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MariFish



Pre-Analysis Report comparing methods of research programme identification, commissioning and management within the MariFish Partnership, identifying particular strengths and weaknesses of the different national structures.

Report WP2

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MariFish – purpose, focus and definition

To help MariFish achieve its many challenging goals the following statement of overall purpose has been adopted by the partners:

“MariFish will focus on that research which provides evidence to managers for the development of strategies for sustainable fisheries, including links with aquaculture, set within the ecosystem based principle.”

MariFish defines Marine Fisheries Research as:

Research and development (R&D) activities with relevance to marine fisheries including links with aquaculture and R&D related to resource management of marine species.

Summary

MariFish is an EU funded project that seeks to strengthen the links between European marine fisheries science and fisheries management. This report examines the various practices used by the 17 Marifish partners in marine fisheries research programme management. The report forms a key component of the MariFish Work Package 2 (WP2) and will be used to develop a guide for best practice in marine fisheries research programme management.

A questionnaire was developed to gather information from the project partners on the practices used in the three phases of marine fisheries research management. The first part focused on the practices used in the pre project/programme phase (establish research needs; specify project and/or programmes (P/P); review and select P/P); the second part dealt with the project/programme phase (commission research; project management); while part 3 addressed the post project/ programme phase (evaluation). 17 responses were received from 14 countries.

It should be noted that the questionnaire only provide general indications of the various processes used and did not go into the details of each countries processes. Furthermore, the questionnaire did not address the issue on research impacts and success of each countries marine fisheries research management

The annual funding for marine fisheries research ranged from €2 million to €25 million, depending on the size of the country and the importance of the fishing sector. The management and allocation of research funds is organised into a mix of research projects or research programmes. Intellectual Property Rights is generally not a significant part of overall fisheries research management and most countries consider patents as not relevant. National Strategy documents represent the single most important agenda setting mechanism. Government administration, the research community and the fishing industry predominately set these agendas. EU research prioritise also influence these strategies in a more indirect manner, through their influence on Member States policy.

A wide range of practices were used by partners in the review and selection of research projects. Scientific quality, relevance to strategy and society, international co-operation were among the selection criteria used. The use of international experts was found to be strongest in the selection process for research projects. Open calls are the most common process used in research procurement. Most partners used internal staff resources to start up programmes. Interim and Final reports were the most common methods used to manage fisheries research programmes with steering committees, regular update meetings and presentations also used. A variety of methods are used in the evaluation of marine research, mainly through the use of interim and final reports by external reviewers, government administrators, and stakeholders.

A number of issues have emerged from this report. Firstly, it is clear that a wide variety of practices are used in marine fisheries research programme management. It is not clear how 'homogeneous' that similar practices are between partners. Secondly, this report does not provide an assessment of the extent to which each countries specific way of organising and managing marine fisheries research has proven to be successful or not. Thirdly, it has been shown elsewhere that successful methods are critically dependent on the context (and culture) within which they are executed. These three issues have implication for the establishment of best practice guidelines.

1. Introduction

The aim of this report is to describe and analyse information from the 17 MariFish partners about Marine Fisheries Research Programme Management. The report forms a key part of work package 2 (WP2), whose overall aim is to seek out best practice for European Research Area Member States in the domain of Marine Fisheries Research Programmes. Deliverable of WP2 is A Guide for Best Practice in Marine Fisheries Research Programme Management, and this report provides the material for input to the guide.

The focus of the report is put on:

- the identification of research needs,
- the development of research programmes and
- the commissioning and management of research projects and programmes.

Methodological and philosophical consideration

There is need for bringing nuance to whether it is possible to fulfil the aim of WP2 of seeking out best practice in marine fisheries research management, by means of information from this report. The reason for that is linked to two related sets of issues, one methodological and one philosophical. The methodological is about the method used and the type of empirical information the method has generated in this report, while the philosophical is about the notion of best practice. Let us shortly elaborate.

The methodology applied in gathering information about marine fisheries research management in Europe is a questionnaire to relevant experts in each country. The focus is on how research needs are identified, and how one goes about in the commissioning and management of research projects and programmes. Even though the questionnaire includes the possibility for the respondents to elaborate on their answers, the information from a questionnaire is confining the empirical input, on which the description in this report is based. The empirical information from the questionnaire can not be described as a rich material. On the contrary, it enables basically a count of how many countries and respondents have answered the questions. Hence, it is possible to uncover whether countries have similar routines or different routines of marine fisheries research management. Consequently, it makes possible a schematic presentation of marine fisheries research management in the European Research Area.

Moreover, the questionnaire does not ask for any kind of assessment of the extent to which each country's specific way of organizing and managing marine fisheries research has proven to be successful or not. This is in particular relevant for the next paragraph and the consideration about best practice. The methodology applied in this report enables us to do a relatively superficial description of the responding countries' marine fisheries research management.

The notion of **Best Practice** is a management idea which asserts that there is a technique, method, process, activity, incentive or reward that is more effective at delivering a particular outcome than any other technique, method, process, etc. The idea is that with proper processes, checks, and testing, a project can be rolled out and completed with fewer problems and unforeseen complications. Transferred to the case of marine fisheries research

management this should imply that there is one way of managing marine fisheries research that is better, or even best. Accordingly, if there were a best practice, every member state should standardize their structure and organization of funding, routines of identifying research needs and management of research programmes and projects, in line with the identified and proven successful configuration. By first sight this sounds reasonable and even smart. The problem is however fundamental. There are no information about the output, impact and success of each country's marine fisheries research management. It is not possible to know whether the country performs good or bad in marine fisheries research management. And, related to this, given the confined empirical information, the significance of the countries' (different) contexts is not taken into consideration.

Empirical research of (management of) technological development and innovation has by and large rejected the concept of best practice. Research shows that a successful method or technique is crucially dependent on the context within which it is executed. Consequently, methods and techniques applied with success in one case do not necessarily imply success in a different context. On the contrary, a proven successful way of organizing marine fisheries research management in a country may even turn out to have a destructive effect on results in another country.

In real-world application however, best practice is considered a very useful concept. Despite the need to improve on processes within its contexts, as times change and things evolve, best practice is considered by some to be a business buzzword used to describe the process of developing and following a standard way of doing things which multiple organizations can utilize for management, policy, and especially software systems. It is possible that one example of a successful way of doing something (a best practice or what better called a good practice), is possible to transfer to another context. As to whether this would prove to be a success in the other context, is impossible to foresee. More likely is it that some components, in our case certain routines or ways of doing things, could be possible to transfer from one country to others. Success in copying a routine would anyway require an understanding of how the routine works in the context from which it is transferred.

Given the considerations above it is our objective with this report to provide input for discussion of:

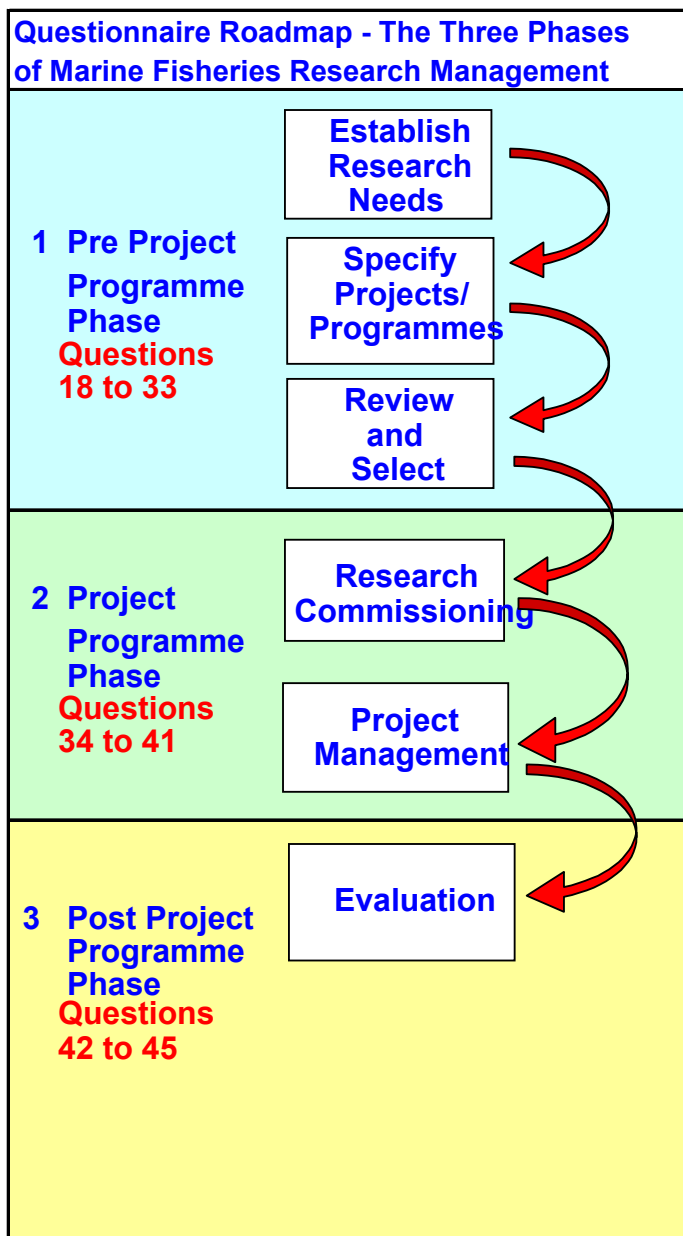
- Structures of funding, managing and conducting marine fisheries research.
- Intellectual property right issues as managerial tools.
- The organization of research in terms of programmes and projects
- Routines of agenda setting, management, monitoring and evaluation of the research.

Structure of the report

The report is organized in accordance with the questionnaire that was sent out to the MariFish partners. It is the answers to the questionnaire that is presented in this report. The questionnaire divided marine fisheries research management into three phases.

1. Pre-project/programme phase
2. Project/programme phase
3. Post-project/programme phase

The figure below presents the 'roadmap' that was drawn in the questionnaire. It gives an overview of how the three phases are envisaged.



The report is organized in five chapters following this chapter one. Chapter two describes the approach and structure of marine fisheries research funding in the responding countries. The chapters three, four and five address the three phases respectively, (2) the pre-project/programme phase, (3) the project/programme phase, and (4) post-project/programme phase. Chapter six then sums up and discusses information from the other chapters when the aim is to arrive at reflections that can feed into best practice in marine fisheries research management.

Respondents and responses

There were received 17 responses from 14 countries. Poland, Norway and UK provided two responses each. The other countries are Belgium, Cyprus, Denmark, Germany, Greece, Iceland, Ireland, Netherlands, Portugal, Spain, and Sweden. Response from France is missing.

2. Basic features of marine fisheries research funding

The approach and structure of marine fisheries research funding

Information from the survey uncovers that European countries organize funding of marine fisheries research differently. An overview of our respondents, the approximate number of million € spent on marine fisheries research and the division of labour between different institutions, gives us an impression of the basic structure of funding of this type of research (see Annex 1, Table 1).

The national budgets of marine fisheries research are extremely different, from about 2 million € to about 25 million €. The size of the country, the relative size of the fishery sector, and the attention that marine fishery research receives, are variables that may have strong influence on the budget. In terms of the division of labour between different types of research performing institutions, the pattern is very different from country to country. In five countries the major share of marine fisheries research is conducted by dedicated funding agencies defined as public research facilities. Research institutes are reported as responsible for the largest share in four countries as well. The difference between public research facilities and research institutes is in many cases only a question of definition. In some countries research institutes may be formal part of or formally linked to the responsible ministry, for example. In two countries (Sweden and Ireland) universities conduct the largest share of marine fisheries research.

Eight of the fourteen respondents are ministries and departments in ministries. Hence, the more common structure is that ministries are responsible for selecting and funding research. About 50 % of these eight are research institutes within the ministries. Six of the fourteen are research institutes organized as national funding agencies.

Common to most of the fourteen funding actors is that they have an advisory role in relation to policy making in marine fisheries. Although our respondents have formulated it more or less explicitly, the intimate structure of research and policy making, where marine fisheries research entities are closely related to policy relevant analyses and policy making, indicates a strong consciousness in all nations about the value of and need for exploiting marine fisheries resources. In most countries there is an overall understanding of the significance of fish as a good and that a knowledge base feeding into policy making is needed in order to contribute to a sustainable development of marine fisheries species and marine fisheries as industry.

Funding by means of research projects or research programmes

Management and allocation of research funds can be organized in research projects or research programmes, or as a mix of projects and programmes. The text box below gives an overview of the definition of and difference between a project and a programme.

Research projects and research programmes

A **research project** is a temporary endeavor undertaken to create a unique result, product or service.

A project can also comprise an ambitious plan to define and constrain a future by limiting it to set goals and parameters. The planning, execution and monitoring of major projects sometimes involves setting up a special temporary organization, consisting of a project team and one or more work teams.

A **research programme** can be a collection of projects or a framework of goals:

- A research programme is a collection of projects that is directed toward a common goal. (e.g. The NASA space program)
- A broad framework of goals to be achieved, serving as a basis to define and plan specific projects. (e.g. the EU's Socrates programme)

The marine fisheries research in the responding countries generally is organized and coordinated by using both projects and programmes.

Funding outside the framework of a projects or programmes, called lump sum allocations, are mainly the funding mechanism in countries that have a kind of dedicated, independent fisheries research institute (like the Marine Institute in Ireland) or an autonomous funding organization under the ministry (like IEO in Spain). Iceland also has a kind of dedicated institute, the Marine Research Institute, which is responsible for about 2/3 of total marine fisheries research, but the funding is programme and project based, not by means of lump sum allocations.

One country (Sweden) organizes marine fisheries research in research projects only. Sweden has what they call research priority areas within which open calls for project proposals are launched. Poland is working on the implementation of research programmes. Poland's current research projects are according to the respondent so large that they probably are very similar to programmes in other countries.

Patents and IPR management in marine fisheries

Patenting and intellectual property right issues are parts of an international and European institutionalized setting where membership in the European Patent Office (EPO) is at the core. The respondents were asked to assess how relevant patents are to marine fisheries research, and from most of the answers there were indicated that patenting not are very relevant (See Annex 1, Table 3).

Even though most countries consider patents not to be relevant in marine fisheries research, there are still research areas in which patents and other intellectual property rights (IPR) are seen as important. This applies in particular to research areas which are of relevance to technological application. As seen from the table below (Table 4) response from the countries indicates the seven research areas in which patents or other intellectual property rights are seen as most important. These include Aquaculture/Fish farming, Marine Biotechnology, Marine Ecosystem Studies, Marine Technology, and Seafood Quality & Processing.

The majority of countries IPR management is not a significant part of overall marine fisheries research management. In all but two countries benchmarking is not used in evaluation and assessment of marine fisheries research. In UK and Greece however, benchmarking is used in assessment and evaluation. In UK there are certain standards which contractors have to meet, for example in laboratory management, the adoption of sound practice relating to laboratory

and fieldwork and statistical analysis of data. All contractors have to agree to comply with the best practice guidelines of the funding agency.

In Greece IPR and benchmarking is used in identification and selection of research objectives. The main process is the excellence evaluation of the institutes that are supervised by the General Secretariat of Research and Technology (GSRT) every 5 years by a panel of independent international experts for benchmarking the state of scientific excellence of the various science sectors.

3. The pre-project/programme phase

The pre-project/programme phase includes information about how the responding nations organize processes of identification and establishment of research needs. It includes specification of research projects/research programmes, and how review and selection of projects and programmes is carried out. Please note that in this and the following sections there are 14 responding countries but in relation to some questions and tables there are 19 respondents, because three countries are represented with two respondents (Poland, UK and Norway) and one country is represented with three respondents (Iceland). The background for this is that marine fisheries research in some countries is funded by more than one actor.

Identification and establishment of research needs

As an introductory question concerning how the research agenda is set, it was asked for the single most important agenda setting mechanism for the marine fisheries research for which the respondent is responsible. In nine of the fourteen countries a national strategy document sets the overall research agenda. The remaining five countries have five different types of mechanisms, including a negotiated contract between funding agency and core research conducting actors in the Netherlands, influence from an advisory committee in Denmark, international obligations and currently relevant topics are decisive in Belgium, a bottom-up approach with consultation with stakeholders is the most important Cypriot mechanism, and in Norway marine fisheries research is an overall research priority.

Participants and interest groups partaking in agenda setting

Agenda setting in research is generally processes in which certain types of participants take part. On the one hand a participant (for example a fishery industry firm and its representative or a research institute) may stand alone as partaker in agenda setting. On the other hand a participant may represent an interest group. An industrial firm may have the mandate to represent the fishery industry as a commercial interest group. A branch organization has the mandate to represent the fishery industry interests. A research institute may stand alone as participant or may represent a scientific interest group if part of such a group. (Table 8 in Annex 1 gives an overview of the types of participants and interest groups that are involved in agenda setting concerning the marine fisheries research for which each respondent is responsible).

What is the basic lesson when it comes to how participants and interest groups contribute in agenda setting? It is not very surprising that three types of actors dominate agenda setting in marine fisheries research. Governmental administration, the research community and the fishery industry and its representatives, constructs a triangle of influence within which the research agenda is set. Outside the triangle national politicians seem to be the most active group. It is perhaps surprising that research priorities in the EU do not play a more important role in agenda setting in the countries. It may very well be, however, that the EU research agenda influences the Member States indirectly by being already integrated into the different national policy contexts.

In agenda setting some processes are more influential than other. It was asked what kind of processes is more important in agenda setting. A range of different processes are applied as agenda setting mechanisms in the responding countries. (For details see Annex 1, Table 9). In relation to our comment above about what seems to be a lack of influence from EU policy makers, the answers re-establishes the significance of EU. EU documents and EU policy processes are important in agenda setting in many of the responding countries. In addition to

the distinct importance of the EU system, many other mechanisms are applied in agenda setting, such as national policy documents, foresight processes, general calls for proposals, R&D advisory boards, and what is called institutionalized regular consultation processes.

In Annex 1 is showed details from respondents typical agenda setting.

Review and selection of research projects/programmes

A number of criteria may be applied in processes of review and selection of research projects and research programmes. The most common criteria are Scientific quality/peer review processes, costs, feasibility, international cooperation, relevance, project management. (For details see Annex 1, Table 10)

In Sweden there are no programmes. Instead Sweden has priority areas, which for example can be marine, ecological production, biodiversity and so on. Each priority area is then funded via a competitive open call with separate projects as the receiver of the funding. The initiative for the different areas comes from a funding agency but sometimes also from the ministry. Sweden also has a yearly large open call that is open for different research areas and projects.

Typical processes of research review, selection of research and how rating systems function

Based on the different criteria for research review, the selection of research is made by steering committees or the administration based on input from expert panels or individual experts. The answers from the respondents are shown in Annex 1.

Many countries involve several types of actors in review and selection processes of research programmes. (See Annex 1, Table 12). Utilizing internal resources/experts in the funding institution is the most common thing to do. 11 of the 14 countries exploit internal resources for programme review. National experts and policy makers are then next on the list of the most used types of actors in programme review. International experts and private sector experts are only involved in 4 or 5 countries.

The pattern of actors involved in review and selection of research projects is roughly similar to that of review and selection of research programmes, with one distinct difference. The involvement of international experts is clearly stronger in review and selection processes of research projects.

4. Project/programme phase

This section covers the lifetime of research projects and programmes. As seen from the research funding side, there are focus on research commissioning, programme and project management and monitoring. Six questions in the questionnaire cover the section. It is asked about research procurement practices, in particular about the use of different types of competition, what kind of calls or invitations for applications are used. Moreover, it is asked about the main procedures applied in initialization and start-up and organization of research programmes, and in management and monitoring of research projects.

The main picture is that the majority of countries apply some form of competition. Two countries have no competition and two countries apply what is called informal competition, which is a less competitive procedure with a very limited number of well-known actors. (See Annex 1, Table 13).

Some countries apply more than one practice of procurement. A majority of eight countries has open competition in research procurement. Open competition implies that any party can enter the competition. Greece and Poland, as two of the countries applying open competition, also applies closed competition and the relatively similar category formal competition, in which a list of (often pre-qualified) contenders is used to make the procurement less complicated and comprehensive.

Netherlands is also applying closed competition, and additionally Netherlands use the even more limited category direct competition, in which two or more buyers are asked to take part in a specific competitive process. Iceland uses both open competition and informal competition. In United Kingdom and in Germany there is virtually no competition due to very few competent research organizations (in UK) and direct allocation of research budget (in Germany).

It seems that the differences in type of research procurement practices applied, for example as seen in the cases (Spain, Germany, UK and Iceland) with limited and no competition, reflect the different national peculiarities in terms of size, structure and active, competent research units in marine fisheries research.

It is recognized that the countries with limited and no competition (Germany, UK and Iceland) in the lower parts of the table, where less competitive ways of specifying and selecting research is found. Correspondingly, the countries with open competition use routines of open calls, by and large.

It is seen that most of the countries already described applying open competition through open calls, do it by a 100 % share. The exception is Greece, which has a 20 % share in closed competition. Iceland is a special case. RANNIS is funding through open competition only, but its funding activity represents only about 10 % of national total marine fisheries research. The larger part of Icelandic marine fisheries research funding is funded totally by the less competitive informal competition. Finally, it is seen that the countries with the non-competitive commissioning procedures (Spain, United Kingdom and Germany) apply their type of funding mechanism by 100 % (90 % in UK).

Eight of the eleven countries that have answered the question about the main procedures applied in initialization and start-up of research programmes use internal resources to take care of research commissioning (See Annex 1, Table 16). But outsourcing is not uncommon.

Portugal, Ireland and Iceland use external experts in initialization and start-up of research programmes. Three countries, Denmark, Netherlands and Ireland, combine the use of a researcher within the programme and a steering group in research commissioning.

There is a great span in procedures for management and monitoring of research programmes. While Spain and Germany have no procedures, most of the countries have either detailed management, final report only, steering committee processes or regular meeting and presentations. Several countries have also more than one of the mentioned procedures. Lowest in the table United Kingdom and Cyprus are special cases. Cyprus has dedicated programme managers in the only research funding actor. (See Annex 1, Table 17).

When it comes to management and monitoring of research projects the picture is that the majority of countries (eleven apply detailed management, however many countries additionally also apply the other more process oriented management and monitoring procedures, such as steering committee processes, regular meetings and presentations. Two countries have more specific situations. Germany has no management and monitoring during projects.

Spain applies detailed management but is also currently developing software for monitoring of projects with economic variables.

Further comments on management and monitoring of marine fisheries research

Only Germany elaborated on procedures for management and monitoring of marine fisheries research. An Advisory Committee of the Federal Research Centre for Fisheries gives advice in research-related questions and promotes linkages to other scientists and institutes with similar scientific background and the private fisheries sector. The Advisory Committee is appointed by the ministry and consists of 16 representatives from the scientific world, the fisheries sector, consumers, and the federal states.

5. Post-project/programme phase

The post-project/programme phase focuses on evaluation of marine fisheries research. The respondents were asked how evaluation is done and who is involved in evaluation, and the overall picture is shown in Annex 1 (table 19 and 20). The alternatives given when answering count eleven and they are not mutually exclusive. Hence, the countries were given the possibility to show if several actors and procedures are included in research evaluation.

The multiple answers is perhaps the strongest overall feature of the answers. Countries utilize more than one method and bring in more than one type of actors in efforts to assess and evaluate research.

In Norway and Germany research programmes are only evaluated when part of the evaluation of broader research themes. Greece has also ticked this category. But Greece has also ticked in opposite categories; stating that evaluation of programmes is done systematically. The information from Greece is therefore ambiguous. The main concentrations of countries in the table are in the categories of systematic evaluation on basis of existing management and monitoring systems, by means of interim and final reports and during and at the end of programmes. Hence, most countries evaluate research programmes in a systematic manner.

In terms of actors involved in programme research evaluation, Cyprus, Belgium and United Kingdom (and Sweden but only in priority areas) are the only countries that seem to exploit independent international experts in evaluation. The rest of our responding countries are distributed across the rest of the categories, i.e. they involve different actors in programme evaluation.

The main picture for evaluation of projects is similar as the picture described above for the evaluation of research programmes. The responding countries have ticked several of the categories. In terms of routines of research project evaluation, most of the countries do it in a systematic way. In terms of actors involved, two countries (Ireland and Belgium) involve stakeholders and end users. Independent national experts and governmental administrators are often applied. Independent international experts are applied by four countries.

Typical processes of how marine fisheries research is evaluated

Details of typical processes of how marine fisheries research is evaluated are shown in Annex 1.

6. Summary of results

6.1 Structures of marine fisheries research funding

The annual marine fisheries research effort in the responding countries spans from around € 2-3 millions in Sweden, Poland and Belgium, to more than € 21 mill. in Spain, € 24 mill. in Iceland and € 25 mill. in Norway. Portugal and Cyprus have not available statistics on this.

The size of the country, the relative size of the fishery sector, and the attention that marine fishery research receives, are variables that may have strong influence on the budgets. In terms of the division of labour between different types of research performing institutions, the pattern is also very different from country to country:

- In five countries the major share of marine fisheries research is conducted by dedicated funding agencies defined as public research facilities.
- Research institutes are reported as responsible for the largest share in four countries. The difference between public research facilities and research institutes is in many cases only a question of definition. In some countries research institutes may be formal part of or formally linked to the responsible ministry, for example.
- In two countries (Sweden and Ireland) universities conduct the largest share of marine fisheries research.

Eight of the fourteen responding national coordinators are ministries and departments in ministries, while the residing six respondents are research institutes organized as national funding agencies. Common to most of the fourteen funding actors is that they have an advisory role in relation to policy making in marine fisheries.

This intimate structure of research and policy making, where marine fisheries research entities are closely related to policy relevant analyses and policy making, indicates a strong consciousness in all nations about the value of and need for exploiting marine fisheries resources.

6.2 The organization of funding through projects or programmes

Management and allocation of research funds can be organized in research projects or research programmes, or as a mix of projects and programmes. The text box below gives an overview of the definition of and difference between a research project and a research programme.

Marine fisheries research in the responding countries generally is organized and coordinated within a mix of research programmes and research projects. Ten of the fourteen national coordinators manage and fund research by using both projects and programmes.

Research projects and research programmes

A **research project** is a temporary endeavor undertaken to create a unique result, product or service.

A project can also comprise an ambitious plan to define and constrain a future by limiting it to set goals and parameters. The planning, execution and monitoring of major projects sometimes involves setting up a special temporary organization, consisting of a project team and one or more work teams.

A **research programme** can be a collection of projects or a framework of goals:

- A research programme is a collection of projects that is directed toward a common goal. (e.g. The NASA space program)
- A broad framework of goals to be achieved, serving as a basis to define and plan specific projects. (e.g. the EU's Socrates programme)

6.3 Intellectual property right issues as managerial tools.

Patenting and intellectual property right issues are parts of an international and European institutionalized setting where membership in the European Patent Office (EPO) is at the core.

Even though most countries consider patents not to be relevant in marine fisheries research, there are still research areas in which patents and other intellectual property rights (IPR) are seen as important. This applies in particular to research areas which are of relevance to technological application.

The responses indicate seven research areas in which patents or other intellectual property rights are seen as more important. These include Aquaculture/Fish farming, Marine Biotechnology, Marine Ecosystem Studies, Marine Technology, and Seafood Quality & Processing.

Benchmarking is generally not used in the countries' evaluation and assessment of marine fisheries research, except for in UK and Greece. IPR management is generally not a significant part of overall marine fisheries research management.

6.4 The identification of research needs in marine fisheries research

National strategy documents represent the single most important agenda setting mechanism in nine of the fourteen responding countries. When it comes to type of actors involved in agenda setting, it is not very surprising that governmental administration, the research community and the fishery industry and its representatives, constructs a triangle of power and influence.

It is perhaps more surprising that research priorities in the EU do not play a more important role in agenda setting in the countries. It may very well be, however, that the EU research agenda influences the Member States indirectly by being already integrated into the different national policy contexts. This is also the indication from our question about important agenda setting processes. Thirteen of the nineteen respondents have reported EU documents and

processes as important. Except for that the answers reveal that the responding countries exploit the whole range of different processes addressed, in their agenda setting.

6.5 Review and selection of marine fisheries research

The pattern of responses when it comes to review and selection of research projects and research programmes, reveals that the whole range of criteria listed in the questionnaire is used by the respondents.

- In relation to research programmes, scientific quality/peer review processes, international co-operation, relevance to society and strategic relevance, are used as review and selection criteria in the majority of countries.
- In relation to research projects, scientific quality/peer review processes, cost, feasibility, and relevance to the call of proposals, are used as review and selection criteria in the majority of countries.

In review and selection of research programmes, it is as common to apply a rating system as it is not to apply such a system. When it comes to review and selection of research projects, most countries apply a rating system.

Many countries involve several types of actors in review and selection processes of research programmes. Utilizing internal resources/experts in the funding institution is the most common thing to do. The majority of countries exploit internal resources for programme review. National experts and policy makers are then next on the list of the most used types of actors in programme review. International experts and private sector experts are involved in 4 or 5 countries.

The pattern of actors involved in review and selection of research projects is roughly similar to that of review and selection of research programmes, with one distinct difference. The involvement of international experts is clearly stronger in review and selection processes of research projects.

6.6 Routines of research procurement

Open calls for applications and open competition are the most common ways of organizing research procurement. Open competition is used in eight of the fourteen countries. But other types of competition, informal competition and no competition are also procurement mechanisms in marine fisheries research that exist in some European countries today. Limited competition can most often be explained by the structure of funding and organization of research.

When it comes to procedures of commissioning (initialization, start-up) of research programmes, the more common routine is that funding body uses internal personnel/resources to take care of it (8 countries). Other procedures are also common, including outsourcing, and management by a researcher within the research programme.

When it comes to programme management, detailed management through interim reports and final reports is common. But other types of management are also in operation (final report only, steering committee processes, regular meetings and presentations).

Management and monitoring of research projects are subject to much of the same routines as research programmes are. Detailed project management is slightly more common than detailed programme management.

6.7 Evaluation of the research

Evaluation of marine fisheries research programmes is conducted in a range of ways. The more common ways include the systematic evaluation on the basis of existing management/monitoring systems, i.e. interim reports and final report, during and/or at the end of the period. The typical picture is that more than one type of actor is active in evaluation in the countries.

Evaluation of research projects is slightly less common. Four respondents state that research projects are only evaluated if part of a research programme. Compared to evaluation of research programmes, research projects are evaluated by governmental administrators, and peer review by independent national and international experts. Reference/steering groups may also be involved.

Annex 1

Table 1 Marine fisheries research in the 14 responding countries, approximate total annual value in M€, division of labour between different types of institutions, shares in per cent

Country	Total value of marine fisheries research Mill €	Universities	Research institutes	Public research facilities	Other
Ireland	13	60	30	5	5
Poland	2,25		100		
Netherlands	6 - 10		80	18	2
Portugal	NA	X (difficult to assess)	X (difficult to assess)		
Spain	21,5	x	x	x	x
Sweden	2,5 - 3	60			40 (National Board of Fisheries)
Cyprus	NA	5	5	90	
Belgium	3	5	5	90	
UK	15	20	10	70	
Norway	25	23	62	14	
Germany	13	15	15	70	
Greece	8,44	10,5	89,5		
Denmark	18	NA	NA	NA	NA
Iceland	24	10		90	

Table 2 Research projects or research programmes. Organization of marine fisheries research in the responding countries

Organization of research	Responding countries
Research projects only	Sweden
Research programmes only	Greece, Cyprus, Spain
A mix of research projects and research programmes	Denmark, Germany, Norway, United Kingdom, Belgium, Portugal, Netherlands, Poland, Ireland, Iceland

Table 3 Countries' assessment of relevance of patents in national marine fisheries research

1 Not relevant	2	3	4	5 Highly relevant
Poland, Portugal, Belgium, Germany, Greece	Ireland, United Kingdom, Netherlands, Sweden, Cyprus	Denmark	Norway, Iceland	

No answer: Spain

Table 4 Research areas in which patents or other intellectual property rights (IPRs) are seen as most important

Aquaculture/Fish farming	Greece, GER, United Kingdom, Belgium, Cypros, Sweden, Netherlands
Biological Oceanography	United Kingdom
Climate Change	Germany, United Kingdom
Economics	
Fisheries Biology	United Kingdom
Legal Studies	Ireland
Marine Biogeochemistry	Sweden
Marine Biotechnology	Denmark, Norway, United Kingdom, Belgium, Cyprus, Sweden, Netherlands, Poland, Ireland
Marine Ecosystem Studies	United Kingdom, Belgium, Cyprus
Marine Geosciences	Denmark,
Marine Leisure & Tourism	Germany
Marine Technology (incl. Instrum. & Sens.)	Denmark, Greece, Norway, Sweden, Netherlands, Poland, Ireland, Iceland
Non-Renewable Ocean Energy (Oil / Gas)	Denmark, Sweden, Netherlands, Ireland
Physical Oceanography	Germany, United Kingdom
Renewable Ocean Energy	Germany, Sweden, Netherlands
Seafood Quality & Processing	Denmark, Greece, Sweden, Netherlands, Poland,

	Ireland, Iceland
Shipping & Maritime Transport	Denmark
Other areas	

Belgium, Portugal: No available information about importance of patents and IPR in research areas

Table 5 Is benchmarking used in evaluation and assessment of marine fisheries research?

Yes	United Kingdom, Greece
No	Ireland, Poland, Netherlands, Portugal, Spain, Sweden, Cyprus, Belgium, Norway, Germany, Iceland

Table 6 Institution responsible for IPR issues related to marine fisheries research

Country	Responsible institution	IPR management a significant part in overall marine fisheries research management?
Denmark	Research institutes and Danish Patent and Trademark Office	Not at all
Greece	General secretariat of industry and technology	Not at all
Germany	Research institutes	Not at all
Norway	Research institutes	At the institutional level
United Kingdom	Research institutes and a specialized TTO	Not at all
Belgium	In principle a TTO	Not at all
Cyprus	The Patent Office of Cyprus	At the institutional level
Sweden	Universities	Not at all
Spain	Spanish Patent & Trademark Office	No answer
Portugal	A specialized TTO	Not at all
Netherlands	Research institutes	At the institutional level
Poland	Polish Patent Office	Not at all/at the national level
Ireland	Research institutes	Not at all
Iceland	Research institutes and a specialized TTO	Not at all

Table 7 The single most important agenda setting mechanism

Agenda setting mechanism	Countries
National strategy document	Ireland, Poland, Portugal, Spain, Sweden, United Kingdom, Germany, Greece, Iceland
Contract between funding agency and core actors	Netherlands
Bottom-up approach, consultation with stakeholders	Cyprus
International obligations, EU etc. Short- and mid-term research based on relevant issues	Belgium
Marine fisheries research is an overall research priority	Norway
Advisory committee for food research has influenced research priorities, Strategy from the Danish institute for Fisheries research	Denmark

Table 8 Participants and interest groups involved in agenda setting of the marine fisheries research for which the respondents' institutions are responsible

Participants/interest groups	Participants (single actors representing their own interest)	Interest groups (actors representing the interest of a group, branch or community)
Fishery industry firms and representatives	Greece, Norway 1, Norway 2, United Kingdom 1, United Kingdom 2, Cyprus, Spain, Poland1, Ireland, Iceland 1, Iceland 2, Iceland 3	Denmark, Greece, Norway 1, United Kingdom 1, United Kingdom 2, Belgium, Sweden, Spain, Portugal, Netherlands, Ireland, Iceland 1, Iceland 2, Iceland 3
Other industry sectors, please specify	Norway 2, Spain, Poland 1 Poland 1: National Technology Platforms	
The scientific community	Denmark, Greece, Germany, Norway 1, Norway 2, United Kingdom 1, Belgium, Cyprus, Spain, Netherlands, Poland 1, Poland 2, Ireland, Iceland 1	Denmark, Germany, Norway 2, United Kingdom 1, Belgium, Cyprus, Sweden, Spain, Netherlands, Poland 1, Poland 2, Ireland, Iceland 1
Non-governmental organizations (NGOs)	Norway 1, United Kingdom 1,	Norway 1
Environmental groups/organizations	United Kingdom 2,	Sweden
The media		
National politicians	Norway 1, Norway 2, United Kingdom 2, Spain, Portugal, Netherlands, Ireland	Germany, Norway 1, Norway 2, Portugal, Netherlands, Iceland 1, Iceland 2
Local/regional politicians	Spain, Portugal	Portugal

Governmental administration (public agencies, ministries, etc.)	Denmark, Greece, Germany, Norway 1, Norway 2, United Kingdom 1, United Kingdom 2, Belgium, Cyprus, Sweden, Spain, Portugal, Netherlands, Poland 1, Poland 2, Ireland, Iceland 1, Iceland 2	Greece, Germany, Norway 1, Norway 2, United Kingdom 1, United Kingdom 2, Belgium, Cyprus, Sweden, Spain, Portugal, Netherlands, Poland 2, Ireland, Iceland 1, Iceland 2, Iceland 3
Other stakeholders, or groups of stakeholders, please specify	Norway 2, Ireland, Iceland 2 Norway 2: EU Commission Iceland 2: Institute directors and scientists	Norway 2, Belgium, Sweden Belgium: EU Commission Sweden: County administrative boards

Table 9 Processes important in agenda setting of the marine fisheries research for which the respondents' institutions are responsible

Foresight processes as strategic, agenda setting tool	Denmark, Greece, Norway 1, United Kingdom 1, Netherlands, Poland 1, Poland 2, Ireland
Government documents (White papers/green papers)	Germany, Norway 1, Norway 2, United Kingdom 1, United Kingdom 2, Cyprus, Portugal, Netherlands, Ireland, Iceland 1
R&D advisory boards	Greece, Germany, United Kingdom 2, Cyprus, Portugal, Poland 1
General call for proposals to the scientific community	Norway 1, Norway 2, Belgium, Sweden, Portugal, Ireland, Iceland 3
Institutionalized regular consultation processes	United Kingdom 1, Belgium, Spain, Poland 1, Poland 2
EU documents and EU processes	Denmark, Greece, Germany, Norway 1, Norway 2, United Kingdom 2, Belgium, Cyprus, Portugal, Netherlands, Poland 1, Poland 2, Ireland
Other processes, please specify	Germany, Poland 1, Poland 2 Germany: Assessment/advisory/scientific committees Poland 1: Public debates Poland 2: International Council for the Exploration of the Sea (ICES) coordinated research

In the questionnaire there was asked for the respondents' elaborations concerning how typical processes of agenda setting may occur in each country. The text box below provides the answers from the nine countries that made an effort to respond to this part.

Ireland:

Brainstorming meetings between scientists, managers and stakeholders decides on the range of issues that need to be addressed. Stakeholder Meetings and meetings with Government prioritise a range of issues. Advertising programmes and projects determines which are funded (i.e. meet rigorous selection criteria).

Sweden: The Ministry of Sustainable Development asked for a national strategy for fish and fishery R&D. The strategy was constructed by 3 funding agencies (FA) and 5 different national boards (NB). Researchers, interest groups (fishery, environmental groups, and stakeholders) came with input during the process.

Cyprus: A method of open consultation is followed for setting priorities, by which all stakeholders are encouraged to submit their suggestions. Moreover, the Foundation Chairs the Permanent Advisory Committee with representatives from all relevant Ministries. The task of the Committee is the identification of thematic priorities to be included in the Call for Proposals. The Foundation Board of Directors has the final say in determining the research agenda. The next step is to launch an open call for proposals.

Belgium: Fisheries research in Belgium is driven by the need to comply with international obligations (European Commission, RFOs, etc.), and short- and mid-term research goals addressing issues of particular relevance to the fishing industry and/or to fisheries management (e.g. technical research addressing energy-saving measures or the reduction of unwanted by-catches). As such, there is no long-term agenda for R&D programmes in relation to fisheries in Belgium.

UK: The Minister for fisheries is primarily responsible and the research needs are developed from the Scottish Sea Fisheries Strategy in the form of a science strategy for the research institute Fisheries Research Services (FRS) which is incorporated into the Agency's Strategic Plan. The strategic needs are translated into specific projects through an annual planning process involving government policy customers. These projects are then discussed with stakeholders to agree priorities and refine the research proposals.

Germany: Within the Ministry, the fisheries division, "Conservation and Management of Living Marine Resources, EC Fisheries Regulations and Marine Environmental Protection" together with the director of the Federal Research Centre for Fisheries are responsible for dealing with both fisheries science in general and fisheries science policy. They are assisted by an Advisory Committee of the Federal Research Centre for Fisheries which advises on research related issues and promotes links to other research fields. This committee consists of 16 representatives from science, fishing industry, consumers and the federal states (Länder).

Greece: The General Secretariat of Research and Technology (GSRT) administration in the Ministry of Development provides the needs and problems of the sector together with Fisheries industry representatives. Scientists act as external experts who provide scientific advice and the gaps in scientific knowledge. The GSRT administration receives the information and plans accordingly.

Denmark: The marine fisheries research area is influenced by several factors. The national priorities which overlap with the management of marine resources and the different EU funded projects. To develop research programs and linking it to management the key players involved are Ministries (Fisheries, Environmental and Science) the research institutes associated with the Ministries and Committees established (The Danish Advisory Committee for Food).

Iceland: RANNIS: The policy regarding the competitive funds that RANNIS runs is decided by the Icelandic Science and Technology Council. Under the council are two boards, a Science Board and a Technology Board. They are the working units of the council and the policy is discussed and prepared in these two boards.

Marine Research Institute: The main course is decided by the 5 years strategic plan approved by the Ministry and prepared by the scientific staff and directors in consultations with industry stakeholders. Annually there is then a within institute call for proposals amongst the scientists. After an internal evaluation heads of section and directors prioritise the work for the coming year bearing in mind the long term plan and also immediate needs. The prioritization for a given year is presented to the board of the institute (which also has representatives from the fishing industry), the advisory board and the Ministry. After this consultation the final work plan for a given year is produced.

Table 10 Criteria used in review and selection of research programmes and research projects

Criteria used	Review and selection of research programmes	Review and selection of research projects
Scientific quality/peer review processes	Ireland, Poland, Netherlands, Portugal, Belgium, United Kingdom, Denmark, Norway, Iceland	Ireland, Poland, Netherlands, Portugal, Spain, Sweden, Cyprus, Belgium, United Kingdom, Norway, Greece, Iceland
Cost	Poland, Netherlands, Portugal, Greece, Iceland	Poland, Netherlands, Portugal, Spain, United Kingdom, Norway, Greece, Denmark, Iceland
Project management	Netherlands	Netherlands, Spain, Sweden, Cyprus, United Kingdom, Norway, Iceland
Feasibility	Poland, Belgium, Denmark, Iceland	Poland, Netherlands, Portugal, Spain, Cyprus, Belgium, United Kingdom, Norway, Denmark, Iceland
National collaboration	Poland, Netherlands, Greece, Norway, Iceland	Ireland, Norway, Denmark, Iceland
International co-operation	Poland, Netherlands, Belgium, United Kingdom, Germany, Greece, Denmark, Norway, Iceland	Ireland, Poland, Belgium, United Kingdom, Norway, Iceland
Relevance to the call of proposals	Ireland, Poland, Belgium, Denmark, Norway	Ireland, Poland, Portugal, Sweden, Cyprus, Belgium, United Kingdom, Norway, Greece, Denmark
Relevance to society	Ireland, Poland, Netherlands, Cyprus, United Kingdom, Germany, Greece, Denmark, Norway, Iceland	Ireland, Sweden, Cyprus, Norway, Denmark, Iceland
Strategic significance	Ireland, Poland, Netherlands, Portugal, Cyprus, Belgium, Germany, Greece, Norway	Ireland, Poland, Netherlands, Spain, Cyprus, Belgium, United Kingdom, Norway, Iceland
The environment	Netherlands, Germany, Denmark, Norway	Ireland, Spain, Sweden, United Kingdom, Norway, Denmark,
Ethics and equal opportunity	Poland	Ireland, Sweden, Norway
Other criteria, please specify	Spain: Regarding the programmes of the Fisheries Area are structural since the 90s and were selected according to Geographical criteria (Regional Research Programmes). Belgium: Compliance with EU regulations, recommendations by RFOs, etc. Denmark: Relevant for management purposes Iceland: The relevance to society and a sustainable exploitation of the resources has by far the highest priority	Spain: Internally, projects are selected according to their relevance and compliance with institutional priorities Sweden: The quality of the applicants Cyprus: Quality of the consortium BEL: Compliance with EU regulations, recommendations by RFOs, etc. Germany: Projects must meet the ministries' research plan objectives Greece: Cooperation with private sector

Table 11 Is a rating system applied in review and selection of research?

	No	Yes
Research programmes	Ireland, Spain, Cyprus, United Kingdom,	Ireland, Poland,

	Norway, Germany, Greece	Portugal, Denmark, Belgium, Norway, Iceland
Research projects	Netherlands, Spain, Germany	Ireland, Poland, Portugal, Sweden, Cyprus, Belgium, United Kingdom, Norway, Greece, Denmark, Iceland

Typical processes of research review, selection of research and how rating systems function

The text box below presents the answers to the question on how typical processes of research review, selection of research and of how rating systems function, which all but one country answered.

Ireland: A panel (International and National Experts) review project proposal individually and mark on a strict set of criteria. Projects are graded. Those that pass a certain mark are further evaluated. Panel discussion of project in detail. Agree to fund best overall project, which must meet all selection criteria.

Rating on a selection of criteria, does project meet programme/call objectives? Value for money, scientific quality, fit to national strategies, quality and experience of scientific team.

Netherlands: Large continuous programmes are yearly reviewed for updates for new tasks or to make the programme better. In the rating system high priority is quality of research, if two projects have same quality then costs are second priority.

Portugal: Analysis of relevance of the proposal and impact on fishery sector. Also, strictly scientific criteria are applied to more fundamental research.

Cyprus: Research Programmes are designed by the Research Promotion Foundation, the only research funding agency in Cyprus. Research projects get a mark by an expert panel, based on specified scientific criteria. Then the projects are ranked according to the marks received. Eligible projects must receive at least 8/10 of the marks. The best projects are called for negotiations with the Foundation, until the budget of the Programme is exhausted.

UK: Selection is done principally at the project level not at the programme level. The programmes remain fairly static over several years. We hold 4-yearly reviews of each of our 5 programmes. This involves independent, international scientists who act as evaluators, other funders of research e.g. other government departments, fishing industry, fishery managers and the scientists working on our contracts. Reviews assess progress over the past 4 years and identify future research needs.

Norway: The Research Council has some programmes that are marine related. The programmes have calls for proposals and give funds to projects. The programmes are initiated after input and discussions from Ministries, universities, institutions, research council. A planning group writes an action plan for the program.

A rating system based on points and threshold marks/scores is applied. The evaluations from the experts are important. The administration and the steering committee decide if the project is relevant for the program/call or not, and make the final decision for funding.

Germany: Research areas are agreed in consultation between the Ministry and the Federal Research Centre for Fisheries taking into account the views of an Advisory Committee. Once the overall framework for research has been agreed, the Federal Research Centre manages the programme with an annual budget allocated to it by the Ministry.

In terms of projects, the Federal Research Centre for Fisheries consults with the relevant specialist division (Fachreferat) at the Federal Ministry of Food, Agriculture and Consumer Protection.

Greece: Programmes: A Committee composed of GSRT administrators, external scientific advisors and representatives of the industry is formed following a Ministerial decision. A 5-year plan – usually – is elaborated by this Committee and the proposals for the future research policy are communicated to the Ministry and the National Research Council for comments. The Committee finalises the National Research Plan and publishes it.

Projects: Call announcement through the official publications of GSRT and GSRT webpage. Submission of proposals within a deadline by the interested parties. Selection of a proposal review panel composed of – most commonly – national experts by drawing lots from a specific roster of experts published in the Official Journal of the Government. The administration process regarding the approved proposals, information exchange with successful applicants, elaboration of contracts and payments are undertaken by GSRT officials. Following the completion of the projects according to the contracts, another review panel is organised to examine and approve the final reports.

Rating system: Rating system is used in order to rank the structure of the project, the scientific quality, the partnership and cost as main criteria, plus any specific criteria or requirements set by the call.

Denmark: For fisheries research there are different venues of funding. There is the basic grant to the Danish Institute for Fisheries Research and funding allocated through a Danish marine research programme. Additional funding is available from national initiatives, which allocate funding to fisheries and industry research.

A pilot project evaluating research programmes have been initiated in Denmark, which evaluates projects with a quantitative cost-effective analysis with the focus on the scientific research, socio- and industry related out-puts combined with a qualitative evaluation with interviews of project managers and relevant stakeholders implementing the research data. Indicators will be used for "purpose of the science", "develop knowledge" and "Industry and society". However the final composition of indicators will be established in connection with the programme.

Spain: Once a year, the IEO opens a call for proposal period of time in which in-house senior researchers submit its project applications. Once received, applications are incorporated to software programme (SIPI) and internally assessed (by internal experts) taking into account the criteria settled by the Deputy Research Director within the Research Framework Programme. Once approved, there is a communication to all the researchers involved and all information of the project may be consulted in SIPI at any time through the internal network.

As a rule within the project application, to maintain a proper researcher proportion, no more that 3 researchers per project may be included within a single project, being one of the researchers designated as IP (Senior Researcher). The minimal participation percentage for a researcher in a project is 30% and 40% for the IP. Projects shall fulfil the priority guidelines of the Research Framework Programme.

Sweden: Applications are sent to the relevant committee with external experts. There is one committee within each area of research. Members of the committee read and evaluate all the applications; each application has one main evaluator who writes a preliminary judgement. Applications and judgements are discussed at the expert committee meeting. The committee ranks the

applications according to the chosen criteria (see Table 10). Recommendation on what projects to be funded is given to the Formas board. The Formas board makes the funding decision.

The committee consists of both national and international experts (researchers). There are also often 1-2 relevant persons in the committee.

Belgium: At the regional level, fisheries related research projects are rated by a panel of external national experts (i.e. independent from the institute responsible for the projects' execution) according to their policy-making relevance, but so far, this has had very little impact on the level of national or regional funding.

Iceland: There are evaluation boards for all the main funds and they are asked to rate projects/applications according to certain criteria and rules. The Steering Committee of each fund decides who get funded on the basis of the scientific evaluation and rating.

After the research plans are turned in they are evaluated by the Steering committee; the committee consists of the deputy directors and heads of sections. The committee reviews all of the research and project plans received (altogether 153 in 2005). An evaluation is made of the scientific and/or practical value of the planned research, as well as how efficient and realistic the plan is to implement with respect to manpower, costs and equipment, especially ship time. An effort is also made to evaluate whether project managers are likely to complete the project, including presenting the findings in the appropriate forum. Each category is graded and a final grade is given. Prioritisation is as far as possible based on this grading but in some cases specific considerations are made.

Table 12 Key players in review and selection of research programmes and projects

Types of review/selection	Programmes	Projects
Reviewed by internal resources/experts at the institution	Denmark, Greece, Germany, Norway, United Kingdom, Belgium, Spain, Portugal, Netherlands, Ireland, Iceland	Denmark, Germany, United Kingdom, Belgium, Spain, Portugal, Netherlands, Poland, Ireland, Iceland
Funding organization engages national experts to assess research projects/programmes	Norway, United Kingdom, Belgium, Spain, Portugal, Ireland,	Greece, United Kingdom, Belgium, Sweden, Portugal, Poland, Ireland, Iceland
Funding organization engages international experts to assess research projects/programmes	United Kingdom, Portugal, Ireland	Greece, Norway, United Kingdom, Cyprus, Sweden, Portugal, Ireland, Iceland
Applications/projects/programmes are reviewed by policy makers	Denmark, Norway, United Kingdom, Ireland Netherlands,	Denmark, United Kingdom, Netherlands, Ireland
Applications/projects/programmes are reviewed by private sector experts	Greece, Ireland	Ireland
Other, please specify	Norway, Cyprus	Denmark
Norway: Programmes: At a strategic level Cyprus: Programmes: Designed by the Research Promotion Foundation, the only funding actor. Denmark: The Danish Advisory Committee for Food Research		

Table 13 Type of competition used in research commissioning (research procurement practices)

Direct competition (two or more buyers asked to engage in a specific competitive process)	Netherlands, Portugal
Indirect competition (Generalized market competition, not necessarily a specific process)	
Open competition (Advertised competition, any party can enter)	Poland, Portugal, Sweden, Cyprus, Norway, Greece, Denmark, Iceland
Closed competition (Short list of invited contenders)	Netherlands, Greece
Formal competition (Use of fixed procedures designed to produce a winner from a list of contenders)	Poland
Informal competition (Use of less structured soundings of competences and costs as a basis for professional judgement)	Spain, Iceland
Other commissioning procedures, please specify	United Kingdom, Germany
<p>Spain: In-house research: Call for proposals for in-house researchers. Submission of proposals and internal peer review based on relevance, professional background and accordance with Framework Programme guidelines.</p> <p>United Kingdom: Most research commissioned internally. Externally funded projects are commissioned by selecting the institution with the relevant expertise. It is rare to find a research need that can be satisfied by more than one organization.</p> <p>Germany: Direct allocation of annual research budget, no competition</p> <p>Iceland: Open competition is used by RANNIS, which is responsible for less than 10 % of national marine fisheries research. Informal competition is used within the Marine Research Institute, which is responsible for about 2/3 of national marine fisheries research.</p>	

Table 14 Routines for specifying and selecting research programmes/projects

Open calls for applications, i.e. specified from the scientific community	Poland, Portugal, Sweden, Cyprus, Norway, Greece, Iceland
Letter-of-intent phase followed by a call for applications	
Closed invitation for applications	Spain, United Kingdom, Greece, Denmark
Closed invitation for projects	Netherlands, United Kingdom,
Broad research theme given to main research institute(s)	Netherlands, Germany, Denmark
Other, please specify,	Iceland

	Directors announce main themes based on community/industry needs.
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Table 15 Funding of marine fisheries research and types of competition, countries' shares of the respective types of competition as % of total marine research funding

Types of competition	% of total national marine fisheries research
Direct competition (two or more buyers asked in a specific competitive process)	
Indirect competition (Generalized market competition, not necessarily a sp. process)	
Open competition (Advertised competition, any party can enter)	Sweden 100 %, Cyprus 100 %, Norway 100 %, Greece 80 % Denmark 100 %, Iceland 100 % (Note: Iceland 100 % of RANNIS funds which are only 10% of national total)
Closed competition (Short list of invited contenders)	Netherlands 20 % United Kingdom 10 % Greece 20 %
Formal competition (Fixed procedures produce a winner from a list of contenders)	
Informal competition (Less structured soundings of competences and costs for professional judgement)	Iceland 100 % (of Marine Research Institutes funds which are 2/3 of national total)
Other commissioning procedures Spain: Closed invitation to applications Germany: Direct allocation of annual research budget, no competition	Spain 100 % United Kingdom 90 % Germany 100 %

Table 16 Main procedures applied in the commissioning (initialization, start-up) of research programmes

Funding body uses internal personnel/resources to take care of research commissioning.	Greece, Germany, United Kingdom, Cyprus, Netherlands, Poland, Ireland, Iceland
Funding body outsources research commissioning to an external expert.	Portugal, Ireland, Iceland
A researcher within the programme often takes care of research commissioning.	Denmark, Spain, Netherlands, Ireland
Project funding body takes part in a project steering group	Denmark, Netherlands, Ireland
Project funding body takes part in a project reference group	
Other, please specify below	

Table 17 Organization of research programmes

There are no procedures for the management and monitoring of programmes. SP: Programmes are geographically/regionally organized and structural.	Spain, Germany
Detailed management, i.e. interim reports and final report from research programmes	Denmark, Greece, Netherlands, Poland, Ireland, Iceland
Final report only	Denmark, Norway, Portugal
Steering committee processes	Greece, Norway, Ireland , Iceland
Regular meetings/presentations	Norway, Portugal, Netherlands, Ireland, Iceland
Other, please specify	United Kingdom, Cyprus
<p>United Kingdom: Selection is done principally at the project level not at the programme level. The programmes remain fairly static over several years. 4-yearly reviews are held of 5 programmes. This involves independent, international scientists who act as evaluators, other funders of research e.g. other government departments, fishing industry, fishery managers and the scientists working on our contracts. Reviews assess progress over the past 4 years and identify future research needs</p> <p>Cyprus: Programme managers from the Research Promotion Foundation, the only research funding actor in Cyprus, take care of management and monitoring of programmes.</p>	

Table 18 Main procedures applied in the management and monitoring of research projects?

There are no procedures for the management and monitoring of projects from the side of funding body. Germany: During research projects no deliverables or milestones are specified	Germany
Detailed management, i.e. interim reports and final report from research projects are submitted to funding body Spain: Currently the IEO use a software programme call SIPI (Seguimiento Informatico de Proyectos de Investigación - Follow up/Supervision software for Research Projects) for the follow up of the projects from the opening to the finalization of the project.	Denmark, Greece, Spain, Norway, United Kingdom, Cyprus, Netherlands, Poland, Ireland, Iceland
Final report only	Denmark, Sweden, Portugal, Netherlands
Steering committee processes	Ireland, Iceland
Regular meetings/presentations	Greece, United Kingdom, Portugal, Ireland, Iceland
Other, please specify below.	Spain
Spain: The IEO is currently developing another software programme for the monitoring of projects from an economical point of view	

Table 19 How and by whom are research programmes evaluated?

Research programmes are not evaluated separately	
Research programmes are only evaluated as part of a broader research theme	Norway, Germany, Greece
Evaluation of programmes is done systematically on the basis of existing management/monitoring systems, i.e. interim reports and final report.	Ireland, Poland, Netherlands, Belgium, Greece, Iceland
Research programmes are evaluated systematically, during and/or at the end of the period.	Ireland, Poland, Netherlands, Portugal, Belgium, United Kingdom, Greece, Iceland
By a standardized and formalized procedure for assessment	Poland, United Kingdom, Denmark
By the programme board SP: In-house research	Ireland, Netherlands, Portugal, Spain
By stakeholders and end users	Ireland, Belgium, Norway
Peer review by independent national experts	Portugal, Belgium, United Kingdom, Iceland
Peer review by independent international experts	Cyprus, Belgium, United Kingdom
By governmental administrators	Ireland, United Kingdom, Greece, Iceland
Other, please specify below	Spain, Sweden
Spain: By the Council Board (Consejo Rector) In-house research Sweden: Priority research areas are sometimes evaluated by international experts	

Table 20 How and by whom are research projects evaluated?

Research projects are not evaluated separately	
Research projects are only evaluated if part of a research programme.	Ireland, Netherlands, Norway, Iceland (the Marine Research Institute)
Evaluation of projects is done systematically on the basis of existing management/monitoring system, i.e. the interim reports and final report.	Poland, Portugal, Cyprus, Belgium, United Kingdom, Greece, Iceland
By a standardized and formalized procedure for assessment	Poland, Greece, Iceland (RANNIS)
By the reference/steering group SP: In-house research	Ireland, Netherlands, Spain, Norway, Iceland (RANNIS)
By stakeholders and end users	Ireland, Belgium
Peer review by independent national experts	Ireland, Portugal, Belgium, United Kingdom, Greece, Denmark, Iceland (RANNIS)

Peer review by independent international experts	Ireland, Cyprus, Belgium, United Kingdom
By governmental administrators	Ireland, Netherlands, United Kingdom, Germany, Greece, Denmark, Iceland (RANNIS)
Other, please specify	Sweden, Germany
Sweden: Final reports are approved by administrators Germany: Evaluation of structures and ongoing tasks by external independent experts is coming up.	

Typical processes of how marine fisheries research is evaluated

As a follow-up to the answers in the tables the respondents were asked for an elaboration about how marine fisheries research is typically evaluated. The text box below gives the answers country by country.

<p>Ireland: Programmes: Did project meet objectives, National strategic fit, number of talks at conferences, number of publications, on time on budget, did project advance scientific understanding</p> <p>Netherlands: Programmes: Evaluation is done by looking at the results of the projects, the costs realised, planning of programme. For continuous programmes: what will be changed for next year, financial problems Projects: Sometimes there is a presentation of results and there will be a discussion about it. There is always a final report and that too will be discussed</p> <p>Portugal: Generally evaluation if the programme/project met the proposed objectives</p> <p>UK: All final reports are evaluated using specialist, international scientists. Evaluators are asked to give each final report an overall score and to comments on whether the scientific objectives have been achieved, what the significance of the results are for fisheries management, and whether there is a need for further work on this topic.</p> <p>Spain: Programmes with several projects: The National Plan has defined an Integrated Monitoring and Evaluation System (SISE is the Spanish acronym) as the instrument for monitoring and evaluation of the activities carried out, including coverage of the programmes and evaluation of the calls. The SISE is basically a collection of documents and information that must be produced regularly by the units and agencies with managerial responsibility regarding the progress of the programmes and actions. This includes: Follow-up reports on programme actions, reports monitoring R&D&I system indicators, annual report on R&D&I activities, reports by the evaluation panels on the programmes and actions, foresight studies and technology watch activities. On the other hand, the Interministerial Science and Technology Commission (CICYT) has been identified as the office responsible for planning, coordinating and monitoring the National Plan. Lump sum annual allocations for in-house individual research projects, campaigns etc: By the programme board participated by the Research Deputy Director (not systematically), the 3 Area Heads (Fisheries, Aquaculture and Marine Environment Areas) and some research experts from the 5</p>
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different programmes. The Council Board: This Council meets once a year is represented by the IEO and other stakeholders involved in Marine research, i.a. the Ministry of Agriculture and Fisheries, Environment, Education and Science, other Public Research institutions, the Scientific sector, the private sector and the regional administration. Its main function is to approve the budget and endorse the annual plans and goals of the Institute (endorse the Research Framework Programme).

Sweden:

Each applicant that receives funding for a project must send in an economic and scientific report at the end of the project. The scientific report shall have one part that have a popular approach and one with a more scientific approach. Final reports are then approved by administrators.

Cyprus:

Programmes with several projects: International Call for Tenders is launched. The team of experts is selected by the Foundation. The selection takes into account the methodology to be used and the cost of the evaluation. Each Programme Manager examines the final report of each project. Occasionally, the final report is given to international experts for evaluation.

Belgium:

It depends on the type of project and source of funding. National research projects / programmes are evaluated by national expert groups, international projects / programmes by international expert groups, EU Regulation related projects/ programmes by the European Commission and their subsidiary expert groups, etc.

Norway:

Programme: The final report from the programme is evaluated by the administration.

Project: The final reports from the projects are evaluated by the steering committee.

Germany:

Lump sum allocations: The responsible division (Fachreferat) at the Federal Ministry for Food, Agriculture and Consumer Protection makes sure that research programmes are correctly implemented through regular meetings with the institutes' directors of the Federal Research Centre for Fisheries.

Greece:

Programmes project by project: 1. Evaluation is carried out by the General Secretariat of Research and Technology (GSRT) administrators only. 2. The basic process is to evaluate the programmes systematically by following and measuring its progress based on performance indicators which were set from the start (for example, new jobs created, number of units produced, reduction of cost etc.). The evaluation is based on regular public meetings of the administrating committee. The evaluation process may also lead to changes in the initial programming and objectives. These changes are agreed during the meetings and a special publication is published in printed form and in GSRT webpage.

Greece cont: Project: 1. The evaluation is carried out by a panel of experts (researchers and University professors) drawn from the official raster of evaluators. They are supported administratively by the GSRT personnel. 2. The basic process is to evaluate the projects systematically by (a) observing the activities during the project and especially the public meetings of partners and (b) by evaluating the deliverables and mainly the interim and final reports.

Denmark:

Programmes: Every research programme is followed by a programme committee, which have the assignment to carry out the follow-up of the scientific content and the evaluation of the contributions.

Projects: Government officials evaluate the projects and forward the proposals to the Ministry of Science where one of the committees analyses the proposals for the research relevance. The proposals are then presented to the Innovation Committee for an evaluation of the proposals relevance in regards to innovation, industry and effect. Proposals are evaluated on the basis of the following focus areas within manufacturing and improvement of fish:

- increasing focus on consumer preference
- increase quality and health
- focus on the importance of the nutrients from fish
- promote sustainable fishery and aquaculture
- strengthen research and education in the fisheries sector

Iceland:

Projects: Each application is evaluated by two experts and an evaluation board. The board ranks the applications and the Steering Committee of the fund decides the grant. The project is evaluated periodically through its lifetime. Each year the project leader has to send in an interim report and each year (at the end of the year) an annual report. Further support (for next year) is decided by the Steering Committee on an evaluation report from RANNIS administrators and in some instances also on report from an evaluation board. Three year projects are only funded one year at a time.

Annex 2

MariFish



**To establish best practice
for identifying, commissioning, and
managing fisheries research programmes**

Questionnaire WP2

Please complete and return to tep@nifustep.no and nh@rcn.no by 21st June 2006

General information

The aim of this questionnaire is to gather information from the 17 MariFish partners about Marine Fisheries Research Programme Management. It forms a key part of work package 2 (WP2), whose overall aim is to seek out best practice for the identification of research needs, the development of research programmes and the commissioning and management of research projects and programmes that are used by Member States for Marine Fisheries Research Programmes. This work will evolve as an overview of marine research governance in the European Research Area. Deliverable is A Guide for Best Practice in Marine Fisheries Research Programme Management.

To help MariFish achieve its many challenging goals the following statement of overall purpose has been adopted by the partners:

“MariFish will focus on that research which provides evidence to managers for the development of strategies for sustainable fisheries, including links with aquaculture, set within the ecosystem based principle.”

MariFish defines Marine Fisheries Research as:

Research and development (R&D) activities with relevance to marine fisheries including links with aquaculture and R&D related to resource management of marine species.

Practical information

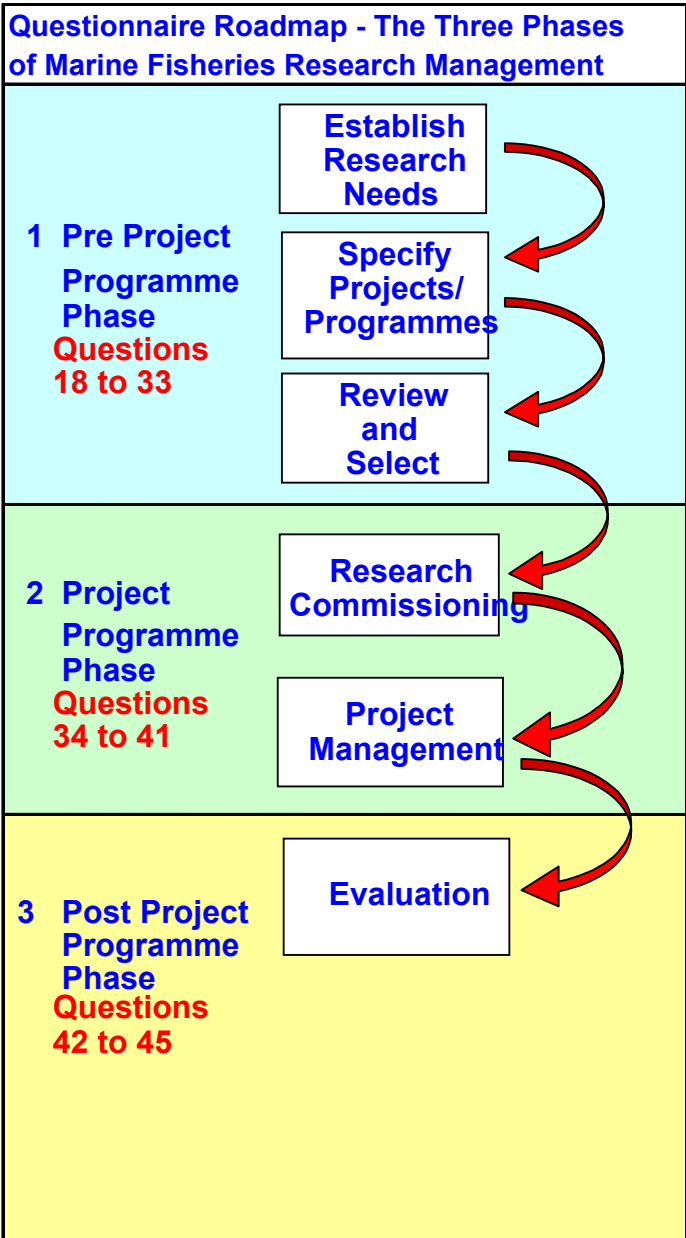
The questionnaire is divided into sections.

- **The first section is information about the respondent and her/his institution. All respondents answer this section.**
- **Section 0 covers national issues. It is supposed to be answered only by the national coordinator in each Member State.**
- **Sections 1-3 are supposed to be answered by all respondents. These sections cover research each institution is responsible for.**

Marine fisheries research management is divided into three phases.

4. Pre-project/programme phase
5. Project/programme phase
6. Post-project/programme phase

The figure below presents a 'roadmap' for the questionnaire to help guide you through the different sets of questions for each phase.



**QUESTIONS 1-4 ARE TO BE ANSWERED BY
ALL RESPONDENTS!**

Q1. What is your name, title and function in your institution?

Your name:	
Your title:	
Your function:	

Q2. What is the name and function of your institution?

Name:	
Internet address:	
	Function of your institution
	Funding agency
	Research council
	Ministry
	Research institute
	<u>Other, please specify:</u>

Q3. What is the responsibility of your institute regarding the commissioning and management of marine fisheries research?

	Responsible for selecting and funding research
	Responsible for selecting and funding research on behalf of other institutes, e.g. Council on behalf of a Ministry (please specify)
	<u>Other, please specify:</u>

Q4. Approximately, how much of national marine research is your institution funding?

	0-10 %		51-60 %	
	11-20 %		61-70 %	
	21-30 %		71-80 %	
	31-40 %		81-90 %	
	41-50 %		91-100 %	

**THIS SECTION (Q5-Q17) IS TO BE ANSWERED BY
NATIONAL COORDINATORS ONLY**

0. National information – this section is about national marine fisheries research in your country.

Q5. What is the approximate total value and relative volume of marine fisheries research in your country?

Total value of marine research (in MEuro):	
Marine research as per cent (%) of total national research:	

Q6. What is the general approach of your institution to marine fisheries research?

	Funding is provided for individual research projects, project by project
	Funding is channelled through research programmes, with several projects
	Funding by lump sum annual allocations
	Other types of funding, please specify

Q7. What is the general structure of national marine fisheries research in terms of the division of labour between universities, research institutes and public research facilities?

Please indicate the percentage of total marine research for each category below

Universities perform	% of total marine research
Research institutes perform	% of total marine research
Public research facilities perform	% of total marine research
Other type of research facilities perform	% of total marine research

Please explain the approach and structure of funding of national marine research.

Q8. What are the three largest fish species (e.g. cod, salmon, herring) produced by the marine industries in your country, per tonnage?

1.	
2.	
3.	

Q9. What is the marine industries' approximate share of gross domestic product in your country?

	0-10 %		51-60 %	
	11-20 %		61-70 %	
	21-30 %		71-80 %	
	31-40 %		81-90 %	
	41-50 %		91-100 %	

Q10. What is the marine industries approximate export share as % of total exports?

	0-10 %		51-60 %	
	11-20 %		61-70 %	
	21-30 %		71-80 %	
	31-40 %		81-90 %	
	41-50 %		91-100 %	

Q11. How relevant are patents to marine fisheries research in your country?

Scale 1-5. 1 is not relevant, 5 is highly relevant

1 not relevant	2	3	4	5 highly relevant

Q12. In which research areas are patents or other intellectual property rights (IPRs) seen as most important?

(multiple checking is possible)

	Aquaculture/Fish farming	Marine Geosciences	
	Biological Oceanography	Marine Leisure & Tourism	
	Climate Change	Marine Technology (incl. Instrum. & Sens.)	
	Economics	Non-Renewable Ocean Energy (Oil / Gas)	
	Fisheries Biology	Physical Oceanography	
	Legal Studies	Renewable Ocean Energy	
	Marine Biogeochemistry	Seafood Quality & Processing	
	Marine Biotechnology	Shipping & Maritime Transport	
	Marine Ecosystem Studies	Other areas	

Q13. Who is responsible for IPR issues related to marine fisheries research in your country?

(multiple checking is possible)

	Research institutes
	A specialized Technology Transfer Organization (TTO)
	Other, please specify below

Q14. Is IPR management a significant part of the overall management of marine fisheries research in your country?

(multiple checking is possible)

	At the institutional level
	At the national level
	Not at all
Please explain if necessary	

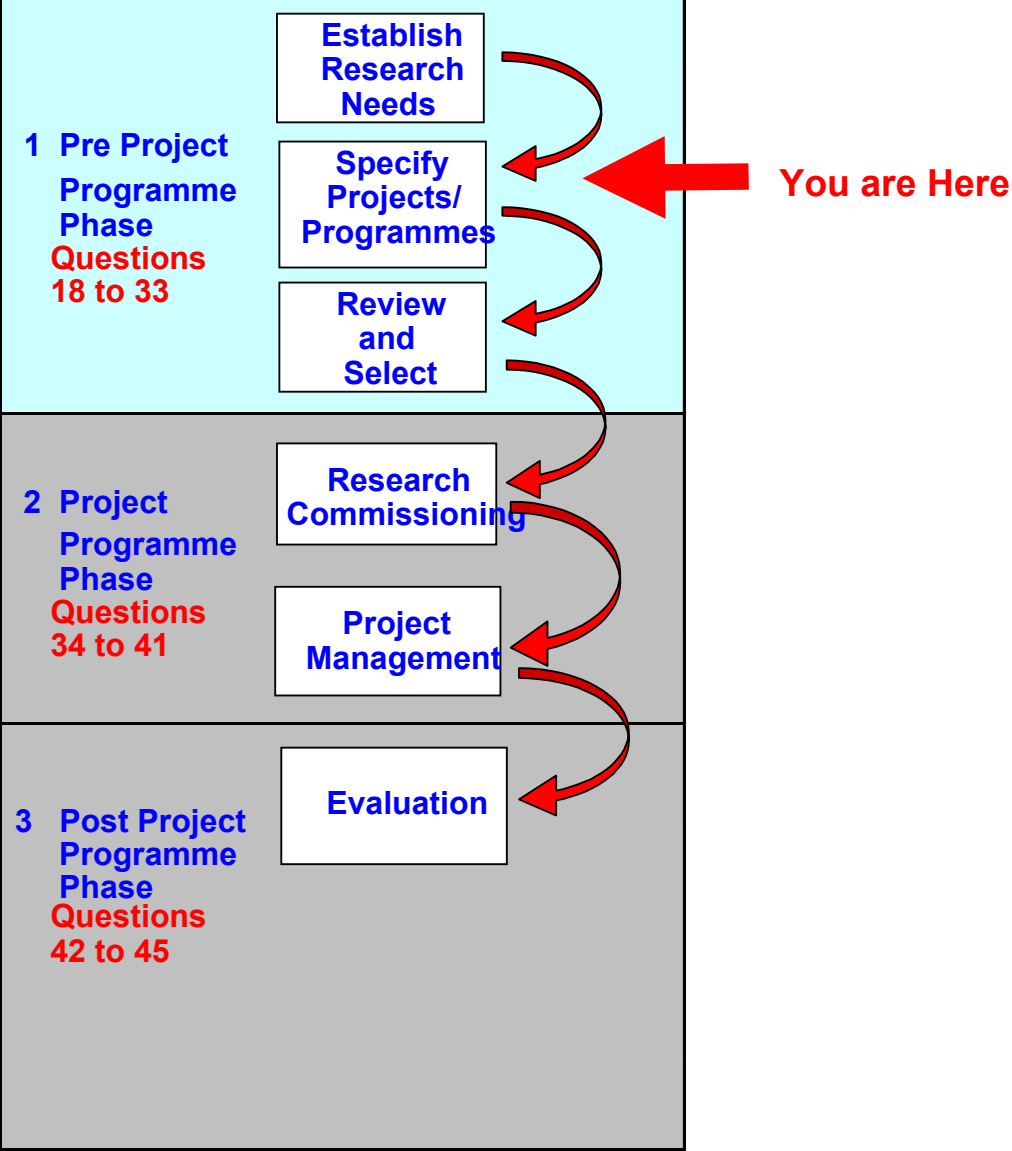
Q15. Is benchmarking used in evaluation and assessment of marine research?

	Yes
	No

Q16. Please explain how IPRs and benchmarking are used as tools of marine research management and in marine research policy

Q17. Do you have any further comments, in particular to relevant issues not addressed in the questions above?

Questionnaire Roadmap - The Three Phases of Marine Fisheries Research Management



1. Pre-project/programme phase – this section is about agenda setting and mechanisms that establish and specify marine fisheries research needs and marine fisheries research themes in the institution you represent. We would also like to know about existing routines for reviewing and selecting marine fisheries research programmes and marine fisheries research projects in your institution.

Q18. What is the annual marine fisheries research budget for which you are responsible?

Annual marine fisheries research budget (in MEuro):	
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Q19. Marine fisheries R&D priorities. What is the single most important agenda setting mechanism for the R&D programme for which you are responsible?

	There is a national strategy document
	Other (please specify)

Q20. Participants. Who is involved in setting the marine fisheries research agenda of the research for which your institution is responsible?

(multiple checking is possible)

	Fishery industry firms and representatives
	Other industry sectors, please specify
	The scientific community
	Non-governmental organizations (NGOs)
	Environmental groups/organizations
	The media
	National politicians
	Local/regional politicians
	Governmental administration (public agencies, ministries, etc.)
	Other stakeholders, or groups of stakeholders, please specify

Q21. Participants. Which interest groups are most important in setting the marine fisheries research agenda for which you are responsible?

(multiple checking is possible)

	Fishery industry firms and representatives
	Other industry sectors, please specify :
	The scientific community
	Non-governmental organizations (NGOs)
	Environmental groups/organizations
	The media
	National politicians
	Local/regional politicians
	Governmental administration (public agencies, ministries, etc.)
	Other stakeholders, or groups of stakeholders, please specify

Q22. Processes. What processes are important in setting the marine fisheries research agenda for which you are responsible?

(multiple checking is possible)

	Foresight processes as strategic, agenda setting tool
	Government documents (White papers/green papers)
	R&D advisory boards
	General call for proposals to the scientific community
	Institutionalized regular consultation processes
	EU documents and EU processes
	Other processes, please specify

Q23. Who is involved in setting the marine fisheries research agenda for which you are responsible?

Please explain how different key players contribute in setting the marine research agenda.

Q24. Is marine fisheries research within the selected themes organized in projects or programmes?

<input type="checkbox"/>	Research projects only
<input type="checkbox"/>	Research programmes only
<input type="checkbox"/>	A mix of research projects and research programmes

If necessary, please explain briefly how marine research is organized.

Q25. How are research programmes reviewed and selected?

(Multiple checking is possible)

<input type="checkbox"/>	According to
<input type="checkbox"/>	Scientific quality/peer review processes
<input type="checkbox"/>	Cost
<input type="checkbox"/>	Project management
<input type="checkbox"/>	Feasibility
<input type="checkbox"/>	National collaboration
<input type="checkbox"/>	International co-operation
<input type="checkbox"/>	Relevance to the call of proposals
<input type="checkbox"/>	Relevance to society
<input type="checkbox"/>	Strategic significance
<input type="checkbox"/>	The environment
<input type="checkbox"/>	Ethics and equal opportunity
<input type="checkbox"/>	Other criteria, please specify below

Q26. Is a rating system applied in review and selection of research programmes?

<input type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	If yes, please describe how
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Q27. Who are the key players and how is the research programme reviewed and selected?

(Multiple checking is possible)

	Applications/projects/programmes are reviewed by internal resources/experts at the institution
	Funding organization engages national experts to assess research projects/programmes
	Funding organization engages international experts to assess research projects/programmes
	Applications/projects/programmes are reviewed by policy makers
	Applications/projects/programmes are reviewed by private sector experts
	Other, please specify:

Q28. How are programmes reviewed and selected?

Please explain how a **typical process** of research review and selection may proceed

Q29. How are research projects reviewed and selected?

(Multiple checking is possible)

	According to
	Scientific quality/peer review processes
	Cost
	Project management
	Feasibility
	National collaboration
	International co-operation
	Relevance to the call of proposals
	Relevance to society
	Strategic significance
	The environment
	Ethics and equal opportunity
	Other criteria, please specify below

Q30. Is a rating system applied in review and selection of research projects?

	No	Yes		If yes, please describe how
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Q31. Who are the key players and how are research projects reviewed and selected?

(Multiple checking is possible)

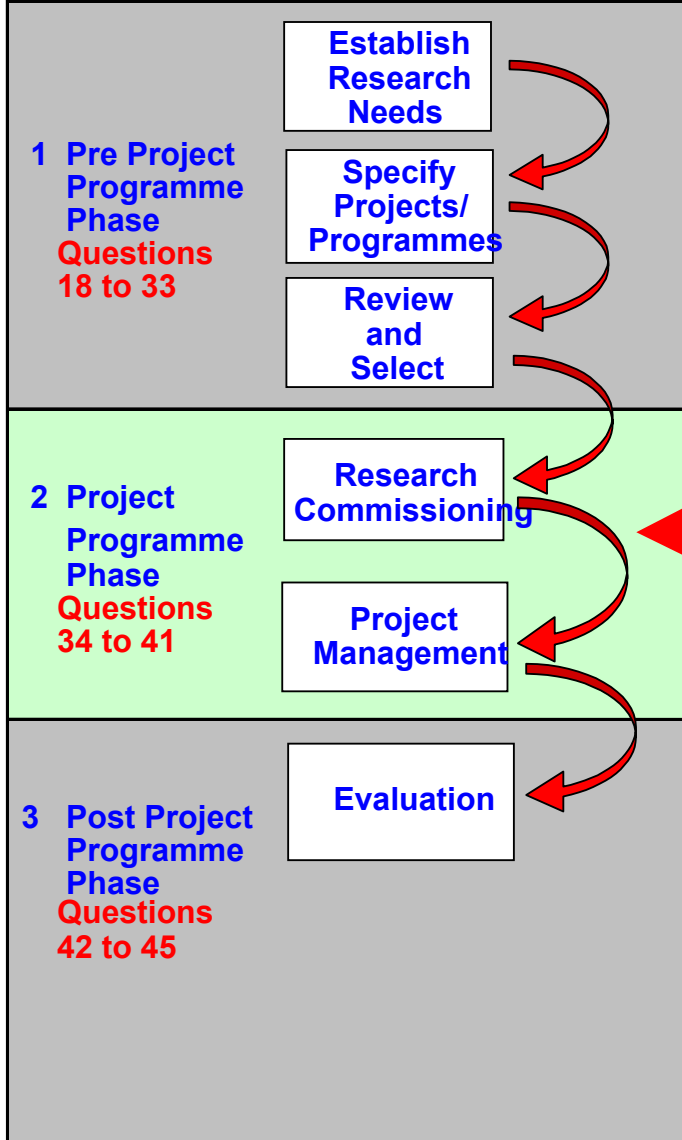
	Applications/projects/programmes are reviewed by internal resources/experts at the institution
	Funding organization engages national experts to assess research projects/programmes
	Funding organization engages international experts to assess research projects/programmes
	Applications/projects/programmes are reviewed by policy makers
	Applications/projects/programmes are reviewed by private sector experts
	Other, please specify

Q32. How are projects reviewed and selected?

Please explain how a **typical process** of research review and selection may proceed

Q33. Do you have any further comments, in particular to relevant issues not addressed in the questions above?

Questionnaire Roadmap - The Three Phases of Marine Fisheries Research Management



2. Project/programme-phase – this section covers the lifetime of research projects and programmes. As seen from the research funding section, we are interested in research commissioning, programme and project management/monitoring.

Q34. What type of competition is common in research commissioning (research procurement practices) in your institution?

(Multiple checking is possible)

	Direct competition (two or more buyers asked to engage in a specific competitive process)
	Indirect competition (Generalized market competition, not necessarily a specific process)
	Open competition (Advertised competition, any party can enter)
	Closed competition (Short list of invited contenders)
	Formal competition (Use of fixed procedures designed to produce a winner from a list of contenders)
	Informal competition (Use of less structured soundings of competences and costs as a basis for professional judgement)
	Other commissioning procedures, please specify

Q35. What kind of routine exists for specifying and selecting research programmes/projects in your institution? (this question is complementing Q34 above)

(multiple checking is possible)

	Open calls for applications, i.e. specified from the scientific community
	Letter-of-intent phase followed by a call for applications
	Closed invitation for applications
	Closed invitation for projects
	Broad research theme given to main research institute(s)
	Other, please specify

Q36. Please estimate what proportion of marine research your institution is funding is allocated to the types of competition below.

%	Types of competition
	Direct competition (two or more buyers asked in a specific competitive process)
	Indirect competition (Generalized market competition, not necessarily a sp. process)
	Open competition (Advertised competition, any party can enter)
	Closed competition (Short list of invited contenders)
	Formal competition (Fixed procedures produce a winner from a list of contenders)
	Informal competition (Less structured soundings of competences and costs for professional judgement)
	Other commissioning procedures

Q37. What are the main procedures applied in the commissioning (initialization, start-up) of research programmes?

(Multiple checking is possible)

	Funding body uses internal personnel/resources to take care of research commissioning.
	Funding body outsources research commissioning to an external expert.
	A researcher within the programme often takes care of research commissioning.
	Project funding body takes part in a project steering group
	Project funding body takes part in a project reference group
	Other, please specify below

Q38. Please explain how research commissioning (initialization, start-up) of programmes is typically organized.

(Multiple checking is possible)

	There are no procedures for the management and monitoring of programmes
	Detailed management, i.e. interim reports and final report from research programmes
	Final report only
	Steering committee processes
	Regular meetings/presentations
	Other, please specify

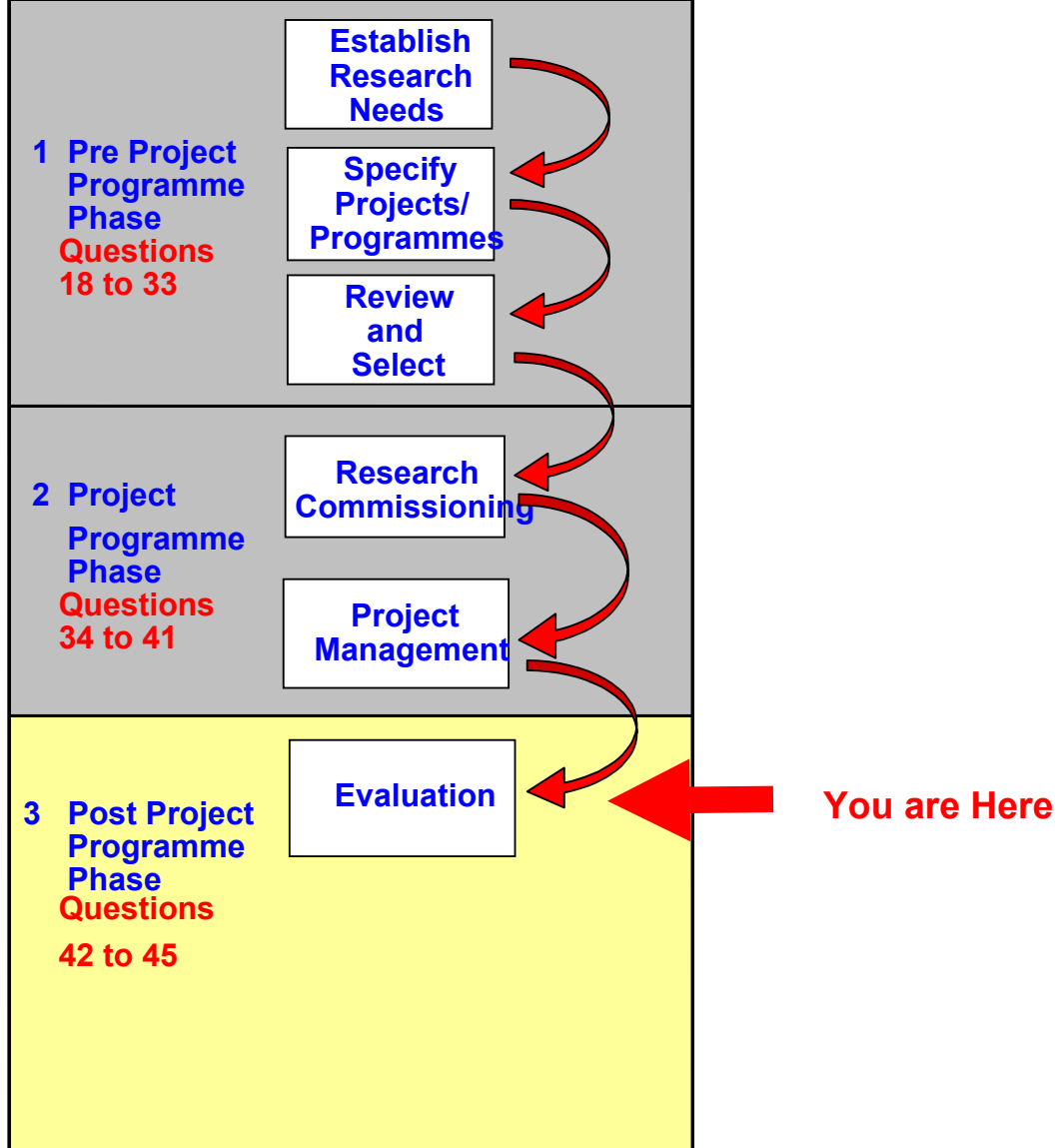
Q40. What are the main procedures applied in the management and monitoring of research projects?

(Multiple checking is possible)

	There are no procedures for the management and monitoring of projects from the side of funding body
	Detailed management, i.e. interim reports and final report from research projects are submitted to funding body
	Final report only
	Steering committee processes
	Regular meetings/presentations
	Other, please specify below

Q41. Do you have any further comments, in particular to relevant issues not addressed in the questions above?

Questionnaire Roadmap - The Three Phases of Marine Fisheries Research Management



3. Post-project/programme phase – this section addresses period after the research project/programme. The focus is on evaluation.

Q42. How and by whom are research programmes evaluated?

(multiple checking is possible)

	Research programmes are not evaluated separately
	Research programmes are only evaluated as part of a broader research theme
	Evaluation of programmes is done systematically on the basis of existing management/monitoring systems, i.e. interim reports and final report.
	Research programmes are evaluated systematically, during and/or at the end of the period.
	By a standardized and formalized procedure for assessment
	By the programme board
	By stakeholders and end users
	Peer review by independent national experts
	Peer review by independent international experts
	By governmental administrators
	Other, please specify below

Q43. How and by whom are research projects evaluated?

(multiple checking is possible)

	Research projects are not evaluated separately
	Research projects are only evaluated if part of a research programme.
	Evaluation of projects is done systematically on the basis of existing management/monitoring system, i.e. the interim reports and final report.
	By a standardized and formalized procedure for assessment
	By the reference/steering group
	By stakeholders and end users
	Peer review by independent national experts
	Peer review by independent international experts
	By governmental administrators
	Other, please specify

Q44. Please explain how research programmes are evaluated

Example of funded research	Description of the evaluation process, methods for evaluation, evaluators etc.
Funding provided for individual research programmes, project by project	
Funding channelled through research programmes, with several projects	
Funding by lump sum annual allocations	
Other types of funding, please specify	

Q45. Please explain how research projects are evaluated

Example of funded research project	Description of the evaluation process, methods for evaluation, evaluators etc.
Funding provided for individual research projects, project by project	
Funding channelled through research programmes, with several projects	
Other types of funding, please specify	
Other types of funding, please specify	

Thank you very much for your contribution!