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CVO report

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KB – WOT Fisheries Research; programme for 2007

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Summary

LNV programme 406 covers the execution of statutory tasks (WOT) in fisheries carried out by DLO. Part of the programme contains resources earmarked to maintain and develop the expertise needed to carry out the WOT programme, this is called "Kennisbasis" (supporting knowledge). This report describes the allocation and utilisation of the Kennisbasis budget in 2007. The available budget in 2007 is €621 000. The money is spent through projects, each of which is described here. The projects are split up into five research priority areas: 1) influence of a changing environment on marine ecosystems, 2) impact of the fishery on the marine ecosystem, 3) fishery management, 4) key expertises and 5) small research projects. All of these areas fall under the wider WUR kennisbasis themes. This report also contains a projection of the required expertise for the period 2008-2010.

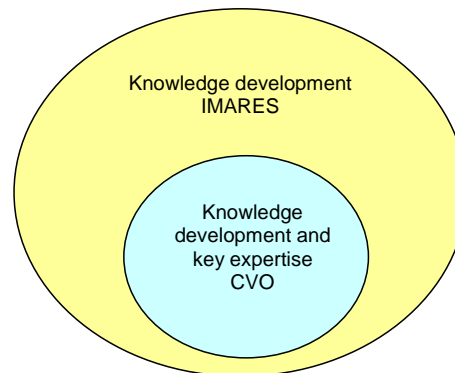
Samenvatting

LNV programma 406 omvat de wettelijke taken die door DLO uitgevoerd worden en betrekking hebben op de visserij. Binnen dit programma is er een Kennisbasis budget dat bedoeld is voor het ontwikkelen en onderhouden van expertise om dit programma uit te kunnen voeren. Dit rapport beschrijft hoe het budget voor 2007 (€ 621000) aan onderzoeksprojecten is toegekend. Van ieder onderzoeksproject wordt een beschrijving gegeven. De projecten zijn onderverdeeld in vijf thema's: 1) invloed van veranderende leefomgeving op mariene ecosystemen, 2) impact van visserij op ecosysteem, 3) visserijbeheer, 4) onderhoud sleutelexpertise en 5) kleine onderzoeksprojecten. Het rapport geeft bovendien een doorkijk naar de behoefte aan Kennisbasis budget voor de periode van 2008-2010.

1. Introduction

The LNV programme WOT 406 deals with the statutory tasks which The Netherlands is obliged to carry out in the area of fisheries (advice and science). Most of the obligations stem from international agreements to which The Netherlands is a signatory. The statutory tasks in fisheries are carried out by the Centre of Fisheries Research (CVO) which exploits the resources and expertise from the Institute of Marine Resources and Ecosystem Studies (IMARES)¹. In order to maintain the infrastructure required to carry out these tasks, and to help anticipate future strategic needs, a separate programme within IMARES has been established (Kennisbasis WOT). The programme is part of the larger Kennisbasis programme carried out by Wageningen UR and has been developed in consultation with the Ministry of Agriculture, Nature and Food Quality (LNV). LNV provides the financial support for the programme and advises on the strategic vision.

The Kennisbasis WOT programme (supporting knowledge) has an active policy of underpinning the key-expertise required to carry out the statutory tasks, and of encouraging the development the expertise needed to complete those tasks. The development and maintenance of this knowledge and expertise base is an integral part of the IMARES plan.



The investment in development and training is necessary to cope with the demands of both the research market in the future and the statutory obligations of The Netherlands.

The integration of the key expertise required by CVO into the knowledge base of a research organisation is important. In the past, a knowledge gap was found between what expertise was required by CVO and what was available. The requirements of LNV change regularly, thus development of expertise is crucial to the ability of CVO to provide the needed expertise and knowledge to address current and future strategic issues. In 2007 resources were prioritised towards number of specific themes and research areas that were felt to be lacking within IMARES but required by the WOT programme.

This document describes the strategic framework for the support of the knowledge base and the development of key expertise for the WOT programme. The document is a revision of the programmes from 2005 and 2006. From 2007 onwards the Kennisbasis strategic document will be published in English.

¹ IMARES was established in 2006 and consists of the former Nederlands Instituut voor Visserijonderzoek (RIVO) and parts of Alterra and TNO.

2. Outlining the knowledge base

Within DLO kennisbasis is classified in nine themes. The kennisbasis for the WOT related to fisheries is in the theme "*Multifunctioneel gebruik van de groene en blauwe ruimte*" which translates to the multifunctional use of the green and blue space. The core areas of this theme are sustainable development, flexibility and regional decision making. In the present WOT 406 programme the first two areas are relevant. Sustainable development covers both the maintenance of fisheries as well as the marine resources they exploit. The response of fisheries and managers to changes in fish populations and the dynamics of the environment which impact on those fish make flexibility a core area of the kennisbasis.

The fishery WOT tasks cover the advice and actions required to support the national and European fishery policy. They cover commitments to the CFP (Common Fisheries Policy), national freshwater policy, the Habitats Directive and the Water Quality Directive where relevant to fisheries. The tasks include the collection of information and data, the development of understanding and the provision of evidence based advice.

It is necessary to anticipate the future needs of LNV and the EU when developing the structure of the WOT kennisbasis programme. The current programme anticipates the following issues to be of importance to policy and statutory requirements: rebuilding of depleted resources, assessing resource exploitation (current and future), limiting and assessing the damage to habitat, protection of biodiversity and environmental change.

Importantly for the kennisbasis programme in 2007, the EU is attempting to move towards a gradual implementation of the ecosystem considerations into fishery management. This is also true for the national policy with regard to the exploitation of bivalves in Dutch waters. In this area of advice, habitat and biodiversity are leading factors and the WOT KB programme has the ambition to develop expertise in these areas.

When using science to advise policy, such as in fisheries management, it is necessary that the advice is based on credible and independent research of high scientific standards. This requires peer review of the science. Scientists must be aware of recent trends in their research fields, any new developments in methodologies and must be internationally credible themselves. Thus Kennisbasis money could also be used to support technology exchange and scientific communication.

3. The context of kennisbasis

In a practical sense the Kennisbasis resources are used:

- a. to develop and expansion of knowledge in the research areas covering the priority policy areas (mentioned above)
- b. to maintain key expertise to carry out the WOT programme and improve the efficiency of carrying out the tasks
- c. to maintain/enforce the scientific reputation of the research organisation carrying out the legal tasks
- d. in special circumstances for maintenance or purchase of specific research instruments

These resources are spread between fishery dynamics (investigating fleet dynamics and selectivity), fish biology, populations, ecology and management systems (simulations and advice).

3.1 Key expertise

To ensure that the WOT can be carried out, key expertise should be maintained. Within a research organisation, the key expertise must be supported by experience and ability. To ensure continuity and maintain quality, the key expertise should be spread across a number of personnel. Loss of staff should not compromise a key expertise. Flexibility must be maintained by a research organisation to allow key expertise to adjust as required to improve quality, efficiency or renewal. The key expertise base is also important to ensure the maintenance of IMARES as successful contract research organisation.

Key expertise can be maintained by the internal or external training of personnel; active participation in projects in which expertise can be transferred or developed and participation in relevant working groups. Also in house expertise can be developed by attracting into new staff with specific abilities and experience that complements the existing knowledge base.

Within the WOT programme, key expertise is seen as: understanding and experience of stock assessment techniques; advising and communication on the management of fish stocks; advising on ecosystems; expertise in trawl, acoustic, bivalve and ichthyoplankton surveys; research and advice on fishing gears; development and maintenance of data bases; experience in fish age determination; coordination of market sampling; collection of fishery statistics and discard (observer) data; surveying sea mammal abundance; expertise in fresh water fisheries and sampling of eels.

It is of course important to take available resources into account whilst trying to realise the ambitions of the WOT programme. This means that the key expertises must be prioritised and occasionally strategic decisions need to be made. If the need for a specific expertise is only temporary and that expertise is not available within IMARES, the relevant expertise could be hired in from outside.

3.2 Scientific publications and reputation

For the maintenance of the scientific reputation of IMARES and for quality control of the research; scientific, peer reviewed, publications are essential. A small part of the KB-WOT budget will be used for stimulating publishing of research which supported the WOT programme. Also part of the budget is reserved for exchange of scientists with scientific institutes abroad.

3.3 Research equipment

In exceptional cases Kennisbasis resources can be made available to maintain or purchase research equipment or instruments. This expenditure is only targeted at vital capital purchases which are essential to carry out the work, and that can not be funded through other routes.

4. Research priorities for 2007

The research priorities for 2007 are based on the perceived needs of the WOT programme (Table 1). Within these research priority areas, the maintenance of key expertise necessary to WOT takes priority, followed by the development of the expertise required for future WOT work, then part of the available resources can be used for the co-financing of existing obligations to EU programmes (as long as the EU project objectives are considered within those of the WOT 406 programme).

Table 1. Overview of research priority areas and approximate budget allocations.

	priority research area	indicative budget in k€
A	influence of changes in the environment on marine ecosystems	225
B	impact of the fishery on ecosystems	115
C	fishery management	150
D	maintenance key expertises	90
E	small research projects	40
Total		620

Priority area A: "Influence of changes in the environment on marine ecosystems"

The productivity of the sea changes over a range of temporal scales. These changes interact with anthropogenic pressure to make the fisheries system dynamic and sometimes unpredictable. There have been many recent, well documented, changes in the aquatic ecosystems, some are inter-annual variability and some are trends over time. Different parts of an ecosystem can become stronger or weaker with time (e.g. a move from demersal to pelagic production of fish in the North Sea). Some of these changes have been attributed to climate change. An understanding of the cause, variability and magnitude of change is important for a manager. This understanding will allow a proper assessment of risk, an analysis of the probability of stock recovery (or what is over exploitation), and hopefully to distinguish between anthropogenic and non-anthropogenic effects on the ecosystem.

The role of ecosystem variability and change within the provision of fisheries advice is expected to increase. This has been specifically mentioned as a goal by ICES¹. In 2006 new activities were started within the WOT 406 kennisbasis programme both in house and by joining initiatives by ICES or the EU 6th framework programme. There is a need to build up expertise in this field, hence the budget allocation for this priority research area is expected to remain

¹ International Council of the Exploration of the Sea

similar into the near future. The research will also contribute to the scientific status of IMARES and to our quality control through peer reviewed publications.

Priority area B: "Impact of the fishery on the ecosystem"

Priority Area A dealt with the influence of natural factors on the marine ecosystems. Priority Area B deals with the human impact on the ecosystem, in particular the undesirable side effects of fishing. IMARES, in recent years, has developed a significant amount of knowledge in this area. However there is still a need for further knowledge to assist managers. In 2007 or 2008, EU legislation will oblige Member States to establish a programme to monitor a number of elements in the ecosystem which are sensitive to fishing. Resources from kennisbasis must be used to prepare for this international obligation. As this is a wide research area, projects will be carefully selected to address specific needs of the WOT programme. Some resources, if available, will be made available for contra financing to EU projects (matching funding). The research will also contribute to the scientific status of IMARES and to our quality control through peer reviewed publications.

Priority area C: "Fishery management"

The EU has recently progressed from the management of fish stocks to fisheries management. The EU, and national governments, are also expecting greater flexibility in the provision of advice and the terms in which the advice is given. The obligation for biological and economic data collection of fish and fisheries data by the Member States is about to be adjusted accordingly. The international advisory framework for fisheries is in a state of flux and is looking at new possibilities for managers, and this includes the management of fishing effort as well as catch. The Kennisbasis WOT resources will be used to develop new approaches to management and management models. Resources are also required for the development and adjustment of data collection, data storage and data access. The research will also contribute to the scientific status of IMARES and to our quality control through peer reviewed publications.

Priority area D: " Maintenance of key expertises "

Further, kennisbasis resources will be put aside for the maintenance and quality control of the present expertise base and routine techniques and skills. IMARES needs to maintain core competencies. This covers age reading, stock assessments and data collection. Courses, workshops and exchanges are an important part of maintaining and developing core skills.

Priority area E: " Small projects "

Most of the resources of the Kennisbasis in 2006 were allocated to a few larger projects which had a high priority on the research agenda, i.e. areas A to D. However, there are always a few smaller projects which can generate on an ad hoc basis information in specific research field in an efficient way. Often this is research involves more risk which, when successful, can result in obtaining larger research programmes. For instance, literature reviews can be executed which then articulates research questions around new policy themes.

5. Management of the WOT kennisbasis programme

The kennisbasis programme is carried out in the same way as in 2005-2006. The structure of the programme is similar to that of the other DLO research programmes. The Kennisbasis programme consists of a number of approved, sometimes multi-annual projects. The programme is managed by a kennisbasis programme leader. The programme leader provides direction of the programme, controls the budgets, provides internal quarterly progress reports and an annual progress report. The format of the quarterly progress reports is identical to the normal WOT projects. The programme leader is also responsible for reporting and resolving problems within the programme, and where necessary reporting issues to senior management. The annual progress report covers the allocation and spend of resources and documents the projects funded and the deliverables produced.

The projects, in the Kennisbasis WOT programme, are coordinated by project leaders. They are responsible for the planning and execution of the project, similar to other projects managed through IMARES. Each quarter, the project leader supplies the programme leader with information on the progress of the project, both financial and in terms of promised deliverables. It is the responsibility of the project leader to report any problems (present or predicted) to the programme leader at the earliest opportunity.

In the situations where Kennisbasis WOT money has been made available for co-financing of EU projects, it is the responsibility of the project leader to use all of the Kennisbasis money during the appropriate year. Funds cannot be rolled over, and failure to spend the money in one year, does not automatically mean that the money can be spent in the following year. The programme leader will regularly review the expenditure throughout the financial year.

6. Proposing and awarding projects

Applicants for Kennisbasis WOT resources must complete a project proposal form (Appendix 1). The form requests information on the motivation for the project, a project description, how the project fits into WOT Kennisbasis and IMARES Kennisbasis as a whole, the duration and cost of the project, added value and corporation with other projects, the risks associated with the project and the final products to be delivered.

The applications are evaluated by a Permission Team (PT) using a number of criteria (Table 2). The composition of the PT varies annually and consists of the Head CVO or their nominated alternate, and three scientists to be appointed by IMARES including the Kennisbasis programme manager. This procedure ensures synergy between the expertise requirements of CVO and IMARES. The head of CVO is responsible to LNV for the execution of the programme and expenditure of the budget. Thus the head of CVO has use of the available resources and has the final say on whether a project is supported or not.

Table 2. Prioritised list of criteria used to evaluate proposals for support from the kennisbasis WOT programme.

1	Does the proposal invest in essential missing expertise?
2	Does the proposal fit into at least one of the research priority areas (see section 4)?
3	Have other sources of funding been explored, and is KB WOT the most appropriate funding source?
4	Does the proposal add value by providing connectivity between existing projects?
5	What is the risk of success or failure of the proposal?
6	Does the proposal contribute to the prestige of the research organisation?
7	Does the proposal contain novel ideas or techniques?
8	Is the proposal seen as value for money?
9	Does the proposed project leader have a successful track record of delivering projects on time, with good products within budget?

The experience obtained in 2005 and 2006 showed that is more efficient to grant the limited budget to a few large projects rather than to spread the resources thinly through many smaller projects. Larger projects tend to be more successful and often small project carry a lower priority within the IMARES organisation and hence the risk of failing to use the resources made available by kennisbasis WOT increases. The number of smaller projects are limited. Also, as with major research funding providers, the track record of the project leader in providing realistic project proposals and in delivering products as projected, is taken into account.

As the budget must be spent during each financial year, and no money can be transferred to the following year, the utilisation of the annual budget must be monitored carefully. This one of the programme leader's roles. If an under spend is occurring, then projects which failed to be funded, as a result of their lower criteria rating may well be funded. Thus new projects can be initiated during the year. Due to this probable under spend each year, the initial programme is set at approximately 110% of the available budget.

The following projects and budgets for 2007 were approved (Table 3), and individual project applications that were funded are shown in Appendix 2.

Table 3. Projects funded by Kennisbasis WOT in 2007.

Bid No	Project	project number	KB WOT Research Priority area	Project leader	Final Date	Request in 2007 (K€)	Funding agreed for 2007 from KB WOT (K€)	Projects not funded	Request for 2008 (K€)	Request for 2009 (K€)
EU Projects										
2007_1	INEXFISH	439.13003.99 (4391300301)	A	Piet	2008	54	70			
2007_2	RECLAIM	439.25016.99 (4392501601)	A	Asjes	2009	94	94		94	94
2007_3	NECESSITY	439.11008.99 (4391100801)	B	v Marlen	2007	25	17			
2007_4	FINE	439.19003.15	B	Rijnsdorp	2009	75	75			
2007_5	COMMIT	439.11009.99 (4391100901)	C	Poos	2007	36	18		50	50
2007_6	EFIMAS	439.11010.99 (4391101001)	C	Poos	2007	36	3			
2007_7	FISBOAT	439.11011.99 (4391101101)	C	Deerenberg	2007	36	22			
2007_8	AFRAME	439.11016.99 (4391101602)	C	Poos	2009	30	30			
2007_38	CAFÉ	439.11001.01	C	Poos	2007	25	14		50	20
TOTAL EU Projects						411	343		268	164
In-house projects										
2007_9	Climate on flatfish	439.25002.01	A	Bolle/Asjes	2007	33	33			
2007_10	Impact of climate change IJsselmeer		A	Leeuw	2007	60		60		
2007_11	Methods glass eel	439.19003.18	C	Winter	2007	74	22			
2007_12	Quality of Ageing	439.19003.19	D	Bolle		40	40			30
2007_13	Management of elasmobranch fish	439.19003.14	C	Heessen	2008	14	14		14	
2007_14	Programme leader	439.19003.02	E	Dickey-Collas		15	15			
2007_15	Reproductive & Recruitment Symposium		A	Dickey-Collas		5		5		
2007_16	Paaiplaats Haring	439.19003.01	E	Dickey-Collas	2007	15	15			
2007_36	Bayesian survey based stock assessment	439.19003.21	C	Bogaards		7	7			
2007_37	Meta analysis of herring growth	439.19003.22	A	Brunel		18	18			
TOTAL In-house						281	164		43.56	30
ICES WGs, SGs, WGs										
2007_17	Benthos Ecology WG	439.19003.04	D	Craeymeersch		7	7			
2007_18	Fisheries Induced Adaptive Char	439.19003.07	B	Rijnsdorp		9	9			
2007_19	Recruitment Variability in North S	439.19003.06	A	Dickey-Collas		20	12			
2007_20	FAST- acoustics	439.19003.05	D	Ybema		7	7			
2007_21	Fish Ecology	439.19003.09	D	Ter Hofstede		7	7			
2007_22	Fisheries Systems	439.19003.16	C	Van Densen		6	6			
2007_23	Fishing Technology and Behaviour		D	Van Marlen		9		9		
2007_24	Methods of Fish Stock Assessments		C	Van Beek		14		14		
2007_25	Multispecies Assessment Method	439.19003.10	D	Ter Hofstede		7	7			
2007_26	Recruitment Processes		D	Dickey-Collas		5		5		
2007_27	Sexual Maturity Sampling	439.19003.11	D	Dekker		12	12			
2007_28	Sexual Maturity Staging of Mac	439.19003.12	D	Van Damme		7	7			
2007_29	Using Fishers to Sample Catcher	439.19003.17	E	Quirjns		5	5			
2007_30	FLR course	439.19003.03	D	Poos		13	3			
2007_31	ICES Study Group on the North S	439.19003.08	B	Craeymeersch		11	11			
2007_32	Marine Shellfish Culture MASC		E	Kammermans		5		5		
2007_33	Taxonomic Quality Issues in DAT	439.19003.13	E	Daan		8	8			
2007_34	WGEEL		B	Dekker		8		8		
2007_35	WKDRP discard raising procedure	439.19003.20	C	helmond		12	12			
TOTAL ICES groups						172	114			
TOTAL Programme						864	621			

7. Financing

From 2004 onwards, a new framework was developed to carry out the research by DLO for the Ministry of Agriculture, Nature and Food Quality (LNV). There are three financial layers: kennisbasis (KB), statutory tasks (WOT) and policy supportive research (BO).

Long term agreements between DLO and LNV cover the WOT. Policy supportive research projects are directed to applied short term requests from managers and tend to last up to 2 years.

The development of expertise programme for 2007 was financed by the research budget reserved for the kennisbasis programme. At the evaluation of the WOT programmes in 2004, it was agreed to allocate an annual budget to these programmes thus enabling key expertise to be maintained or developed to carry out the WOT. The available budget in 2007 for WOT programme 406 "Wettelijke Taken Visserijonderzoek" is € 621000. This budget was expanded with additional funds from international research programmes.

The existing requests for kennisbasis WOT money in 2007 show that the budget is already over subscribed (Table 4).

8. Co-operation

Many of the WOT tasks must be carried out in collaboration with research organisations from abroad. In particular the research at sea, the sampling of the catches, the development of methods and models and also the international advisory process its self. Thus it is evident that international cooperation is often required to develop the skills base to complete the WOT and maintain quality. All collaboration must conform to the aims and priorities of the WOT programme.

Examples of this cooperation include ICES working groups and a number of EU financed research programmes. The strength of these cooperation's are that knowledge and technology transfers are carried out in a more cost effective manner with efficiencies of scale. It also reduces the risk of IMARES "*reinventing the wheel*" when dealing with novel requests and new situations.

9. Preview to 2008-2010

The Kennisbasis WOT budget is only determined a year at a time, hence future planning is difficult. However it is important to consider funding obligations into the future and strategic changes that are needed to prepare for future requests. At present a large proportion of the 2007 budget appears obligated towards co-financing EU 6th framework projects. However whether these are directly within the WOT portfolio has yet to be determined. Table 3 describes the requested funding commitments to date for 2008 and 2009.

Appendix 1. Format application form for KB WOT projects

Research priority Area:	
Title of project	
Number of project	2007/
Project leader	
Participating partners	
Duration	
Broad description of the project	
Why should this be funded by KB WOT?	
Products to be delivered?	
Budget	
Is the appropriate capacity available?	
Other potential funding sources have been considered?	
What are the potential risks to the project's success?	

Appendix 2. Description of Projects in the Kennisbasis WOT 2007.

Research priority Area:	Priority area A: influence of changes in the environment on marine ecosystems
Title of project	INEXFISH: Incorporating extrinsic drivers into fisheries management
Number of project	2007_1
Project leader	Gerjan Piet
Participating partners	ULIV, IPIMAR, DIFRES, UBARI, UDUS, MRI, USTOCK, Morski Instytut Rybacki,
Duration	1 st January 2006 – 31 December 2008
Broad description of the project	EU-funded project in the sixth framework program in which the effect of extrinsic drivers on commercially important stocks in the different European waters (N.E. Atlantic, Baltic, Mediterranean and Iberian) is analysed. It will be tried to incorporate these drivers in the different management tool.
Why should this be funded by KB WOT?	It is felt that INEXFISH fulfils all the criteria for funding under KB WOT.
Products to be delivered?	A number of reports and scientific papers + newsletters and a website.
Budget	50% of the budget should come from contra-finance: The Dutch part is in three years €163.175. After request of the KB WOT leader last year a part of last years funding was returned, expecting it to be given in the next year of the project. Resulting in an estimated amount of €54k this year followed by €54k in 2008.
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	Low

Review Team decision: Funding agreed as agreement existed about transferring money from 2006 to 2007. However there is still uncertainty about the actual budget requirements for 2007 and 2008. Final budget for 2007 agreed at €70k after further discussions.

Research priority Area:	A: Influence of changes in the environment on marine ecosystems
Title of project	RE solving CL im AT ic IM pacts of fish stocks: RECLAIM
Number of project	2007_2
Project leader	J. Asjes
Participating partners	IMARES (Coordinator), FRS/MarLab, CEFAS, IFREmer, UniH, DIFRES, IMR, NIOZ, UiB
Duration	1-1-2007 till 31-12-2009
Broad description of the project	Climate change will impact fisheries resources and challenge managers to develop sustainable exploitation strategies. Knowledge on the impacts of climate on fisheries resources is still fragmentary. RECLAIM will summarize current knowledge, test process understanding, improve predictive capacity and formulate future research hypotheses by examining trophic processes, geographical distributions and essential habitat requirements for marine and shellfish in the NE-Atlantic. A conceptual framework will be developed to distinguish between processes acting on individual (physiology, behaviour), population (predation, competition) and ecosystem (physical habitat qualities, biological productivity, trophic coupling) levels. The framework structures a literature review to detect gaps in knowledge and, where possible, distinguishes between climate and anthropogenic influences. A comparative analysis follows quantifying climate variability and changes in distribution and productivity of (i) individual species, (ii) selected fish and shellfish communities, and (iii) ecosystem structure and functioning. Target species represent different commercially important resources, ecosystem components (pelagics, demersals), and play key trophic roles (wasp-waist, apex predators) within NE-Atlantic ecosystems. Changes in ecosystem structure and functioning will be analysed from fisheries and scientific survey data including planktonic, benthic and fish production and consumption in relation to climate forcing and fishing. Relevant spatial and temporal scales of climate change and variability will be explored using time series analyses, spatial statistics and coupled 3-D hydrodynamic ecosystem models. Using a variety of approaches, RECLAIM will both hind cast as well as forecast the effects of climate change on the productivity and distribution of fish and shellfish stocks to formulate hypotheses and research needs to be addressed in future EU research.
Why should this be funded by KB WOT?	Climate change will have an impact on fisheries resources. The details of this impact are largely unknown at the moment. This EU funded project will review these effects, test process understanding and draw up hypotheses and recommendations for future research. This research project provides the first opportunity for IMARES to review and develop knowledge about the effects of climate change on fish. Furthermore it enables IMARES to closely cooperate with international partners and combine their knowledge and models about the (hydrodynamic) impacts of climate change with our knowledge about the biology and ecology of pelagic and demersal fish species in especially the North Sea in order to elaborate the effects of climate change. It is expected that this project will provide the basis for future EU funding on this subject.
Products to be delivered?	The deliverables are many and specified in the Technical Annex of this project and range from a literature review, a meta-database, several manuscripts, a website to stakeholder-workshops
Budget	The total budget for RECLAIM is € 3.019.221,- and the EC contribution is € 1.700.000,-. The total budget for IMARES is € 659.910,- and the EC contribution is € 378.955,-. The necessary budget for co financing is € 280.955,-. The budget asked for within KB WOT is: 2007: € 93.652,- 2008: € 93.652,- 2009: € 93.652,-
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	Low

Review Team decision: Funding agreed.

Old form in Dutch, as project agreed in previous year.

Thema	B. Impact van visserij op ecosysteem
Nummer	2007_3.
Titel	Necessity
Projectleider	Bob van Marlen
Uitvoerende instellingen	RIVO+23 Europese partners. RIVO is consortiumtrekker
Looptijd	01/03/2004-31/05/2007
Beschrijving	Drieëntwintig instituten werken in twee taakgroepen, i.e. Nephrops and Cetaceans om alternatieve vistuigen en vistactieken in samenwerking met het visserijbedrijf te ontwikkelen met als doel het verminderen van bijvangst en sterfte van niet doelsoorten in de relevante Nephrops and pelagische visserijen, zonder noemenswaardig vangstverlies van de hoofddoelsoorten. Er wordt speciale aandacht gegeven aan het consulteren van en het overdragen van de resultaten aan het visserijbedrijfsleven, evenals kennisoverdracht tussen de verschillende Europese partners. De biologische en socio-economische effecten van de voorgestelde maatregelen zullen tevens worden geëvalueerd. Het RIVO coördineert het gehele project en draagt door middel van onderzoek aan pelagische vistuigen bij aan het zeezoogdieren deelproject. Wat is dit?
Motivatie	<ul style="list-style-type: none"> • Het ontwikkelen van soortselectieve vistuigen en het verminderen van ongewenste bijvangsten (ook van zeezoogdieren) is een onderdeel van de ecosysteem benadering gedefinieerd door de ICES. • Ontwikkeling en behoud expertise op het gebied van • is geen juiste motivatie.
Producten	<ul style="list-style-type: none"> • Nieuwe ontwerp(en) voor selectievoorzieningen in pelagische netten, waarmee zeezoogdieren uit de netten kunnen worden geweerd; • Kennis over gebruik van akoestische stimuli (zgn. 'pingers') om zeezoogdieren weg te jagen. • Biologische gegevens van zeezoogdieren; • Rapporten aan de EU en wetenschappelijke publicaties; • Presentatiemateriaal (DVD) voor het visserijbedrijf.
Budget	€ 105000 Is dit voor 2006. 17k in 2007.

Review Team decision: Funding agreed as originally requested at €17k

Research priority Area:	B: impact of the fishery on ecosystems
Title of project	Fisheries induced change
Number of project	2007_4
Project leader	A.D. Rijnsdorp
Participating partners	IASA (coordinator), IFREMER, IMR, MRI, University of Leuven, ICES, DIFRES, and others.
Duration	FishACE: 1/5/2005-1/5/2009 FINE: 1/7/2007-1/7/2010
Broad description of the project	<p>There is growing evidence that the genetic basis of natural populations is affected by fisheries which may impact the sustainable exploitation for instance due to a change in the productivity or erosion of genetic variability. In this project the changes in growth, onset of maturation and reproduction of North Sea sole and plaice will be investigated and the contribution of the phenotypic plasticity in response to changes in temperature and food availability will be disentangled from those of a genetic change. The observed response of plaice and sole, two species which markedly differ in the history of exploitation, will be compared with the expected response obtained by eco-genetic modelling, and will be compared to the changes in the DNA (allele frequencies) determined from otolith samples through collaboration with the University of Leuven. Management scenarios will be compared in their efficiency to mitigate the genetic effects.</p> <p>The research is at the forefront of the scientific developments and is embedded in the EU Research and Training network FishACE (supporting the PhD project of Fabian Mollet from 2006-2008), the EU STREP project FINE (2007-2010) and the network of excellence MARBEF (Marine Biodiversity and Ecosystem Functioning).</p> <p>The research further provides input for the ICES Study Group on Fisheries induced Adaptive Change (SGFIAC) which aims at translating the current scientific knowledge into management implications and prepare the foundation for management advice.</p>
Why should this be funded by KB WOT?	Fisheries management needs to adopt an ecosystem approach in order to achieve sustainable exploitation of the living resources as well as conserving biodiversity. The project will directly provide insight in the effects of fishing on the genetic diversity of exploited fish stocks and will provide guide lines for management systems that minimize the genetic effect of fishing.
Products to be delivered?	<p>Research papers in peer reviewed journals:</p> <ul style="list-style-type: none"> • Grift, Heino, Rijnsdorp, Kraak, Dieckmann. 2007. Three dimensional maturation reaction norms for North Sea plaice. MEPS (in press) • Kraak 2007. Does the probabilistic maturation reaction norm approach disentangle phenotypic plasticity from genetic change? MEPS (in press) • Mollet, Kraak, Rijnsdorp - Fisheries-induced evolutionary changes in maturation reaction norms in North Sea sole (<i>Solea Solea</i>). MEPS (submitted February 2007) • Sexual differences in the exploitation pattern and its implications for fisheries induced evolutionary changes • Mollet et al – Estimating the onset of growth rate, sexual maturity and reproductive investment from individual growth patterns • Mollet et al - Fisheries induced changes in energy allocation schedules of North Sea plaice • Mollet et al. – A comparative study of fisheries induced change in plaice and sole • PhD thesis Mollet (2009)
Budget	<p>The budget asked for within KB WOT comprises</p> <ul style="list-style-type: none"> • 35 kauri to provide otolith preparations, images and growth back-calculations of plaice and sole to be analysed by Fabian Mollet (FishACE) • 25 kauri to support FishACE activities of permanent IMARES staff (participation to workshops) • 15 kauri to provide matching funds for the EU-project FINE <p>2007: € 75.000,- 2008: € 75.000,- 2009: € 75.000,-</p>
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	No particular risks expected.

Review Team decision: after further discussion Funding agreed €75k.

Old form in Dutch, as project agreed in previous year.

Thema	C. Visserijbeheer
Nummer	2007_5.
Titel	Commit
Projectleider	Jan Jaap Poos
Uitvoerende instellingen	Diverse (11) Europese visserij onderzoekinstellingen waaronder het LEI
Looptijd	1-4-2004 tot 31-3-2007
Beschrijving	In COMMIT wordt nauw samengewerkt met het EFIMAS project, maar bij COMMIT gaat men dieper op bepaalde aspecten in zoals onderzoek naar het gebruik van Bayesian technieken (onzekerheidsanalyses) bij stock assessments, ontwikkelen en evalueren van meerjarige TACs/Quota en onderzoek naar het 'Commitment' van stakeholders. Eén onduidelijke warrige zin. Wat wordt er in Commit gedaan
Motivatie	<ul style="list-style-type: none"> • Commit biedt de mogelijkheid expertise op te doen met Bayesian technieken • Daarnaast wordt ook veel socio-economische kennis opgedaan van het visserijbeleid. NIETSEZEGGENDE ZIN
Producten	<ul style="list-style-type: none"> • Twee tussenrapportages • Eindrapportage • Diverse technische rapportages • Wetenschappelijke publicatie
Budget	Requested € 32333

Review Team decision: Funding agreed and then reduced after budget changes at €18k

Old form in Dutch, as project agreed in previous year.

Thema	C. Visserijbeheer
Nummer	2007_6.
Titel	EFIMAS
Projectleider	Jan Jaap Poos
Uitvoerende instellingen	Diverse (30) Europese visserij onderzoekinstellingen waaronder het LEI
Looptijd	1-4-2004 tot 31-3-2008
Beschrijving	In EFIMAS wordt een modelframework ontwikkeld waarmee het Europese Visserij beleid kan worden geëvalueerd. Dit framework wordt ontwikkeld aan de hand van een aantal casestudies, waaronder North Sea Flatfish Verschillende beleidsscenario's voor de verschillende casestudies zullen vervolgens worden doorgerekend en geëvalueerd. Het EFIMAS-project is één van de grotere EU visserij projecten en behoorlijk ambitieus. Er werken ook zeer veel gerenommeerde Europese Visserij instituten aan mee.
Motivatie	Het project biedt de mogelijkheid om de kennis over stock-assessment modellen op het RIVO te uit te breiden en te verdiepen. Bovendien zullen binnen het project met behulp van de 'R', een relatief nieuwe programmeertaal, zeer veel verschillende modellen gekoppeld worden. Op deze manier zal bij het RIVO kennis en expertise worden opgebouwd over 'R'.
Producten	<ul style="list-style-type: none"> • 2 tussenrapportages • eindrapportage • website • Folder/Nieuwsbrief • Rapportage Workpackage 2 • Framework, inclusief technische beschrijving • Diverse technische achtergrond rapporten
Budget	Requested € 32333 and then changed

Review Team decision: Funding agreed and then reduced after budget changes at €3k

Old form in Dutch, as project agreed in previous year.

Thema	C. Visserijbeheer
Nummer	2007_7
Titel	FISBOAT
Projectleider	Charlotte Deerenberg
Uitvoerende instellingen	IFREMER (Frankrijk, coördinator), FRS (UK), RIVO, CEFAS (UK), IMR (Noorwegen), Imperial College (UK), SFI (Polen), SFI (Polen), SIBM-COISPA (Italië) HCMR (Griekenland), AZTI (Spanje), ARMINES (Frankrijk)
Looptijd	1-3-2004 tot 28-2-2007
Beschrijving	Doelstelling van FISBOAT is het ontwikkelen van assessment methoden gebaseerd op uitsluitend informatie afkomstig van surveys. Tevens wordt geëvalueerd hoe deze nieuwe methoden presteren in het voorzien van advies voor visserijbeheer. Het project raakt een aantal onderzoeksgebieden zoals populatiebiologie, survey methoden, stock assessment, management. Het internationale project bestaat uit 6 werkpakketten waaronder een aantal case studies.
Motivatie	Toestandsbeoordelingen van visbestanden zijn meestal gebaseerd op gegevens afkomstig uit de visserij. Deze zijn die vaak niet compleet en soms zelfs onbetrouwbaar. Voorbeelden zijn het meestal ontbreken van discardgegevens en voorkomen van niet gerapporteerde aanvoer. Een alternatief is om de toestandbeoordeling te baseren op gegevens van bestandsopnames die jaarlijks worden uitgevoerd. Dit zou leiden tot de ontwikkeling van een nieuw methodologisch raamwerk voor stock assessment en management advies.
Producten	<ul style="list-style-type: none"> • populatie indices en berekeningsmethoden • ontwikkeling van analytische modellen en procedures • testen van performance van procedures (case studies) • interim report 2005 • eindrapportage 2007 • Website http://www.ifremer.fr/drvecolah/fisboat/partners.htm • Folder
Budget	Requested € 32333and then changed

Review Team decision: Funding agreed and then reduced after budget changes at €22k

Research priority Area:	Priority area C: Fishery Management
Title of project	A framework for fleet and area based fisheries management (AFRAME)
Number of project	2007_8
Project leader	Jan Jaap Poos
Participating partners	AZTI, CEFAS, DIFRES, FRS, HCMR, IFM, IFREMER, IMR, FOI
Duration	2 years
Broad description of the project	The chief objective of AFRAME is to develop a framework for fleet and area-based fisheries management. The project has three research themes: 1, the development and testing of a framework for describing fleet activity in terms of the fisheries in which the fleet participates, and how it allocates its effort across these fisheries; 2, the development of indicator approaches to summarising information and presenting advice in relation to multi-fleet, multispecies fisheries; and 3, stakeholder perceptions and institutional implications of a shift to fleet and area based management. These themes will be developed through application in three contrasting case study areas: 1, the demersal fisheries of the North Sea, which represent a relatively data-rich area with relatively few important commercial species, all of which are assessed routinely; 2, the demersal fisheries of ICES areas VII and VIII (the Channel, Celtic Sea and the Bay of Biscay), which has a relatively high number of target species, not all of which are assessed; and 3, the Mediterranean, which has a high number of target species, with very little stock assessment information.
Why should this be funded by KB WOT?	This project addresses potential changes in the focus of fisheries management and the advisory role that IMARES plays in this. The effects of changing from output management to input are studied, and models that aid to advise based on input management are evaluated. This change in management strategies can be foreseen in the near future, and knowledge about new strategies is essential for the institute to operate in advising stakeholders in the future.
Products to be delivered?	Project report
Budget	Total budget over 3 years (2007 Q2 -2009 Q1): approx 198 k€ Co financing 2007 : 28 k€
Is the appropriate capacity available?	It is available, but scarce
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	None

Review Team decision: Funding agreed at 30k

Old form in Dutch, as project agreed in previous year.

Thema	A. Invloed van veranderende leefomgeving op mariene ecosystemen
Nummer	2007_9
Titel	Effecten van Klimaat op Early Life History Strategies van platvis
Projectleider	Loes Bolle
Uitvoerende instellingen	RIVO, NIOZ (Henk van der Veer)
Looptijd	2006-2007
Beschrijving	Het NIOZ heeft RIVO om samenwerking gevraagd in onderzoek naar veranderingen in populatiedynamica van platvispopulaties. Dit bouwt voort op eerder onderzoek dat Loes Bolle bij het NIOZ en RIVO heeft uitgevoerd. NIOZ is bereid budget tegen het RIVO budget aan te plakken zodat er ruimte ontstaat om twee wetenschappelijke publicaties te schrijven. Het 1e stuk betreft een analyse van gegevens van een aantal surveys met de Pelagia uit de tijd dat Loes Bolle op het NIOZ werkte. Het 2e stuk betreft een synthese van de invloed van klimaatveranderingen (mn temperatuur toename) op de populatiedynamica van schol, tong en schar. Dit stuk is tevens de synthese van het proefschrift van Loes Bolle. Beide stukken leveren een belangrijke bijdrage aan dit proefschrift.
Motivatie	<ul style="list-style-type: none"> • Kennisontwikkeling in een relevant en actueel werkveld; • Afronden van bestaand werk tot wetenschappelijke publicaties; • Bijdrage aan afronding proefschrift Loes Bolle; • Efficiënte benutting van NIOZ budget.
Producten	<ul style="list-style-type: none"> • 2 Wetenschappelijke publicaties; • Afronding proefschrift Loes Bolle.
Budget	Totale budget: 105 k€ NIOZ: 40 k€ RIVO: 65 k€ Gevraagde bijdrage KB WOT: 2006: 32,5 k€ 2007: 32,5 k€

Review Team decision: Funding agreed at €33K

Research priority Area:	A
Title of project	Impact of climate change on predator-prey interactions and population dynamics
Number of project	2007_10
Project leader	Joep J. de Leeuw
Participating partners	Reinier Hille Ris Lambers, Willem Dekker
Duration	2007
Broad description of the project	<p>Main goal of the project is to develop models to identify transitions in predator-prey relationships as a consequence of climate change-induced shifts in growth rates and timing of spawning.</p> <p>The fish community of lake IJsselmeer (2000 km²) is characterized by a dominance of smelt (<i>Osmerus eperlanus</i>) as prey fish species and the percids pikeperch (<i>Stizostedion lucioperca</i>) and perch (<i>Perca fluviatilis</i>) as the dominant piscivores. The smelt population is highly variable because of life history characteristics (>95% of the smelt population reproduces at an age of 1 year) with highly variable recruitment and survival rates due to annual variation in temperatures¹. Pikeperch on the other hand is a warm-water species on its northern boundary in IJsselmeer. Pikeperch respond to higher temperatures through strong increases in growth rates and early maturation. Pikeperch suffer strong mortality in size classes above 25 cm due to fishing (bycatch fykenet fishery, gillnet fishery on fish >42 cm) and due to predation by cormorants (<i>Phalacrocorax carbo</i>). Growth of pikeperch below 25 cm is strongly affected by the availability of smelt as a food source. Thus depending on the availability of smelt and the temperature regimes pikeperch grow both faster into, and possibly out of the predation window for the cormorant. This in turn feeds back on smelt recruitment and survival rates.</p> <p>Lines of research:</p> <ul style="list-style-type: none"> - Analyse temperature-dependent spawning, growth and (percids-smelt) predator-prey relationships to identify match-mismatch phenomena - develop models for simple foodweb predator-prey dynamics with temperature driven transitions - extend simple models to multiple-prey species (N.B. young fish of other species may act as alternative prey when smelt stocks are low,) including density-dependent feedback mechanisms.
Why should this be funded by KB WOT?	Understanding the dynamics of smelt and pikeperch is of utmost importance because the implementation of European Directives (Water Framework Dir. and Bird-Habitat Dir.) requires the estimation of preset threshold levels for assessment of ecological quality and sustainability of sensitive species. Especially smelt is the key species of this system as the main food resource for large numbers of bird species (e.g. goosander, smew, black tern and little gull) for which special conservation criteria have to be met through these European Directives.
Products to be delivered?	<ol style="list-style-type: none"> 1. Predator-prey models with temperature components 2. Scientific paper(s) on temperature-induced predator-prey models and implications of climate change on food webs and fish communities. 3. Short summary report (Dutch) with main conclusions and implications for management within European Directives
Budget	K€ 60
Is the appropriate capacity available?	yes
Other potential funding sources have been considered?	no
What are the potential risks to the project's success?	Data series are available and operational, but complications in model development might arise

Review Team decision: Funding not agreed further work required on proposal. Later decision was not to fund this project from KBWOT.

¹ Smelt is a cold water species with IJsselmeer at the southern boundary of its distribution; warm summers can cause exceptionally high mortality

Research priority Area:	Priority area C
Title of project	Developing methods for monitoring glass eel (SIPHON)
Number of project	2007_11
Project leader	Unclear as yet
Participating partners	IMARES
Duration	2007
Broad description of the project	<p>In 2005-2006 IMARES developed and tested siphon systems that can be used to allow a more natural immigration of glass eel from salt to fresh waters. The results indicated that siphon systems work very well for glass eel immigration and may also be used for monitoring the availability of glass eel, as an alternative for the current IMARES monitoring system based on lift-nets. It was concluded that additional siphon measurements are needed, before siphon-observations could be used to replace current lift-net observations.</p> <p>Technically this siphon needs further development: When the tides turn the catch will be lost as soon as the direction of the flow changes and turns towards salt water, carrying the glass eel that were caught during a phase when salt water flowed through the siphon towards the holding net at the freshwater side. Self-adjusting valves are needed to prevent this loss of glass eel. Equipped with such valves, a siphon could also be operated over much longer periods of time, without direct supervision or assistance, thereby reducing the costs of operating a monitoring program based on siphon observations.</p> <p>The Den Oever location is by far the most important of the IMARES glass-eel monitoring program. The other locations are primarily used as an addition to Den Oever. E.g. in case the monitoring at Den Oever fails because of construction works or dredging activities. Also, these additional locations cover a much shorter period and the frequency with which glass eel are monitored over the season is much less intensive as compared to the Den Oever measurements. Moreover, the Den Oever location is part of an international glass-eel monitoring scheme. From this, it is especially important to develop an alternative or additional monitoring system for this particular location.</p> <p>Goals</p> <ul style="list-style-type: none"> • Development of a siphon for monitoring the glass eel immigration at Den Oever, the most important monitoring location of The Netherlands. • Test this siphon system on it's technical feasibility at the en Oever location. • Compare the lift net and siphon observations with respect to: the length of the immigration period, the number of glass eels caught, and the precision of the estimate of relative glass eel availability from siphon and lift net observations.
Why should this be funded by KB WOT?	This fits most of the criteria for the KB WOT programme.
Products to be delivered?	<p>Approach & Time Table</p> <p>A siphon will be developed for the Den Oever location, equipped with valves that prevent the loss of glass eel at low tides: January 2007.</p> <p>This system will be installed at Den Oever (if possible): February 2007</p> <p>This system will be operated by IMARES personnel during the glass eel season of 2007, independent of the lift net measurements that are routinely made by Rijkswaterstaat personnel as part of the IMARES monitoring program: March-June 2007</p> <p>The siphon and lift net catches will be compared as discussed above: July-September 2007).</p> <p>Final report</p>
Budget	430 hours WO, 310 HBO, €15k travel and equipment. Total €74K
Is the appropriate capacity available?	Unclear
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	Medium

Review Team decision: Funding was agreed at €60k and then later cut again as project failed to deliver any product to €22k

Research priority Area:	Priority area D: " Maintenance of key expertises "
Title of project	Age reading
Number of project	2007_12
Project leader	Bolle
Participating partners	ICES through PGCCDBS
Duration	Jan – Dec 2007
Broad description of the project	The following three aspects of age reading are essential for the maintenance of a key expertise within IMARES <ul style="list-style-type: none"> • Training of new age readers • International calibration: participation in international (mainly PGCCDBS coordinated) exchanges and workshops • Development of QA procedures within IMARES ("taakgroep")
Why should this be funded by KB WOT?	The above described aspects of age reading are not covered by the routine WOT tasks and funding and have since 2004 been covered by KB-WOT funding
Products to be delivered?	<ul style="list-style-type: none"> • Report of the 2006 horse mackerel exchange and workshop (IMARES report submitted to PGCCDBS) • Report of the 2005-06 turbot and brill exchange (IMARES report submitted to PGCCDBS) • Report of the 2005-06 cod exchange (Dutch participation, Marine Institute report submitted to PGCCDBS) • Report of the 2005-06 sole exchange (Dutch participation, CEFAS report submitted to PGCCDBS) • "Exam" results of trainee's
Budget	€ 40000
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	Insufficient prioritisation within institute

Review Team decision: Funding agreed.

Research priority Area:	C
Title of project	Management of elasmobranch fisheries in the North Atlantic
Number of project	2007_13
Project leader	Henk Heessen
Participating partners	members of WGEF
Duration	18 months
Broad description of the project	To write a synthesis on the developments in elasmobranch assessments since 2000. The synthesis would be based on the DELASS report, the latest reports of the ICES WG on Elasmobranch Fishes, and the reports of the EU SGRST group on Elasmobranch Fisheries
Why should this be funded by KB WOT?	It is a synthesis of knowledge gathered from sampling and analysis of material collected under the WOT programme, and from participating in WOT funded meetings.
Products to be delivered?	In 2008 an ICES Cooperative Research Report will be published
Budget	120 hrs SRO in 2007 €13,560 (and same amount in 2008).
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	Not yet
What are the potential risks to the project's success?	Poor participation of certain members of WGEF

Review Team decision: Funding agreed.

Research priority Area:	E small research projects
Title of project	Programme leadership/coordination of KB WOT
Number of project	2007_14
Project leader	Mark Dickey-Collas
Participating partners	IMARES
Duration	2007
Broad description of the project	Monitoring, organising and reporting on KB WOT programme through out the year.
Why should this be funded by KB WOT?	Coordination is crucial to a successful programme
Products to be delivered?	Description of funded projects Brief quarterly reports on expenditure and progress End of year report
Budget	15000
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	Low

Review Team decision: Funding agreed.

Research priority Area:	A
Title of project	Reproductive and Recruitment Processes Symposium
Number of project	2007_15
Project leader	Mark Dickey-Collas
Participating partners	The Northwest Atlantic Fisheries Organization (NAFO), the North Pacific Marine Science Organization (PICES), and the International Council for the Exploration of the Sea (ICES)
Duration	1 May to 30 November, symposium dates 1-3 October.
Broad description of the project	Mark Dickey-Collas has been accepted by ICES, NAFO and PICES, with the support of IMARES management as a co-convenor of the symposium. His work will involve preparing, taking part in the symposium and producing the proceedings.
Why should this be funded by KB WOT?	The subject matter of the symposium, the management oriented approach and maintenance and development of key expertise make this symposium suitable for WOT KB funding. The symposium will provide a scientific forum to present and discuss study findings on reproduction, early life history and recruitment of exploited marine finfish and invertebrate stocks. An understanding of the cause, variability and magnitude of change is important for a manager. This understanding will allow a proper assessment of risk, an analysis of the probability of stock recovery (or what is over exploitation), and hopefully to distinguish between anthropogenic and non-anthropogenic effects on the ecosystem.
Products to be delivered?	Internal Report and the symposium proceedings.
Budget	€4520 (40 hours of scale 12 time).
Is the appropriate capacity available?	Yes, already agreed by IMARES management but no budget.
Other potential funding sources have been considered?	Yes- ICES will fund travel and the symposium will provide accommodation. Only hours to be paid by IMARES.
What are the potential risks to the project's success?	Low risk.

Review Team decision: Funding not agreed as felt more suitable for general science hours funding..

Old form, as project agreed in previous year.

Thema	E. Kleine onderzoeksprojecten
Nummer	2007_16
Titel	Paaiplaats haring
Projectleider	Cindy van Damme
Uitvoerende instellingen	RIVO
Looptijd	2005-2007
Beschrijving	To determine the proportion of winter spawned herring that are taken in 2004 and 2005 summer catches. Micro-increment analysis is used to analyse otoliths from the catch to determine whether the fish are autumn, winter or spring spawners. This allows us to proportion catches from the mixed summer fishery to spawning locations. The research was started in 2005 and continuation in 2006 is necessary for building up a long-term dataset and investigating inter-annual variability.
Motivatie	<ul style="list-style-type: none"> This project is a first step to help determine if the current management of North Sea herring ensures that Downs herring are exploited properly. The ratio of autumn spawners to winter spawners is assumed to be fixed under the current management plan
Producten	<ul style="list-style-type: none"> We have already shown that the winter catches in 2003/2004 were 100% winter spawners and over 50% of the Dutch summer catches were also winter spawners. Within 6 months of work, we have achieved results that critically question the current assumptions about North Sea herring spawning distribution as being stable and the setting of the TACs as a fixed ratio. Catch information with which to approach PV and LNV to show them that we have methods to address their worries about Downs herring and suggest that the fixed quota system is inappropriate.
Budget	€ 15k

Review Team decision: Funding agreed.

Research priority Area:	Priority area D: maintenance key expertises
Title of project	BEWG ICES Benthos Ecology Working Group
Number of project	2007_17
Project leader	Johan Craeymeersch?
Participating partners	
Duration	23-27 April 2007 Wilhelmshaven Germany
Broad description of the project	The Working Group deals with a variety of topics which are in the same area where IMARES wants to be active in the market. A number of topics in this meeting deal with changes in abundance and distribution of benthos in relation to changes in the environment (climate) and may link to the EU project RECOVER. Note: the distribution and abundance of Ensis could be included in the considerations of the group
Why should this be funded by KB WOT?	There is no direct link to WOT. However the changes in benthos distribution and composition may have impact on the productivity of fish stocks and become relevant to fishery advice
Products to be delivered?	report of the meeting working group report
Budget	Based on 70 hours OND and €1000 travel money: €7,400. The 70 hours are based on a 5 day meeting (10 hours per day) plus 20 hours for the chair to prepare and report of the meeting €7,400
Is the appropriate capacity available?	YES
Other potential funding sources have been considered?	
What are the potential risks to the project's success?	LOW

Review Team decision: Funding agreed.

Research priority Area:	Priority area B: impact of the fishery on ecosystem
Title of project	SGFIAC ICES Study Group on Fisheries induced Adaptive Change
Number of project	2007_18
Project leader	
Participating partners	Adriaan Rijnsdorp
Duration	26 February - 2 March 2006 Lisbon
Broad description of the project	The WG reviews progress in the area of fishery induced genetic change in different countries and links these to potential management measures to counteract on these. This is the first meeting of the group which deals with new expertise area in ICES and IMARES. The expertise area may become important for ICES in order to provide advice to fishery management
Why should this be funded by KB WOT?	Adriaan Rijnsdorp is co-chair of this study group..
Products to be delivered?	working group report report of the meeting
Budget	Based on 70 hours SOND and €1000 travel money: €8,900. The 100 hours are based on a 5 day meeting (10 hours per day) plus 20 hours for the chair to prepare and report of the meeting. €8,900
Is the appropriate capacity available?	
Other potential funding sources have been considered?	The work of this group is closely linked to the contract research study "Fisheries Induced Change"
What are the potential risks to the project's success?	

Review Team decision: Funding agreed.

Research priority Area:	Priority area A: influence of changes in the environment on marine ecosystems
Title of project	SGRECVAP ICES Study Group on Recruitment variability in North Sea Planktivorous Fish
Number of project	2007_19
Project leader	Mark Dickey-Collas
Participating partners	ICES
Duration	7-11 May 2007 Plymouth
Broad description of the project	This group assesses the probable causes of the poor recruitment in planktivorous fish in the North Sea in recent years.
Why should this be funded by KB WOT?	The
Products to be delivered?	working group report report of the meeting
Budget	Total costs are estimated at €20,000. These include participation of on SOND (MDC) who chairs the meeting and one OND (Ingrid Tulp). The costs are based on 100 hours SOND (5 days of 10 hours + 50 hours of preparing the meeting) and 70 hours OND (5 days of 10 hours + 20 hours for reporting) + €2000 travel costs €20,000
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	There are links with some of the EU projects which may assist finance. There are also links to WGRP.
What are the potential risks to the project's success?	None

Review Team decision: Funding agreed for one person to attend. Second participant to be funded through EU project RECLAIM.

Research priority Area:	Priority area D: maintenance key expertises
Title of project	WGFAST Working Group on Fisheries Acoustics Science and Technology
Number of project	2007_20
Project leader	Sytse Ybema
Participating partners	
Duration	23-27 April 2007 Dublin
Broad description of the project	This is a technical working group with terms of reference mainly dealing with (acoustic) fishing techniques in relation to fish behaviour. In addition, there is a joint Workshop of 1 day with the ICES-FAO Working Group on Fishing Technology and Fish Behaviour [WGFTFB]
Why should this be funded by KB WOT?	WOT is carrying out acoustic surveys on herring and blue whiting. The expertise is within a very small group of people which have no reflection board in IMARES. It is necessary that this group develops international connections in their expertise field (develop network)
Products to be delivered?	working group report meeting report expertise
Budget	The budget in €7,400 based on 70 hours OND (5days x 10 hours + 20 hours reporting and preparation) + €1000 travel €7,400
Is the appropriate capacity available?	
Other potential funding sources have been considered?	
What are the potential risks to the project's success?	

Review Team decision: Funding agreed.

Research priority Area:	Priority area D: maintenance key expertises
Title of project	Working Group on Fish Ecology WGFE
Number of project	2007_21
Project leader	Remment ter Hofstede
Participating partners	IMARES
Duration	5-9 March 2007 Nantes
Broad description of the project	
Why should this be funded by KB WOT?	Participation is important to exchange knowledge and expertise. The participant in a junior scientists and it is important to find a place in the network of this expertise area. The terms of reference are dealing with the research area of the proposed participant.
Products to be delivered?	report of the WG report of the meeting
Budget	€7,400 for OND based on 70 hours (5 days of 10 hours + 20 hours reporting) and €1000 travel money €7,400
Is the appropriate capacity available?	
Other potential funding sources have been considered?	This is more important to IMARES than to WOT
What are the potential risks to the project's success?	LOW

Review Team decision: Funding agreed.

Research priority Area:	Priority area C: Fishery Management
Title of project	WGFS ICES Working Group on Fishing Systems
Number of project	2007_22
Project leader	Wim van Densen
Participating partners	ICES
Duration	23-27 April 2007 Copenhagen
Broad description of the project	The WG is evaluating and investigating all elements in a fishing system and comparable systems. The understanding of the way these systems operate is important to make progress and for improving our communication within this system. The WG is preparing a cooperative research report on the Management Symposium held in 2006.
Why should this be funded by KB WOT?	
Products to be delivered?	Participation to the WG WG report; co-operative research report
Budget	€5,500 for OND or €6,700 for SOND based on 50 hours (5 days of 10 hours) and €1000 travel money €5,500
Is the appropriate capacity available?	
Other potential funding sources have been considered?	EU project
What are the potential risks to the project's success?	

Review Team decision: Funding agreed.

Research priority Area:	Priority area D: maintenance key expertises
Title of project	Working Group on Fishing Technology and Fish Behaviour WGTFB
Number of project	2007_23
Project leader	Bob van Marlen
Participating partners	
Duration	23-27 April 2007 Dublin
Broad description of the project	The group deals with a variety of topics related to fishing and fishing gears such as behaviour of fish in demersal trawls in relation to selectivity, impact of Crangon gear on habitat. The group has a joint meeting of one day with the Working Group on Fisheries Acoustics Science and Technology
Why should this be funded by KB WOT?	There is no direct relation with WOT. However, it is important to IMARES to maintain contact to a network of gear technicians as the problems, this working group is dealing with, often qualify for research projects in EU frameworks
Products to be delivered?	working group report meeting report
Budget	The budget in €8,900 based on 70 hours SOND (5days x 10 hours + 20 hours reporting and preparation) + €1000 travel €8,900
Is the appropriate capacity available?	
Other potential funding sources have been considered?	contract?
What are the potential risks to the project's success?	

Review Team decision: Funding not agreed as to be paid through EU project NECESSITY.

Research priority Area:	Priority area C: Fishery Management
Title of project	WGMG Working Group on Methods of Fish Stock assessments
Number of project	2007_24
Project leader	Frans van Beek
Participating partners	candidate
Duration	13-22 March 2007 Woods Hole USA
Broad description of the project	The terms of reference of the group are a) investigate further, and test, the sensitivities of stock assessment methods to known data problems with particular reference to the retrospective problem; b) operationalise methods to include discard data in stock assessments; c) review developments in fisheries-independent (e.g. survey-based) assessment tools; d) evaluate the current state of operational evaluation tools for fisheries management options; e) provide guidance on incorporation in assessments of estimates of variance in input data; and f) provide guidance to assessment Working Groups on the inclusion of variable weights and maturities in assessments, predictions and management simulations.
Why should this be funded by KB WOT?	The work of this group is essential to progress in the development of techniques of fish stock assessment and the evaluation of management strategies. The assessment working groups are part of the WOT programme. TOR a), b) and d) are dealing problems our scientists are facing in assessments on fish stocks of Dutch interest. TOR 3 is related to EU project NAME. TOR d) is reviewing progress of development of management tools for example as being developed in SGMAS (of which participation is covered in the WOT programme).
Products to be delivered?	
Budget	€13,800 for an OND based on 130 hours (10 days of 10 hours +30 hours preparation and reporting) and €2000 travel money €13,800
Is the appropriate capacity available?	NO
Other potential funding sources have been considered?	
What are the potential risks to the project's success?	Candidate should have experience in assessment working groups and have communication skills for back reporting

Review Team decision: Funding not agreed. Capacity is not available to attend this group.

Research priority Area:	Priority area D: " Maintenance of key expertises "
Title of project	WGSAM Working Group on Multispecies Assessment Methods
Number of project	2007_25
Project leader	Remment ter Hofstede
Participating partners	ICES
Duration	San Sebastian Spain 15-19 October 2007
Broad description of the project	The previous SGMSNS is now extended and merged with the SGMAB to a Working Group on Multispecies Assessment Methods (WGMSAM), to provide insight on: (i) potential recovery of stocks; (ii) the concept of maximum-sustainable yield and precautionary reference points within a multispecies context; (iii) the impact of changing prey populations on dependent wildlife species; (iv) the potential ecological impact of emergent species and/or long-term change in food webs; (v) the potential food-web implications of different management actions, including spatial closures, as well as needs and standards for stomach sampling.
Why should this be funded by KB WOT?	The increased emphasis on ecosystem management, and the move away from advising on single stocks in isolation, necessitate considering interactions between fish stocks and between fish stocks and the ecosystems which they are part of. Niels Daan is the major person in IMARES with extensive expertise in multispecies. He will retire in the course of next year, The expertise expected to become more important in the coming years and should be strengthened.
Products to be delivered?	working group report expertise
Budget	Based on 70 hours OND (5 days of 10 hours + 20 for reporting) + €1000 travel money, the costs are €7,400 €7,400
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	None

Review Team decision: Funding agreed.

Research priority Area:	Priority area D: " Maintenance of key expertises "
Title of project	WGRP
Number of project	2007_26
Project leader	Mark Dickey-Collas
Participating partners	ICES
Duration	13-14 July, St Johns Canada
Broad description of the project	<p>This working group is tasked with identifying the challenges presented to sustainable fisheries management of selective processes in early life history, to synthesise the work on multi-stage models of recruitment to determine whether patterns exist either within species or within ecosystems and review the SGRECVAP report on poor recruitment in North Sea herring.</p> <p>It is an expert group that is also used as a forum for recruitment issues and the analysis of early life strategies (such as WOT works on in plaice, sole and herring).</p>
Why should this be funded by KB WOT?	Understanding the processes and dynamics of recruitment and maintaining an expertise in the current methods and models of recruitment research is crucial to the provision of advice in marine fisheries. Many over exploited stocks rely on recruitment as there only form of production, and projections of catches into the future for these stocks are often overly dependent on the recruiting year classes. Therefore this WG falls directly into the KBWOT as both the maintenance of key expertise and understanding the impact of the environment on fisheries.
Products to be delivered?	Working group report expertise
Budget	Based on 30 hours SOND (2 days of 10 hours + 10 hours reporting) + €1500 travel the costs are estimated at €4,900 €4,900
Is the appropriate capacity available?	yes
Other potential funding sources have been considered?	Yes- it is probable that the costs for this working group could be paid through work package 2 of the EU project UNCOVER
What are the potential risks to the project's success?	None

Review Team decision: Funding not agreed, as group thought more appropriate for EU project UNCOVER funding.

Research priority Area:	Priority area D: " Maintenance of key expertises "
Title of project	Workshop on Sexual Maturity Sampling WKMAT
Number of project	2007_27
Project leader	Willem Dekker
Participating partners	ICES
Duration	15-19 January 2007 in Lisbon
Broad description of the project	The Workshop is held to give guidance on sampling procedures of sexual maturation which are carried out in national monitoring programmes. Also there is a need for standardisation in sampling procedures between countries. Also guidance is requested on the way the data should be used in assessments
Why should this be funded by KB WOT?	Sexual maturity is a biological parameter for which all countries have to establish a sampling plan according the DCR. The collection of the parameter is included in the annual National Programmes (NP). The initiative to the workshop was taken by PGCCDBS which recognised the need for it. The Commission expects Member States to participate. Also the Dutch participant (Willem Dekker) has committed to the chair the meeting.
Products to be delivered?	A report with advice for a sampling strategy. Possibly, if sampling can be coordinated internationally, it could also be carried out more economically
Budget	Based on 100 hours SOND and €1000 travel money: €12,300. The 100 hours are based on a 5 day meeting (10 hours per day) plus 50 hours for the chair to prepare and report of the meeting The travel costs are eligible in the 2007 NP €12,300
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	None

Review Team decision: Funding agreed.

Research priority Area:	Priority area D: " Maintenance of key expertises "
Title of project	Workshop on Sexual Maturity Staging of Mackerel and Horse Mackerel WKMSMAC
Number of project	2007_28
Project leader	Cindy van Damme
Participating partners	ICES
Duration	18-22 June 2007
Broad description of the project	<p>This workshop has the objective of reaching an agreement on a common scale to be used, but also to define objective criteria to classify the maturity stages of that scale. The expectation is that the Workshop produces a comparative description of the scales in use in the different labs, and if possible a correspondence between maturity stages of those different scales.</p> <p>Further the WS has the goal of measuring in what extent the criteria to classify maturity stages is coherent between technicians, and to identify where are the major sources of disagreement.</p> <p>The final goal of the workshop, that is having a common scale for maturity stage, with a common set of criteria to classify each stage, to be used by all labs.</p>
Why should this be funded by KB WOT?	The maturity stage is an important biological parameter to be used in the calculation of maturity ogives (and therefore of Spawning Stock Biomass), for the definition of the spawning season of a species, for the monitoring of long-term changes in the spawning cycle, and for many other research needs regarding the biology of fish.
Products to be delivered?	exchange of expertise; agreement on common scales for maturity scales to be used in all labs
Budget	Based on 70 hours OND and €1000 travel money: €7,230. The 70 hours are based on a 5 day meeting (10 hours per day) plus 20 hours to prepare and report of the meeting The travel costs are eligible in the 2007 NP €7,230
Is the appropriate capacity available?	yes
Other potential funding sources have been considered?	no; consider survey budget
What are the potential risks to the project's success?	none

Review Team decision: Funding agreed for 1 person to attend.

Research priority Area:	Priority area E: small research projects
Title of project	WKUFS Workshop on using Fisherman to sample catch
Number of project	2007_29
Project leader	Floor Quirijns
Participating partners	ICES
Duration	Bergen Norway 5-6 June
Broad description of the project	<p>The Workshop is held on initiative of PGCCDBS and tries to investigate the possibility to involve the fishery industry in data collection. The terms of reference are:</p> <p>b) Review existing systems for using fishers to sample catches (self sampling systems).</p> <p>c) Propose procedures for the design of self sampling systems (training, survey design etc.).</p> <p>d) Recommend procedures for ongoing quality control of the information obtained and the design of selfsampling systems, in particular how to assess whether the objectives have been met.</p> <p>There is a direct link with the EU DCR and outcomes from this Workshop will be of interest to several RFOs, including GFCM and NAFO.</p>
Why should this be funded by KB WOT?	<p>There are several reasons to involve the fishing industry in data collection. These include:</p> <ul style="list-style-type: none"> • to improve the quality of the data in particular of discard data • to create better support for the information used in assessments • to improve the relationship between scientists and fishers • to work more cost effective <p>Using scientists to collect information on commercial catches is usually not cost effective. Several institutions are now employing selected fishers (often called a 'reference fleet') to measure a sub sample of their catches, extract otoliths, record the amount of discards, etc. This may be a cost efficient way to collect such data but care is needed to assure that these data are as useful as possible.</p> <p>The collection of discard data is part of the WOT programme. There is a need to improve the efficiency and quality of the Dutch data collection of discard data. One of the possibilities is to involve the industry in the collection of these data. This meeting will help to investigate the possibilities.</p>
Products to be delivered?	workshop report
Budget	Based on 40 hours OND (20 for the meeting and 20 for disseminating results) and €1000 travel, the costs are estimated at €4,600. The travel costs are eligible to the 2007 NP. €4,600
Is the appropriate capacity available?	yes
Other potential funding sources have been considered?	no
What are the potential risks to the project's success?	To have maximum impact, it is essential that the findings of the meeting are communicated to the designers of the WOT sampling programmes, project leader by catches and F-project.

Review Team decision: Funding agreed.

Research priority Area:	Priority area D: " Maintenance of key expertises "
Title of project	WKFLR
Number of project	2007_30
Project leader	JanJaap Poos
Participating partners	ICES
Duration	29 Januari-2 February 2007 Copenhagen
Broad description of the project	FLR is an assessment tool developed in EU projects and used in ICES assessment working groups. This meeting is a training session for potential users of the FLR tool. The course is given by JanJaap Poos. Hans Bogaards and Geert Aarts will follow the course
Why should this be funded by KB WOT?	The tools are used in assessment working groups which are part of WOT. The expertise in FLR is essential for participants in assessment working groups to carry out assessments.
Products to be delivered?	expertise
Budget	Based on 100 hours OND (2 x 5 days, 10 hours per day) + 2 x €1000 travel money the calculated costs are: €13,400. €13,400
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	None

Review Team decision: Funding agreed for travel only, as training budget should cover time.

Research priority Area:	Priority area B: "Impact of the fishery on the ecosystem"
Title of project	ICES Study Group on the North Sea Benthos Project 2000 [SGNSBP]
Number of project	2007_31
Project leader	J. Craeymeersch
Participating partners	<ul style="list-style-type: none"> - Cochrane, S.: Akvaplan-NIVA, Polar Environmental Centre, N-9296 Tromsø, Norway - Craeymeersch, J.: RIVO, PO Box 77, NI-4400 AB Yerseke - Degraer, S.: University of Gent, Krijgslaan 281/S8, B-9000 Gent - Desroy, N.: Station Marine de Wimereux, 28, Avenue Foch, B.P. 80, 62930 Wimereux, France - Dewarumez, J. M.: Station Marine de Wimereux, 28, Avenue Foch, B.P. 80, 62930 Wimereux, France - Duineveld, G.: NIOZ, PO Box 59, NI-1970 AB Den Burg-Texel - Eggleton, J.: CEFAS, Burnham Laboratory, Burnham-on-Crouch, Essex CMO 8HA, UK - Essink, K.: Rijkswaterstaat/RIKZ, PO Box 207, 9750 AE Haren, The Netherlands; - Hillewaert, H.: Sea Fisheries Department, Ankerstraat 1, B-8400 Oostende - Kröncke, I.: Forschungsinstitut Senckenberg, Schleusenstrasse 39a, D-26382 Wilhelmshaven - Lavaleye, M.S.S.: Royal Netherlands Institute for Sea Research, Postbox 59, 1790AB Den Burg - de Kluijver, M.: ISP.ETI, University of Amsterdam, PO Box 49766, NL-1090 GT Amsterdam [- Nehmer, P.: AWI, PO Box, D-27515 Bremerhaven - Newell, R.: Marine Ecological Surveys Ltd., 24a, Monmouth Place, Bath BA1 2AY, UK - Oug, E.: Norwegian Institute for Water Research, Branch Office South, Televeien 3, N-4879 Grimstad Norway - Rachor, E.: AWI, PO Box, D-27515 Bremerhaven - Rees, H.: CEFAS, Burnham Laboratory, Burnham-on-Crouch, Essex CMO 8HA, UK - Reiß, H.: Forschungsinstitut Senckenberg, Schleusenstrasse 39a, D-26382 Wilhelmshaven - Robertson, M.: FRS Marine Laboratory, PO Box 101, Aberdeen, UK AB11 9DB - Smith, R.: CEFAS, Burnham Laboratory, Burnham-on-Crouch, Essex CMO 8HA, UK - Van Hoey, G.: University of Gent, Krijgslaan 281/S8, B-9000 Gent - Vanden Berghe, E.: VLIZ, Vismijn, Pakhuizen 45-52, B-8400, Oostende
Duration	2002 - 2007
Broad description of the project	<p><i>Macrobenthic infaunal communities are especially suited for long-term comparative investigations since many of the constituent species are of low mobility, relatively long lived and integrate effects of environmental changes over time. Further, the macrobenthos of the North Sea has been well studied on localized scales over the last hundred years. The sampling and analytical methodology is well established and so is the theoretical framework within benthic ecology. The macrobenthos is relatively easy to sample quantitatively and is of great importance for environmental surveillance for of the above reasons. It is in fact the main component of biological trend monitoring programmes aimed at evaluating the status of benthic ecosystems. However, the initiative to conduct a synoptic sampling exercise for the North Sea benthos was only taken in 1986, under ICES auspices (e.g., Heip & Craeymeersch, 1995; Heip et al., 1992; Künitzer et al., 1992; Craeymeersch et al., 1997). This involved collaboration between five countries (Belgium, the Netherlands, Germany, France and UK) in the sampling of the entire southern part in April 1986. The data were supplemented by an earlier extensive grid survey of the northern part conducted by Scotland (see, e.g., Eleftheriou and Basford, 1989). In addition to analysis of the benthic macrofauna from grabs, data were also generated on the physico-chemical status of sediments (Basford et al., 1993; Irion & Müller, 1987), on the meiofauna (principally copepods: see Huys et al., 1992) and the epifauna from small trawls or dredges (e.g., Duineveld et al., 1991).</i></p> <p><i>Following the success of this work, the ICES Benthos Ecology Working Group recommended that a repeat survey should be conducted after more than 10 years had elapsed, in order to evaluate any changes to the status of assemblages identified in 1986, in relation to natural or human influences. A decision was therefore made to promote national effort towards the re-sampling of stations from the 1986 North Sea Benthos Survey or, alternatively, to seek contributions from ongoing national research and monitoring effort that might, collectively, allow a comparable holistic assessment to that achieved in 1986. The ICES Study Group on the North Sea Benthos Project 2000 (an offshoot of the ICES Benthos Ecology Working Group) is integrating recent</i></p>

	<p><i>macrobenthic infaunal data (1999-2001) available from various sources, including national monitoring surveys, in North Sea soft bottom sediments.</i></p> <p><i>The objectives of the ICES NSBP 2000 are:</i></p> <ul style="list-style-type: none"> - <i>to re-visit several stations sampled during the 1986 ICES North Sea Benthos Survey;</i> - <i>to augment the NSBP 2000 data with information from other sources (principally from the period 1999 – 2001) in order to maximise coverage of the North Sea area;</i> - <i>to establish a new NSBP data-base at the Flanders Marine Institute;</i> - <i>to work through annual ICES Study Group meetings, inter-sessional Workshops and via the ICES Benthos Ecology Working Group to resolve problems affecting the compatibility of data sets from different sources;</i> - <i>to determine patterns in contemporary North Sea benthic assemblages and the causal influences, by reference to supporting environmental data from the NSBP 2000 and other sources;</i> - <i>to compare the outcome of the NSBP 2000 with that of 1986 and to postulate causes for any observed differences, with reference to information on temporal changes in biotic and environmental factors, including human influences;</i> - <i>to report findings to ICES and to produce publications;</i> - <i>to provide a strategic evaluation of the utility of the collaborative exercise for sea-wide quality assessments, and to make recommendations for the timing and co-ordination of any future work.</i> <p>J. Craeymeersch is contributing to several chapters, and is leader of the chapter on the impact of fisheries. Considering the ongoing intensive bottom trawl fisheries in large areas of the North Sea, investigations will be made of the relationship between the benthos and bottom trawling intensities.</p> <p>The SGNSBP is presently finishing the report. A draft report is held on the VLIZ/NSBP website. Actions for 2007 are devoted to further work by correspondence to complete and integrate chapters for the CRR.</p> <p>For the chapter on the impact of fisheries, only some preliminary analyses have been done and discusses in November at an inter-sessional meeting. The actual analyses and reporting of this chapter was postponed to 2007 because J. Craeymeersch temporarily changed of work.</p>
<p>Why should this be funded by KB WOT?</p>	<p>The assessment of the benthic biological status in the North Sea is relevant to the ongoing interests of ICES, OSPAR and the EU, particularly with regard to its contribution to the development of an ecosystem approach to environmental management.</p> <p>This proposal was funded in 2006. Because J. Craeymeersch temporarily changed of work, he was not able to make much progress on the chapter on the impact of fisheries. The chair agreed to postpone his contribution up to the start of 2007. The budget allocated in 2006 has been used for other projects.</p>
<p>Products to be delivered?</p>	<p>ICES Cooperative Research Report in 2007. Presentations/papers at the Theme Session 'Structure and dynamics of the benthos in ICES Waters' of the ICES Annual Science Meeting 2007.</p>
<p>Budget</p>	<p>Total costs are estimated at €11,100. The costs are based on 100 hours SOND. There are no meetings (and travel costs) planned.</p>
<p>Is the appropriate capacity available?</p>	<p>Yes</p>
<p>Other potential funding sources have been considered?</p>	<p>No</p>
<p>What are the potential risks to the project's success?</p>	<p>None</p>

Review Team decision: Funding agreed.

Research priority Area:	Priority area D: " Maintenance of key expertises "
Title of project	ICES WG MASC
Number of project	2007_32
Project leader	Pauline Kamermans
Participating partners	ICES
Duration	27-29 March, Halifax, Canada
Broad description of the project	The Working Group on MARine Shellfish Culture addresses issues concerning marine shellfish culture such as: the use of stress indicators in shellfish as early warning systems, the utility of hatchery reared seed to enhance wild scallops fisheries, integrated evaluation of the impacts of shellfish aquaculture activities in the coastal zone, maintaining the sustainability of living marine resources and the protection of the marine environment.
Why should this be funded by KB WOT?	Exchange of knowledge with other shellfish experts from ICES countries will increase my understanding of shellfish culture and its impacts. This will enhance the quality of advice given to policy makers.
Products to be delivered?	Working group report expertise
Budget	3 days of 8 hrs SOND + travel + subsistence = € 4,500 Time of travel days will be booked on other projects.
Is the appropriate capacity available?	yes
Other potential funding sources have been considered?	Yes-project budgets are not large enough to cover the expenses.
What are the potential risks to the project's success?	None

Review Team decision: Funding not agreed, as thought outside KB WOT criteria. However recommended to be considered by general science hours funding.

Research priority Area:	Priority area E: small research projects
Title of project	WKTQD ICES Workshop on Taxonomic Quality Issues in the DATRAS
Number of project	2007_33
Project leader	Niels Daan
Participating partners	ICES members
Duration	23-25 January 2007 in Copenhagen
Broad description of the project	The terms of reference of this group are: <ul style="list-style-type: none"> a.) Identify and correct taxonomic mis-identifications and input errors in DATRAS; b.) Develop of protocols for ensuring the appropriate treatment of data reported at higher taxonomic levels; c.) Develop improved protocols to ensure that species identification in trawl surveys is appropriate for fish community studies, including the development of photo-ID keys for nations participating in surveys; d.) Develop protocols for (i) improving quality control during the submission of data to DATRAS and (ii) the future checking and quality assurance of DATRAS data.
Why should this be funded by KB WOT?	Fishery independent data are an important source of information to provide fisheries advice. The data are also used in numerous projects. The project enhances the quality of the data used in fishery science. Niels Daan is chairing the meeting
Products to be delivered?	working group report report of the meeting quality protocols
Budget	The budget is estimated at €7,500 covering the 3 x days of 10 hours SOND to chair the meeting and 3 x 10 hours OND covering the participation of Remment ter Hofstede (3 x 10 hours + 15 hours reporting and preparation) + €2000 for travelling
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	none

Review Team decision: Funding agreed.

Research priority Area:	Priority area E: C
Title of project	ICES eel WG
Number of project	2007_34
Project leader	Willem Dekker
Participating partners	ICES members
Duration	
Broad description of the project	e.)
Why should this be funded by KB WOT?	
Products to be delivered?	
Budget	
Is the appropriate capacity available?	
Other potential funding sources have been considered?	
What are the potential risks to the project's success?	

This project was in the wrong programme and should be cover by WOT, not WOT KB

Research priority Area:	Priority area D: " Maintenance of key expertises "
Title of project	WKDRP discard raising procedures
Number of project	2007_35
Project leader	Edwin van Helmond
Participating partners	ICES
Duration	2 days
Broad description of the project	Workshop on Using Fishermen to Sample Catches: <ol style="list-style-type: none"> 1. Describe objectives of the data collection. 2. Review existing systems for using fishers to sample catches (self sampling systems). 3. Propose procedures for the design of self-sampling systems (training, survey design etc.). 4. Recommend procedures for ongoing quality control of the information obtained and the design of self-sampling systems, in particular how to assess whether the objectives have been met. 5. Discuss methods for analyzing these data; appropriate estimators and sources of variability.
Why should this be funded by KB WOT?	Through better self sampling programmes/cooperative research, more data can be collected that can feed the assessments. In the future IMARES plans to invest in cooperative research between their own discard sampling programme and the 'self-sampling' programmes of the fishing industry.
Products to be delivered?	Improvement of data collection programmes in which fishermen are involved. Exchange information on this subject between countries.
Budget	40 hrs WO + travel + subsistence = € 4,640
Is the appropriate capacity available?	yes
Other potential funding sources have been considered?	Yes-project budgets are not large enough to cover the expenses.
What are the potential risks to the project's success?	None

Review Team decision: Funding agreed.

Research priority Area:	C
Title of project	Bayesian survey based stock assessments
Number of project	2007_36
Project leader	Hans Bogaards
Participating partners	None, although members of the F project will review the work.
Duration	6 months
Broad description of the project	To complete and publish work from the F project on survey based stock assessments of North Sea plaice
Why should this be funded by KB WOT?	The project is within the core objectives of KB WOT as it improves tools for stock assessment and develops new methods. It will produce a working tool (in the FRL framework) that can be used in fisheries science across the world. It adds value to the F project and will result in a manuscript to leading journal.
Products to be delivered?	The submission of a manuscript to a leading fisheries journal. An internal report and new FRL code for Bayesian stock assessments using surveys.
Budget	7 300€ - 80 hours of researcher
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	No
What are the potential risks to the project's success?	Illness of the researcher.

Review Team decision: Funding agreed.

Research priority Area:	A
Title of project	Climate and herring growth
Number of project	2007_37
Project leader	Thomas Brunel
Participating partners	EU project INEXFISH and RECLAIM
Duration	6 months
Broad description of the project	To carryout a meta-analysis of herring growth in the North Atlantic to put the potential changes in growth in North Sea herring into the context of a warming environment.
Why should this be funded by KB WOT?	The project is within the core objectives of KB WOT as it investigates changes in the productivity of fish in relation to environmental variability. It will add value to existing EU projects and also feed directly into the ICES advice on North Sea herring.
Products to be delivered?	The submission of a manuscript to a leading fisheries journal. An internal report.
Budget	18 200€ - 200 hours of researcher (plus another 30 hours from INEXFISH)
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	Yes, additional hours have been found from EU project INEXFISH
What are the potential risks to the project's success?	Illness of the researcher

Review Team decision: Funding agreed.

Research priority Area:	C
Title of project	CAFE
Number of project	2007_38
Project leader	Poos
Participating partners	CEFAS DIFRES CEMAR FRS
Duration	3 years
Broad description of the project	EU funded project on capacity, fishing effort and fishing mortality
Why should this be funded by KB WOT?	This fits within the core funding areas of KB WOT
Products to be delivered?	Project report
Budget	€20k in 2007, €50 in 2008
Is the appropriate capacity available?	Yes
Other potential funding sources have been considered?	Yes, and funding is being fund from other areas too.
What are the potential risks to the project's success?	No great risk other than illness

Review Team decision: Funding agreed.

Appendix 3. List of acronyms

Acronym	Description
ACFM	ICES Advisory Committee for Fisheries Management
AIO	Assistent in opleiding
Akvaplan-NIVA	Norwegian Institute for Water Research
ASC	ICES Annual Science Conference
AWI	Alfred Wegener Institute for Polar and Marine Research, Bremerhaven
AZTI	AZTI Fundación (Spanje)
BEJO	nationaal onderzoeksproject over Japanse Oesters
BEWG	ICES Benthos Ecology Working Group
BFAFi	Bundesforschungsanstalt für Fisherei (Duitsland)
BIM + AquaTec	An Bord Iascaigh Mhara (Ierland)
BO	Beleidsondersteunend Programma
BOP	Beleidsondersteunend Programma
BTS	Beam Trawl Survey
CEDEM	Centre de Droit et d'Economie de la Mer (te Brest)
CEFAS	Centre for Environment, Fisheries & Aquaculture Science (Lowestoft UK)
CEMARE	Institute for Fisheries Management and Coastal Community Development (te Hirtshals, Denemarken)
CLO-DvZ	Centre for Agriculture Research - Sea Fisheries Department
COMMIT	EU gefinancierd onderzoeksproject
CONSTAT	ConStat (Denemarken)
CVO	Centrum voor Visserijonderzoek (IJmuiden)
DATRAS	EU gefinancierd onderzoeksproject
DCR	Data Collection Regulation: Verzameling verordeningen die tesamen de DCR vormen
DIFRES	Danish Institute for Fishery Research
DLO	Dienst Landbouwkunde onderzoek van Wag UR
DYFS	Demersal Young fish survey (ook wel DFS)
EC	Eurpeese Commissie
EFIMAS	EU gefinancierd onderzoeksproject
EHS	Ecologische Hoofdstructuur
EU	Europese Unie
EUFF	Ege University, Fisheries Faculty (Fish Capture Section) Turkije
FAME	EU gefinancierd onderzoeksproject
FISBOAT	EU gefinancierd onderzoeksproject
FISHACE	EU gefinancierd onderzoeksproject
FISHFRAME	Deense database met internationale bemonsteringgegevens van vangsten
FLR	software programmeeromgeving
FOI	Danish Research Institute of Food Economics (Fødevareøkonomisk Institut)
FGFRI	Finnish Game and Fisheries Research Institute
FRISBE	IMARES biologische database
FRS	Federal Research Service Marine Laboratory Aberdeen
HERAS	Haring Akoestische Survey
HERSUR	Haring Surveys
IBTS	Internationale Bottom Trawl Survey
IBTSWG	ICES Internationale Bottom Trawl Survey Working Group
ICES	International Council of the Exploration of the Sea
ICM-CSIC	Instituto de Ciencias del Mar (Consejo Superior de Investigaciones Cientificas) Spanje
ICT	informatie en communicatie technologie

Acronym	Description
IFM	Institute for Fisheries Management and Coastal Community Development (te Hirtshals, Denemarken)
IFREMER	Institut Français de REcherche pour l'Exploitation de la MER
IIASA	International Institute for Applied Systems Analysis
IMBC	Institute of Marine Biology of Crete (Griekenland)
IMR-NO	Institute for Marine Research Noorwegen
IMR-SE	Institute for Marine Research Zweden
INIAP-IPIMAR	Instituto Nacional de Investigação Agrária e das pescas (Portuguese Institute for Agriculture and Fisheries Research)
ISMAR-CNR	Instituto di Scienze Marine - Consiglio Nazionale dell Ricerche (Italië)
JCR	Joint Re
KAM	Kwaliteit, Arbo en milieu
KB	Kennisbasis
KRW	Kader Richtlijn Water
LEI	Landbouw Economisch Instituut
LNV	Ministerie van Landbouw, Natuur en Voedselkwaliteit
MAGP	Multi Annual Guidance Programma (vlootstructuur programma van de EU)
MARBEF	Marine Biodiversity Netwerk of Excellence
MARITIEM	Bedrijf uit Katwijk
MBV	Maatschappelijk Beheerste Visserij
MESH	EU gefinancierd onderzoeksproject: Mapping Eurpean Seabed habitats
MHC	ICES Marine habitat Committee
NCMR	National Centre for Marine Research (Griekenland)
NECESSITY	EU gefinancierd onderzoeksproject
NIOZ	Nederlands Instituut voor Onderzoek der Zee
NS	Noordzee
NWO	Nederlandse Organisatie voor Wetenschappelijk Onderzoek
ORACLE	database software
PGCCDBS	ICES Planning Group on Commercial Catch, Discards and Biological Sampling
R	Software programmeeromgeving
RECOVERY	EU gefinancierd onderzoeksproject
IMARES	Nederlands Instituut voor Visserijonderzoek
RIZA	Rijksinstituut voor Integraal Zoujwaterbeheer en Afvalwaterbehandeling
RTSA	Recruitment Time Series Analysis
RUG	Rijks Universiteit Groningen
SAS	Statistische software programeeromgeving
SEAFISH	Sea Fish Industry Authority (UK)
SEO/SIM	Onderzoeksgelden die strategisch kunnen worden ingezet (voorganger van Kennisbasis)
SGMSNS	ICES Study Group on Multispecies Assessment in the North Sea
SGNSBP	ICES Study Group on the Norht Sea Benthos Project 2000
SGRECVAP	ICES Study Group on Recruitment Variability in North Sea Planktivorous Fish
SGRESP	ICES Study Group on Regional Scale Ecology of Small Pelagics
SIMRAD	Noorse merknaam voor akoestische apparatuur
SNS	Sole Net Survey
SOAP	Simple Object Access Protocol
TAC	Total Allowable Catch
TECTAC	EU gefinancierd onderzoeksproject
TNO-NITG	Nederlands Instituut voor Toegepaste Geowetenschappen TNO
TT	Toestemmingsteam (beoordeeld KB onderzoeksvoorstellen in dit

Acronym	Description
	programma)
UCC	University College Cork, Dept. Zoology and Animal Ecology (Ierland)
UGent	Universiteit van Gent
ULR/CRMM	Centre de Recherche sur les Mannifères Marins (Frankrijk)
USTAN	Sea Mammal Reserach Unit (UK)
VIRIS	Visserij Registratie en Informatie Systeem
VLIZ	Vlaams Instituut der Zee
WGECO	ICES Working Group on Ecosystem Effects of Fishing
WGFAST	ICES Working Group on Fisheries Acoustic Science and Technology
WGFE	ICES Fish Ecology Working Group
WGFS	ICES Working Group on fisheries Systems
WGMAFC	ICES Working Group on Marine Fish Culture
WGMASC	ICES Working Group on Marine Shellfish Culture
WGMHSA	ICES Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine and Anchovy
WGNSSK	ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
WKAFAT	ICES Workshop on Advanced Fish Stock Assessment Techniques
WOT	Wettelijke onderzoekstaken
WP	work package
WU	Wageningen Universiteit
WUR	Wageningen UR
XSD	XML schema beschrijving
XML	Extended Markup Language (programeer omgeving)