DEEPFISHMAN

Management And Monitoring Of Deep-sea Fisheries And Stocks

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Background

Using information and data currently available, new information from other ongoing projects, knowledge of the management and monitoring of deep-water fisheries/stocks in other parts of the world and outputs from the project, DEEPFISHMAN will develop a range of strategy options for the exploitation of deep-water species in the NE Atlantic. The existing management and monitoring framework for deep-water fisheries/stocks will be reviewed in the context of these options and the information currently available and recommendations will be made with the aim of developing a more effective framework of data collection, assessment, monitoring and management. This will comprise two approaches. Firstly, the aim will be to identify a more effective framework to be used in the short term, making better use of data and information currently available. Secondly, a reliable long-term framework will be developed for which additional data and information needs will be specified in order to fill current information gaps to achieve reliable long-term management requirements. The project will define a prototype ecosystem based management framework for deep-water fisheries in the NE Atlantic as an alternative to the current stock-based management regime.

Stakeholder involvement

Involvement of stakeholders will be key to the success of the project, since they offer a source of unique information to undertake proposed approaches. The fishing industry will be requested to contribute to specific work packages and this will largely be through their participation in workshops that will be arranged through the relevant RACs or by the use of questionnaires distributed through RACs. An initial start-up workshop will be convened to formulate the views of stakeholders on the present and possible future management regimes for deep-water stocks/fisheries in the NE Atlantic. It is anticipated that outputs to stakeholders, policy makers and NGOs will be through a dedicated Stakeholder outreach and dissemination work package.

Progress to date as at 31st July 2009

An initial start-up Stakeholder Workshop was held in Brussels on 29-30 June 2009 and a report of the outcomes is appended below. Good progress was made in identifying the concerns of fishers regarding the existing EU deep-water management and monitoring framework in the NE Atlantic and their aspirations for the short- and long-term frameworks to be developed in DEEPFISHMAN. Despite advertising the Workshop to all sectors, only French fishers were present and none of the major NGOs were represented. The latter was due to problems of staff availability, as the Project Coordinator and workshop facilitator had received expressions of interest from several NGOs.

Consequently, there is a need to broaden the involvement of fishers to encompass other Member States with established deep-water fishing fleets e.g. Spain, Portugal, UK and

others, and to ensure that that the NGOs fully engage in the project. These concerns will be addressed by developing and distributing a stakeholder questionnaire and possibly by extending the Work Package 2 Case Study meeting (scheduled for December) to include a further Stakeholder Workshop.

Stakeholder questionnaire (Annex C)

A questionnaire will be developed and distributed in September 2009 to the different categories of stakeholders identified at the Workshop (see Table 3 in the Workshop report, below). The primary aims will be to solicit (1) views on the existing management and monitoring framework, (2) concerns and aspirations for the future management and monitoring of deep-water stocks in the NE Atlantic, (3) stakeholder information and data relevant to the development of new short- and long-term management and monitoring frameworks and (4) views on the need for a further Stakeholder Workshop in December 2009.

Additional Stakeholder Workshop in December 2009

Consideration will be given to holding a further Stakeholder Workshop appended to the Work Package 2 Case Study meeting scheduled for 30 November- 4 December 2009. A final decision will be made depending on the outcomes and expressions of interest resulting from the above-mentioned Stakeholder Questionnaire. To encourage participation from fishers from southern Member States, it is possible that this meeting may be held in Vigo.

Further Stakeholder Workshops

In addition to the workshop planned towards the end of the project to disseminate the outcomes from DEEPFISHMAN, in response to interest expressed by French fishers, another stakeholder meeting may be appended to the DEEPFISHMAN mid-term meeting scheduled to be held in Nantes immediately before the ICES Annual Science Conference (also in Nantes) on 20-24 September 2010.

Communication plan with stakeholders

A communication plan is under development taking into account the outcomes of the recent workshop. This will include the dissemination of the workshop report(s) to all major stakeholders, participation by DEEPFISHMAN partners in RAC meetings, collaboration with stakeholders at the Case Study level and the drafting of a DEEPFISHMAN newsletter to be issued in December 2009. Progress in other relevant EU projects involving stakeholders will be integrated, for example the project IBEFISH- Stakeholder Participation towards Ecosystem-Based Approaches to Fisheries Management. (http://www.environment.fi/syke/ibefish).

Report of the Stakeholder Workshop - 29 and 30 June 2009, Brussels

Table of contents

Tables

Annexes

1 Introduction to DEEPFISHMAN.

One of the European-funded DEEPFISHMAN research project's objective is to develop a range of specific management options for the deepwater fisheries in the NE Atlantic.

Using a range of case studies selected to reflect the diverse characteristics of the different types of deepwater fishery, DEEPFISHMAN aims to:

1. Identify new and more effective assessment methods, reference points, harvest control rules and management strategies that may be used in the short term and make better use of available data; and to
2. Develop a reliable long-term framework with additional data needs to fill current information gaps and achieve reliable long-term management requirements.

The project will also analyse the potential impact of proposed management strategy options on the socio-economic profile of case study fisheries that span the widest possible ecological characteristics, and provide robust guidelines for deepwater fisheries management suitable for adoption within the Common Fishery policy.

2 Introduction to Workshop.

The workshop was designed to provide:

An opportunity for stakeholders to meet DEEPFISHMAN project partners,

- presentations and discussions of key aspects of the three-year project, and
- a stakeholder analysis to underpin DEEPFISHMAN's engagement and communication strategies.

A number of participatory sessions made it possible to:

1. Identify the stakeholder community
2. Discuss the strengths and weaknesses of current management regimes and fisheries assessments methodologies
3. Identify channels and details of stakeholder engagement, and
4. Devise a Communication Strategy for the project.

The workshop was organised by Sophie Des Clers, a facilitator experienced in the organisation of participatory meetings and focus groups in fisheries and environmental management and research. Selected references on the methods used to elicit information during the workshop are given at the end of this report.

The number of workshop participants was initially expected to be higher than the final fifteen (15), and it was decided to reach a broader stakeholder base through a web-based questionnaire widely advertised by email. The main points of the questionnaire were also tested at the end of the workshop.

This report presents the workshop results and is organised into six parts. The stakeholder analysis and communication strategy are given first. They are followed by SWOT (Strengths, Weaknesses, Opportunities and Threats) analyses of the bases for current fisheries resource assessments and of current management regimes, which were stemmed from presentations from the project partners that are reproduced on the project website. In the last two parts, we present key points of discussion regarding possible future management strategies and, finally the steps planned for DEEPFISHMAN to further develop its stakeholder engagement process.

3 Stakeholder analysis

For the purpose of the workshop, stakeholders are considered to be individuals, groups, organisations or institutions, to whom DEEPFISHMAN can be of interest or whom DEEPFISHMAN may need to involve in order to achieve its tasks either in general or for a specific case study fishery.

3.1 Stakeholder base

The workshop participants identified a total of 43 types of stakeholders with an interest in the project, although not all were examined in detail for lack of time. Each stakeholder can be considered according to its institutional characteristics and geographical scale of intervention as follows.

3.1.1 Institution type

Stakeholders were identified as acting in either one or a combination of the following capacity: Public, Private, Association/ Group /NGO, or as individuals.

Only 3 of the possible 43 stakeholder types were identified as important in their capacity as individuals: crewmen, consumers and citizens. All others were considered to act as part of a publicly funded institution, a business, an association or NGO.

Environmental NGOs did not attend the workshop, but were considered to be mostly active at international level.

Government or publicly funded stakeholders covered national politicians acting at European (Council of Ministers) and international (International and UN Conventions) levels, local government and a large number of relevant administrations active at all geographical levels. Fisheries scientists (DEEPFISHMAN partners and others) important to the project are active at international and national levels. Monitoring agents are important at international level and local 1st points of sale, as well as through national enforcement agencies (Table 1). Important local representatives of national administrative services include the competent authorities at the first point of sales and vocational training providers.

Of the eight Associations / NGOs type noted to be important, seven are professional associations along the fishing industry production chain, from vessel owners to crew, Producer Organisations (POs) and processors.

The overall institutional diversity is a reflection of the variety of case studies considered by the project, which ranges from coastal-artisanal fleet (back scabbard fish in Portugal, red seabream in the Mediterranean sea, the Gulf of Cadix and the Bay of Biscay), to highly industrial vessels operating on the High Seas.

3.1.2 Geographical levels

Public bodies are identified to operate at each geographical scale, local, national and European/international, while scientists and experts and scientists may be active at both national and international levels.

By contrast, private enterprise stakeholders including the fishing industry catching sector, Producer Organisations (POs), fish buyers, fish transporters and fish processors are active at all levels, sometimes through multi-national vertically integrated companies. This is also the case for banks, skills providers (e.g. seamen’s colleges) and IT/telecom providers who

have direct business links with fishing companies and operations at all levels.

Associations and NGOs may be involved mostly at local level (crewmen, consumers), but the fishing industry professional Associations and POs are organised and important at all levels, from local to national to European (Table 1). In their absence, environmental NGOs were identified as campaigning at international level against the fisheries rather than collaborating at national or local levels to identify or foster sustainable use.

<table>
<tr><th>Geographic level / Stakeholder types</th><th>International and European</th><th>National</th><th>Local</th></tr>
<tr><td>Public</td><td>UN, RFMO*s, OSPAR, European institutions*, RAC*s, scientists*, MCS experts, monitoring agents</td><td>National government and administrative services*, experts and scientists*, enforcement agencies</td><td>Local government and administrative services, including at 1st point of sale, harbour and training</td></tr>
<tr><td rowspan="2">Private/ businesses</td><td colspan="3">Fishing industry: catching, big buyers/ sellers, fish transport, processors, education & training, Banks</td></tr>
<tr><td colspan="2">Producer Organisations, fishmongers, gear manufacturers and suppliers, other seabed users (mining, oil&gas, offshore renewables, cable layers, aggregate dredging, marine and MCS experts, fisheries scientists, certifiers</td><td>Local fish markets (1st sale), restaurants, Crewmen Unions, Harbour services, shipyard, Consumers</td></tr>
<tr><td rowspan="2">Associations/ Groups/ NGOs</td><td colspan="3">Fishing industry Associations (catching*, buyers, processors)* and POs*</td></tr>
<tr><td>Environmental NGOs</td><td></td><td rowspan="2">Crewmen, Consumers</td></tr>
<tr><td>Individuals</td><td></td><td>Citizens</td></tr>
</table>

* stakeholders present at Workshop

Table 1: DEEPFISHMAN stakeholders at international, national and local levels

3.2 Priority stakeholders for DEEPFISHMAN to achieve its tasks

In order to devise a stakeholder engagement Action Plan, the workshop identified a subset of “priority stakeholders” essential to the project 's success.

The Regional Advisory Councils (RACs) are at the heart of what is identified to be an essential collaborative partnership for DEEPFISHMAN to succeed represented in Table 2. One of the Workshop participants was sitting as a fishing industry (catching sector) representative on both the North-Western Waters (NWWRAC) and South-Western Waters (SWWRAC) RACs, but the Long-Distance Fleet RAC was also identified as important.

The European Commission is a priority stakeholder through its Research Directorate (DG-RTD) for its oversight of the research they sponsor, framed by DEEPFISHMAN's Document of Work (DOW). In DG_MARE the relevant Units in the Fisheries Directorate C

(Atlantic, Outermost regions and Arctic) are also considered to be one of the main priority partners, for their roles in the management and control of the fisheries, and their direct interest in the development of new management tools for deep-sea fisheries.

The core partnership also includes the national administrative services involved in fisheries management support, monitoring and enforcement.

Fisheries scientists, biologists and socio-economists, are at the heart of DEEPFISHMAN's partnership, not only through the project's partners but extending to scientists outside the project, who are or have been involved in relevant European-funded research. The lack of easy communication channels between scientists and stakeholders to exchange results from EU-funded research came up several times in discussions as needing improvement for some scientists and the participants from DG-RTD. Between scientists, the problem is remedied to some extent when projects partners are involved in several projects, such as for DEEPFISHMAN's coordinator, who is also involved in the project CoralFISH (FP7, Grant agreement no.: 213144), or partners' institutions such as for COBECOS on the Costs and Benefits of Control Strategies (FP6 project just finished, see https://cobecos.jrc.ec.europa.eu), HERMES[1] (FP6 project now finished, see http://www.eu-hermes.net/) and its follow up HERMIONE, Hotspot Ecosystem Research and Man's Impact On European Seas (FP7, grant agreement n0 225364, see http://www.eu-hermione.net/) projects, on the biodiversity of deep-sea ecosystems, which also explored the influence of climate on the natural productivity of fisheries resources.

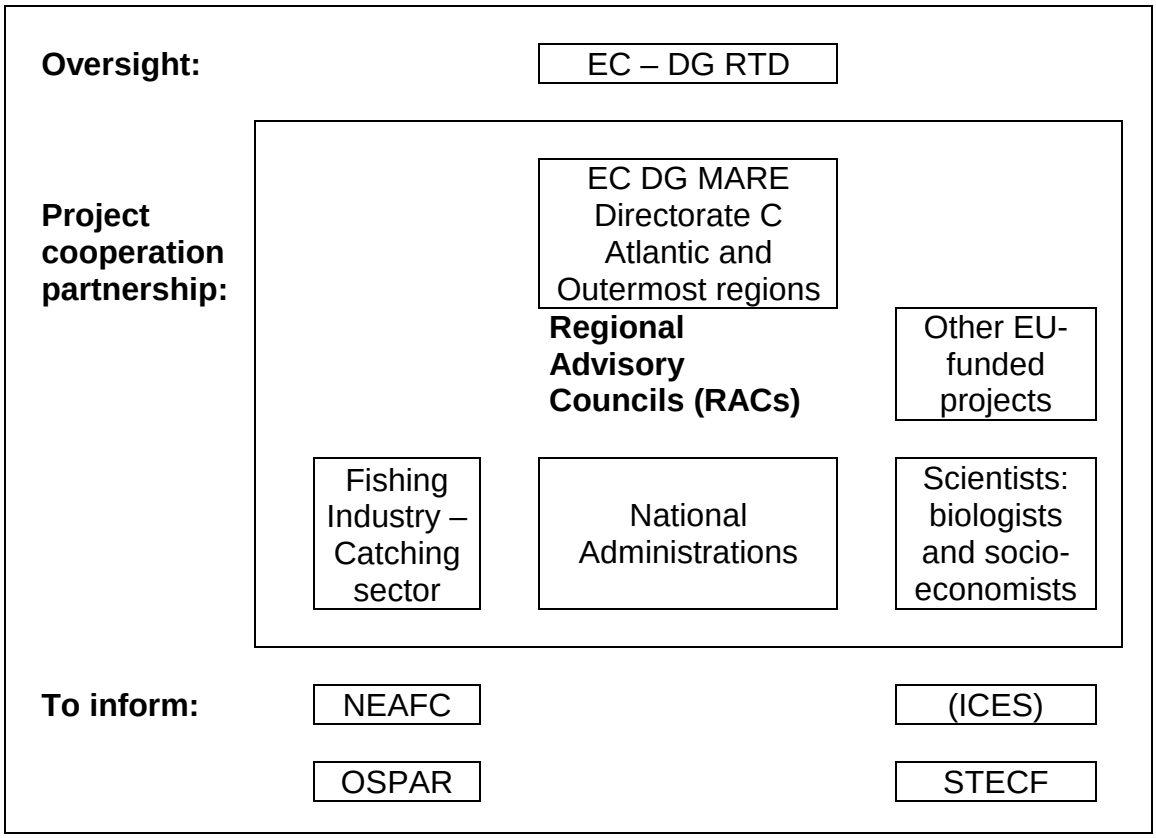

Table 2: DEEPFISHMAN Priority stakeholders

1 See UNEP, 2007. Deep-sea biodiversity and ecosystems. A scoping report on their socio-economy, management and governance. UNEP-WCMC Biodiversity Series N°28, 88pp.

A number of institutions have priority roles alongside the core partnership. These are, at international level, the North-East Atlantic Fisheries Commission (NEAFC)[2], the OSPAR Commission[3] in its coordinating role to guide international cooperation on the protection of the marine environment of the North-East Atlantic, and the European Commission's Scientific, Technical and Economic Committee for Fisheries (STECF)[4]. The International Council for the Exploration of the Sea (ICES)[5] is also a priority partner to inform through its Working Groups on the Biology and Assessment of Deep Sea Fisheries Resources (WGDEEP) and on Deep-water Ecology (WGDEC). ICES is listed in brackets because of the close ICES involvement already in existence throughout a number of the project's partners.

3.3 Stakeholders with a prime interest

Reversing the point of view, the workshop identified priority stakeholders who have an interest to be involved in DEEPFISHMAN. Although close stakeholder involvement may not yet be common in European-funded research projects, the project's "client-base" was easily identified. Two categories were suggested.

First, the stakeholders with an "immediate interest" in the current deep-sea fisheries and their sustainable resource use, who are brought together by the existing management regime. These priority stakeholders are listed in the first column of Table 3. They are all taken to recognise the importance to develop an alternative to the current stock-based management and to increase sustainability by developing an ecosystem-based management framework for deep-water fisheries in the NE Atlantic.

Second, the stakeholders with a "consequential interest" are those whose livelihoods would be directly impacted. Thus, developers and gear manufacturers, and the fishing communities where the vessels are based would feel the positive impacts of an increased fishery sustainability (Table 3).

From the stakeholders' perspective, the catching sector with an immediate interest is made up of the owners of vessels operating in deep-sea fisheries or active in other fisheries where deep-sea vessels also operate. By contrast, the catching sector with a consequential interest includes vessel owners, as well as crew members who are rarely party to policy or management discussions but have nevertheless a direct stake in the sustainable exploitation of the fisheries.

Consequential interests are deliberated within at least two European institutions that were not identified by the participants. In the European Commission's comitology system, the interests of social partners, including of crewmembers, are considered by the Sectoral Social Dialogue Committee for Sea fisheries[6]. They were also considered by the European Parliament's Committee on Fisheries as it called on "the Commission to carry out a socio-economic assessment of deep-sea fisheries and an analysis of the impact that new fishing effort reductions will have on the industry, as well as the impact of continued depletion of the fish stocks that the fisheries depends on; points out that it is crucial to strike a balance between socio-economic needs and environmental sustainability"[7].

2 www.neafc.org
3 www.ospar.org
4 http://fishnet.jrc.it/web/stecf
5 http://www.ices.dk
6 http://ec.europa.eu/fisheries/cfp/governance/other_en.htm
7 Motion for a European Parliament Resolution on the management of deep-sea fish stocks (2007/2110(INI)), at http://www.europarl.europa.eu/sides/getDoc.do?type=REPORT&reference=A6-2008-0103&language=EN

3.4 Stakeholder networks

There was little time to analyse the diversity and strengths of the identified stakeholders or their networks, but the workshop participants agreed on a clear picture of the current situation for priority stakeholders in Table 2.

There was a consensus that RACs could provide the best networks for DEEPFISHMAN to inform, consult and collaborate with its priority stakeholders. To some extent, the shared enthusiasm reflects the proposed extended remit and powers of RACs outlined in the Green Paper under consultation for the 2012 CFP Reform[8]. In the current situation, the Commission has noted that a lack of human resource faced by some stakeholders, including environmental NGOs and consumers, to fully take part in the RACs[9] may limit collaborations. However, DEEPFISHMAN will endeavour to contact its priority stakeholders directly as well through the RACs in order to develop strong collaborations in the coming months.

Immediate interest		**Consequential interest**
Fisheries Managers:	International and European: RFMOs, EU Council of Ministers and EU Commission, National and Local governments, POs	
Policy advisors:	European, National	
Marine Scientists		Gear researchers and developers
Vessel Owners:	in deep-sea fisheries, and in other fisheries	Fishers: Vessels Owners and Crew
Environmental NGOs		
Processors & Marketing		Processors & Marketing
Consumers		Fishing Communities

Table 3: Stakeholders with an interest in DEEPFISHMAN

8 2009, Green Paper Reform of the Common Fisheries Policy, COM(2009) 163 final, 28pp.

9 2008, COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT Review of the functioning of the Regional Advisory Councils, COM(2008) 364 final, 14pp.

4 Communication Strategy

The project's document of work (DOW) identifies several means of communication with their stakeholders as the project progresses. During DEEPFISHMAN's kick-off meeting (12-14 May 2009, Nantes, France), it was also decided to convene this Stakeholder Workshop.

The Workshop identified some preferred means of communication by stakeholder category, but a more detailed analysis will be conducted using additional suggestions collected through the Questionnaire mentioned in the introduction.

In Table 4 we see that twenty stakeholder categories, in effect the project partners and their priority stakeholders, are expected to communicate using the project Website. This may be optimistic, given that websites are not pro-active means of communication, but not unrealistic, once collaborations are set up, the website can easily provide an efficient means to exchange documents (through a document “wiki”) between stakeholders and partners. The Questionnaire, together with its analysis and other information in a Newsletter, are expected to reach at least as many of the key stakeholders as the project Website. This is in contrast with the communication of the project at conferences (such as ICES Annual Science Conference; Deepsea Biology Symposium Reykjavik scheduled in June 2010), which is expected to reach mostly scientific and technical stakeholder types, and present results to the scientific community rather help develop collaborations with stakeholders early on. It is however foreseen to have a meeting with stakeholders at project mid-term (by September-October 2010) at the same period as ICES ASC 2010 in Nantes where projects partners will present the advancement of the project and discuss further developments with stakeholders.

Of the 43 stakeholders identified at the beginning of the workshop, Scientific Papers are expected to reach only three categories – Policy advisors, Fisheries Scientists and marine environment NGOs (Table 4).

Website	20
Questionnaire + Newsletter	22
Conference	10
Scientific paper	3

Table 4: Numbers of priority stakeholders that may be reached by different means

Hopefully, outreach to a wide audience with the Questionnaire will make it possible to build up on the project stakeholder network that will also be developed through the RACs.

Specific communication strategies may also be needed for some of the case studies, possibly in the relevant national language, in order to develop close collaborations with the main fishing industry actors not present at the workshop (e.g. fleet from Spain, Ireland, Scotland, and with a specific workshop and stakeholder engagement process organised by each Case study leader (i.e. the project partner familiar with the local fleet).
It was also decided the DEEPFISHMAN partners shall go to the RACs (NWW, SWW and Long-distance fleet) to present the project and establish collaborations through the deep-sea focus groups.

5 SWOT analyses

The use of fisheries assessment techniques are closely linked to the management frameworks that they underpin. And conversely, fisheries management regimes have been slow in evolving because of their dependence on operational resource assessment techniques. Using a simple SWOT analysis framework, the Strengths and Weaknesses of current management and assessment measures used in deep-sea fisheries were identified and deliberated.

Key aspects are given in Table 5 below, together with the main Opportunities and Threats they may face (Table 6).

5.1 Current deep species management measures

The measures used to manage deep sea fisheries at present were reviewed during the workshop. There was a general agreement that the single-species stock management currently prevailing is not adapted for most deep-sea fisheries, which are mixed, although it may be appropriate in very few cases such as for blue ling (*Molva dypterygia*). However, until operational alternatives can be devised, the use of TACs in combination with effort limitation, provides a much needed precise basis for fishing vessels to manage their activities.

Even though main management measures are examined one at a time in Table 5, in practice some of the numerous weaknesses identified may be remedied to some extent as measures are used together.

Management regime	Strengths	Weaknesses
1. TAC	Simple and easy to allocate; simple to monitor and control; allow to establish track record; effective for small fleet of large fishing vessels	Implementation one single-species stock at a time; relies on relationship between fishing mortality (F) & catches; efficiency linked to effort management; difficult to evaluate discards and bycatch; can result in discarding in mixed fisheries; costly monitoring and control
2. Effort limitation (days at sea, days fishing)	Adapted for mono-specific fisheries and on a single-gear basis; easy to monitor and control; potentially good as the relationship between fishing mortality (F) and effort is believe to be mostly linear	Needs complex allocation by fishery and métier; effort is a vector of too many input measures; difficult to monitor for netters and liners; needs effort track records; difficult to verify; logbook effort units different from regulation and not by métier; technological creep
3. Control Measures a. Licensing	Easy to monitor; caps the fishery	Relies on a reference level; dependent on initial allocations
3. b. Port State Control, designated ports, VMS	Easy to monitor and control; transparent	Additional costs and time
3. c. Enforcement observers	Easy to monitor and control; collection of fisheries and biological data; validates catch data accuracy	Costly; potential conflicts between scientific and enforcement duties
4. Technical gear regulations (gear, MLS(1), mesh size, grids, separators, panels)	Easy to monitor and control	Not adapted to shape and size of deep species; high escapees mortality
5.Area closures	Protecting habitat, spawning aggregation, nursery areas; Easy to monitor and control; can be more adaptive for fishers than technical measures	Knock-on effects on other fisheries in area and on species in same fishery; redistribution of effort outside area; lost knowledge of stock dynamics in area; area and gear allowed need to be well defined

(1) Minimum Landing Size

Table 5: Strengths and Weaknesses of current management measures

The opportunity to match fishing capacity to fisheries resources was considered as overarching by all stakeholders present at the workshop, while a lack of information was identified to be the main threat to all existing management measures for deep species fisheries.

Overall, Table 5 shows more weaknesses than strengths in of current management measures, and similarly Table 6 shows more threats than opportunities for most measures,

apart for the opportunities to change most measures and to establish new management regimes that would widen the prevailing single-species approach.

Management regime	Opportunities	Threats
1. TAC	Can be improved by taking discards into account; can be improved with better fishery data	Total allowable landings (TAL), not TAC; unrealistic if based on unrealistic assessment; does not allow for changes in fish size distribution
2. Effort ceiling per country (days at sea, days fishing)	Managed at international (fishery) rather than national level could lead to simplification (unification); Could be controlled; Controls fleet capacity and therefore profitability.	Technical creep
3. Control Measures a. Licensing		
b. Port State Control, designated ports, VMS	To improve fishery data; industry-led improves governance; RAC-based management; EU-led enforcement	Non-compliance; IUU
c. Enforcement observers		
4. Technical gear regulations (gear, MLS, mesh size, grids, separators, panels)	Regionalisation, not central control; Shark excluding device	Lack of implementation; Easy to mitigate effects (1)
5. Area closures a. Spatial aspects	Effective in real-time (adaptive); opportunities for sentinel fisheries	Appropriateness may change over time; Ill-defined conditions for closure and re-opening; Non-compliance
5. Area closures b. Temporal aspects	Effective in real-time (adaptive); closure time can be well defined	Appropriateness of seasonal or other temporal closure may change over time

(1) Through e.g. a change in mesh size may be counter-balance by a change in the trawl rigging

Table 6: Opportunities and Threats of current management measures

5.2 Presentations of project ongoing and planned activities

Several project partners presented the activities planned for the Work Package under their charge, including a review of available biological, fisheries and ecological data for all case studies, the socio-economic modelling, and assessment of management regimes. The presentations will be available to download from the project website (http://wwz.ifremer.fr/deepfishman).

There were some discussions of each presentation, including about the use of socio-economic models for some data-poor case studies, which will be discussed in depth at a dedicated meeting planned in the autumn.

The presentations led to discussions of the current assessment techniques and the way forward for both assessment and management.

5.3 Current assessment techniques and way forward

The workshop decided to limit its SWOT analysis of current assessment methods to those that could be usefully retained in some cases, and concentrate its deliberations on alternative approaches that DEEPFISHMAN is to develop, leading to the discussions on future management strategies.
Although we initially tried to separate major from lesser weaknesses and threats (Table 7), the distinction is abandoned in this report as the groups concentrated their analyses on the major problems in any case.

The natural progression in Table 7 and Table 8 starts from single-species stock assessment to multi-species, to “fisheries” and finally to ecosystem assessment.

Assessment methods	Strengths	Weaknesses
1. **Single species stocks** (when appropriate)	Surveys can be linked to stock distribution; single species assessment can set TACs; provides link to bio-economic studies of management options	Survey protocols need to be well defined; lack of survey indices; stocks are poorly defined; difficult to have stocks Biological Reference Points (BRPs); Long time series needed delay assessment and advice to fishing industry; Catch data time series do not cover the entire period of the fishery
2. Indicators for **stocks** (rules of thumb)	Simple; less data required when integrated with Harvest Control Rules (HCRs)	Ad-hoc, lack of commonly agreed indicators or rules
3. Some **multi-species**	Approach relevant to current fisheries assessment; Supports effort management	Effort attribution measures between species are meaningless; Problems with changes in species interactions over time; multi-species assessment methods are weak; complexity challenging available theory
4. NEW "**Fisheries**" multi-species assessment advice and indicators	Supports effort management; links with economic data; use of indicator species	Scope and extent not yet well-defined, needs definition of "fisheries"; Scientific surveys difficult to relate to the "fisheries" scale; complexity from dynamic métiers
5. Assessment for **Ecosystem** management	Use of indicators species; diversity indices; Identification and mapping of essential habitats (spawning areas etc.); Identification and mapping of Vulnerable Marine Ecosystems (VMEs)	Difficult to establish links with fish stocks; complexity from dynamic métiers

Table 7: Strengths and Weaknesses of assessment methods

The discussions noted the opportunities to develop new and more appropriate assessment methods taking into account the specificities of the deep sea stocks and the necessity to move toward a fisheries-scale approach, even though some of the old single-species assessment tools still had their use in specific fisheries. There was also a near consensus on the importance to avoid multi-species VPA-type approaches that seemed to concentrate most of the weaknesses of past assessment models and none of the strengths.

Assessment methods	Opportunities	Threats
1. **Single species stocks** (when appropriate)	Integration of historical data – possibly under Data Collection Regulation – from 1970s-80s provided by the industry	Lack of knowledge exchange with past EU-funded projects
2. Indicators for **stocks** (rules of thumb)	Rules of thumb can keep sustainable fisheries open when knowledge is weak (grenadier); useful to assess sentinel fisheries (e.g. Orange roughy) HCRs* category 6 - 0	Imprecise knowledge can lead to fishery closure even if small (10-15t) fishery is sustainable (Orange roughy)
3. Some **multi-species**		Illusion of ecosystem assessment based on only a small set of commercial species
4. NEW "**Fisheries**" multi-species assessment advice and indicators	Métier approach of DCR; HCR stock categories 6-9; NEW Data Collection Framework; scientific fishing using commercial vessels; industry buy-in	Lack of political will
5. Assessment for **Ecosystem** management	Area-based surveys; encounter protocols; industry-led surveys and data collection (local knowledge); EU-funded research on deep sea ecosystems (HERMES climate change, HERMIONE, CoralFish)	Lack of biological knowledge; lack of spatial resolution in catch and effort data; Fishermen's concern that their local knowledge will be used against them (area closure)

*HCRs: Harvest control rules

Table 8: Opportunities and Threats of assessment methods

The participants from the catching sector made a point that clear and precise scientific advice was needed for vessel owners to run their businesses, and most importantly when catch limits had to be small to ensure a sustainable use of the resource.

6 Possible future management strategies

Discussions of possible future management strategies followed on from the Opportunities identified by the SWOT analysis of current assessment methods and ways forward (Table 8), making references to the features and diversity of deep sea fisheries that were to be analysed as case studies.

Frank Evrat (French OP PROMA-PMA, NW and SW RACs) presented further points from the point of view of the French fleet given in table 9. He reiterated a proposal also voiced by the participant from Europêche, the Association of national organizations of fishing enterprises in the EU, to provide historical catch data to the DEEPFISHMAN project.

Under the current regime, the EC regulation taking effect in 2003* fixed the TACs, licences (special permit) and effort limitation (kW-days at sea), designated ports, special VMS rules and observers schemes.

In 2003, the reference level of kW-days allocated was set to decrease over time. In 2009, the current effort limit is 65% of the reference effort of 2003. It is based on a double species list including deep-sea species such as roundnose grenadier and blackscabbard fish, and also species of shallower waters such as conger eel. Any vessel landing 100 kg of these species taken together needs a licence, and its full trip activity is counted against its effort allocation in kW-days. Confusingly, days spent at sea fishing for saithe, anglerfish, or hake with deep-water licensed vessels are also counted as deep-water fishing effort. As a result, the effort currently registered as deep-sea fishing is much higher than the actual effort on deep species.

Fishing industry wish list for the DEEPFISHMAN project:

- Simpler systems for licences and effort management focused on “real” deep-sea species
- Simple and efficient licensing and effort management systems consistent with TACs
- Sentinel fisheries for orange roughy, which could be 100% observed by on-board observer-controllers
- Reference points for a quantitative advice on catch quota for blue ling.

*Council Regulation (EC) No 2347/2002 of 16 December 2002

Table 9: Presentation of industry wish list by Frank Evrat

The workshop noted again the:

- Support from the Commission to obtain data, and channel data requests through to Member States relating to the case studies, and the
- pledge from the fishing industry representatives present at the workshop to collaborate fully with the project,

and concluded that:

- Future management needs to be based on an assessment by fishery and métier; and that
- Effort regulation needs to be used with kW licensing ceilings.

7 Plan for future stakeholder engagement

Finally, the workshop briefly discussed and established the following Action Plan for further stakeholder engagement:

- For DEEPFISHMAN partners to present the project and establish collaborations through the RACs (NWW, SWW and Long-distance fleet) deep-sea focus groups, and

- To develop close collaborations with the main fishing industry actors not present a the workshop (e.g. fleet from Spain, Ireland, Scotland…) through the case studies;
- A wide e-dissemination of the workshop report in July 2009,
- The circulation of information about the project and a questionnaire to provide an analysis of communication wishes from stakeholders not represented at the Workshop in August 2009,
- A DEEPFISHMAN Newsletter to be published in December 2009 with contributions from the project partners and their priority stakeholders, including
- A stakeholder session to be held together with the meeting focusing on the Case studies scheduled on the first week of December
- A second Stakeholder Workshop planned to take place in September 2010.

8 Selected references on Stakeholder Analysis (May 2009)

Borrini-Feyerabend, G. (ed. with D. Buchan). 1997. Beyond Fences: Seeking Social Sustainability in Conservation. (2 volumes: a process companion and a reference book. IUCN, Gland, Switzerland and Cambridge, UK.

Overseas Development Institute, 2009. Stakeholder analysis at: http://www.odi.org.uk/rapid/Tools/Toolkits/Communication/Stakeholder_analysis.html

Research4Development, 2003. Consultation Process Tools. 1. Decision-Support. System Tool. Urban Groundwater. Profile Tool. Urban Groundwater. Questionnaire Tool, 10pp. www.research4development.info/pdf/outputs/R7134H.pdf

Start, D. and I. Hovland, 2004. Tools for Policy impact: A handbook for researchers. ODI toolkit, 64pp. and annexes, on: http://www.odi.org.uk/rapid/Tools/Toolkits/Policy_Impact/Index.html

Annex A Participants List (final)

DEEPFISHMAN Stakeholder Workshop

29-30 june 2009 in Brussels (Belgium)

N°	Name	Organisation	29 june 2009	30 june 2009
1	Marina Santurtun	AZTI-tecnalia msanturtun@suk.azti.es	X	X
2	Carl O'Brien	Cefas ICES ACOM Vice-chair C.M.Obrien@cefas.co.uk	X	X
3	Joao Neves	NEAFC joao@neafc.org	X	X
4	Philippe Moguedet	CE DG-RESEARCH Philippe.Moguedet@ec.europa.eu	X	X
5	Pascal Lorance	Ifremer plorance@ifremer.fr	X	X
6	Phil Large	Cefas phil.large@cefas.co.uk	X	X
7	Charlotte Jagot	CLORA Charlotte.Jagot@ifremer.fr		X
8	Gunnar Haraldsson	University of Iceland gunnarha@hi.is	X	X
9	Marc Ghiglia	Europêche ghiglia.m@wanadoo.fr	X	X
10	Adrija Gasiliauskiene	Lithuania Permt. Representation to EU adrija.gasiliauskiene@ltmission-eu.be	X	
11	Frank Evrat	RAC SWW – PROMA-PMA fe-proma@orange.fr	X	X
12	Tom Blasdale	JNCC – ICES WGDEEP chair Tom.blasdale@jncc.gov.uk	X	X
13	Pascal Legrand	DG-Research Pascal.LE-GRAND@ec.europa.eu		X
14	*Sophie des Clers*	*Facilitator sdesclers@gmail.com*	*X*	*X*

Annex B Workshop timetable (actual)

	Monday 29 June 2009		**Tuesday 30 June 2009**
		09:00	c. Assessment + reference points and discussions
			5. SW Current Stock Assessment
10:00	Registration	10:00	5. SW Current Stock Assessment
	a. DEEPFISHMAN presentation		
			5. OT Stock Assessment
	Workshop and Day 1 intro		
11:00	1. Stakeholder identification	11:00	5. OT Stock Assessment
	Coffee / tea break		Coffee / tea break
	2. Stakeholders essential to the project		d. Available data – Biology, ecology, ecosystem
12:00		12:00	e. Available data – economic and social
	3. Stakeholder interested in the project		6. Brainstorm Future Management regimes
	Report back		and data needs
13:00	Lunch	13:00	Lunch
14:00	b. Current Management regimes	14:00	f. Future Management regimes
	4. SWOT Management regimes		6. Brainstorm Future Management regimes
	Identification		g. Suggestions and industry data
15:00		15:00	6. Brainstorm Future Management regimes
	Coffee / tea break		7. Stakeholders & Project communication
	4. SWOT Management regimes		Wrap up Workshop
16:00	Discussions and report back		
16:30			
	Wrap up Day 1		

Annex C : Stakeholder questionnaire
Deepfishman - Initial stakeholder survey

The aim of the survey is to reach a wide type of potential stakeholders among the 43 categories identified during the workshop, to obtain individual email addresses, and for each, to determine the favoured means of communication.

This questionnaire is designed to be delivered through a web-based survey, such as provided by http://www.surveymonkey.com.

The number of questions is limited to the essential aspects discussed at the workshop. Responses will be analysed through basic summary tables and charts while email will be used to elicit contributions and alert stakeholders about project meetings, deliverables and events.

Questionnaire

Stakeholder type
Drop down menu of 43 possible categories (see list at end) ; and an “Other” category leading to a free field to obtain category name.

Geographical scale of your personal activities (multiple choice question)

Local
National
International

Country where you personally are based? (single choice question – drop down country menu)

Stakeholder type (single choice question – drop down menu)

Public (government)
Private (business)
Association-Group-NGO
Individual

For all except 'individual' answers above, add: Please give the **Name of your organisation** (free text)

Existing project awareness (multiple choice question)

Are you already involved in Deepfishman?
If yes, how (free text)
Were you at Workshop?
Are you represented in a RAC?
If yes which one?*

(* add drop down menu of multiple choice with all RACs acronyms)

How would you prefer to be involved in Deepfishman? (multiple choice question)

Be informed
Be consulted
Collaborate – in partnership
Oversee
Other?*

*for last reply add free text field

At what stage of the project would you like to be involved? (multiple choice question)

Initial Diagnostic
Define_Strategy and options
Analyses
Discuss conclusions
Other?*

*for last reply add free text field

What are your favourite means of communication? (multiple choice question)

Check the Website
Receive email alerts
Contribute to newsletter
Attend conferences
Read scientific paper
Other?*

*for last reply add free text field

Please provide your email address to become part of Deepfishman's stakeholder community

(use two-part field, with separate @ printed in middle in order to avoid spam use)

Thank you very much for your time

We would be very grateful if you could encourage others who may be interested to also take part in this survey.

We will keep you informed of Deepfishman’s activities and progress as per you wishes.

In the meantime, please visit our website: http://wwz.ifremer.fr/deepfishman

Stakeholder types

Aggregate dredging
Banks
Big Buyers/sellers
Cable layers
Certifiers
Citizens
Consumers
Crewmen, Unions
Education training (schools, uni.)
Environmental NGOs
European Commission
Ferry operators
Fish market (1st sale)
Fisheries Enforcement Agencies
Fisheries monitoring agents
Fisheries Scientists
Fishing Communities
Fishing Industry (catching)
Fishing Industry (processors)
Gear producers, suppliers
Harbour
Judiciary
Local Government
Marine Experts
MCS Experts
Mining industry
National Administration
National Government (Political)
Oil&Gas industry
OSPAR
Policy Advisors
Political International Organisations
Producer Organisation (PO)
RACs
Renewable energy companies
Restaurants
Retailers / fishmongers
RFMOs
Shipyard
Telecom & IT developers
The Press, media
Transport (fish)
Vocational Training