Ministry of Small Enterprises, Traders and Agriculture
Sea Fisheries Service (Oostende, Belgium) - DG 2 - General Agricultural Policy
Sea Fisheries Department (Oostende, Belgium) - DG 6 - Research and Development

National Data Gathering Program

under EC Regulation 1639/2001

Belgium

2003

Oostende - May 2002

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1. The Belgian sea fisheries

This section gives a brief description of the Belgian sea fisheries and its most important features. The intention of this description is not to be comprehensive, but to provide a number of essential elements that might help the (external) evaluators in their appreciation and assessment of the NDGP proposal.

1.1. Fleet size and fleet segments

In 2001, the Belgian sea-going fishing fleet comprised 126 registered vessels (see text table below).

Composition of the Belgian sea-going fishing fleet in 2001

Vessel type	Hp class						
	< 250	250-300	301-600	601-900	901-1200	> 1200	Total
Beamers	5	39	1	7	30	21	**103**
Nephrops trawlers		4					**4**
Whitefish + Nephrops trawlers			1	2			**3**
Shrimpers	3	10					**13**
Catamarans		1	1	1			**3**
Total	**8**	**54**	**3**	**10**	**30**	**21**	**126**

Roughly spoken, these vessels can be sub-divided into the following fleet segments:

- Mid-class (301-900 Hp) and large (> 900 Hp) beam trawlers (with 8 and 51 units respectively). These vessels are mostly flatfish directed (particularly towards plaice and sole, together with the associated by-catch species such as turbot, brill, dab, lemon sole, anglerfish and some roundfish), and operate in the central and southern North Sea (ICES Divisions IVb and IVc), the English Channel (VIId,e), the Celtic Sea (VIIf,g), the Irish Sea (VIIa) and the Bay of Biscay (VIIIa,b).

- Small beamers with engine powers ≤ 300 Hp (44 units, of which 30 Eurocutters). Part of these primarily target flatfish, mostly in the southern North Sea and the eastern English Channel. Others shift between flatfish, brown shrimp (*Crangon*) (in the coastal waters) and Norway lobster (*Nephrops*) (in the Botney Gut - Silver Pit area, southern North Sea), depending on catch opportunities and market prices.

- A small number of *Nephrops* directed side and stern trawlers (4 units), and of mixed whitefish and *Nephrops* directed stern trawlers (3 units). Some of these vessels use single rig otter trawls; the others use twin rigs. The *Nephrops* specialist trawlers fish year-round in the Botney Gut - Silver Pit area. The mixed whitefish and *Nephrops* trawlers target

roundfish (primarily cod, haddock, whiting and saithe) during part of the year, and *Nephrops* during the main *Nephrops* season (3rd and 4th quarter).

- Approx. 15 shrimpers, targeting brown shrimp (*Crangon*) in the Belgian coastal waters and the southernmost part of the Dutch coastal waters. Some of these vessels land their catches directly into the Netherlands.
- A small number of catamarans, using different types of passive gear.

Apart from the registered vessels, there is a relatively small number (allegedly < 50) of non-registered recreational fishing boats. Most of these target brown shrimp in the shallow near-shore waters, close to their homeports. Recreational fishing is strongly weather dependent and is usually restricted to the summer months.

1.2. Areas fished

Landings by the Belgian sea-going fishing fleet are mostly from the North Sea (nearly 60 % of the total landings in 2001), followed by the English Channel (nearly 20 %), the Celtic Sea, the Irish Sea (about 10 % each), and the Bay of Biscay (about 2 %). Landings from other areas (Western Approaches, West of Scotland, etc.) are marginal (< 25 t per year) (Table 1.1.).

1.3. Species landed

Belgium has no industrial or pelagic fisheries. All fish landed by Belgian vessels is for human consumption only. The consequence being, that the quantities landed are relatively small (27 10^3 t in 2001), but also that their value per kg is relatively high (approx. 3.4 Euro/kg).

In 2001, the top 10 of the most important species by weight landed consisted of plaice (just over 30 % of the total landings), sole (18.0 %), cod (10.0 %), rays (5.5 %), lemon sole (4.0 %), dab, brown shrimp, haddock, whiting and tub gurnard (Table 1.1.).

1.4. Landing and auctioning practices

Fish and shellfish landed into Belgium are landed fresh and chilled (kept on ice but not frozen). At sea, fish and shellfish are commonly sorted by species or species groupings (e.g. cod, haddock, whiting, sole, plaice, rays, small sharks, *Nephrops*, mixed other flatfish and mixed other roundfish), but not by size. Size grading is done in the auction, either by hand or by automated grading machines.

If the quantities are sufficiently large, then individual species are auctioned separately (and for most species also by market category). Marginal by-catches of species such as eel, John Dory, sea bass, sea bream, etc., are often auctioned mixed, which makes that exact figures

of their quantities landed are difficult to obtain. Mixed sales are also the rule for most species of rays, for megrim, anglerfish, squid, octopus, and, depending on the quantities landed, for gurnard.

1.5. Landings by Belgian vessels in foreign harbours

Roughly one third of all fish landed by Belgian vessels is auctioned in foreign harbours, mostly in the Netherlands. There are three main reasons to this:

- Firstly, it should be borne in mind that about one sixth of all vessels flying a Belgian flag is actually owned by Dutch ship owners, who prefer to land their catches directly into the Netherlands.
- Secondly, the major fishing grounds in the central and southern North Sea are closer to the Dutch auctions (particularly the ones in the North) than to the registered homeports of the vessels in Belgium. By calling into Dutch ports, vessel owners (regardless whether they are Belgian or Dutch) can considerably reduce the time 'lost' on steaming between fishing grounds and port of landing and, concurrently, the associated fuel costs. The combined consequence being: gains in time and lower exploitation costs.
- Thirdly, for many fish species the market prices in the Dutch auctions exceed those in Belgium, which positively affects the financial balance of the vessels that sell their catches in the Netherlands.

Vessels fishing in the Celtic Sea, the Irish Sea, the Bay of Biscay or the northern North Sea often make several consecutive voyages before returning to their homeport. Between voyages, these vessels make stop-overs in the UK or France, where they transfer their landings to refrigerated lorries for transportation to the Belgian auctions. On these occasions, the vessels may sell part of their catches abroad (depending on quantities landed and market situation).

Table 1.1. - Belgian landings by species and area in 2001

All data in t landed weight, rounded to the nearest 5 t

Species	ICES Sub-area or Division							
	IV	VIId,e	VIIa	VIIf,g	VIIh,j,k	VIII	Other	Total
Anarhichas lupus	155	< 10	0	0	0	0	0	**155**
Aspitrigla cuculus	25	110	25	10	0	< 10	0	**175**
Conger conger	< 10	20	15	15	0	< 10	0	**55**
Eutrigla gurnardus	25	< 10	< 10	< 10	0	< 10	0	**40**
Gadus morhua	2120	90	255	290	0	< 10	0	**2755**
Hippoglossus hippoglossus	< 10	0	0	0	0	0	0	**< 10**
Lepidorhombus whiffiagonis	< 10	< 10	< 10	70	< 10	< 10	0	**85**
Limanda limanda	555	145	70	45	0	0	0	**820**
Lophius spp.	205	10	50	140	< 10	50	0	**460**
Melanogrammus aeglefinus	520	< 10	65	135	0	0	0	**715**
Merlangius merlangus	380	65	25	140	< 10	< 10	0	**620**
Merluccius merluccius	72	< 10	< 10	10	0	15	0	**105**
Microstomus kitt	670	95	35	225	0	0	0	**1030**
Molva molva	40	< 10	< 10	25	0	0	0	**75**
Mustelus mustelus	< 10	10	< 10	< 10	0	0	0	**15**
Platichthys flesus	240	55	< 10	< 10	0	0	0	**300**
Pleuronectes platessa	6110	1405	455	265	0	< 10	< 10	**8235**
Pollachius pollachius	30	25	15	45	0	0	0	**115**
Pollachius virens	20	< 10	< 10	< 10	0	0	0	**25**
Psetta maxima	325	55	40	65	0	< 10	< 10	**485**
Rajidae	345	90	675	335	< 10	10	0	**1450**
Scophthalmus rhombus	195	175	45	50	0	< 10	0	**465**
Scyliorhinus canicula	80	145	95	70	< 10	10	0	**395**
Sebastes spp.	< 10	< 10	0	0	0	0	0	**< 10**
Solea solea	1940	1230	645	715	< 10	350	0	**4880**
Squalus acanthias	< 10	< 10	< 10	< 10	0	0	0	**15**
Trigla lucerna	175	250	40	25	0	< 10	0	**495**
Trisopterus spp.	80	270	35	85	0	10	0	**475**
Other Demersal	190	115	35	85	< 10	14	0	**440**
Clupea harengus	10	0	0	0	0	0	0	**10**
Scomber scombrus	95	< 10	0	0	0	0	0	**100**
Sprattus sprattus	< 10	0	0	0	0	0	0	**< 10**
Trachurus trachurus	20	< 10	0	0	0	0	0	**20**
Other Pelagic	< 10	< 10	0	0	0	0	0	**< 10**
Cancer pagurus	70	15	< 10	10	0	< 10	0	**105**
Crangon crangon	790	0	0	< 10	0	0	0	**790**
Homarus gammarus	< 10	0	0	0	0	0	0	**< 10**
Nephrops norvegicus	285	0	0	0	0	< 10	0	**285**
Buccinum undatum	65	35	15	< 10	0	0	0	**120**
Loligo spp.	25	20	< 10	< 10	0	0	0	**50**
Octopus spp.	< 10	0	10	< 10	0	< 10	0	**30**
Pecten maximus	25	220	30	65	0	< 10	0	**345**
Sepia officinalis	125	215	< 10	15	0	< 10	0	**370**
Other Shellfish	< 10	< 10	< 10	< 10	0	0	0	**10**
Total	**16045**	**4905**	**2700**	**2960**	**15**	**505**	**< 10**	**27135**
% of Grand Total	**59**	**18**	**10**	**11**	**< 0.1**	**2**	**< 0.1**	**100**

2. General comments on the NDGP proposal for 2003

2.1. Structure of the proposal

The present document contains the National Data Gathering Program (NDGP) proposal for Belgium for the year 2003.

Details on the data that will be collected, and on the methodology that will be used, are given by Module of the NDGP, as defined in EC Regulation 1639/2001:

- Module C Data concerning fishing capacities
- Module D Data related to fishing effort
- Module E Data related to catches and landings
- Module F Data concerning the catches per unit of effort
- Module G Scientific evaluation surveys of stocks
- Module H Length and age sampling of landings and discards
- Module I Other biological sampling (i.e. studies of biological parameters)
- Module J Economic data by group of vessels
- Module K Data concerning the processing industry
- Module X Data storage and management (Articles 9-11 of the Regulation)
- Module Y Co-ordination (Article 6 of the Regulation)

Each Module section has a budget appendix (Appendices 1-15) with details on the time allocation (in man-months) for scientists and technicians separately, and the estimated costs for travel, durable equipment, consumables, computing and sub-contracting. Synoptical tables with the time allocation and cost estimates for all Modules combined are given in Appendix 16.

Costs projections for the years 2004, 2005, 2006 and 2007 are given in Appendix 17. As the content of the NDGP is likely to change in time (with e.g. pilot studies being replaced by routine sampling programs, or with the inclusion of additional three- or six-yearly studies of biological parameters), no attempt was made to split the cost projections by Module.

2.2. Minimum and Extended Program

Meeting the requirements of the Regulation's Minimum Program (MP) is a considerable task which might be difficult to achieve within the next few years, particularly with regards to the discard related parts of the Regulation (also see Section 4.4. of the report of the

STECF Sub-Group on Research Needs, March 2002). Therefore, no attempts were made to submit Extended Program (EP) proposals for the year 2003.

2.3. Precision levels required by the Regulation

With respect to precision levels, the Sub-Group on Research Needs concluded that (SGRN report, March 2002):

> *The Regulation uses two approaches to define the sampling intensity that must be carried out by each MS: target precision levels for most parameters, and number of samples per ton and number of individuals per sample for length and age.*
>
> *Regarding precision levels, SGRN recognises that there are considerable problems in estimating the precision indices for many National Sampling Programs and for different parameters. In many cases, the information necessary to determine precision will not be available without carrying out a pilot study. The proposals were designed using auxiliary information. Only after collecting the data, it will be possible to determine the precision level. Furthermore, there are a number of different approaches to determining precision that may provide widely different estimates. In cases where different sampling schemes are combined to estimate a single parameter it is not even clear how a single precision level can be calculated.*
>
> *SGRN notices that unless MS follow similar guidelines for precision estimation it will be very difficult for the STECF to do a comparison between MS and evaluate the results properly.*
>
> *SGRN recommends that a Sub-Group should be set up to recommend methods for the estimation of precision in sampling programs covering catch and landings as well as sampling for other biological parameters. These guidance and recommendations should then be provided to MS.*

In line with these conclusions/recommendations, it is proposed that the data collected during the 2002 NDGP will be used to estimate precision levels, using the methods that are to be recommended by the above mentioned STECF Sub-Group. Meanwhile, it is proposed to maintain sampling efforts for catches, landings, discards, etc. at least at their current levels. Details on these levels are given in the Module sections.

2.4. Pilot studies

For the same reasons, it is also proposed to prolong the pilot studies that were initiated in 2002. The idea of these pilot studies was to collect the basic information that should enable us to decide on the most appropriate design for the routine (sampling) programs in the years to come. At the time the present NDGP proposal was written, however, the 2002 pilot studies had just started, and the data already available were too scanty to allow

drawing definite conclusions. This will be possible once the pilot studies have been completed (i.e. at the end of 2002). The findings of the 2002 pilot studies can then be incorporated into the next NDGP proposal (i.e. the one for the year 2004). Meanwhile, it is suggested that the pilot studies initiated in 2002, be continued in 2003. It should be stressed however, that the eventual set-up of the 2003 pilot studies may differ from the one proposed in the present document (should the outcome of the 2002 pilot studies show that changes are required), but also that ultimate care will be taken to make sure that these changes do not affect the budget for 2003.

2.5. Regionalisation of the Ministry

Since the beginning of 2002, the Belgian Ministry of Small Enterprises, Traders and Agriculture is in the process of being regionalised, with most of its tasks in the fields of agriculture and fisheries being transferred to the regional governments. As for now, it is unclear whether this will involve any changes in the mission, structure or task allocation of the institutes that have committed themselves to execute the Belgian NDGP (viz. the Sea Fisheries Service and the Sea Fisheries Department). Should this be the case, then the Commission will be informed without delay on these changes, and on their possible impact on the NDGP.

3. Module C - Data concerning fishing capacities

Institute in charge: Sea Fisheries Service

3.1. Program proposal under the requirements of the MP

The NDGP will cover all Belgian vessels under MAGP IV, the population of which is fully known and well documented. The text table below shows the composition of the Belgian registered fishing fleet, as on January 1st, 2002 (inclusive of the so-called Scheldt fleet: vessels with homeports in Boekhoute and Antwerp, and operating mostly in the lower part and the mouth of the Westerscheldt). With respect to this table, it is worth emphasising that Belgium has no registered fishing vessels of < 10 m LOA.

Fleet segments under Module C						
Vessel type	12 - 24 m			24 - 40 m		
	N	kW	GT	N	kW	GT
Beam trawlers	61 (*)	218	72	62	821	301
Demersal trawlers				7	311	145
(*) This segment includes one vessel with a LOA of 11.98 m, and three passive gear vessels						

Parameters recorded will include: gross tonnage (GT), maximum continuous power (kW) of the main engine, and vessel age based on the hull (years). Fleet segmentation will be as required by Annex III of the Regulation.

All data required by the Regulation are available from the official registration information. The precision level of these data is assumed to be 100 %.

3.2. Budget

Details on the budget for this Module are given in Appendix 1.

4. Module D - Data related to fishing effort

Institute in charge: Sea Fisheries Service

4.1. Program proposal under the requirements of the MP

The NDGP covers all Belgian vessels under MAGP IV.

The parameters that will be recorded are:

- Fuel consumption: Data will be collected through partial sampling of the fleet, by means of financial questionnaires that are filled out by the ship owners on a voluntary basis, and returned to the Sea Fisheries Service. Average fuel consumption per vessel will be calculated for all fleet segments defined under Module C of the Regulation.
- Fishing effort by technique: kW and GT data are routinely being recorded per day at sea, for all vessels using active gears.
- Specific fishing effort data will be collected for *Gadus morhua, Melanogrammus aeglefinus, Merlangius merlangus, Pleuronectes platessa, Solea solea* and *Nephrops norvegicus*. The threshold levels, as defined in Annex VI of the Regulation, will be calculated from the relative proportions (by weight) of the key species in the total landings per fishing trip.
- Aggregated data on fishing effort and specific fishing effort will be provided by geographical sub-area, for the following vessel types:

Beam trawl	North Sea	≤ 221 kW
	North Sea	> 221 kW
	Outside North Sea	
Demersal trawl	Bottom trawl	

Data on kW, GT and days at sea are exhaustive. For kW, GT and days at sea, the required precision levels will be reached, since data collecting is not based on samples but covers the entire fleet. For fuel consumption, the sample exceeds 50 % of the total population (also see Section 10.1.).

4.2. Budget

Details on the budget for this Module are given in Appendix 2.

5. Module E - Data related to catches and landings

Institutes in charge: Sea Fisheries Service (landings and recreational fisheries) and Sea Fisheries Department (discards)

5.1. Program proposal under the requirements of the MP

❖ Landings

Weights and values of the landings are routinely being collected for all species listed in the text table below. The data cover all landings by Belgian vessels in both Belgian and foreign harbours, and are exhaustive.

Species for which landings data will be collected	
Anarhichas lupus	*Mustelus spp.*
Aspitrigla cuculus	*Nephrops norvegicus*
Buccinum undatum	*Octopus spp.*
Cancer pagurus	*Pecten maximus*
Clupea harengus	*Platichthys flesus*
Conger conger	*Pleuronectes platessa*
Crangon crangon	*Pollachius pollachius*
Eutrigla gurnardus	*Pollachius virens*
Gadus morhua	*Psetta maxima*
Hippoglossus hippoglossus	*Rajidae (*)*
Homarus gammarus	*Scomber scombrus*
Lepidorhombus spp.	*Scophthalmus rhombus*
Limanda limanda	*Scylliorhinus caniculus*
Loligo spp.	*Sebastes marinus*
Lophius spp. (*)	*Sepia officinalis*
Melanogrammus aeglefinus	*Solea solea*
Merlangius merlangus	*Sprattus sprattus*
Merluccius merluccius	*Squalus acanthias*
Microstomus kitt	*Trachurus trachurus*
Molva molva	*Trigla lucerna*
Mullus surmuletus	*Trisopterus luscus*
(*) For details on species segregation, see Section 8.1., paragraph on Length and age sampling of landings	

Demersal species not included in the above list typically represent < 2 % of the total annual landings of demersal fish (see Table 1.1. for an example for the year 2001). The landings of pelagic species, crustaceans and molluscs not included in the text table are negligible (< 10 t per year each - see Table 1.1.). Moreover, these species are often sold mixed (see Section 1.4.), which makes that obtaining reliable records of their landings is extremely difficult and disproportionately costly.

The conversion factors used to convert landed weights (gutted for most roundfish, gutted and without head for anglerfish, tails only for *Nephrops*, etc.) to live weights are given in Table 5.1.

Segmentation and aggregation:

- Yearly totals of the weight and value of the landings will be provided according to the rules laid down in Annex XII of the Regulation *or* by species and by ICES Sub-area or Division.
- Quarterly totals will be calculated by species, by fleet segment (as defined in Module C) and by ICES Sub-area or Division.

The existing technical resources for data collection, management and retrieval allow for the necessary manipulation and aggregation of the raw data. Precision level 3 is expected for all data related to landed catches

International co-operation is realised through the exchange of landings data for other MS vessels.

❖ Discards

Estimates of the discards for all stocks mentioned in Annex XII of the Regulation can only be reached at excessive costs. In 2002, several pilot studies were initiated, aiming at (a) the estimation of the overall quantities of Annex XII species discarded in a number of fisheries (viz. the flatfish directed beam trawl fisheries in ICES Division VIIa, and the *Nephrops* directed fishery in the southern North Sea), and (b) the length and age sampling of these discards. For the reasons explained in Section 2.4., it is proposed to continue (and to extend) these pilot studies in 2003. Details on the set-up and the methodology of the pilot studies are given under Module H (see Section 8.1., paragraph on Length and age sampling of discards).

❖ Recreational fisheries

Belgium has no recreational fisheries for salmon and bluefin tuna, and therefore requests a derogation for this part of the Regulation.

5.2. Budget

Details on the budget for this Module are given in Appendices 3 (Data related to catches and landings), 4 (Data related to discards) and 5 (Recreational fisheries).

With respect to Appendix 4, however, it should be noticed that all costs for the collection of discard data (related to both the estimation of the quantities discarded, and their length and age sampling) have been included in Appendix 10 (Length and age composition of discards). Any attempt to partition labour time and working costs between the two would

have been very arbitrary, and therefore it was decided to budget all discard related costs under the Module where most of the expenses are to be expected, i.e. under Module H (see Section 8. and Appendix 10).

Appendix 5 (Recreational fisheries) has zero entries, for the simple reason that Belgium has no recreational fisheries for salmon and bluefin tuna, and therefore has no costs for this part of the Regulation.

Table 5.1. - Conversion factors	
Species	**Conversion factor**
Anarhichas lupus	1.18
Conger conger	1.00
Gadus morhua	1.18
Hippoglossus hippoglossus	1.05
Lepidorhombus spp.	1.05
Limanda limanda	1.05
Lophiidae (whole)	1.18
Lophiidae (without head)	3.00
Melanogrammus aeglefinus	1.18
Merlangius merlangus	1.18
Merluccius merluccius	1.18
Microstomus kitt	1.05
Molva molva	1.18
Plathichthys flesus	1.05
Pollachius pollachius	1.18
Pollachius virens	1.18
Psetta maxima	1.05
Raja spp.	1.05
Scophthalmus rhombus	1.05
Sebastes spp.	1.00
Selachimorpha	1.00
Solea solea	1.05
Squalus acanthias	1.00
Squalus spp.	1.00
Triglidae	1.00
Trisopterus luscus	1.18
Other Demersal	1.11
Clupea harengus	1.00
Scomber scrombus	1.00
Sprattus sprattus	1.00
Trachurus spp.	1.00
Other Pelagic	1.00
Cancer pagurus	1.00
Crangon spp.	1.25
Homarus gammarus	1.00
Nephrops norvegicus (whole)	1.00
Nephrops norvegicus (tails)	3.33
Buccinum undatum	1.00
Loligo spp.	1.00
Octopus spp.	1.00
Pecten maximus	1.00
Other Shellfish	1.00

6. Module F - Data concerning the catches per unit of effort

Institutes in charge: Sea Fisheries Service and Sea Fisheries Department

6.1. Program proposal under the requirements of the MP

In its present form, the Regulation only has provisions for the retrospective analysis of existing CPUE data for the period 1995 to 2000. The results of this analysis must be communicated to the Commission by December 31st, 2002 at the latest. The new contents of the MP for this Module will then be fixed by March 31st, 2003. To our understanding this implies that the new requirements will enter into force from then onwards and that they will apply to the NDGP proposals for the years 2004 and after, but also that there are no MP requirements for this Module for the year 2003.

Regardless of what the final decision of the Commission may be, it is worth mentioning that the basic data to calculate CPUEs are and will continue to be routinely collected in Belgium, as part of the existing effort and landings recording system (see Sections 4.1. and 5.1.).

6.2. Budget

Details on the budget for this Module are given in Appendix 6.

7. Module G - Scientific evaluation surveys of stocks

Institute in charge: Sea Fisheries Department

7.1. Program proposal under the requirements of the MP

All surveys with Priority 1 in Annex XIV of the Regulation in which Belgium participates are included in the NDGP proposal.

❖ Demersal Young Fish (and Brown Shrimp) Survey (DYFS)

As part of the international DYFS, an annual autumn sampling survey will be carried out in the Belgian coastal waters, to gather data on the abundance of juvenile flatfish (primarily plaice, dab and sole) and brown shrimp (*Crangon crangon*). The vessel used is the RV O.29 'Broodwinner' (LOA 27.2 m; engine power 300 Hp). Overall, about 35 fixed sampling stations will be fished (Figure 7.1.). The location of the sampling area corresponds to the main flatfish nursery grounds along the Belgian coast.

All stations are fished for approx. 15 min, with a standard shrimp beam trawl (beam length 6 m; codend mesh size 18 mm). Commercial fish are hand-picked from the catches, sorted by species and measured to the cm below. These data are then converted into 'age' classes with fixed size boundaries set at 22 and 35 cm for cod and whiting, 13, 19 and 24 cm for plaice, and 13, 19 and 23 cm for sole. Eventually, station-wise densities by species and by age class are calculated in numbers of fish per 1000 m^2.

Brown shrimp (*Crangon crangon*) are first graded into 'small' and 'large' by means of a rotating shrimp riddle (of the type that is also used on commercial shrimpers). From these two fractions, samples are taken of 1-2 litre each (depending on the proportions of shrimp and other organisms in the catch fractions). Samples are further sub-sampled in the lab (by weight) to an equivalent of approx. 250 shrimps, which are then measured, either to the nearest mm or in 5 mm size classes. Shrimp densities are calculated by station and size class, as numbers of shrimps per 1000 m^2.

❖ Beam Trawl Survey (BTS)

In August, the adult flatfish stocks (primarily plaice and sole) in the south-western part of the North Sea will be sampled with the oceanographic RV 'Belgica' (LOA 50 m). Samples will be taken on about 60 fixed stations in BTS Areas 2, 3 and 4 (Figure 7.2.).

Essentially, the position of the sampling stations and the methodology used to collect and to analyse the samples is the same as in previous surveys. Each station is fished for 20-30 min (depending on quantities to be expected and the likely presence of potentially damaging obstructions, such as rocks, boulders, etc.), by means of a 4 m beam trawl. All

commercial fish are hand-picked from the catches, sorted by species and measured to the cm below.

For plaice and sole, otoliths are taken from 5 fish per cm class per area (BTS Areas 2, 3 and 4), to establish species- and area-specific age-length-keys. These are used to convert the length-frequency-distributions into age-distributions. Abundance estimates are then calculated by ICES rectangle, in numbers of fish per hour trawling. For roundfish, no otoliths are taken, as the roundfish catches are usually insufficient to yield reliable age-length-keys.

In addition, semi-quantitative data are collected on the abundance of the most important by-catch species (both invertebrates and fish), and on the size composition of the *Cancer pagurus* by-catches. The latter are transmitted to CEFAS (Lowestoft, UK) for inclusion in their assessments of the *Cancer* stock(s) in the south-western North Sea.

7.2. Budget

Details on the budget for this Module are given in Appendices 7 (DYFS) and 8 (BTS).

With respect to these budgets, it is worth stressing that no costs have been included for shipping time. So far, vessel costs have never been charged to the Sea Fisheries Department by the owners of the vessels that are used for the surveys (viz. RV 'Broodwinner' for the DYFS, and RV 'Belgica' for the BTS). This however, may change in the future, if the ship owners would decide to change their financial policy.

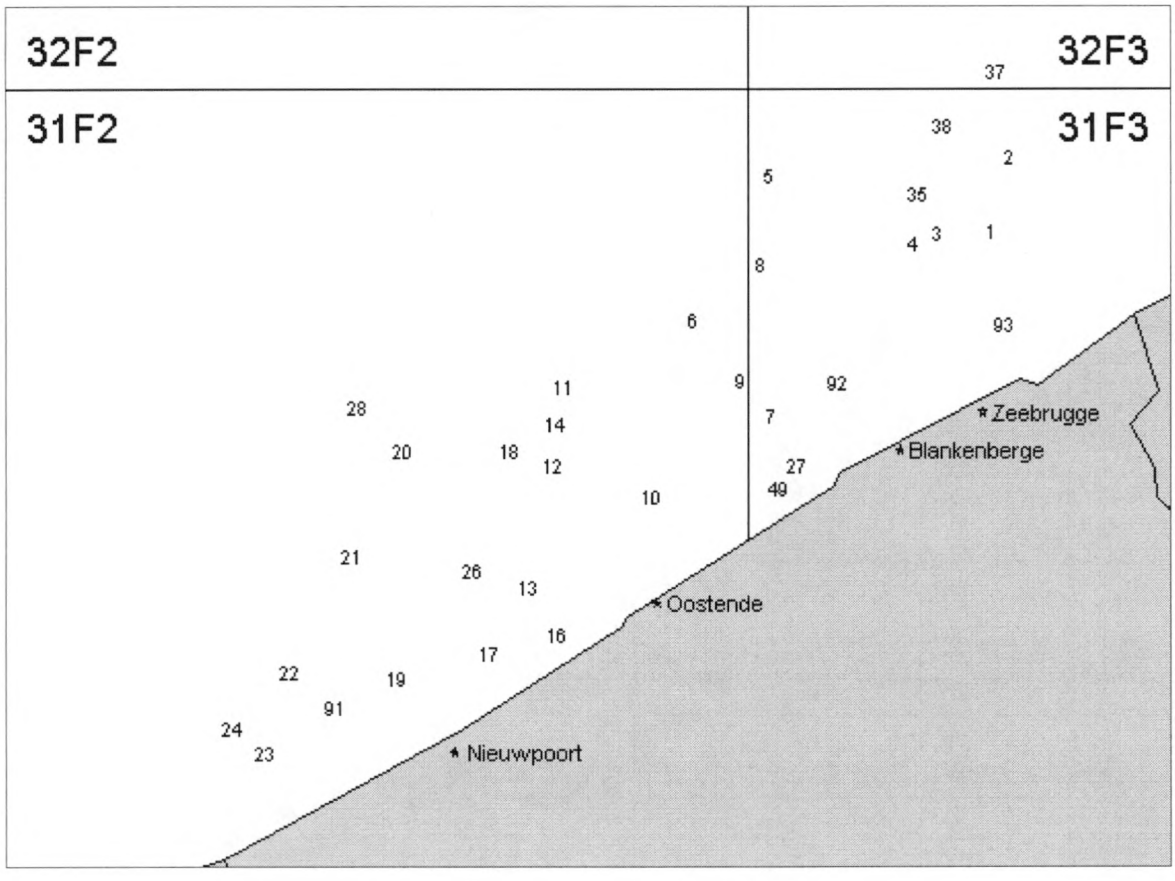

Figure 7.1. - DYFS sampling stations in the Belgian coastal waters.

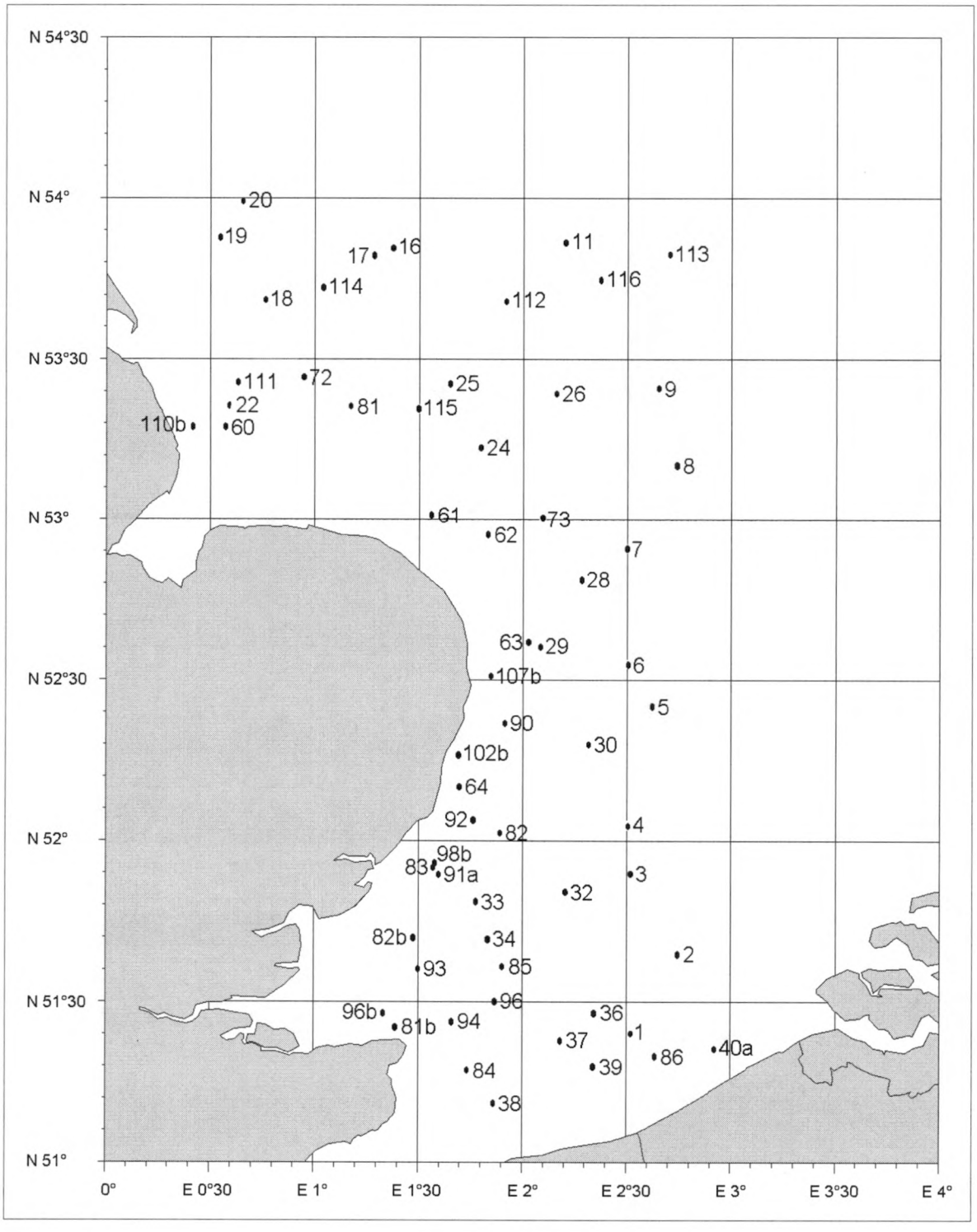

Figure 7.2. - BTS sampling stations fished by the RV 'Belgica' in the south-western part of the North Sea.

8. Module H - Length and age sampling of landings and discards

Institute in charge: Sea Fisheries Department

8.1. Program proposal under the requirements of the MP

❖ Length and age sampling of landings : Quota species

An overview of Belgian quota species is given in Table 8.1. The table also gives the species and stocks for which derogation is requested, together with the exemption criteria that were applied.

The quota species that will be sampled for length and age (where applicable) in 2003, and their respective sampling regimes (in terms of numbers of samples taken and numbers of animals measured/aged per sample) are listed in the text table below. For the sake of comparison, the table also gives the proposed total numbers to be measured/aged, and the number of length and age measurements required under the MP of the Regulation (rounded to the nearest 'whole' sample per unit weight landed, as defined in the introductory tables to Annex XV of the Regulation).

Proposed sampling regimes for length and age : Quota species

Species	Area or Stock	Length sampling				Age sampling			
		N samples	Average N per sample	Total N measured	N Required under MP	N samples	Average N per sample	Total N aged	N Required under MP
Lophiidae	VII	Pilot study (see text)				Exempt			
Microstomus kitt	IV	Pilot study (see text)				Exempt			
Nephrops norvegicus	FU 5	20-24	700	16800	6800	Not applicable			
Pleuronectes platessa	IV	4-6	200	1200	650	4-6	50	300	325
Pleuronectes platessa	VIIa	6-8	200	1600	1400	6-8	50	400	350
Pleuronectes platessa	VIId	12-14	200	2800	2800	12-14	50	700	700
Pleuronectes platessa	VIIf,g	6-8	200	1600	1200	6-8	50	400	300
Psetta maxima	IV	4-6	100	600	50	4-6	50	300	50
Rajidae	IV	Pilot study (see text)				Not applicable			
Solea solea	IV	4-6	200	1200	500	4-6	50	300	250
Solea solea	VIIa	10-12	200	2400	2200	10-12	50	600	550
Solea solea	VIId	10-12	200	2400	2000	10-12	50	600	500
Solea solea	VIIf,g	12-14	200	2800	2800	12-14	50	700	700
Solea solea	VIIIa,b	8-10	200	2000	1800	4-6	50	300	200
Scophthalmus rhombus	IV	4-6	100	600	50	4-6	50	300	50

For several species and stocks, the proposed numbers for length and age exceed the numbers required under the MP of the Regulation. In last year's evaluation of the NDGP

proposals for 2002, this has been labelled as 'over-sampling'. With respect to the problem of 'under-' and 'over-sampling', reference is made to the comments made by the Sub-Group on Research Needs (SGRN report, March 2002):

> *The analysis of over-sampling and under-sampling based on the thresholds defined by the Regulation are not statistically defined and should be understood as sampling over or under a referenced threshold. Identifying over-sampling or under-sampling seems to be important only for administrative needs and is otherwise against the goal of improving the quality of stock assessment. Moreover there is a potential risk that the evaluators identification of stocks as over-sampled could have the effect of reducing the sampling planned by MS.*
>
> *SGRN concludes that, for the time being, it is prudent to maintain the present sampling levels until there is sufficient evidence that a reduction in sampling frequency or in sample size will not affect significantly the quality of the stock assessments.*
>
> *SGRN were concerned that for a number of stocks the level of sampling specified in the MP would be completely inadequate to derive age or length distributions with acceptable levels of precision (CV's at or close to 10 %). This is particularly relevant to small stocks. In these cases SGRN recommends that statistically meaningful minimum levels of length and age samples should be specified.*

Details on the length and age sampling programs for all species listed in the text table on page 20 are given under the bullet points that follow.

- ***Lophiidae* in ICES Sub-area VII**

In Belgium, all species of anglerfish are commonly landed mixed and without head. In 2002, a pilot study was set up to investigate the applicability of conversion factors between length without head and total length. In addition, the share of the two species of anglerfish (viz. *Lophius piscatorius* and *L. budegassa*) in the Belgian landings from all Divisions in ICES Sub-area VII, is analysed. Eventually, this pilot study will establish whether samples of *Lophiidae* without head can be used for stock assessment purposes (through the use of conversion factors to estimate total length), and which species (*L. piscatorius, L. budegassa* or both) and areas will have to be sampled on a regular basis from 2003 onwards.

- ***Microstomus kitt* in ICES Sub-area IV**

Length samples will be taken on a quarterly basis in the auctions of Zeebrugge and Oostende (the main Belgian fishing ports). The minimum sampling intensities required by the Regulation are considered to be insufficient for stock assessment purposes, and therefore sampling intensities will be increased. The proposed sampling regime is provisionally set at 4-6 samples of 200 fish each, but these numbers may be adjusted upward, depending on the outcome of the 2002 pilot study. Since sampling is for length only, the possible impact of an increase in sampling intensity on the budget for 2003 can be expected to be marginal.

- ***Nephrops norvegicus* in Functional Unit 5 (ICES Sub-area IV)**

Nephrops sampling will be focused on the Botney Gut - Silver Pit stock (Functional Unit 5, southern North Sea) – the only stock from which Belgium is landing substantial quantities of *Nephrops*. Smaller quantities (< 50 t per year) are also taken from the Functional Units 'Off Horn Reef' (FU 33, southern North Sea) and 'Fladen Ground' (FU 7, northern North Sea), but these are too small to justify a regular sampling program.

Sampling of the *Nephrops* landings will be done twice a month in the auctions of Zeebrugge and Oostende, through a system of stratified sampling. From each market category (small, medium and large whole *Nephrops*, and *Nephrops* tails), a full box is picked *ad random*, and from each box 200-300 animals are taken (from top to bottom, to avoid biases due to the 'presentation' of the boxes) for measurement. Whole *Nephrops* are measured in the auction (carapace length, CL, to the nearest 1 mm), whereas the tails are purchased from the fishermen and measured in the lab (width of the 5th abdominal segment, Ab5, to the nearest 0.5 mm). Ab5 measurements are converted to CL by means of two Ab5-CL-keys (one for males and one for females), and a so-called re-distribution technique (to avoid over- or under-estimation of the numbers-at-length in individual 1 mm CL size classes owing to rounding of the converted sizes).

- ***Pleuronectes platessa* in ICES Sub-areas IV and VII, and *Solea solea* in ICES Sub-areas IV, VII and VIII**

Stratified sampling of both species will be performed on a quarterly basis in the auctions of Zeebrugge and Oostende. From each market category, one box is randomly chosen for length measurements (to the cm below). This allows the calculation of the overall length distribution of the landings by Belgian fishing vessels, for each species and TAC area. In addition, length stratified samples will be taken for age determination. By applying the appropriate age-length-keys, the length distributions of the two species will then be converted to age compositions, by quarter and by TAC area.

- ***Psetta maxima* and *Scophthalmus rhombus* in ICES Sub-area IV**

Length and age samples for both species will be taken on a quarterly basis in the auctions of Zeebrugge and Oostende. The samples will be taken from boxes randomly chosen per market category. The sampling intensities required under the MP of the Regulation, however, are considered to be insufficient for stock assessment purposes, and therefore will be increased to the levels given in the text table on page 20.

- ***Rajidae* in ICES Sub-area IV**

The *Rajidae* most commonly landed in Belgian harbours from ICES Sub-area IV, are *Raja clavata* and *Raja montagui*. The pilot study started in 2002, on the species composition of the landings of rays, should give us an idea on the quantities of other species of *Rajidae* landed in Belgian harbours. From the results of this pilot study, it will be decided which species will have to be sampled on a regular basis from 2003 onwards. Since sampling is for length only, the possible impact of the shift from pilot study to routine sampling on the budget for 2003 can be expected to be small.

❖ Length and age sampling of landings : Non-quota species

The non-quota species included in Annex XV of the Regulation are listed in Table 8.2., with the omission however of all areas and stocks that are not fished by the Belgian sea-going fishing fleet (see Section 1.2. for details). The table also reviews the species and stocks for which derogation is requested, together with the exemption rules that were applied.

The non-quota species that will be sampled for length and age (where applicable) in 2003, and their sampling regimes are listed in the text table below.

Proposed sampling regimes for length and age : Non-quota species									
Species	Area or Stock	Length sampling				Age sampling			
		N samples	Average N per sample	Maximum N measured	N Required under MP	N samples	Average N per sample	Maximum N measured	N Required under MP
Rajidae	VII except VIId	Pilot study (see text)				Not applicable			

▪ *Rajidae* in ICES Sub-area VII, except VIId

The pilot study started in 2002, on the species composition of the landings from ICES Divisions VIIa and VIIf,g, will provide details on the species of *Rajidae* that are commonly landed in Belgian harbours. From this pilot study, it will be decided which species will have to be sampled on a regular basis from 2003 onwards. Sampling will be for length only.

❖ Length and age sampling of discards

Length and age sampling of the discards will be focused on those fisheries where the Belgian fleet can be expected to substantially contribute to discarding (in relative terms), in view of its share in the overall TAC or the international landings: the flatfish directed beam trawl fisheries in ICES Sub-areas VII and VIII, and the *Nephrops* directed fishery in the southern North Sea (Functional Unit 5, Botney Gut - Silver Pit area).

▪ Flatfish directed beam trawl fisheries in ICES Sub-areas VII and VIII

In 2002, a pilot study was set up to monitor discarding in the flatfish directed beam trawl fishery in ICES Division VIIa (a) by sea-going observers, and (b) through a system of self-sampling. After a few months, however, it became clear that the latter was highly impractical, as the amounts of unsorted 'trash' that were required to obtain reliable estimates of the length and age composition of the discards, were far too large – even for single voyages. Sending observers at sea appeared to be the only workable way to collect discard data on this type of fishery.

In 2003, sea-going observers will monitor the discards in the Belgian beam trawl fisheries in ICES Divisions VIIa, VIId, VIIf,g and VIIIa,b. This means a substantial extension of the program, compared to what is done in 2002.

The time periods during which observers will be sent at sea and the numbers of observer voyages planned, are given in the text table below. In most areas, fishing by the Belgian beam trawler fleet is limited to certain quarters of the year (depending on catch rates and quota availability), and the observer trips are scheduled accordingly. The default frequency is set at two trips per quarter, in those quarters when fishing is most intense. This can be increased from 2004 onwards, depending on the outcome of the 2003 pilot study.

Time-schedule for observer trips in the flatfish directed beam trawl fisheries

Area	Quarter 1	Quarter 2	Quarter 3	Quarter 4
VIIa	XX	XX	None	X
VIId	XX	None	None	XX
VIIf,g	XX	XX	X	X
VIIIa,b	None	None	XX	None

None = no sampling, as landings in this quarter are marginal

XX = 2 observer trips

X = Number of observer trips (none, 1 or 2) depending on quota remaining

For all species, estimates will be made of the total weight in the discards. In addition, the observers will gather information on the length and age composition of discarded plaice and sole (the main target species of the Belgian beam trawlers - see Section 1.1.). Together with the results of the market sampling program (see this Section, paragraph on Length and age sampling of landings), this will allow us to reconstruct the length and age distributions of the catches (= landings + discards) for both species.

Length and age data for the most important roundfish discards (viz. cod, haddock and whiting) will equally be collected during the same voyages. However, as the Belgian roundfish landings are small compared to the total international landings, there will be no market sampling program for roundfish in 2003 (see this Section, paragraph on Length and age sampling of landings). The absence of length frequency data for the roundfish landings makes it impossible to estimate the length and age distributions for landings and discards combined. To remedy this problem, the observer voyages will also be used – time permitting – to collect information on the length and age distributions of the retained roundfish catches.

- ***Nephrops* directed fishery in Functional Unit 5 (ICES Divisions IVb,c)**

The pilot discard sampling program that was initiated in April 2002, will be continued in 2003. The main aim of this pilot study is to gather information on the quantities and the size distribution of the *Nephrops* and finfish discards in the *Nephrops* directed fishery in the Botney Gut - Silver Pit area (southern North Sea).

This will be done through a system of 'self-sampling', by which discard samples are collected on a regular basis (i.e. once every month) by fishermen, and supplied to the Sea Fisheries Department for further analysis. To that aim, agreements have already been made for 2002 and will be made again for 2003, with the skippers/owners of one full-time *Nephrops* trawler (fishing for *Nephrops* year-round) and one or two part-time *Nephrops* trawlers (fishing for *Nephrops* during the peak season only, typically between June and October). In the past, this system has proven to work satisfactorily and to provide an acceptable alternative to the much more expensive sea-going observers.

The analysis of the discard samples consists of replicate sub-sampling of their *Nephrops* and finfish contents (with particular emphasis on the commercially important species such as cod, haddock, whiting, plaice, dab, sole, etc.), and of length measurements by species. The purpose of taking replicate sub-samples instead of treating the samples as one, is to get an idea of the precision levels of the length measurements.

8.2. Budget

Details on the budget for this Module are given in Appendices 9 (Length and age sampling of landings) and 10 (Length and age sampling of discards).

With respect to Appendix 10, it should be stressed that the proposed budget also includes the costs for the estimation of the overall quantities of Annex XII fish and shellfish species discarded by the Belgian fleet (see also Section 5.2.). These costs however, were estimated to be small compared to the costs for length and age sampling.

Table 8.1. - Overview of Belgian quota species, and of exemption criteria applied (if any)

Species and stocks that will be sampled for length or for length and age are shown in red

Species	Area or Stock	Belgian quotum 2002	Average landings 1999-2001 (1) (2)	Share of EC TAC (2)	Sum of quota < 5 %	Sum of quota < 10 %	NDGP Module H		NDGP Module I
							Length (3)	Age (3)	Biological parameters (3)
Clupea harengus	I, II	30	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Clupea harengus	IVc, VIId	7528	**< 100**	> 10 %	< 15 %	< 25 %	E	E	E
Gadus morhua	IIa, IV	1474	2690	**< 5 %**	< 15 %	< 25 %	E	E	E
Gadus morhua	IIIa, Skagerrak and Kattegat	20	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Gadus morhua	Vb, VI, XII, XIV	7	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Gadus morhua	VIIa	43	150	**< 5 %**	< 15 %	< 25 %	E	E	E
Gadus morhua	VIIb-k, VIII, IX, X, CECAF 34.1.1	383	370	**< 5 %**	< 15 %	< 25 %	E	E	E
Lepidorhombus spp.	IIa, IV	8	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Lepidorhombus spp.	VII	361	110	**< 5 %**	< 15 %	< 25 %	E	E	E
Limanda limanda and Platichthys flesus	IIa, IV	738	900	**< 5 %**	< 15 %	< 25 %	E	E	E
Lophiidae	IIa, IV	371	150	**< 5 %**	< 15 %	< 25 %	E	E	E
Lophiidae	Vb, VI, XII, XIV	171	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Lophiidae	VII	1719	200	**5 % < x < 10 %**	< 15 %	< 25 %	S	E	E
Melanogrammus aeglefinus	IIa, IV	817	410	**< 5 %**	< 15 %	< 25 %	E	E	E
Melanogrammus aeglefinus	IIIa-d	23	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Melanogrammus aeglefinus	Vb, VI, XII, XIV	31	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Melanogrammus aeglefinus	VII, VIII, IX, X, CECAF 34.1.1	103	130	**< 5 %**	< 15 %	< 25 %	E	E	E
Merlangius merlangus	IIa, IV	861	425	**< 5 %**	< 15 %	< 25 %	E	E	E
Merlangius merlangus	VIIa	3	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Merlangius merlangus	VIIb-k	309	285	**< 5 %**	< 15 %	< 25 %	E	E	E
Merluccius merluccius	IIa, IV	13	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Merluccius merluccius	Vb, VI, VII, XII, XIV	139	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Merluccius merluccius	VIIIa,b,d,e	4	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Microstomus kitt and Glyptocephalus cynoglossus	IIa, IV	527	645	**5 % < x < 10 %**	< 15 %	< 25 %	S	E	E
Nephrops norvegicus	IIa, IV, by Functional Unit	870	295	5 % < x < 10 %	< 15 %	< 25 %	S	NA	S
Pleuronectes platessa	IIa, IV	4499	6130	5 % < x < 10 %	< 15 %	< 25 %	S	S	E
Pleuronectes platessa	IIIa, Skagerrak and Kattegat	38	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Pleuronectes platessa	VIIa	88	330	< 5 %	< 15 %	< 25 %	S	S	E
Pleuronectes platessa	VIId,e	1095	1335	> 10 %	< 15 %	< 25 %	S	S	S
Pleuronectes platessa	VIIf,g	126	295	> 10 %	< 15 %	< 25 %	S	S	S
Pleuronectes platessa	VIIh,j,k	61	**< 100**	**5 % < x < 10 %**	< 15 %	< 25 %	E	E	E
Pollachius pollachius	VII	529	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Pollachius virens	IIa, IIIa-d, IV	47	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Pollachius virens	Vb (Faroër)	50	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Pollachius virens	VII, VIII, IX, X, CECAF 34.1.1	20	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Psetta maxima and Scopthalmus rhombus	IIa, IV	495	440	**5 % < x < 10 %**	< 15 %	< 25 %	S	E	E
Rajidae	IIa, IV	816	320	> 10 %	< 15 %	< 25 %	Pilot study		Pilot study

Table 8.1. (continued) - Overview of Belgian quota species, and of exemption criteria applied (if any)

Species and stocks that will be sampled for length or for length and age are shown in red

Species	Area or Stock	Belgian quotum 2002	Average landings 1999-2001 (1) (2)	Share of EC TAC (2)	Sum of quota < 5 %	Sum of quota < 10 %	NDGP Module H		NDGP Module I
							Length (3)	Age (3)	Biological parameters (3)
Scomber scombrus	IIa, IIIa-d, IV	549	140	**< 5 %**	< 15 %	< 25 %	E	E	E
Sebastes spp.	Va	100	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Sebastes spp.	Vb (Faroër)	50	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Solea solea	II, IV	1333	1900	5 % < x < 10 %	< 15 %	< 25 %	S	S	E
Solea solea	VIIa	543	510	> 10 %	< 15 %	< 25 %	S	S	S
Solea solea	VIId	1400	1000	> 10 %	< 15 %	< 25 %	S	S	S
Solea solea	VIIe	19	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Solea solea	VIIf,g	669	675	> 10 %	< 15 %	< 25 %	S	S	S
Solea solea	VIIh,j,k	54	**< 100**	5 % < x < 10 %	< 15 %	< 25 %	E	E	E
Solea solea	VIIIa,b	50	420	< 5 %	< 15 %	< 25 %	S	S	E
Sprattus sprattus	IIa, IV	2530	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Sprattus sprattus	VIId,e	60	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Squalus acanthias	IIa, IV	150	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E
Trachurus spp.	IIa, IV	80	**< 100**	**< 5 %**	< 15 %	< 25 %	E	E	E

(1) Landings after quota swapping; figures rounded to the nearest 5 t

(2) Exemption criteria applied are shown in bold

(3) S = sampling will be carried out in 2003 ; E = exemption requested ; NA = not applicable

Table 8.2.a. - Overview of non-quota species, and of exemption criteria applied (if any)

Species and stocks that will be sampled for length or for length and age are shown in red

Species	Area or Stock : ICES Sub-areas III, IV and VIId	Comment	Average landings 1999-2001 (1) (2)	Sum of shares < 5 %	Sum of shares < 10 %	NDGP Module H		NDGP Module I
						Length (3)	Age (3)	Biological parameters (3)
Ammodythiidae	IVc, VIId		**None**			E	E	E
Anarhichas spp	IIIa, Skagerrak and Kattegat	Not in MP				E	E	E
Argentina spp	IV	Not in MP				E	E	E
Brosme brosme	IV	Not in MP				E	E	E
Dicentrarchus labrax	IV, VIId		**NRS**			E	E	E
Glyptocephalus cynoglossus	IV	Not in MP				E	E	E
Helicolenus dactylopterus	IIIa-d	Not in MP				E	E	E
Lepidorhombus boscii	VIId		**< 100**	< 15 %	< 25 %	E	E	E
Lepidorhombus wiffiagonis	VIId		**< 100**	< 15 %	< 25 %	E	E	E
Limanda limanda	VIId	Not in MP				E	E	E
Lophius budegassa	VIId		**< 100**	< 15 %	< 25 %	E	E	E
Lophius piscatorius	VIId		**< 100**	< 15 %	< 25 %	E	E	E
Macrouris berglax	IIIa, Skagerrak and Kattegat	Not in MP				E	E	E
Micromesistius poutassou	IV		**NRS**			E	E	E
Microstomus kitt	IIa, IIIa-d, IV		**< 100**	< 15 %	< 25 %	E	E	E
Molva dypterygia	IV	Not in MP				E	E	E
Molva molva	IV	Not in MP				E	E	E
Mullus barbatus	IV, VIId		**NRS**			E	E	E
Mullus surmuletus	IV, VIId		**NRS**			E	E	E
Pandalus borealis	IV		**None**			E	E	E
Pecten spp.	VIId		**< 5 % of EU share**	< 15 %	< 25 %	E	E	E
Phycis phycis	I, II	Not in MP				E	E	E
Psetta maxima	VIId		**< 100**	< 15 %	< 25 %	E	E	E
Rajidae	VIId		**< 100**	< 15 %	< 25 %	E	E	E
Reinhardtius hippoglossoides	IV	Not in MP				E	E	E
Salmo salar	IV	Not in MP				E	E	E
Scomber scombrus	VIId		**None**			E	E	E
Scopthalmus rhombus	VIId		**< 5 % of EU share**	< 15 %	< 25 %	E	E	E
Sebastes spp.	IV	Not in MP				E	E	E
Selachii	IV	Not in MP				E	E	E
Selachii	IV, VIId	Not in MP				E	E	E
Squalus acanthias	IV, VIId	Not in MP				E	E	E
Trachurus spp.	VIId		**None**	< 15 %	< 25 %	E	E	E

(1) Landings figures rounded to the nearest 5 t ; NRS = not recorded separately but assumed to be less than 100 t

(2) Exemption rules applied are shown in bold

(3) S = sampling will be carried out in 2003 ; E = exemption requested ; NA = not applicable

Table 8.2.b. - Overview of non-quota species, and of exemption criteria applied (if any)

Species and stocks that will be sampled for length or for length and age are shown in red

Species	Area or Stock : ICES Sub-areas II, V, VI, VII (excl. VIId), VIII, IX, X, XII and XIV	Comment	Average landings 1999-2001 (2)	Sum of quota < 5 %	Sum of quota < 10 %	NDGP Module H		NDGP Module I
						Length (3)	Age (3)	Biological parameters (3)
Aphanopus spp.	All areas (excl. IXa, X)	Not in MP				E	E	E
Aphanopus spp.	VIId,e		**None**			E	E	E
Argentina spp.	VIIf,g	Not in MP				E	E	E
Argyrosoma regium	VIIh,j,k	Not in MP				E	E	E
Beryx spp.	X		**None**			E	E	E
Beryx spp.	All areas (excl. X)	Not in MP				E	E	E
Busycon spp.	IIa, IIIa-d, IV	Not in MP				E	E	E
Cancer pagurus	All areas		**< 100**	< 15 %	< 25 %	E	E	E
Clupea harengus	VIId		**None**			E	E	E
Conger conger	All areas, excl. IX, X	Not in MP				E	E	E
Conger conger	VIIf,g		**< 100**			E	E	E
Coryphaenoides rupestris	VIIh,j,k		**None**			E	E	E
Dicentrarchus labrax	VIIIa,b		**NRS**			E	E	E
Dicentrarchus labrax	VIId,e	Not in MP				E	E	E
Engraulis encrasicolus	IXa, only Cadiz		**None**			E	E	E
Engraulis encrasicolus	VIII		**None**			E	E	E
Gadus morhua	VIa, VIb, VIIa, VIIb-k, VIII, XII, XIV		**< 5 % of EU share**	< 15 %	< 25 %	E	E	E
Glyptocephalus cynoglossus	VI, VII	Not in MP				E	E	E
Helicolenus dactylopterus	IXa, X		**None**			E	E	E
Helicolenus dactylopterus	All areas (excl. IXa, X)	Not in MP				E	E	E
Homarus gammarus	All areas		**< 100**			E	E	E
Hoplostethus atlanticus	All areas		**None**			E	E	E
Lepidorhombus boscii	Vb, VI, XII, XIV, VII, VIIIa-e		**< 100**	< 15 %	< 25 %	E	E	E
Lepidorhombus whiffiagonis	Vb, VI, XII, XIV, VII, VIIIa-e		**< 100**	< 15 %	< 25 %	E	E	E
Loligo vulgaris	All areas (excl. VIIIc, IXa)	Not in MP				E	E	E
Loligo vulgaris	VIIIc, IXa		**None**			E	E	E
Mallotus villosus	XIV		**None**			E	E	E
Microchirus variegatus	All areas	Not in MP				E	E	E
Microstomus kitt	All areas	Not in MP				E	E	E
Molva dypterygia	All areas (excl. X)	Not in MP				E	E	E
Molva dypterygia	X		**None**			E	E	E
Molva molva	All areas		**< 100**	< 15 %	< 25 %	E	E	E
Mullus surmuletus	All areas		**NRS**			E	E	E
Octopus vulgaris	All areas (excl. VIIIc, IXa)		**< 100**	< 15 %	< 25 %	E	E	E
Octopus vulgaris	VIIIc, IXa		**None**			E	E	E
Pandalus spp.	All areas (excl. VIIIc, IXa)		**None**			E	E	E
Pandalus spp.	VIIIc, IXa		**None**			E	E	E
Phycis phycis	X		**None**			E	E	E
Phycis phycis	All areas (excl. X)		**None**			E	E	E
Polyprion americanus	X		**None**			E	E	E

Table 8.2.b. (continued) - Overview of non-quota species, and of exemption criteria applied (if any)

Species and stocks that will be sampled for length or for length and age are shown in red

Species	Area or Stock : ICES Sub-areas II, V, VI, VII (excl. VIId), VIII, IX, X, XII and XIV	Comment	Average landings 1999-2001 (2)	Sum of quota < 5 %	Sum of quota < 10 %	NDGP Module H		NDGP Module I
						Length (3)	Age (3)	Biological parameters (3)
Raja brachyura	All areas		**No estimates**			Pilot study		
Raja clavata	All areas		**No estimates**			Pilot study		
Raja montagui	All areas		**No estimates**			Pilot study		
Raja naevus	All areas		**No estimates**			Pilot study		
Rajidae	All areas		970			Pilot study		Pilot study
Reinhardtius hippoglossoides	Va, XII, XIV		**None**			E	E	E
Salmo salar	All areas	Not in MP				E	E	E
Sardina pilchardus	VIII, IX		**None**			E	E	E
Scomber japonicus	VIII, IX		**None**			E	E	E
Sepia officinalis	All areas (excl. VIIIc, IXa)	Not in MP				E	E	E
Sepia officinalis	VIIIc, IXa		**None**			E	E	E
Solen spp.	All areas	Not in MP				E	E	E
Sparidae	All areas (ex VIIIc, IXa, X)	Not in MP				E	E	E
Sparidae	VIIIc, IXa, X		**None**			E	E	E
Squalus achantias	All areas	Not in MP				E	E	E
Trachurus mediterraneus	VIII, IX	Not in MP				E	E	E
Trisopterus esmarkii	All areas (excl. VIIIc, IXa)	Not in MP				E	E	E
Trisopterus esmarkii	VIIIc, IXa		**None**			E	E	E
Other Deepwater species	All areas	Not in MP				E	E	E

(1) Landings figures rounded to the nearest 5 t ; NRS = not recorded separately but assumed to be less than 100 t

(2) Exemption rules applied are shown in bold

(3) S = sampling will be carried out in 2003 ; E = exemption requested ; NA = not applicable

9. Module I - Other biological sampling

Institute in charge: Sea Fisheries Department

9.1. Program proposal under the requirements of the MP

The species and stocks that will be sampled for biological parameters (in 2003 or later) are listed in the text table below. Species and stocks listed in Annex XVI of the Regulation but not in the text table, will *not* be investigated (see Tables 8.1. and 8.2. for details on the exemption rules applied).

Proposed sampling for biological parameters

Species	Area or Stock	Growth		Maturity		Sex ratio	
		2003	If not, scheduled for	2003	If not, scheduled for	2003	If not, scheduled for
Nephrops norvegicus	FU 5	No	2005 (*)	No	2005 (*)	Yes	
Pleuronectes platessa	VIIa	Yes		No	2004	Yes	
Pleuronectes platessa	VIId	Yes		No	2004	Yes	
Pleuronectes platessa	VIIf,g	Yes		No	2004	Yes	
Rajidae	IV	No	2004	No	2004	Yes	
Rajidae	VII except VIId	No	2004	No	2004	Yes	
Solea solea	VIIa	Yes		No	2004	Yes	
Solea solea	VIId	Yes		No	2004	Yes	
Solea solea	VIIf,g	Yes		No	2004	Yes	

(*) Following the recommendations made by the ICES Working Group on Nephrops Stocks (2002) - See text for details

No roundfish species are included in the proposal, because (a) in Belgium, all roundfish are landed gutted, which makes it impossible to determine sex, maturity or fecundity, and (b) the roundfish samples obtained during the scientific surveys (see Section 7.1.) are limited, as these surveys are primarily directed towards plaice and sole.

- ***Nephrops norvegicus* in Functional Unit 5 (ICES Sub-area IV)**

Sex ratio data are routinely collected already during the port sampling programs for *Nephrops* (see Section 8.1., paragraph on Length and age sampling of landings) and will also be collected during the discard pilot studies (see Section 8.1., paragraph on Length and age sampling of discards).

Sexual maturity and growth studies on *Nephrops* will be prepared from 2003 onwards and will be carried out from 2005 onwards, in co-operation with the other countries fishing for *Nephrops* in the North Sea. A general framework for such studies has been discussed at the

2002 meeting of the ICES Working Group on *Nephrops* Stocks (April 2002). The Working Group on *Nephrops* Stocks also agreed to appoint two international co-ordinators, viz. one to prepare and to co-ordinate the sexual maturity studies (Dr. Frank Redant, Sea Fisheries Department, Oostende, Belgium), and one to prepare and to co-ordinate the growth studies on *Nephrops* (Dr. Ian Tuck, Marine Laboratory, Aberdeen, Scotland). The main task of these co-ordinator would be:

- To collect and distribute all relevant scientific, technical and logistic information on *Nephrops* sexual maturity and growth.
- To initiate the discussion on common methodologies for the upcoming studies on these issues.
- To agree on a time table for joint studies on *Nephrops* sexual maturity and growth. The actual studies are provisionally scheduled to take place in 2005 for sexual maturity, and at the earliest in 2005 (but probably later) for growth.

- ***Pleuronectes platessa* and *Solea solea* in ICES Sub-area VII**

At present, growth parameters (age-length and age-weight data) and sex ratios for both plaice and sole are gathered on a yearly basis. This will continue to be the case, since all necessary data are collected as part of the ongoing market sampling programs (see Section 8.1., paragraph on Length and age sampling of landings).

In 2002, a pilot study was set up to investigate sexual maturity in males. Should this study be insufficiently conclusive, then it will be continued in 2003. In 2004 at the latest, sexual maturity for both males and females will be investigated for all plaice and sole stocks listed in the text table on page 31.

- ***Rajidae* in ICES Sub-areas IV and VII**

In 2002, a pilot study was set up to determine sexual maturity and age in *Rajidae*. If required, this study will be continued in 2003. In 2004 at the latest, maturity and growth parameters will be investigated for all relevant stocks of *Rajidae* in ICES Sub-areas IV and VII (except VIId). Sex ratios will be calculated on a yearly basis, as part of the routine market sampling programs for rays that will be implemented from 2003 onwards (see Section 8.1., paragraph on Length and age sampling of landings).

9.2. Budget

Details on the budget for this Module are given in Appendix 11.

Generally spoken, the budget for biological studies can be split into two parts: (a) the costs for obtaining and analysing the samples, and (b) the costs for working up the data resulting from the analyses. The biological studies that will be undertaken in 2003 under Module I (see above), do not require additional sampling on top of what is already done under Module H (Length and age sampling of landings and discards). This is why Appendix 11 only has cost estimates for Personnel and for the purchase of Durable equipment. The costs for obtaining and analysing the samples are included in Appendices 9 (Length and age sampling of landings) and 10 (Length and age sampling of discards).

This 'no additional cost situation' however, is likely to change in the future, with the inclusion of biological studies (e.g. on sexual maturity in fish and *Nephrops*, and on *Nephrops* growth) that do require extra shipping time and/or the purchase of extra samples or specific equipment.

10. Module J - Economic data by group of vessels

Institute in charge: Sea Fisheries Service

10.1. Program proposal under the requirements of the MP

Economic data by group of vessels are collected through questionnaires that are filled out by the ship owners on a voluntary basis, and then returned to the Sea Fisheries Service. In the past, fleet coverage has varied slightly from year to year, depending on the number of questionnaires returned. In 2000, the response rates were as follows:

- 56 % (i.e. 34 vessels out of 61) for the beamers of 12-24 m;
- 65 % (i.e. 40 vessels out of 62) for the beamers of 24-40 m; and
- 57 % (i.e. 4 vessels out of 7) for the demersal trawlers.

In 2003, all parameters mentioned in Annex XVII of the Regulation will be recorded as part of the new inquiry.

The data are stored in a database, and can be retrieved according to any level of segmentation or aggregation that might be required.

Precision level 1 can be attained.

10.2. Budget

Details on the budget for this Module are given in Appendix 12.

11. Module K - Data concerning the processing industry

Institute in charge: Sea Fisheries Service

11.1. Program proposal under the requirements of the MP

Following the requirements of the MP, a pilot study will be set up in 2003 to explore different strategies for collecting economic data on the processing industry (e.g. by means of questionnaires, through 'sampling', etc.), and to compare the cost-efficiency relationships of these scenarios. The results of this pilot study will be reported to the Commission by October 31st, 2003 (as required by the Regulation).

The results of this pilot study should give guidance on the most appropriate strategy (in terms of data reliability, cost-effectiveness, etc.), which could then be implemented from 2004 onwards.

11.2. Budget

Details on the budget for this Module are given in Appendix 13.

12. Module X - Data storage and management (Articles 9-11)

Institutes in charge: Sea Fisheries Service (landings, effort and economic data) and Sea Fisheries Department (data from market and discard sampling programs, data from sea surveys)

12.1. Existing databases

❖ Sea Fisheries Service

The Sea Fisheries Service has extensive databases with landings, effort and economic data on the Belgian sea-going fishing fleet, that will be complemented with the information gathered during the 2002 and 2003 NDGPs. The existing software, however, needs to be adapted and updated, to be able to satisfy all output requirements of the Regulation.

❖ Sea Fisheries Department

The results from the Beam Trawl Survey (see Section 7.1., paragraph on BTS) are currently stored in a central database, managed by ICES.

12.2. Development of new databases

❖ Sea Fisheries Department

So far, the data resulting from the Belgian market and discard sampling programs for roundfish, flatfish and Crustaceans were stored in case-specific sets of spreadsheets, with different structures, lay-outs and raising procedures. Although these systems work satisfactorily for the purpose of data storage, and for the aggregation of individual samples to monthly, quarterly and yearly totals, they can hardly be regarded as 'databases'.

In 2003, steps will be undertaken to develop a database that meets the requirements of the Regulation (as laid down in Articles 9, 10 and 11) and that is capable of providing the data requested by the Commission in the format that will be defined later on this year.

The purpose would be to develop a relational database that is:

- Windows compatible;
- Multi-user (for maximum 10 users);
- Reasonably compact and easily transferable to portable computers, so that it can be taken to meetings outside the institute;
- User-friendly, menu-driven and fool-proof;

- Modular and multi-functional, in the sense that it can be used for storing different types of data (market sample data, discard data, survey data, etc.);
- Flexible, so that it can easily be appended with user-defined new modules (e.g. for new species or new types of surveys);
- Error-proof, in the sense that is has all the necessary internal validation routines and redundancy checks to make sure that the quality of the data is guaranteed;
- Compatible with other applications, in the sense that is should be able to produce outputs that can easily be imported into raising and aggregation applications, and into stock assessment programs of various types; and
- Easy to maintain, so that, once developed, tested and certified correct, it can easily be maintained by the institute's staff, without costly, long-lasting support contracts with third parties.

12.3. Budget

Details on the budget for this Module are given in Appendix 14. This includes (a) the costs for maintaining, expanding and updating the *existing* databases (with the landings, effort and economic data) at the Sea Fisheries Service, and (b) the costs for developing a *new* database (firstly for the market and discards sample data, and later on also for the sea survey data) at the Sea Fisheries Department.

13. Module Y - Co-ordination (Article 6)

Institutes in charge: Sea Fisheries Service and Sea Fisheries Department

13.1. National co-ordination

National co-ordination of the Belgian NDGP will be ensured by the Director of the Centre for Agricultural Research, who will also act as National Correspondent:

Dr. ir. Herwig Keymeulen
Director
Centre for Agricultural Research (CLO)
Burg. Van Gansberghelaan 96
B-9820 Merelbeke
Belgium
Phone: + 32 (0)9 272.02.11
Fax: + 32 (0)9 272.02.15
E-mail: h.keymeulen@clo.fgov.be

Additional technical information on the program proposal and on its budgeting can be obtained from the Department Head of the Sea Fisheries Service (for Modules C, D, E-landings, F, J, K, X and Y), and from the Department Head of the Sea Fisheries Department (for Modules E-discards, F, G, H, I, X and Y):

Ir. Luc Maertens
Department Head
Dienst voor Zeevisserij - Sea Fisheries Service
Vrijhavenstraat 5
B-8400 Oostende
Belgium
Phone: + 32 (0)59 50.89.66 (operator)
Fax: + 32 (0)59 80.76.93
E-mail: Luc.Maertens@cmlag.fgov.be

Dr. ir. Rudy De Clerck
Department Head
Departement Zeevisserij - Sea Fisheries Department
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Belgium
Phone: + 32 (0)59 34.22.60 (direct) or + 32 (0)59 34.22.50 (operator)
Fax: + 32 (0)59 33.06.29
E-mail: rudy.declerck@dvz.be

13.2. International co-ordination

International co-ordination and co-operation will be achieved at different levels:

- Through direct contacts with colleagues from other institutes (particularly in the Netherlands and the UK), who are responsible for sea surveys and stock sampling programs that are also part of the Belgian NDGP.
- Through the activities of ICES Working, Study and Planning Groups on data gathering and sea surveys, such as the Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS) and the Working Group on Beam Trawl Surveys (WGBEAM).
- Through the activities of ICES Assessment Working Groups, in as much as these activities cover issues that are *directly* related to data gathering, biological sampling or sea surveys. Following the Commission's guidelines on the eligibility of costs for meetings, however, the costs for attending these Assessment Working Groups are *not* included in the NDGP's budget.
- Through the activities of the STECF Sub-Groups on data gathering, precision levels, databases, etc., such as the Sub-Group on Research Needs (SGRN), the Ad hoc Sub-Group on Precision Levels, the Ad hoc Sub-Group on Database Formats (both to be convened later on this year), etc.

13.3. Budget

Details on the budget for this Module are given in Appendix 15.

To correctly appreciate the cost estimates given in Appendix 15, it should be borne in mind that the costs for the purely scientific supervision of the different Modules have been included under each Module separately. The only costs that were included in Appendix 15 are the ones related to the activities of international Working, Study and Planning Groups on data gathering and data management, and on sea surveys. The budget also includes a provision for attending international Working and Study Groups that *might* take place in 2003 (e.g. on precision levels or databases), but whose terms of reference, composition and venue were still unknown at the time this proposal was written.

Appendix 1

C FISHING CAPACITIES

Only the costs incurred by activities not covered in the "logbook" are to be entered in these forms

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
	10	1.25	4410	5513
Technicians				
	22	1.25	2730	3413
Subtotal		**2.50**		**8925**
Sea Fisheries Department				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Total		2.50		8925

*** Scientific or technical staff only.**

**** Please specify grade according to the salary scale of the organisation**

***** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)**

****** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.**

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
None	0	0	0	0	0	0
Total						0

*** For journeys outside the Community, prior agreement of the Commission shall be required.**

C FISHING CAPACITIES

Only the costs incurred by activities not covered in the "logbook" are to be entered in these forms

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	A Amount (VAT excluded)	B Number of months of use *	C Depreciation period **	D Percentage of use ***	A*B/C*D Total
None	0	0	0	0 %	0
Total					0

* The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.

** Durable goods will be consedered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods

*** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.

**** Copies of all the invoices should be provided

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	A Unit cost	B Quantity	A*B Total
None			0
Total			0

* Detailed description within text

* Office supplies is an unauthorised expenditure

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	Total Cost
None	
Total	0

* Expenditure on software for the management and interrogation of databases

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	Total Cost
None	
Total	0

* Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.

** Copies of contracts and/or invoices should be provided

C FISHING CAPACITIES

Only the costs incurred by activities not covered in the "logbook" are to be entered in these forms

SUMMARY	
Category of costs	**Total**
Personnel	8925
Travel costs	0
Durable equipment	0
Consumables	0
Computing cost	0
Subcontracting	0
GRAND TOTAL €	8925

Appendix 2

D FISHING EFFORT

Only the costs incurred by activities not covered in the "logbook" are to be entered in these forms

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
	10	1.25	4410	5513
Technicians				
	20	1.25	2730	3413
	20	1.25	2730	3413
	22	2.50	2730	6825
	30	1.25	2730	3413
Subtotal		**7.50**		**22575**
Sea Fisheries Department				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Total		7.50		22575

*** Scientific or technical staff only.**

**** Please specify grade according to the salary scale of the organisation**

***** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)**

****** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.**

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
None	0	0	0	0	0	0
Total						0

*** For journeys outside the Community, prior agreement of the Commission shall be required.**

D FISHING EFFORT

Only the costs incurred by activities not covered in the "logbook" are to be entered in these forms

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	A Amount (VAT excluded)	B Number of months of use *	C Depreciation period **	D Percentage of use ***	A*B/C*D Total
None	0	0	0	0 %	0
Total					0

* The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.

** Durable goods will be consedered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods

*** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.

**** Copies of all the invoices should be provided

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	A Unit cost	B Quantity	A*B Total
None			0
Total			0

* Detailed description within text

* Office supplies is an unauthorised expenditure

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	Total Cost
None	
Total	0

* Expenditure on software for the management and interrogation of databases

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	Total Cost
None	
Total	0

* Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.

** Copies of contracts and/or invoices should be provided

D FISHING EFFORT

Only the costs incurred by activities not covered in the "logbook" are to be entered in these forms

SUMMARY	
Category of costs	**Total**
Personnel	22575
Travel costs	0
Durable equipment	0
Consumables	0
Computing cost	0
Subcontracting	0
GRAND TOTAL €	22575

Appendix 3

E CATCHES & LANDINGS

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
	10	1.25	4410	5513
	11	1.25	4410	5513
Technicians				
	20	10.75	2730	29348
	22	4.75	2730	12968
	30	10.75	2730	29348
	30	10.75	2730	29348
Subtotal		**39.50**		**112035**
Sea Fisheries Department				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Total		39.50		112035

* Scientific or technical staff only.

** Please specify grade according to the salary scale of the organisation

*** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)

**** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
None	0	0	0	0	0	0
Total						0

* For journeys outside the Community, prior agreement of the Commission shall be required.

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	A Amount (VAT excluded)	B Number of months of use *	C Depreciation period **	D Percentage of use ***	A*B/C*D Total
None	0	0	0	0 %	0
Total					0

* The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.

** Durable goods will be consedered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods

*** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.

**** Copies of all the invoices should be provided

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	A Unit cost	B Quantity	A*B Total
None			0
Total			0

* Detailed description within text

* Office supplies is an unauthorised expenditure

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	Total Cost
None	
Total	0

* Expenditure on software for the management and interrogation of databases

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	Total Cost
None	
Total	0

* Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.

** Copies of contracts and/or invoices should be provided

E CATCHES & LANDINGS

SUMMARY	
Category of costs	**Total**
Personnel	112035
Travel costs	0
Durable equipment	0
Consumables	0
Computing cost	0
Subcontracting	0
GRAND TOTAL €	112035

Appendix 4

E DISCARDS

See comments in Section 5.1. of NDGP proposal, paragraph on Length and age of discards

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Sea Fisheries Department				
Scientists				
Included under Module H (see Appendix 10)				
Technicians				
Included under Module H (see Appendix 10)				
Subtotal		**0.00**		**0**
Total		0.00		0

* Scientific or technical staff only.

** Please specify grade according to the salary scale of the organisation

*** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)

**** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
None	0	0	0	0	0	0
Total						0

* For journeys outside the Community, prior agreement of the Commission shall be required.

E DISCARDS

See comments in Section 5.1. of NDGP proposal, paragraph on Length and age of discards

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	**A Amount (VAT excluded)**	**B Number of months of use ***	**C Depreciation period ****	**D Percentage of use *****	**A*B/C*D Total**
None	0	0	0	0 %	0
Total					0

* The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.

** Durable goods will be consedered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods

*** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.

**** Copies of all the invoices should be provided

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	**A Unit cost**	**B Quantity**	**A*B Total**
None			0
Total			0

* Detailed description within text

* Office supplies is an unauthorised expenditure

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	**Total Cost**
None	
Total	0

* Expenditure on software for the management and interrogation of databases

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	**Total Cost**
None	
Total	0

* Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.

** Copies of contracts and/or invoices should be provided

E DISCARDS

See comments in Section 5.1. of NDGP proposal, paragraph on Length and age of discards

SUMMARY	
Category of costs	**Total**
Personnel	0
Travel costs	0
Durable equipment	0
Consumables	0
Computing cost	0
Subcontracting	0
GRAND TOTAL €	0

Appendix 5

E RECREATIONAL FISHERIES

See comments in Section 5.1. of NDGP proposal, paragraph on Recreational fisheries

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Sea Fisheries Department				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Total		0.00		0

* Scientific or technical staff only.

** Please specify grade according to the salary scale of the organisation

*** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)

**** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
None	0	0	0	0	0	0
Total						0

* For journeys outside the Community, prior agreement of the Commission shall be required.

E RECREATIONAL FISHERIES

See comments in Section 5.1. of NDGP proposal, paragraph on Recreational fisheries

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	A Amount (VAT excluded)	B Number of months of use *	C Depreciation period **	D Percentage of use ***	A*B/C*D Total
None	0	0	0	0 %	0
Total					0

* The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.

** Durable goods will be consedered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods

*** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.

**** Copies of all the invoices should be provided

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	A Unit cost	B Quantity	A*B Total
None			0
Total			0

* Detailed description within text

* Office supplies is an unauthorised expenditure

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	Total Cost
None	
Total	0

* Expenditure on software for the management and interrogation of databases

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	Total Cost
None	
Total	0

* Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.

** Copies of contracts and/or invoices should be provided

E RECREATIONAL FISHERIES

See comments in Section 5.1. of NDGP proposal, paragraph on Recreational fisheries

SUMMARY	
Category of costs	**Total**
Personnel	0
Travel costs	0
Durable equipment	0
Consumables	0
Computing cost	0
Subcontracting	0
GRAND TOTAL €	0

Appendix 6

F CPUE

See comments in Section 6.1. of NDGP proposal

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Sea Fisheries Department				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Total		0.00		0

* Scientific or technical staff only.

** Please specify grade according to the salary scale of the organisation

*** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)

**** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
None	0	0	0	0	0	0
Total						0

* For journeys outside the Community, prior agreement of the Commission shall be required.

F CPUE

See comments in Section 6.1. of NDGP proposal

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	A Amount (VAT excluded)	B Number of months of use *	C Depreciation period **	D Percentage of use ***	A*B/C*D Total
None	0	0	0	0 %	0
Total					0

* The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.

** Durable goods will be consedered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods

*** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.

**** Copies of all the invoices should be provided

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	A Unit cost	B Quantity	A*B Total
None			0
Total			0

* Detailed description within text

* Office supplies is an unauthorised expenditure

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	Total Cost
None	
Total	0

* Expenditure on software for the management and interrogation of databases

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	Total Cost
None	
Total	0

* Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.

** Copies of contracts and/or invoices should be provided

F CPUE

See comments in Section 6.1. of NDGP proposal

SUMMARY	
Category of costs	**Total**
Personnel	0
Travel costs	0
Durable equipment	0
Consumables	0
Computing cost	0
Subcontracting	0
GRAND TOTAL €	0

Appendix 7

G SURVEYS (a)

Survey name **Demersal Young Fish (and Brown Shrimp) Survey - DYFS**

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Sea Fisheries Department				
Scientists (1)				
Scientist SFD-S2	SRS	1.00	7250	7250
Technicians (2)				
Technician SFD-T2 (3)	RT	1.00	3300	3300
Technician SFD-T3 (3)	RT	1.00	3300	3300
Technician SFD-T5 (3)	RT	1.00	3300	3300
Subtotal		**4.00**		**17150**
Total		4.00		17150

*** Scientific or technical staff only.**

**** Please specify grade according to the salary scale of the organisation**

***** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)**

****** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.**

(1) SRS = Senior Research Scioentist, RS = Research scientist, JRS = Junior Research Scientist

(2) RT = Research Technician, Sk = Skipper

(3) Man-months inclusive of compensations (in days off) for overtime

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
DYFS	1	3	10	30	0	900
Total						900

*** For journeys outside the Community, prior agreement of the Commission shall be required.**

G SURVEYS (a)

Survey name **Demersal Young Fish (and Brown Shrimp) Survey - DYFS**

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	**A Amount (VAT excluded)**	**B Number of months of use ***	**C Depreciation period ****	**D Percentage of use *****	**A*B/C*D Total**
Portable computer SFD-A (1)	2750	12	36	10 %	92
Total					92

*** The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.**

**** Durable goods will be consedered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods**

***** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.**

****** Copies of all the invoices should be provided**

(1) Equipment purchased in 2002

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	**A Unit cost**	**B Quantity**	**A*B Total**
Repair of nets (1)	Variable	Variable	2500
Sampling material (2)	Variable	Variable	750
Foul weather gear	Variable	Variable	500
Waste disposal (3)	Variable	Variable	1250
Total			5000

*** Detailed description within text**

*** Office supplies is an unauthorised expenditure**

(1) Maintenance and repair of existing trawls used in the survey

(2) Supplies for collection, storage and preservation of samples taken at sea

(3) Costs for the disposal of samples contaminated with e.g. formaline

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	**Total Cost**
None	
Total	0

*** Expenditure on software for the management and interrogation of databases**

G SURVEYS (a)

Survey name **Demersal Young Fish (and Brown Shrimp) Survey - DYFS**

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	**Total Cost**
None	
Total	0

*** Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.**

**** Copies of contracts and/or invoices should be provided**

SUMMARY	
Category of costs	**Total**
Personnel	17150
Travel costs	900
Durable equipment	92
Consumables	5000
Computing cost	0
Subcontracting	0
GRAND TOTAL €	23142

Appendix 8

G **SURVEYS (b)**

Survey name **Beam Trawl Survey - BTS (Flatfish - North Sea)**

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Sea Fisheries Department				
Scientists (1)				
Scientist SFD-S1	SRS	0.50	8925	4463
Scientist SFD-S4	RS	1.00	5300	5300
Scientist SFD-S5	RS	1.00	5300	5300
Technicians (2)				
Technician SFD-T2 (3)	RT	1.00	3300	3300
Technician SFD-T3 (3)	RT	1.00	3300	3300
Technician SFD-T4 (3)	RT	1.00	3300	3300
Technician SFD-T5 (3)	RT	1.00	3300	3300
Skipper	Sk	0.50	3300	1650
Subtotal		**7.00**		**29913**
Total		7.00		29913

*** Scientific or technical staff only.**

**** Please specify grade according to the salary scale of the organisation**

***** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)**

****** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.**

(1) SRS = Senior Research Scioentist, RS = Research scientist, JRS = Junior Research Scientist

(2) RT = Research Technician, Sk = Skipper

(3) Man-months inclusive of compensations (in days off) for overtime

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
BTS	1	6	12	30	0	2160
Total						2160

*** For journeys outside the Community, prior agreement of the Commission shall be required.**

G SURVEYS (b)

Survey name **Beam Trawl Survey - BTS (Flatfish - North Sea)**

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	**A Amount (VAT excluded)**	**B Number of months of use ***	**C Depreciation period ****	**D Percentage of use *****	**A*B/C*D Total**
Portable computer SFD-A (1)	2750	12	36	10 %	92
Total					92

*** The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.**

**** Durable goods will be consedered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods**

***** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.**

****** Copies of all the invoices should be provided**

(1) Equipment purchased in 2002

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	**A Unit cost**	**B Quantity**	**A*B Total**
Repair of nets (1)	Variable	Variable	3000
Sampling material (2)	Variable	Variable	1000
Foul weather gear	Variable	Variable	500
Total			4500

*** Detailed description within text**

*** Office supplies is an unauthorised expenditure**

(1) Maintenance and repair of existing trawls used in the survey

(2) Supplies for collection, storage and preservation of samples taken at sea

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	**Total Cost**
None	
Total	0

*** Expenditure on software for the management and interrogation of databases**

G SURVEYS (b)

Survey name **Beam Trawl Survey - BTS (Flatfish - North Sea)**

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	**Total Cost**
None	
Total	0

*** Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.**

**** Copies of contracts and/or invoices should be provided**

SUMMARY	
Category of costs	**Total**
Personnel	29913
Travel costs	2160
Durable equipment	92
Consumables	4500
Computing cost	0
Subcontracting	0
GRAND TOTAL €	36664

Appendix 9

H LENGTH & AGE COMPOSITION LANDINGS

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Sea Fisheries Department				
Scientists (1)				
Scientist SFD-S1	SRS	0.50	8925	4463
Scientist SFD-S2	SRS	3.00	7250	21750
Scientist SFD-S3	RS	4.00	5300	21200
Scientist SFD-S4	RS	9.00	5300	47700
Scientist SFD-S6	JRS	2.00	5300	10600
Technicians (2)				
Technician SFD-T1	RT	2.00	3300	6600
Technician SFD-T2	RT	8.00	3300	26400
Technician SFD-T3	RT	8.00	3300	26400
Technician SFD-T5	RT	4.00	3300	13200
Technician SFD-T6	RT	5.00	3300	16500
Technician SFD-T7	T	4.00	3300	13200
Subtotal		**49.50**		**208013**
Total		49.50		208013

*** Scientific or technical staff only.**

**** Please specify grade according to the salary scale of the organisation**

***** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)**

****** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.**

(1) SRS = Senior Research Scioentist, RS = Research scientist, JRS = Junior Research Scientist

(2) RT = Research Technician

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
Local transport (1)	4-5 per week					2000
Total						2000

*** For journeys outside the Community, prior agreement of the Commission shall be required.**

(1) Costs for travel of personnel and transport of samples between institute and auctions

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	**A Amount (VAT excluded)**	**B Number of months of use ***	**C Depreciation period ****	**D Percentage of use *****	**A*B/C*D Total**
Portable computer SFD-A (1)	2750	12	36	80 %	733
Portable computer SFD-B (1)	2750	12	36	25 %	229
Portable computer SFD-C (1)	2750	12	36	25 %	229
Microscope age-reading (1)	15000	12	60	67 %	2010
Total					3202

*** The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.**

**** Durable goods will be consedered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods**

***** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.**

****** Copies of all the invoices should be provided**

(1) Equipment purchased in 2002

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	**A Unit cost**	**B Quantity**	**A*B Total**
Fish samples - Plaice (1)	65	36	2340
Fish samples - Sole (1)	210	50	10500
Fish samples - Turbot (2)	250	6	1500
Fish samples - Brill (2)	250	6	1500
Fish samples - Other	Variable	Variable	2500
Nephrops samples (3)	30	24	720
Supplies for age reading (4)	Variable	Variable	3500
Other lab supplies (5)	Variable	Variable	3500
Working clothes	Variable	Variable	700
Maintenance and repair (6)	Variable	Variable	3500
Waste disposal (7)	Variable	Variable	1500
Total			31760

*** Detailed description within text**

*** Office supplies is an unauthorised expenditure**

(1) Fish samples for age reading
Note: Unit cost = Price per batch of 50 fish ; Quantity = No. of batches sampled

(2) Fish samples for age reading
Note: Unit cost = Compensation for loss in value owing to otolith removal

(3) Nephrops samples (tails only) for length measurement
Note: Unit cost = Average price per sample ; Quantity = No. of samples taken

(4) Resins, dyes and other chemicals used for age reading; replacement of diamond waffering blade

(5) Other supplies and chemicals for storage, preservation and analysis of samples (formaline, alcohol, jars, dissection material, etc.)

(6) Maintenance and repair of existing laboratory equipment and hardware

(7) Costs for the disposal of samples contaminated with formaline, resins, dyes, etc.

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	**Total Cost**
None	
Total	0

*** Expenditure on software for the management and interrogation of databases**

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	**Total Cost**
None	
Total	0

*** Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.**

**** Copies of contracts and/or invoices should be provided**

SUMMARY	
Category of costs	**Total**
Personnel	208013
Travel costs	2000
Durable equipment	3202
Consumables	31760
Computing cost	0
Subcontracting	0
GRAND TOTAL €	244974

Appendix 10

H LENGTH & AGE COMPOSITION DISCARDS

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Sea Fisheries Department				
Scientists (1)				
Scientist SFD-S1	SRS	0.50	8925	4463
Scientist SFD-S2	SRS	3.00	7250	21750
Scientist SFD-S3	RS	2.00	5300	10600
Scientist SFD-S6	JRS	4.00	5300	21200
Technicians (2)				
Technician SFD-T1	RT	2.00	3300	6600
Technician SFD-T4 (3)	RT	11.00	6600	72600
Technician SFD-T5	RT	2.00	3300	6600
Technician SFD-T6	RT	1.00	3300	3300
Subtotal		**25.50**		**147113**
Total		25.50		147113

*** Scientific or technical staff only.**

**** Please specify grade according to the salary scale of the organisation**

***** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)**

****** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.**

(1) SRS = Senior Research Scientist, RS = Research scientist, JRS = Junior Research Scientist

(2) RT = Research Technician

(3) Monthly rate inclusive of payments for overtime

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
Local transport (1)	2-4 per month					500
Observer trips (2)	18	1	10	30		5400
Internat'l travel (3)	14	1	1	50	750	11200
Total						17100

*** For journeys outside the Community, prior agreement of the Commission shall be required.**

(1) Costs for travel of personnel and transport of samples between institute and auctions

(2) Daily allowances for sea going observer trips to VIId, VIIa, VIIf,g and VIIIa,b (approx. duration of each trip = 10 days at sea)

(3) Travel of sea going observers between institute and foreign harbours, when boarding or disembarking has to take place abroad (this is particularly the case for the observer trips in VIIa, VIIf,g and VIIIa,b)

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	**A Amount (VAT excluded)**	**B Number of months of use ***	**C Depreciation period ****	**D Percentage of use *****	**A*B/C*D Total**
Portable computer SFD-B (1)	2750	12	36	25 %	229
Portable computer SFD-C (1)	2750	12	36	25 %	229
Microscope age-reading (1)	15000	12	60	33 %	990
Total					1448

*** The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.**

**** Durable goods will be considered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods**

***** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.**

****** Copies of all the invoices should be provided**

(1) Equipment purchased in 2002

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	**A Unit cost**	**B Quantity**	**A*B Total**
Nephrops discards (1)	500	30	15000
Supplies for age reading (2)	Variable	Variable	1500
Other lab supplies (3)	Variable	Variable	1500
Working clothes	Variable	Variable	300
Maintenance and repair (4)	Variable	Variable	1500
Waste disposal (5)	Variable	Variable	750
Total			20550

*** Detailed description within text**

*** Office supplies is an unauthorised expenditure**

(1) Costs for samples + data obtained from fishermen as part of selfsampling contracts
Note: Unit cost = Price per contract month ; Quantity = No. of contract months (the no. of contract months exceeds 12 because several vessels are involved in this project)

(2) Resins, dyes and other chemicals used for age reading; replacement of diamond waffering blade

(3) Other supplies and chemicals for storage, preservation and analysis of samples (formaline, alcohol, jars, dissection material, etc.)

(4) Maintenance and repair of existing laboratory equipment and hardware

(5) Costs for the disposal of samples contaminated with formaline, resins, dyes, etc.

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	**Total Cost**
None	
Total	0
* Expenditure on software for the management and interrogation of databases	

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	**Total Cost**
None	
Total	0
* Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories. ** Copies of contracts and/or invoices should be provided	

SUMMARY	
Category of costs	**Total**
Personnel	147113
Travel costs	17100
Durable equipment	1448
Consumables	20550
Computing cost	0
Subcontracting	0
GRAND TOTAL €	186211

Appendix 11

I OTHER BIOLOGICAL PARAMETERS

See comments in Section 9.2. of NDGP proposal

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Sea Fisheries Department				
Scientists (1)				
Scientist SFD-S1	SRS	0.50	8925	4463
Scientist SFD-S2	SRS	2.00	7250	14500
Scientist SFD-S3	RS	2.00	5300	10600
Scientist SFD-S4	RS	2.00	5300	10600
Scientist SFD-S6	JRS	2.00	5300	10600
Technicians (2)				
Technician SFD-T1	RT	1.00	3300	3300
Technician SFD-T2	RT	2.00	3300	6600
Technician SFD-T3	RT	2.00	3300	6600
Subtotal		**13.50**		**67263**
Total		13.50		67263

*** Scientific or technical staff only.**

**** Please specify grade according to the salary scale of the organisation**

***** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)**

****** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.**

(1) SRS = Senior Research Scientist, RS = Research scientist, JRS = Junior Research Scientist

(2) RT = Research Technician

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
Included under Module H (see Appendix 9 and 10)						
Total						0

*** For journeys outside the Community, prior agreement of the Commission shall be required.**

I OTHER BIOLOGICAL PARAMETERS

See comments in Section 9.2. of NDGP proposal

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	**A Amount (VAT excluded)**	**B Number of months of use ***	**C Depreciation period ****	**D Percentage of use *****	**A*B/C*D Total**
Portable computer SFD-B (1)	2750	12	36	25 %	229
Portable computer SFD-C (1)	2750	12	36	25 %	229
Total					458

*** The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.**

**** Durable goods will be considered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods**

***** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.**

****** Copies of all the invoices should be provided**

(1) Equipment purchased in 2002

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	**A Unit cost**	**B Quantity**	**A*B Total**
Included under Module H (see Appendix 9 and 10)			
Total			0

*** Detailed description within text**

*** Office supplies is an unauthorised expenditure**

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	**Total Cost**
None	
Total	0

*** Expenditure on software for the management and interrogation of databases**

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	**Total Cost**
None	
Total	0

*** Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.**

**** Copies of contracts and/or invoices should be provided**

I OTHER BIOLOGICAL PARAMETERS

See comments in Section 9.2. of NDGP proposal

SUMMARY	
Category of costs	**Total**
Personnel	67263
Travel costs	0
Durable equipment	458
Consumables	0
Computing cost	0
Subcontracting	0
GRAND TOTAL €	67721

Appendix 12

J ECONOMIC DATA by GROUP of VESSELS

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
	10	1.25	4410	5513
	11	1.25	4410	5513
Technicians				
	22	2.50	2730	6825
Subtotal		**5.00**		**17850**
Sea Fisheries Department				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Total		5.00		17850

* Scientific or technical staff only.

** Please specify grade according to the salary scale of the organisation

*** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)

**** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
None	0	0	0	0	0	0
Total						0

* For journeys outside the Community, prior agreement of the Commission shall be required.

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	A Amount (VAT excluded)	B Number of months of use *	C Depreciation period **	D Percentage of use ***	A*B/C*D Total
None	0	0	0	0 %	0
Total					0

* The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.

** Durable goods will be considered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods

*** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.

**** Copies of all the invoices should be provided

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	A Unit cost	B Quantity	A*B Total
None			0
Total			0

* Detailed description within text

* Office supplies is an unauthorised expenditure

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	Total Cost
None	
Total	0

* Expenditure on software for the management and interrogation of databases

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	Total Cost
None	
Total	0

* Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.

** Copies of contracts and/or invoices should be provided

J **ECONOMIC DATA by GROUP of VESSELS**

SUMMARY	
Category of costs	**Total**
Personnel	17850
Travel costs	0
Durable equipment	0
Consumables	0
Computing cost	0
Subcontracting	0
GRAND TOTAL €	17850

Appendix 13

K ECONOMIC DATA PROCESSING INDUSTRY

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
	10 or 11	3.00	4410	13230
Technicians				
None				0
Subtotal		**3.00**		**13230**
Sea Fisheries Department				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Total		3.00		13230

*** Scientific or technical staff only.**

**** Please specify grade according to the salary scale of the organisation**

***** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)**

****** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.**

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
None	0	0	0	0	0	0
Total						0

*** For journeys outside the Community, prior agreement of the Commission shall be required.**

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	A Amount (VAT excluded)	B Number of months of use *	C Depreciation period **	D Percentage of use ***	A*B/C*D Total
None	0	0	0	0 %	0
Total					0

* The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.

** Durable goods will be considered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods

*** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.

**** Copies of all the invoices should be provided

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	A Unit cost	B Quantity	A*B Total
None			0
Total			0

* Detailed description within text

* Office supplies is an unauthorised expenditure

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	Total Cost
None	
Total	0

* Expenditure on software for the management and interrogation of databases

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	Total Cost
None	
Total	0

* Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.

** Copies of contracts and/or invoices should be provided

SUMMARY	
Category of costs	**Total**
Personnel	13230
Travel costs	0
Durable equipment	0
Consumables	0
Computing cost	0
Subcontracting	0
GRAND TOTAL €	13230

Appendix 14

X DATA STORAGE & MANAGEMENT

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
	10	7.25	4410	31973
	11	3.50	4410	15435
Technicians				
	22	1.25	2730	3413
Subtotal		**12.00**		**50820**
Sea Fisheries Department				
Scientists (1)				
Scientist SFD-S1	SRS	0.50	8925	4463
Scientist SFD-S2	SRS	2.00	7250	14500
Scientist SFD-S3	RS	3.00	5300	15900
Scientist SFD-S6	JRS	3.00	5300	15900
Technicians (2)				
Technician SFD-T1	RT	1.00	3300	3300
Technician SFD-T5	RT	4.00	3300	13200
Technician SFD-T8	RT	3.00	3300	9900
Subtotal		**16.50**		**77163**
Total		28.50		127983

*** Scientific or technical staff only.**

**** Please specify grade according to the salary scale of the organisation**

***** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)**

****** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.**

(1) SRS = Senior Research Scientist, RS = Research scientist, JRS = Junior Research Scientist

(2) RT = Research Technician

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
None	0	0	0	0	0	0
Total						0

*** For journeys outside the Community, prior agreement of the Commission shall be required.**

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	**A Amount (VAT excluded)**	**B Number of months of use ***	**C Depreciation period ****	**D Percentage of use *****	**A*B/C*D Total**
Database mini-server (1) (2)	6000	12	36	100 %	2000
Database terminals (2)	7500	12	36	100 %	2500
Network printer (3)	2000	12	36	100 %	667
Total					5167

*** The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.**

**** Durable goods will be considered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods**

***** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.**

****** Copies of all the invoices should be provided**

(1) Stand-alone PC for hosting database of sampling and survey data + back-up system

(2) Equipment to be purchased in 2003

(3) Equipment purchased in 2002

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	**A Unit cost**	**B Quantity**	**A*B Total**
None			0
Total			0

*** Detailed description within text**

*** Office supplies is an unauthorised expenditure**

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	**Total Cost**
Statistical software program (Sea Fish Service)	7000
Drawing and presentation software (Sea Fish Service)	6000
Database software (Sea Fish Dept)	5000
Total	18000

*** Expenditure on software for the management and interrogation of databases**

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	**Total Cost**
Upgrading of existing database (1)	25000
Development of new database (2)	62500
Total	87500

*** Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.**

**** Copies of contracts and/or invoices should be provided**

(1) Provision for the upgrading of the Quovis application softare at the Sea Fisheries Service - See Section 12.1. for details

(2) Development of a new database system for market and discard sampling data and for survey data at the Sea Fisheries Department - See Section 12.2. for detals

SUMMARY	
Category of costs	**Total**
Personnel	127983
Travel costs	0
Durable equipment	5167
Consumables	0
Computing cost	18000
Subcontracting	87500
GRAND TOTAL €	238649

Appendix 15

Y CO-ORDINATION

I. One table for each type of data (if applicable)

Personnel costs (€)				
Category *	**Grade ****	**Number of Man/months**	**Monthly Rate *****	**Total**
Sea Fisheries Service				
Scientists				
None				0
Technicians				
None				0
Subtotal		**0.00**		**0**
Sea Fisheries Department				
Scientists (1)				
Scientist SFD-S1	SRS	0.50	8925	4463
Scientist SFD-S2	SRS	1.00	7250	7250
Scientist SFD-S3	RS	1.00	5300	5300
Scientist SFD-S6	JRS	1.00	5300	5300
Technicians (2)				
None				0
Subtotal		**3.50**		**22313**
Total		3.50		22313

*** Scientific or technical staff only.**

**** Please specify grade according to the salary scale of the organisation**

***** Including wages, social costs, social security, and pension contributions BUT excluding indirect costs (OVERHEADS)**

****** The "times sheets" in due form and certified by the responsible person must be filled in and available to be sent by the end of each period.**

(1) SRS = Senior Research Scientist, RS = Research scientist, JRS = Junior Research Scientist

(2) RT = Research Technician

II. One table for each type of data (if applicable)

Travel costs (€)						
Destination*	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**A*B*C*D+A*E Total**
Meeting WGBEAM (1)	1	1	Unknown		Unknown	1500
Meeting PGCCDBS (2)	1	1	Unknown		Unknown	1500
Other internat'l meetings (3)	3	1	Unknown		Unknown	4500
Total						7500

*** For journeys outside the Community, prior agreement of the Commission shall be required.**

(1) ICES Working Group on Beam Trawl Surveys

(2) ICES Planning Group on Commercial Catch, Discards and Biological Sampling

(3) Provision for meetings of Working, Study and Planning Groups in relation to data gathering, that might be convened in 2003

Y CO-ORDINATION

III. One table for each type of data (if applicable)

Durable equipment (€)					
Description	**A Amount (VAT excluded)**	**B Number of months of use ***	**C Depreciation period ****	**D Percentage of use *****	**A*B/C*D Total**
Portable computer SFD-B (1)	2750	12	36	25 %	229
Portable computer SFD-C (1)	2750	12	36	25 %	229
Total					458

*** The period used to calculate this amount starts on the actual date of commencement of the programme, or the date of purchase of the goods where this occurs after the date of commencement, and ends on the date of completion of the programme.**

**** Durable goods will be considered to have a probable life of 36 months in the case of computer equipment of a value not exceeding EUR 10.000 and 60 months in the case of others goods**

***** Equal to 100% if the goods are exclusively used for this programme; otherwise, account should be taken of the use made during that period.**

****** Copies of all the invoices should be provided**

(1) Equipment purchased in 2002

IV. One table for each type of data (if applicable)

Consumable material and supplies (€)			
Description *	**A Unit cost**	**B Quantity**	**A*B Total**
None			0
Total			0

*** Detailed description within text**

*** Office supplies is an unauthorised expenditure**

V. One table for each type of data (if applicable)

Computing costs (€)	
Description *	**Total Cost**
None	
Total	0

*** Expenditure on software for the management and interrogation of databases**

VI. One table for each type of data (if applicable)

Subcontracting and other costs (€) *	
Description	**Total Cost**
None	
Total	0

*** Prior agreement of the Commission is requested for Subcontracting or unforeseen expenditure not falling within one of the above categories.**

**** Copies of contracts and/or invoices should be provided**

Y CO-ORDINATION

SUMMARY	
Category of costs	**Total**
Personnel	22313
Travel costs	7500
Durable equipment	458
Consumables	0
Computing cost	0
Subcontracting	0
GRAND TOTAL €	30271

Appendix 16

NDGP Belgium **GRAND TOTALS ALL MODULES COMBINED**

Grand totals for all Modules combined

Personnel costs (€)				
Category	**Grade**	**Number of Man/months**	**Monthly Rate**	**Total**
Sea Fisheries Service		69.50		225435
Sea Fisheries Department		119.50		568925
Total		189.00		794360

Travel costs (€)						
Destination	**A Number of trips**	**B Number of persons**	**C Number of days**	**D Daily allowance**	**E Travel expenses**	**Total**
Total						29660

Durable equipment (€)					
Description	**A Amount (VAT excluded)**	**B Number of months of use**	**C Depreciation period**	**D Percentage of use**	**Total**
Total					10917

Consumable material and supplies (€)			
Description	**A Unit cost**	**B Quantity**	**Total**
Total			61810

Computing costs (€)	
Description	**Total Cost**
Total	18000

Subcontracting and other costs (€) *	
Description	**Total Cost**
Total	87500

NDGP Belgium **GRAND TOTALS ALL MODULES COMBINED**

Grand totals for all Modules combined

SUMMARY	
Category of costs	**Total**
Personnel	794360
Travel costs	29660
Durable equipment	10917
Consumables	61810
Computing cost	18000
Subcontracting	87500
GRAND TOTAL €	1002247

Appendix 17

NDGP Belgium COST PROJECTIONS

Estimated costs for 2003 and cost projections for 2004 to 2007 for all Modules combined

Personnel costs (€)					
Year	**2003**	**2004 (*) (**)**	**2005 (*)**	**2006 (*)**	**2007 (*)**
Total	794360	914928	960674	1008708	1059144

* Assuming an annual increase of 5 % to account for statutory raises in salary and index adjustments

** Additional increase of costs for hiring an extra research technician for the observer trips (monitoring of discards), from 2004 onwards

Travel costs (€)					
Year	**2003**	**2004 (*)**	**2005 (*)**	**2006 (*)**	**2007 (*)**
Total	29660	31143	32700	34335	36052

* Assuming an annual increase of 5 % to account for inflation-bound increases in prices

Durable equipment (€)					
Year	**2003**	**2004 (*)**	**2005 (*)**	**2006 (*)**	**2007 (*)**
Total	10917	13417	11708	8000	4000

* Taking into account (a) depreciation of equipment purchased in 2002 and 2003, and (b) likely costs for new equipment to be purchased in the years thereafter

Consumable material and supplies (€)					
Year	**2003**	**2004 (*)**	**2005 (*)**	**2006 (*)**	**2007 (*)**
Total	61810	67991	74790	82269	90496

* Assuming an annual increase of 10 % to account for inflation-bound increases in prices and for extension of studies (e.g. routine sampling programmes instead of pilot studies)

Computing costs (€)					
Year	**2003**	**2004 (*)**	**2005 (*)**	**2006 (*)**	**2007 (*)**
Total	18000	10000	10000	10000	10000

* Provisional estimates

Subcontracting and other costs (€)					
Year	**2003**	**2004 (*)**	**2005 (*)**	**2006 (*)**	**2007 (*)**
Total	87500	10000	10000	10000	10000

* Provisional estimates

NDGP Belgium **COST PROJECTIONS**

Estimated costs for 2003 and cost projections for 2004 to 2007 for all Modules combined

SUMMARY					
Category of costs	**2003**	**2004**	**2005**	**2006**	**2007**
Personnel	794360	914928	960674	1008708	1059144
Travel costs	29660	31143	32700	34335	36052
Durable equipment	10917	13417	11708	8000	4000
Consumables	61810	67991	74790	82269	90496
Computing cost	18000	10000	10000	10000	10000
Subcontracting	87500	10000	10000	10000	10000
GRAND TOTAL €	**1002247**	**1047479**	**1099873**	**1153312**	**1209691**