between farmer and society (research needed on this – absence of solid data)
- Irritation on implementation of WFD – farmers feel it has potential to reduce level playing field (subsidiarity application).
- Noted difficulty in getting RTD into practise in the field
- **Need** to raise skill levels
- **Need** review of financial impact and real costs of implementation of WFD (throughout Europe)
- **Need** improved governance within inland Continental aquaculture (cf NACEE, EIFAC…)
- **Need** to develop a more REGIONAL approach, including governance, on some issues (e.g. consumer issues, WFD management)
- **Communication again raised as an issue**.

SUMMARY AND RECOMMENDATION OF THE WORKSHOP IN MARSEILLE

Summary and recommendation of the workshop written by Francisca Martinez

OUTCOME OF THE PROFET POLICY WORKSHOP ON FISHERIES AND SCIENTIFIC

RESEARCH IN THE MEDITERRANEAN SEA
MARSEILLE, 12-13 JUNE 2008

1. One of the first conclusions resulting from the different interventions is the difficulty for scientists taking part in research projects, to find a partner from the industry. They don't know where to look for fishing professional associations, how to obtain good contacts and don't know how the industry is organised at the local, regional, national and European level.

2. Similarly, fishing enterprises have difficulties in identifying research centres having practical and financial means to collaborate with them on specific and targeted issues and species. It is therefore important for the industry to be properly structured at national level.
   It is also recommended to multiply the exchanges between the fishing sector and scientists in the fishing harbours in order to progressively change the mentalities both of fishermen who sometimes may fear to communicate their data, and of scientists, who may not always explain clearly the aim of their job.

3. Transnational collaboration constitutes another important element in the Mediterranean Basin: it is no use sticking to studies dealing with what is going on right in front of us. We learn more by extending the research to wider geographical areas. A lot of scientific information is available at national level but there is an obvious communication gap between the national authorities, research centres and the EU level. It is therefore recommended to promote a better use of the existing data.

4. A good assessment of the different species in the Mediterranean Sea is missing to date. Nonetheless, fishermen need it badly in order to establish their management plan in the framework of the new regulation on technical measures in the Mediterranean Sea. The increased collaboration between scientists and fishermen is therefore urgent.

5. The amount of catches from sport fishing boats and leisure boats needs to be assessed given that thousands of boats navigate in the Mediterranean Sea several months per year and take part in numerous contests of game fishing, etc. Fishermen request that sport and leisure fishing be regulated. It is difficult to accept that thousands of sport fishermen catch species submitted to strict EU regulations for professional fishermen.

6. Similarly, it is important to assess the impact of pollution and of the climatic changes on fishing resources and consequently on fisheries.

7. As regards the way in which the scientific community is structured in the EU Mediterranean countries, it appears that in France, the centre IFREMER is responsible for all the research activities in the marine sector. Therefore other research centres cannot really compete with Ifremer in this field. However Ifremer cannot satisfy all the demands and needs. It is therefore recommended to find a solution and envisage an aperture in order to improve the situation. In Italy, scientific research in the marine sector is centralised within the Scientific Coordination Committee. In Greece and Spain, there is no centralised organisation but there are only a few big research centres and these are easy to identify. It would be advisable to create a coordinated programme between Member States in order to progress faster.

8. The small-scale fisheries in the Mediterranean Sea requests EU funds to develop the collaboration with scientists.

9. In Corsica, a scientific committee has been created to ensure the future of the fisheries sector and make progress in the knowledge on local species. It would be advisable to generalize this kind of partnership between fishermen and scientists in all the Mediterranean Basin.

10. The Maltese fishermen suffer and complain about the legal vacuum regarding the international waters surrounding their islands. International projects have already recommended that the Mediterranean Sea should be exploited only by the rim countries.
    The legal question is in the heart of numerous management problems in the Mediterranean Sea and consequently, is also the key to the protection of the marine resources.

11. Fishermen hope that the new European maritime policy will bring a solution to the various problems affecting the fishing resources today because fishermen have always been blamed for all the damage caused to the sea and are the only ones paying the price for it. Considering that research activities have to be more open, this objective could be a working priority of the maritime policy in 2008-2009 with the help of the industry.

12. It could be interesting to organise a regional forum bringing together fishermen and scientists so as to enable both parties to meet. It would also be interesting to centralise all the existing data bases relevant for Mediterranean fisheries (FAO, GFCM, ICCAT, European Commission, universities research centres, etc…) proposing studies, reports, assessments, data on the marine resources. It is difficult to search on all the websites the information one is looking for. This could be the task of a person in charge of the scientific data within the future Mediterranean RAC. The number of participants to such a forum would not be so high given that national representatives of the industry are known and rather well structured and that research centres in the Mediterranean Region are also easy to identify.
    The Forum could be useful to establish a deeper contact in view of the future collaboration with the Mediterranean RAC, define further research priorities for the management of fishing resources (management plans), and disseminate scientific information. Research projects should include an important dissemination part not only through a Commission or university website but also among the industry.

13. Vulgarising the results of any scientific research is an interesting step to envisage so as to make these results accessible to everybody. The research projects co-financed by the EU could include a vulgarised synthesis report. Research projects could also be concluded by a training or information module for the attention of the interested professional organisations which could then disseminate it.

14. Scientists are not responsible for saving the fishing industry but should provide the necessary information to decision makers. In this respect, regarding the needs in the field of research, the following issues have been mentioned during the workshop: study on the lobster in the region of Corsica and sharing the knowledge on the same species with Sardinia, the assessment of bluefin tuna stocks, the renewable energies in the fisheries sector, vessels with clean engines, the impact of the climatic changes on fish stocks, the impact of predators on commercial species, the impact of other activities of exploitation of the sea beds on the fishing resources, the impact of marine pollution, of tourism, etc. In other words, participants have underlined the need to have indicators on the resources, but also socio-economic indicators regarding the impact of all these factors on the income and activities of fishermen.
    In addition, the rules applicable for collecting data (insufficient today) should be harmonised. A representative of the aquaculture sector has stressed the importance to pursue studies on the food used in fish farms as it is an element having an impact on the quality and taste of the product but also on the production costs. Therefore, the "food" parameter has to be optimised in this particular field.

15. Institutional forums exist in sufficient number (ICCAT, EU, GFCM, FAO, ACFA, etc.); professional organisations exist as well and so do research centres. What is needed is the open and regular collaboration between all these bodies for a better share and common use of the knowledge and data available. Quite often the industry has only a restricted access to the institutional forums and very often only a limited number of representatives can attend meetings as observers. This does not contribute to an open dialogue and exchange of information.

16. A lot of imprecision exists as regards marine protected areas. Regulations foresee the creation of a certain and quite high number of marine protected areas but they do not all follow the same purpose, do not all protect the same species, fauna/flora, are not all limited in time, and few of them seem to be assorted with detailed creation criteria. Therefore, professional fishermen express the need to assess whether it is necessary to maintain them if they do not succeed in fulfilling their role or when the recovery of a specific species has been reached. Not all the marine protected areas are closed to fisheries, some are closed only partially. In a word, it is important to be very precise when we refer to marine protected areas because the term can cover very different concepts.

17. The idea of an advisory committee on maritime affairs based in Brussels has been evoked, where all the maritime sectors of activity could discuss joint problems (wind farms installations in traditional fishing grounds, for instance, etc.).

18. To conclude, the workshop has enabled professional fishermen to learn a lot on the present dynamics in the field of scientific research, to understand where the difficulties are for scientists when they look for a partner from the industry. They have also heard interesting presentations on the ongoing projects and hope that the Commission will be able to support financially a wider collaboration between the industry and scientists. Profet Policy has raised a feeling of curiosity and strong interest on both sides. An experience that undoubtedly deserves being repeated.

SUMMARY AND RECOMMENDATION OF THE WORKSHOP IN COPENHAGEN

Summary and recommendation of the workshop written by Adi Kellermann, ICES

PROFET POLICY WORKSHOP REPORT 2008

North Sea Fisheries Research Workshop — Maintaining dialogue
23–24 June 2008 - Copenhagen, Denmark

1. General – participation and topics

The workshop was held in Copenhagen on 23 and 24 June 2008, starting 13:00 on day one, and closing at 15:00 on day two. It was attended by 55 participants from 14 European countries and the US. The audience covered scientists, fishery managers, science directors, science and fishery international organizations, government representatives, NGO's and other stakeholders.

The workshop was arranged in four sessions:

- North Sea Fisheries - An introduction to the issues.
- North Sea Fisheries - its role today and in the future.
- North Sea fisheries – how can research programmes help advancing fisheries management.
- Communication of Research Results.

In all, 20 presentations were given covering a broad range of disciplines including biology, socio-economics and modelling.

2. Recommendations

Climate change and related changes in ecosystems, especially living resources, increasing operational costs and implications from spatial planning, especially Marine Protected Areas (MPAs) were identified as the most challenging issues in the future for fisheries and for fishery management, not only in the North Sea. Socio-economy tackling the economic performance of fisheries, capacity issues and incentives will need to be more closely linked with ecosystem sciences. The knowledge base, for instance to implement the ecosystem approach needs to be consolidated instead of sometimes launching new initiatives for collecting new data. However, there is also a need for a long-term perspective in fisheries and environmental sciences. Currently, the research funding is geared towards a project-oriented system which produces consultancy for ephemeral, reactive policy issues. For a robust and sustainable science policy, more proactive long-term perspectives need to be developed.

The research agendas presented by the fishery and fishery science directors were remarkably similar and revealed a very detailed level of knowledge requirements. The direct advice-related science is largely left with ICES, basing on a long tradition of trust and interactive processes. Environmental impacts of human use affect not only the ecosystem but also other users such as fisheries. When speaking about fisheries, it is always important to address the two different communities differently: capture fisheries and aquaculture. The economical performance is driven by different factors whereas mariculture is more flexible to react to market demands and other mechanisms. Capture fisheries are more vulnerable to climate impacts whereas domestification and disease issues are more important for mariculture. Research demands in both communities may differ significantly.

There is a need for more interaction between socio-economy and ecosystem and life sciences. On the operational level, SMEs and recipients of research products should be better integrated. Important first steps are to find a common language and to define the scale of cooperation and joint analyses of data. Regional scales are well suited to allow for topic focus and cooperation. Communication is an issue for future research programmes. It matters not only after the project has come or is close to conclusion. Care should be taken to foresee and plan on communication during the lifetime of projects. Requests from users to be answered during the project by response-mode tools should be part of the plan. It should cover more than just dissemination of results because it should facilitate interactivity between scientists, stakeholders and users and the public. It is also about breaking down walls and building bridges between disciplines and between the key players. Hiring professional aid for communication issues was mentioned as an option, similar to earlier practice for data handling and dissemination.

New technologies and methodologies were presented. Uncertainty needs to be dealt with more appropriately and it needs to be accepted as a core part of the debate rather than be treated as a leftover of objectivity. The precautionary approach as the usual solution to it does not always carry very far. Risk management could be the answer in the future if a better quantification of uncertainty is possible. Modelling fisher's behaviour in the socio-economical context as well as newly introduced techniques for surveillance offer new perspectives and new science challenges.

3 Summary

The workshop has seen excellent science and stakeholder presentations and discussions were inspiring and fruitful. The workshop was seen by all participants as a big step forward in communication and more interaction, and especially the representatives of the fishery expressed their open view about maintaining the dialogue with science.

Presentations and some impressions from the workshop can be viewed at the ICES and FEAP web pages.

SUMMARY AND RECOMMENDATION OF THE WORKSHOP IN TREVISO

Summary and recommendation of the workshop written by Courtney Hough, FEAP

This workshop had a particular focus on quality and freshwater aquaculture, underlining the application of standards and quality assurance.
A very comprehensive review was made on quality requirements of the consumer and how the quality of aquaculture products was subject to many influencing factors.

I.A. RTD (Practical)

- Pikeperch and perch have potential opportunity, but
    - **Year-round production of eggs and larvae** needs resolving
    - **Special diets needed for broodstock** (big influence)
- Future fish feeds have a direct effect on fish farming
    - Improving feed efficiency while reducing dependency from marine raw materials
    - To what extent are vegetable raw materials suitable for freshwater fish feeds?
    - Develop aquaculture to be a net protein producer
- Future feeds may not be able to avoid GM
    - Needs new approaches and communication to succeed
    - Need to change approach from commodity use to incorporation of strategic ingredients that serve a purpose (fish and human nutrition/benefits)
- Lifestyle diseases are a global challenge
    - Many directly affected by an improved diet where fish/seafood has important role
    - New fish diets can act as functional food but
        - The public has been presented with conflicting scientific evidence regarding the risks and benefits of consuming various types of fish
        - The assessment and management of food safety in general tends to be a politically and morally charged issue
        - This highlights the need to develop **effective risk communication about farmed fish**
- Genomics/Genetics: Breeding efficiency is best achieved in the long term
    - sustained effort and support necessary for success
    - Can have undesirable side effects on fitness traits
        - have to be monitored and genetic basis explored
- « Genetic pollution » of wild stocks with escapees needs clarification
    - Is it worse than with non selected stocks ?
    - Option of containment with sterile (triploid) fish

I.B. Managerial/Commercial

- Quality is closely linked to safety
    - Post-mortem influences on quality v. important cf. quality pre-harvest (spoilage)
    - **Need BMP linked to risk analysis systems** to have clear safety objectives and standards
- **Quality Assurance schemes** are a definite advantage – industry has to set and lead the trend (vs. being dictated to) – ownership of standard is important
    - QA reduces risks, improves performance, increases autonomy

I.D. Social/Political

- Association provide essential hub with Government/Agencies/Organisations
    - Promote BMP and Codes of Practise/Quality Schemes
    - Need better communication tools and support – transparency of operation essential
- Licensing issues highlighted as being very complex for freshwater aquaculture, following regionalisation, noting
    - Diversity of local, regional and state authorisation procedures
    - Complexity of bureaucracy and procedures
    - Need for simplification and common rules
- Support needed to develop new projects (activities, investment, equipment)
    - Procedures lengthy & complicated, one-stop shop could help

SUMMARY AND RECOMMENDATION OF THE WORKSHOP IN VIGO

Summary and recommendation of the workshop written by Courtney Hough, FEAP

I.A. RTD (Practical)

The Profet Policy workshop on 'Integrating Fisheries and Aquaculture with Marine Environment Protection' demonstrated that European fisheries and aquaculture share many common problems and issues.
As one of the first international workshops to address policy topics common to these traditionally separate sectors, the workshop looked at a wide range of approaches to the workshop theme.
There seems to be a change in the approach of different stakeholders, where the protection of a common resource, the marine, is perhaps being replaced by the **sustainable exploitation of the largest global ecosystem.**
However, when referring to sustainable development, it is evident that development cannot occur without investment – which is best achieved from economically profitable operations.

The project presentations, made by senior representatives of European RTD project consortia, demonstrated that, while a **huge amount of scientific data** is available, there is still a **need for clear benchmarks** – from which progress can be measured.

- A lot of projects have identified this issue, where the **methodology for referencing 'sustainability'** is needed urgently.
- There was much reference to **integrated management options and systems**, where all of these efforts have to recognise the **validity of all stakeholders in the coastal zone**.
- **Effective and efficient area management** must be promoted, where **aquaculture needs to benefit from the application of spatial planning.**
- A key issue for European aquaculture is the manner in which **licenses for operation** can be obtained; in many European countries, there is a need for multiple licences – of different duration and scope – in order to function. The application of **spatial planning – allocating specific areas for aquaculture development** - as well as other related options, could facilitate these procedures.

The measurement of the effects of aquaculture on the environment were presented in a number of different presentations, including a demonstration of the ECASA (An Ecosystem Approach to Sustainable Aquaculture) 'toolbox', which includes modelling options for Environmental Impact Assessment of different types of marine aquaculture.

Events such as Profet Policy provide a unique opportunity to learn the different points of view of the stakeholders, **promoting better communication between science and the producer sector**.
Within this, it is clear that the **Technology Platforms** that were presented at the workshop (local, regional and European) are definitely important players in the RTD arena.

The aquaculture sector is very concerned about **policies that reduce its economic competitiveness**, noting that it is still young, has made a lot of improvements but needs its benchmark positions. The goalposts are being moved regularly on a wide range of topics, including environmental as well as other operating issues – such as farmed fish welfare. All of these actions end by increasing costs of production while market competition, particularly with 3rd country imports, becomes more and more severe.
Certification and labelling, perhaps for proving sustainability since there is increasing pressure from the consumer and general society on this topic, **is a core point of debate for both fisheries and aquaculture.**

It was agreed by the Workshop that **communication must be improved at several different levels – on what science is doing to improve, on what the professional sector is doing on implementing recommendations, on how science and the profession are working together, on what the Commission is doing in respect of policy development**.

Identifying the best means of achieving such an effort should become a priority for all.
Multi-stakeholder cooperation and agreement is seen as essential for the future, where consensus agreement will be required while understanding the need to move quickly, efficiently and effectively.

Press Release (November 2009):
COOPERATIVA DE ARMADORES DE PESCA DEL PUERTO DE VIGO, S. COOP. GALLEGA.

For the first time, the fishing industry, aquaculture and environmentalists agree on measures to protect marine ecosystems

Conclusions of the seminar held in Vigo on environment, fishing and aquaculture

Vigo, 25th November 2008 -On 20th and 21st November last, at the Port of Vigo Shipowners' Cooperative, a working shop was held on "Integrating Fisheries & Aquaculture with Marine Environment Protection", sponsored by the European Commission, under the "Profet Policy" Programme.

For the first time, representatives of the sector, aquaculture and environmentalists agreed to highlight the need to protect marine ecosystems as a source of life, health and wealth for the world population. The seminars served to present several projects in fishing and aquaculture related to the sustainabilityof the marine environment, contributing a large number of data on the state of the ecosystems analyzed as well as management models for measuring the environmental sustainability of fish farms in Europe.

The main conclusions highlight the need to plan the use of space to achieve the sustainable development of European aquaculture; increased financing for marine research, improving the dialogue between science, the fishing industry and fishfarming and other sectors; promote an environmentally orientated management compatible with an industry that can be profitable and competitive, particularly in terms of imports from third countries that do not respect the same environmental regulations as does European industry.

Finally, it was noted that certification and labelling, possibly to proof sustainability, in response to the growing pressure from the consumer and from society in general being brought to bear on this topic, is a core point in the debate for both fisheries and aquaculture. It was agreed at these seminars that communication must be improved at various levels, -on what science is doing to improve, on what the professional sector is doing on implementing recommendations, on how science and the profession are working together and what the Commission is doing in terms of policy development. Identifying the best means to carry this effort out must become the priority for all concerned.

It was seen that cooperation and agreement among the various stakeholders is essential for the future, where consensual agreements are required while understanding the need to act quickly, effectively and efficiently.

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2 articles were also published in January 2009 :

- In Fishing News International
- In Pesca Internacional – January 2009

See next pages

Three-way marine ecosystem talks

MEASURES to protect marine ecosystems have been agreed at a meeting in Vigo, Spain, which brought together the fishing industry, aquaculture and environmentalists.

Integrating Fisheries & Aquaculture with Marine Environment Protection – sponsored by the European Commission under the Profet Policy Program – was held at the Port of Vigo Shipowners' Co-op on November 20 – 21, 2008.

For the first time representatives from the three sectors agreed to highlight the need to protect marine ecosystems as a source of life, health and wealth.

Seminars presented projects in both fishing and aquaculture to improve the sustainability of the marine environment, contribute extensive data on the state of the ecosystems, as well as management models to measure the environmental sustainability of Europe's fish farms.

Contributions to the seminar came from the International Council for the Exploration of the Sea (ICES) on the *Application of ecosystems approach to fisheries management*; the Spanish fisheries federation Cepesca on *Issues faced by professional fisheries*; and from the universities of Vigo, Southern Denmark and Aveiro, Portugal.

In addition there were contributions from the Scottish Association for Marine Science; the Spanish Institute of Oceanography; and the Community Fisheries Control Agency.

The main conclusions highlight the need to:

- **increase financing for marine research;**
- **improve dialogue between science, fishing and fish farming;**
- **promote environmental management compatible with profitable and competitive industries; and**
- **clampdown on third country imports which do not follow EU environmental rules.**

The three-way conference between catchers, farmers and environmentalists under way at the Vigo fishing vessel owners' co-op.

Certification and labelling to prove sustainability has resulting from growing pressure from the consumer and society. These are seen as central to fishing and aquaculture development.

It was agreed that there is a need for improved communication to assist science and the sectors to work together and understand what the Commission is doing in terms of developing the policy.

The conclusion was made that co-operation among interested parties is essential to reach joint agreements where all sectors act swiftly, effectively and efficiently.

Growth of world production in wild fish and aquaculture (in thousands of tonnes)

	2000	2001	2002	2003	2004	2005
Total catches	95.6	93.1	93.3	90.5	95.0	93.8
Total aquaculture	35.5	37.9	40.4	42.7	45.5	47.8
Total world production	131.1	131.0	133.7	133.2	140.5	141.6
Use						
Human consumption	96.9	99.7	100.2	102.7	105.6	107.2
Non-food uses	34.2	31.3	33.5	30.5	34.8	34.4
Population (in thousands of millions)	6.1	6.1	6.2	6.3	6.4	6.5
Supply per capita (kg)	16.0	16.2	16.1	16.3	16.6	16.6

of Fish, focused on *Fish traceability as a guarantee of safety and quality.*

Celeiro is applying traceability. Traceability is carried on with landings at the auction to match the product, fishing zone, ship, freshness and size. All these details are displayed on the packing, so the consumer knows what is being bought and its

Policy to cut accident rates

Miguel Martínez Losada, director, represented the Galician Institute for Safety and Health in the Work Place (ISSGA). He pointed out that fishing has the highest accident rates and there is a need is to create a "culture of prevention." The Vixía Plan is an

possible price from what is caught, which means that the customer comes back to buy a second time." Quality factors can be controlled by the owner, giving him a say in the price by differentiating his fish.

Five more marine reserves

Marine reserves was

Courtney Hough, Álvaro Martínez Riva, Abel Caballero, Fátima Linares, José M. Sánchez Mora y Jacques Fuchs en *"Profet Policy"* en Vigo.

La pesca y la acuicultura en la protección de los ecosistemas marinos

Representantes de los sectores pesquero y acuícola y ecologistas coinciden por vez primera en la necesidad de proteger adecuadamente los ecosistemas marinos como fuente de vida, salud y riqueza para la población mudial. El acuerdo se produjo en el marco de unas jornadas de trabajo sobre "La integración de la pesca y la acuicultura en la protección del medio ambiente marino", celebradas en la sede de la Cooperativa de Armadores de Pesca del Puerto de Vigo (ARVI) los días 20 y 21 de noviembre, con el patrocinio de la Comisión Europea, dentro del Programa "Profet Policy". Planificar el desarrollo sostenible de la acuicultura europea, más financiación para investigaciones marinas, mejorar el diálogo entre científicos y productores y fomentar una gestión medioambiental compatible con la industria, son algunas de las conclusiones de estas jornadas. Estos son los resúmenes de algunas de las ponencias.

FISHERIES AND AQUACULTURE IN THE PROTECTION OF MARINE ECOSYSTEMS

Fisheries and aquaculture representatives agree for the first time with ecologists in the need to protect marine ecosystems as a source of life, health and wealth for the world population.
This agreement was reached in the framework of a conference on the "integration of fisheries and aquaculture in the protection of the marine environment" held at the headquarters of the Vigo Fishing Boat Owners Cooperative (ARVI) on the 20th and 21st of November with the sponsorship of the European Commission within the "Profet Policy". Planning sustainable development of European fisheries and aquaculture, more finance for marine research, improving the dialogue between scientists and producers and promoting environmental management compatible with the industry are some of the conclusions of this conference. The following are summaries of some of the papers.

CARMEN PAZ-MARTÍ

SECRETARÍA GENERAL DEL MAR

Protección de los ecosistemas marinos

La Resolución 61/05, aprobada durante la 61ª Asamblea General hace un llamamiento a los Estados, para que de forma individual y a través de las ORPs regulen las pesquerías de fondo de forma que son ellos quienes deberían evaluar si las actividades de pesca demersal individuales tienen impacto adverso significativo sobre los ecosistemas marinos vulnerables (VMEs) y si es así gestionar dicha actividad para evitarlos o prohibir la pesca de fondo. Deberían cerrar áreas a la pesca de fondo en las que se conozca la existencia de VMEs y cesar la pesca de fondo si se encuenta una VME durante una actividad pesquera e informar de su localización. Además, hay que tener en cuenta las líneas generales aprobadas por la FAO para la pesca de fondo en alta mar y el acuerdo a largo plazo para la sostenibilidad y la biodiversidad propuesto por España en 2005. ⚓

CARMEN PAZ-MARTÍ

SECRETARY GENERAL FOR THE SEA

Protection of marine ecosystems

The UN Resolution 61/05 makes a general call to the nations to regulate, either individually or via the RFO's, bottom fishing so that they decide if individual demersal fishing has a significant adverse effect on the VME's and if this is the case, to manage the activity to avoid damage or ban bottom fishing. Areas with known VME's should be closed to fishing and fishing should cease if a VME is found during the activity and its location reported. The general lines approved by the FAO should be taken into account for high seas bottom fishing as should the 2005 Spanish proposal for long term sustainability and biodiversity agreements.

CARMELA PORTEIRO

VICE-PRESIDENT OF THE ICES BUREAU

Ecosystem approach and fisheries management

The ecosystem approach is embedded in the sustainable development concept and requires that the necessities of future generations are not prejudiced by the actions of the present. The ecosystem approach puts emphasis on management systems which maintain ecosystems in good health by adequate use of the marine environment in benefit of present and future generations.

The meaning of the terms ecosystem management and ecosystem approach in fisheries should be considered as these have not yet been universally defined and are in continual evolution (FAO fish Techno Paper, Rome 2003). It is necessary to back global integrated management of human activities based on available scientific knowledge of the ecosystem and its dynamics with the object of identifying and acting on critical influences for the health of marine ecosystems. The ability to forecast the behaviour of ecosystems is limited and excesses could cause irreversible changes. Finally the application of the ecosystem approach to the marine environment should take into account the links between marine and land based environments. It is necessary to evaluate impact and establish precautionary lower fishing limits based on the multi-species relationships within the marine ecosystem and the implication of the interested parties.

CARMELA PORTEIRO

VICEPRESIDENTA DEL BUREAU DEL ICES

Enfoque ecosistémico y gestión de pesquerías

El enfoque ecosistémico está inmerso en el concepto de desarrollo sostenible y requiere que las necesidades de las generaciones futuras no estén comprometidas con las acciones de la gente de hoy. El enfoque ecosistémico otorga énfasis al régimen de gestión que mantiene la salud del ecosistema junto con el uso humano adecuado del medioambiente marino, en beneficio de las generaciones actuales y futuras.

Hay que abordar también el significado de los términos gestión ecosistémica (basada en el ecosistema) y enfoque ecosistémico en la pesca, aún no definidos universalmente y en continua evolución (FAO fish, Techno Paper, Roma 2003). Es preciso apostar por la gestión integral global de las actividades humanas basadas en el conocimiento científico disponible sobre el ecosistema y sus dinámicas, con el fin de identificar y actuar sobre las influencias críticas para la salud de los ecosistemas marinos. La habilidad para predecir el comportamiento ecosistémico es limitada y excederse puede ocasionar cambios irreversibles. Por último, la aplicación del enfoque ecosistémico en el medioambiente marino debe tener en cuenta los vínculos entre el medioambiente terrestre y el marino. Es necesario evaluar el impacto y establecer límites de captura más bajos y cautelares, en función de las relaciones multi-especies en el ecosistema marino y la implicación de las partes interesadas. ⚓

K. KALAMANTIS

BUREAU EUROPEO DE CONSERVACIÓN Y DESARROLLO

Esfuerzos notables

La conservación y el uso sostenible de la biodiversidad marina en alta mar atrae cada vez más la atención internacional en los foros medioambientales y se han realizado esfuerzos considerables en los últimos años a nivel global. La reciente Resolución 61/05 de la AG de NN.UU de 2007 solicitó a los Estados que, hasta finales de 2008, gestionasen de manera sostenible los stocks demersales y protegiesen los VMEs de las prácticas pesqueras destructivas. La FAO dictó las claves para la gestión sostenible de los stocks de fondo. UE y ORPs también trabajan en ello. El enfoque ecosistémico es acertado para la gestión sostenible de los recursos y la protección de habitats frágiles de los fondos marinos. Es necesario conjugar la visión de los pescadores, el entendimiento científico y gestión politica para asegurar el futuro. ⚓

KONSTANTINOS KALAMANTIS

EUROPEAN CONSERVATION AND DEVELOPMENT BUREAU

Notable efforts

The conservation and sustainable use of high seas marine biodiversity attracts a lot of attention in international forums and much has been done in recent years on a world scale. The recent UN Resolution 61/05 of 2007 requested countries to manage demersal stocks on a sustainable basis and to protect VME's. The FAO has dictated the key to sustainable management of bottom stocks. The EU and the RFO's are also working on this. The ecosystem approach is adequate for sustainable management of resources and the protection of fragile bottom habitats. It is necessary to combine the point of view of fishermen, scientific understanding and political management in order to assure the future.

XOÁN LÓPEZ

FEDERACIÓN GALLEGA DE COFRADIAS

La situación de las pesquerías tradicionales

Los Fondos FEP crean un nuevo marco de actuación para desarrollar este segmento de flota muy debilitado por carencias graves. La reestructuración de la flota gallega de bajura en años anteriores fue lo suficientemente profunda para afirmar que el nivel de sostenibilidad de los recursos es aceptable. Los problemas actuales son la antigüedad de las unidades, la falta de relevo generacional y el anárquico crecimiento económico en la zona costera que amenaza y contamina de forma grave los recursos de un sector cuya rentabilidad depende de la calidad del producto. El sector precisa cambios en la comercialización y apoyo de las instituciones para recuperar su competitividad. Las propuestas deben ir ligadas a la promoción de los productos de la pesca artesanal frente a las importaciones masivas y sin ningun tipo de garantías de control sanitario. ⚓

XOÁN LÓPEZ

GALICIAN FEDERATION OF FISHERIES GUILDS

The situation in traditional fisheries

FEP funds provide new possibilities for the development of a sector weakened by severe shortages. The restructuring of the Galician in-shore fleet in past years was profound enough to assure acceptable sustainability of resources. Present problems are the age of vessels, lack of generational replacement and chaotic economic development of costal regions which threaten and seriously contaminate the resources of a sector which depends on quality for economic profit. The sector needs changes in marketing and institutional help in order to regain competitiveness. Proposals should be linked to the promotion of traditional seafood products against massive imports with little guarantee of sanitary control.

EMILIO MARAÑÓN

UNIVERSIDADE DE VIGO

Red Europea para el análisis del ecosistema oceánico

La Red Europea para el análisis de los ecosistemas oceánicos maritimos (EUR-Oceans), es un proyecto financiado por el sexto Programa Marco de la UE para el desarrollo de la Investigación y la Tecnología, en el estudio de los efectos del cambio global sobre los ecosistemas marinos. El cambio global ocasiona una serie de consecuencias sobre los datos críticos aportados por los ecosistemas marinos tales como la regulación

EMILIO MARAÑÓN

UNIVERSITY OF VIGO

European ocean ecosystem analysis network

The European ocean ecosystem analysis network (EUR-Oceans) is a project, financed by the sixth EU Framework Programme for the development of Research and Technology, for the study of the effects of global changes on marine ecosystems. Global change

has effects on critical data from marine ecosystems such as climate regulation and the sustainability of live renewable resources.
The objectives of EUR-OCEANS is the lasting integration of European global change research organisations

del clima y el sostenimiento de los recursos vivos renovables.
El objetivo de EUR-OCEANS es la integración duradera de las organizaciones europeas de investigación sobre el cambio global y los ecosistemas marinos pelágicos. El proyecto

and pelagic marine ecosystems. The project with 160 researchers from 66 organisations in 25 countries is composed of three main research communities: pelagic ecosystems, biochemistry and ecosystem approach to marine resources.

cuenta con 160 investigadores principales de 66 organizaciones miembro situadas en 25 países e incluye tres comunidades principales de investigación: ecosistemas pelágicos, bioquímica y el enfoque ecosistémico hacia los recursos marinos. ⚓

JAVIER PEREIRO

INVESTIGADOR DEL IEO

Retos de la investigación en apoyo de la pesca

Es de común acuerdo que la gestión de la pesca debe realizarse sobre el mejor conocimiento científico. La investigación debe abordarse desde tres perspectivas: primero, el sistema natural, en cuanto a los efectos que el medio puede producir sobre los recursos objeto de explotación y los efectos que la pesca y otras actividades humanas puedan generar sobre el ecosistema marino.
Segundo, las políticas pesqueras, que establecen objetivos de gestión y que es preciso planificar, desarrollar y evaluar así como los objetivos que pueden surgir de la aplicación de políticas previas, de nuevas políticas internas o compromisos internacionales de mayor ámbito. Finalmente, hay que abordar el tipo de recomendación científica para la gestión y la relación con los usuarios de esas recomendaciones. ⚓

JAVIER PEREIRO

IEO RESEARCHER

Challenges for research in support of fishing

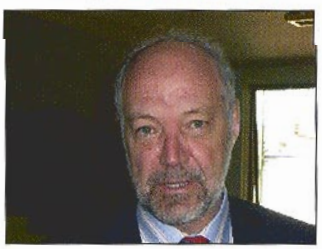
It is agreed that fisheries management should be based on adequate scientific knowledge. Research should be approached from three perspectives. Firstly, natural systems, the effects of environment on exploitable

resources and the effects of fishing and other human activity on marine ecosystems. Secondly, fisheries policies which establish management objectives and which should be planned, developed and evaluated as well as objectives derived from previous policies, new internal policies or wider ranging international obligations. Finally scientific recommendations for management should be decided in relation to the users of these recommendations.

MANUEL LIRIA

PRESIDENTE DE FEOPE

Efectos socioeconómicos de la gestión de ecosistemas



El creciente reconocimiento social hacia la protección de los Ecosistemas Marinos que existe en la mayoría de los países desarrollados y particularmente en la UE, se ha reflejado en una normativa mucho más restrictiva de las diferentes actividades que ejercen su influencia en esos ecosistemas y en concreto la pesca. Las implicaciones socioeconómicas de las medidas de gestión pesquera y las acciones que se están implementando, así como las que todavía permanecen guardadas, son muy importantes y están subestimando la competitividad del sector.
El gran reto para la gestión equilibrada de las pesquerías es encontrar un equilibrio entre pesca y ecología. Los ecologistas defienden que no se toque el mar e incluso, muchas organizaciones desprecian la evidencia y el método científico. Por su parte, la UE, que tampoco realiza una regulación global sino que va por temas, sin fijar objetivos ni metodología, debería preguntarse si puede permitirse la desaparición de su sector pesquero.. Los Comités Consultivos asumen la representación de los intereses sociales pero no la resposnabilidad sobre los efectos. Son, por tanto un canal de diálogo positivo que debe complementarse con alguien que se encargue de arbitrar. ⚓

MANUEL LIRIA

CHAIRMAN OF FEOPE

Social and economic effects of ecosystem management

Social recognition for marine ecosystem protection in the majority of developed countries is reflected in much more restrictive regulations for activities which affect these ecosystems and in particular, fishing. Social and economic implications of fisheries management being implemented as well as others in the pipe-line are important and

underestimate the competitiveness of the sector.
The challenge for balanced fisheries management is to reach equality between ecology and fishing. The ecologist defend "hands off the sea" and some even reject evidence and scientific methods. On the other hand, the EU, which has no global regulation but rather goes by themes with no method or objectives, should reflect on whether it can do without the fisheries sector. The Consultant Committees assume representation of social interests but not responsibility for the effects. This dialog needs a referee.

JACQUES FUCHS

DG MARE (COMISIÓN EUROPEA)

Oportunidades de I+D en el 7º Programa Marco

La comunidad de investigación de la pesca y la acuicultura en Europa necesitan seguir creciendo a buen ritmo para ser capaces de resolver los nuevos retos a los que debe hacer frente el viejo continente.

Creo que es preciso explorar nuevas fronteras y desarrollar nuevos métodos y herramientas para asegurar el futuro de la pesca y el desarrollo sostenible de la acuicultura en un ecosistema saludable.

El séptimo Programa Marco (2007-2013) para el apoyo de la investigación pesquera y acuícola ofrece tanto al sector pesquero como al acuícola un enorme abanico de oportunidades en el marco de ayudas a la investigación que el sector pesquero español puede aprovechar, tal y como están haciendo otras regiones dependientes de la pesca.

Como ejemplo, cabe citar el enfoque comunitario sobre "Alimentación; Agricultura y Pesca y Biotecnología" y sobre Medioambiente, que incluye aspectos como el cambio climático del programa específico de "cooperación". En estos dos enfoques se abordan los principales ámbitos de investigación en los que se centran inmersos actualmente los sectores pesquero y acuícola europeos. ⚓

JACQUES FUCHS

DG MARE (EUROPEAN COMMISSION)

Opportunities for R&D in the 7th Framework Programme

The European fisheries and aquaculture research community needs constant growth in order to be able to solve the challenges from the old continent.

I believe new frontiers should be crossed, new methods and tools developed in order to assure the future of fisheries and sustainable aquaculture in a healthy ecosystem.

The 7 Framework Programme (2007-2013) for fisheries and aquaculture research support, offers both sectors many opportunities for aid in fish research just as in other fisheries dependent regions.

An example is the Community "Food, Agriculture, Fisheries and Biotechnology" focus and the specific "cooperation" programme for the Environment which includes climate change. These two approaches include the main research areas for the fishing and aquaculture sectors.