# GERMAN NATIONAL FISHERIES DATA SAMPLING PROGRAMME 2007 update 

Based on<br>EU Council Regulation 1543/2000 and Commission Regulations 1639/2001 and 1581/2004

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## 1. Introduction

### 1.1 General framework

The German National Programme for sampling of fisheries data refers to the Community Data Sampling Programme defined in Council Regulation 1543/2000 and the Commission Regulations 1639/2001 and 1581/2004. It describes the planned actions by articles and modules of the Commission Regulations 1639/2001 and 1581/2004.

This NP proposal covers the forthcoming year, 2007 (= NP-year).
In comparison with previous years, there are no major changes in the NP approaches. The requirements specified in Reg. 1581/2004 were already included in the NP 2006, and efforts in 2007 will continue to be in accordance with these obligations.

## Articles of Regulations 1639/2001 and 1581/2004:

## Article 3: Requirements for the national programmes

Data on fleet capacity, fishing effort are sampled/collected nationally as well as sampling of commercial fishing vessels under German flag. Data on landings in terms of weight and value are sampled on national basis and in co-operation with other member states or third countries, as the major part of landings under German flag are landed outside of Germany. Biological sampling of landings outside Germany can only be done in close co-operation with other member states or third countries. This is valid especially in the case of Denmark, The Netherlands and Sweden (see Module H).
Biological data and survey data are sampled on national basis and in (mainly ICES-) coordinated survey programmes.
Depending on the results of pilot studies, economic data will be sampled also on national or international basis.

## Article 5: Transmission of data to international organisations

Landings and effort data in the relevant aggregation are submitted yearly to ICES and NAFO in the STATLANT format. Due to conventional agreement, NEAFC receives weekly information on landings from the NEAFC Regulatory Area by ships under German flag. Monthly reports are also sent to NAFO and ICES.
Biological data are transmitted to the relevant Assessment Working Groups of ICES and NAFO.

## Article 6: Coordination between Commission and Member States

The Federal Research Centre for Fisheries (BFAFi) has been determined as the responsible organisation and the national co-ordinator of the data sampling programme. In this function, the BFAFi is the national correspondent to the Commission. Details have been communicated to the Commission by 31. May 2001. Germany will take measures to comply with article 6 (2)-(5).

## Article 9: Management of primary and aggregated data

In Germany, four institutions own the data which are required by the common and national data sampling programmes:

- The fishing vessel list including capacity data based on EU Regulations 2090/98, 2091/98 and 2092/98 as well as landings and effort data based on EU Regulations

2807/83 and 2897/93 are kept in the Federal Agency for Agriculture and Food (BLE) in Bonn.

- Biological data, biological survey data as well as data from sampling of commercial fishing vessels under German flag are held at the Federal Research Centre for Fisheries (BFAFi) in Hamburg.
- Data on the economy of the German fishing fleet, first calculated for 2002, are owned by the Federal Agricultural Research Centre (FAL) in Braunschweig.
- Data on the processing industry are kept at the Federal Statistical Office Germany (StBA) in Wiesbaden and FAL in Braunschweig.

Aggregated data requested by the data sampling programme are transferred to a common database at the Centre for Documentation and Information in Agriculture (ZADI). This institution has the technical skills and equipment to secure the requests stated in paragraphs 1 to 6 of this Article as well as to serve and run the database. The relevant institutions are responsible for the input and content of the database.
National access rights to the database are restricted to the above mentioned institutions only for their relevant part of the database. It will be secured that only aggregated data will be available via internet and that no relation can be concluded between these data and individual ships, natural or legal persons.

For further details on the national database development, see section 12.

## Article 10: Access to data by the commission

Requests for electronic access to German data by the commission directed to the national correspondent of the German national data sampling programme will be transferred to ZADI which will determine a time window and password within 20 days for the access by the commission.

## Article 11: Access to data by member states

The same procedure as in Article 10 for other member states is applied.

### 1.2 General description of the fisheries

Table 1.1 shows a general overview on the German fisheries activities during recent years and to be expected for the NP-year. In the Northeast Atlantic (incl. the Baltic), demersal, pelagic and a smaller fraction of industrial fisheries are conducted. In ICES Sub-areas V-VII(excl. Div.VIId) and VIII-XIV, few vessels under German flag are conducting deep-water fisheries. In the NAFO area, a small fraction of the fleet is conducting two fisheries only, targeting Greenland halibut (Reinhardtius hippoglossoides) in Div. 1D (demersal) and redfish (Sebastes mentella) in Div. 1F, SA2 and Div. 3K (pelagic).

## 2. Participating institutes

### 2.1 National correspondent

By 1 January 2007, the National Correspondent representing Germany is:
Dr. Christoph Stransky
Federal Research Centre for Fisheries
Institute for Sea Fisheries
Palmaille 9
D-22767 Hamburg
Germany
Tel +49 4038905228
Fax +494038905263
E-mail: christoph.stransky@ish.bfa-fisch.de

### 2.2 Participating Institutes

In Germany, four institutions own data which are relevant to requirements outlined in Regulations 1639/2001 and 1581/2004 in relation to national data sampling programmes:

- Bundesanstalt für Landwirtschaft und Ernährung (BLE) (Federal Agency for Agriculture and Food)
Deichmanns Aue 29
53179 Bonn, Germany
Tel +49 228 6845-0
Fax +49 228 6845-3444
Website: http://www.ble.de
- Bundesforschungsanstalt für Fischerei (BFAFi) (Federal Research Centre for

Fisheries)
Palmaille 9
22767 Hamburg, Germany
Tel +49 40 38905-0
Fax +49 40 38905-263
Website: http://www.bfa-fisch.de

- Bundesforschungsanstalt für Landwirtschaft (FAL) (Federal Agricultural Research Centre)
Bundesallee 50
38116 Braunschweig, Germany
Tel +49 531 596-0
Fax +49 531 596-5399
Website: http://www.fal.de
- Statistisches Bundesamt (StBA) (Federal Statistical Office Germany)

Gustav-Stresemann Ring 11
65189 Wiesbaden, Germany
Tel +49 611 75-0
Fax +49 611 75-3330
Website: http://www.destatis.de

The BLE keeps the fishing vessel list including capacity data based on EU Regulations 2090/98, 2091/98 and 2092/98 as well as landings and effort data based on EU Regulations 2807/83 and 2897/93.

The BFAFi collects biological data, biological survey data as well as data from sampling of commercial fishing vessels under German flag. The Institute for Baltic Sea Fisheries (IOR) is responsible for the Baltic Sea. The Institute for Sea Fisheries (ISH) is responsible for the North Atlantic and the other areas.

The FAL handles data on the economy of a part of the German fishing fleet based on a test programme.

The StBA compiles data on the processing industry including fish processing industry.
BLE, FAL and BFAFi are institutions within the Bundesministerium für Ernährung,
Landwirtschaft und Verbraucherschutz (BMELV) (Federal Ministry of Food, Agriculture and Consumer Protection), whereas the StBA belongs to the Bundesministerium für Inneres (BMI) (Ministry for Internal Affairs).

Within the institutions of BMELV, responsible persons were appointed in order to co-operate and establish a national fisheries data sampling programme. The BFAFi was determined as national coordinator.

The group of responsible persons met several times in 2001 and made basic decisions on the national programme. Concerning the requirement for a data base system for aggregated data a database combining all programme relevant data was seen as an advantage for access from outside via internet by the commission and other member states as well as for internal national issues. Therefore, BMELV decided to combine the aggregated data requested by the data sampling programmes in a combined database at the Zentralstelle für Agrardokumentation und -information (ZADI) (Centre for Documentation and Information in Agriculture) in Bonn reflecting the required data by the data sampling programmes. ZADI has the technical skills and equipment to secure the requests stated in Regulations 1639/2001 and 1581/2004 as well as to serve and run the database. The relevant institutions are responsible for the input and content of the database. A database for a part of the data was already established and tested in the first half of 2002 and further developed in 2003-2006.

The contact details for ZADI are:
Zentralstelle für Agrardokumentation und -information (ZADI) (Centre for
Documentation and Information in Agriculture)
Villichgasse 17
53177 Bonn, Germany
Tel: +49 228 9548-0
Fax: +49 228 9548-111
Website: http://www.zadi.de
Compared to other member states Germany has no central institution which deals with the economy of the fishing fleet or the economy of the fish processing industry. Relevant data and analytical work are distributed all over Germany. Therefore, basic work in relation to sampling of economic data has to be done in order to comply with the requirements of Regulations 1639/2001 and 1581/2004.

In 2005 and 2006, a national legal regulation for fisheries data collection has been prepared, but is not in force yet.

## 3. Module C - Fishing capacities

### 3.1 MP - Planned sampling

The database contains the list of German fishing vessels covered by the MAGP IV further on called Fishing Vessel Register. The requirements for the Fishing Vessels Register are stated in EU Regulations 2090/98, 2091/98, 2092/98 as well as 2930/86. This Fishing Vessel Register includes vessels with a license to fish under German flag is kept in the BLE. The list is updated daily.
The list of fishing vessels contains inter alia the required parameters

- number of fishing vessels
- gross tonnage
- maximum continuous engine power in kW
- age of the vessel hull

Vessels of less than 10 m overall length are not obliged to report logbook data. In the Baltic, however, vessels larger than 8 m have to report to logbooks since 1 Jan 2006 (Reg. 52/2006).

## Aggregation

Besides the segmentation of the fleet due to the MAGP, a new segmentation parameter for a segmentation defined in Appendix III of Regulations 1639/2001 and 1581/2004 was added to the list. Based on this segmentation, mean values of the required parameters (see above) will be calculated.

### 3.2 MP - Derogations and non-conformities

None.

### 3.3 EP - Planned sampling

Germany does not apply for an extended programme under this module.

### 3.4 EP -Non-conformities

Not relevant.

## 4. Module D - Fishing effort

### 4.1 MP - Planned sampling

In Germany, information on fishing effort is derived from logbook data. The collection of logbook data is determined by Regulations 2807/83 and 2847/93. However, some parameters like fuel consumption required by Regulations 1639/2001 and 1581/2004 are not mandatory to be reported in the above mentioned regulations.

Other parameters not required by Regulations 1639/2001 and 1581/2004, but which are essential for calculation of useful effort units, are not mandatory to be reported. These are the length of set nets or drift nets as well as the number of hooks on long-lines.

All fishing vessels of the Fishing Vessels Register are obliged to report logbook data including effort which are stored in the logbook database. Vessels of less than 10 m overall length are not obliged to report logbook data. These vessels report landings in a landings declaration which contains no effort or gear reporting. In the Baltic, vessels larger than 8 m have to report to logbooks since 1 Jan 2006 (Reg. 52/2006). However, the effort data of vessels $<10 \mathrm{~m}$ are sampled in a pilot study described in section 10 .

## Aggregation

Based on the logbook database, the compilation of:

- fishing effort by type and special effort as defined in Module D (1)(a)(ii)
- specific fishing effort as defined in Module D (1)(a)(iii)
per segments defined in Appendix VIII, quarter and division can be conducted. Mean fuel consumption per segment (as defined in Appendix III) is dealt with in section 10.


## Eel sampling

Species-specific effort data for eel (Anguilla anguilla) are collected in respect with Module J in collecting economic parameters (section 10.1 sub-section Fishing effort).
Germany is currently preparing a pilot study on eel monitoring, which is outlined in Annex 1.

### 4.2 MP - Derogations and non-conformities

As the average annual eel landings during recent years were considerably lower than 100 t (cf. Table 8.2), Germany is not obliged to provide data under this module, but effort data are collected in the logbook database.

### 4.3 EP - Planned sampling

Germany does not apply for an extended programme under this module.

### 4.4 EP -Non-conformities

Not relevant.

## 5. Module E-Catches and landings

### 5.1 MP - Landings - Planned sampling

Based on logbooks, the landings are gathered exhaustively for vessels recording on logbooks. Landed product weight is corrected by application of conversion factors (Table 5.1) to live weight and distributed proportionally due to logbook records. For vessels not obliged to record on logbooks, landings declarations are used to calculate live weight using conversion factors. These vessels are small boats normally not changing between divisions as they fish more or less locally. The gathering of landings data for this part of the fleet is also exhaustive i.e. by census.

Data on landings of fishing vessels under German flag are gathered under the Regulations 2807/83, 2847/93 and 104/2000. Vessels under German flag have to report logbook data and landings declarations and/or trans-shipment declarations. Logbooks contain inter alia information by species on catch (landings) weight, effort, gear, and geographical origin of catches (landings). Landings declarations contain inter alia information by species on landed processed products in terms of weight and value, landing site as well as information on the
fishing trip. Information from logbook and landings declaration are merged and stored in a logbook database and a landings database. The merging process starts with the application of conversion factors for each landed processed product by species. The resultant life weight is summed up per species. Using the logbook information the species live weight is raised by sub-area, division (subdivision) and statistical rectangles. Resultant data are stored in the landings database.
Landings are aggregated according to level 2 (statistical sub-areas) of Appendix I of Regs. 1639/2001 and 1581/2004. For landings of stocks in Appendix XII of Regs. 1639/2001 and 1581/2004, the aggregation is used as indicated in that Appendix.
Vessels less than 10 m overall length are not obliged to report on logbooks. They are only obliged to fill in landings declarations. However, these data cannot be related to gear and effort. In the Baltic, vessels larger than 8 m have to report to logbooks since 1 Jan 2006 (Reg. $52 / 2006$ ). For the landings by gear, the same situation exists as for the estimation of effort. Almost all of these vessels have static gear and are not equipped to operate mobile gears.
Compilation of landings in weight and value per segment listed in Appendix III per species, quarter and sub-area is dealt with in section 10.

Budget planning for Module E is integrated into Module H (section 8), as the sampling is done simultaneously for both modules.

## Eel sampling

Landings data for eel (Anguilla anguilla) are collected in the logbook database.
Germany is currently preparing a pilot study on eel monitoring, which is outlined in Annex 1.

### 5.2 MP - Landings - Derogations and non-conformities

As the average annual eel landings during recent years were considerably lower than 100 t (cf. Table 8.2), Germany is not obliged to provide data under this module, but landings data are collected in the logbook database.

### 5.3 EP - Landings - Planned sampling

Germany does not apply for an extended programme under this module.

### 5.4 EP - Landings - Non-conformities

Not relevant.

### 5.5 MP \& EP - Discards - Planned sampling

Monitoring of discards is also dealt with in section 8, as this will be done simultaneously with sampling of commercial catches at sea (Module H). Thus, some of the fisheries sampled do not indicate that discarding is important (Table 5.2), but will be sampled in accordance with Module H (Table 8.4). The fleet segmentation follows Appendix III of Regs. $1639 / 2001$ and $1581 / 2004$. Information on discards is combined with landings to an estimation of catches. For those species for which yearly estimates are requested and which are covered by fisheries to be sampled (Table 8.2), the estimation of discards will be done for 2007 (see Tables 5.2 and 5.3). Most of the fisheries are sampled at sea (Table 5.3).

Estimation of discards will be done only for those stocks which have to be sampled in Module H after applying derogation rules (see section 8). However, if species are caught from stocks indicated in Appendix XII (Reg. 1639/2001 and 1581/2004), they will be sampled as well as any species brought on deck. To comply with all listed species in App. XII would in the case of Germany result in establishing illegal fisheries (no quota) or reactivating non-active fisheries only in order to get estimations on discards for these stocks.

### 5.6 MP \& EP - Discards - Derogations and non-conformities

The present status of a sampler on board of a German fishing vessel is still a guest status. The possibility for biological sampling depends on the hospitality of ship owners and companies. Based on the present situation, random sampling of the fleet is yet not possible. These led already in the past to a preference in sampling onboard vessels of owners with some degree of positive understanding of aims and situation of the fishery research in general and the individual observer in particular. Thus, the immense number of sampling strata to cover segments relevant to gear types, areas, seasons and species is reduced.

### 5.7 MP - Recreational - Planned sampling

## Data sources

There are no regulations in coastal German countries obliging the recreational fishery to record their catches taken from the Baltic Sea or North Sea. The data will therefore have to be collected by means of direct interviews of the recreational fishermen. It will be essential to work closely with the different angling associations and the governmental administrations of the countries, and to cooperate with angling clubs and the owners of angling cutters.

## Methods of the recreational fishery

The recreational fishery can be divided in two groups.
The first group are the anglers. Anglers use fishing rods and, on occasion a small net for catching fish bait. Fishing with rods can be subdivided into beach fishing (demersal fishing with natural baits from the beach and angling whilst wading, using artificial or natural baits) and boat and cutter angling (with natural or artificial baits) including trolling as a special method.

The second group uses fishing methods like the commercial fishery, e.g. traps, eel pots, stow nets, long lines and gillnets. It is different from federal country to federal country which of the passive methods mentioned above are permitted for this group.

## Data sampling

Cod is the main target species of all sampling in this pilot study. In addition, the data for all other fish species, e.g. flounder, herring and sea trout, caught by the recreational fishery and obtained during sampling are collected.

## Baltic Sea

## Anglers

## Effort

The exact hours fished will be recorded during the census of landings of recreational fishermen on the beaches and an in harbours (see LANDINGS). The data collected should allow to estimate the duration of an angling day and a catch per hour.
A questionnaire to collect data of the effort (angling days) in 2006 should be coordinated with the German Sea Angler Association.

## LANDINGS

In 2007, a stratified random sampling will be realised to gather information on angling landings. Harbours, beaches and sampling days will be randomly selected for the interviews of sports fishermen.
The coastal area of Mecklenburg-Vorpommern and Schleswig-Holstein are subdivided into five regional strata. The regional strata are broken down into substrata (defined beaches and harbours) which are to be sampled.
The regional stratum "Rostock" is sampled more intensely compared to the other regions and has the character of a reference area. Most of the sampling effort for boat and cutter angling is exerted on the harbours of Rostock, because this is by far the region with the highest density of sports fishing in the reference area.
In the other areas the beaches to sample are selected randomly. To ensure an effective use of the available labour, time and the financial resources boat and cutter angling harbours to sample are then selected under the aspect of geographical closeness to the randomly selected beach.
It is expected that angling activities are not distributed equally over time and the different methods. It is assumed that relatively more anglers are involved in boat and cutter fishing on Saturday, Sunday and holiday than on the other days. Further, higher activity for beach fishing is expected to take place on Friday, Saturday and the day before a public holiday, compared to other days. Therefore these days will also be sampled more intensely than the other ones.

Generally the following monthly sampling is planned for 2007:

| beach fishing |  | boat und cutter angling |  |  |
| :---: | :---: | :---: | :---: | :---: |
| reference area "Rostock" |  |  |  |  |
|  |  |  | harbours of Rostock | other harbours |
| time period | No. of samples | time period | No. of samples | No. of samples |
| Fri., Sat., day before holiday | 2 | Sat., Sun, holidays | 1 | 1 |
| Sun., Mon., Tue., Wed., Thu, holiday (if it is not a Fri./Sat.) | 2 | Mon., Tue., Wed., Thu., Fri. | 1 | 1 |
| other areas |  |  |  |  |
| No. of samples |  | No. of samples |  |  |
| 4 |  | 4 |  |  |

Additional cod landings data will be received in cooperation with some owners of angling cutters.

The Boat-Angler-Club will provide data from the Trolling Meeting in spring 2007 and from the Boat-Angling-Festival in autumn 2007.

Along with an article in the "Meeresangler-Magazin", the members of the German Sea Angler Association e.V. receive a questionnaire related to their effort and catch in 2006.

## LENGTH COMPOSITION OF LANDINGS

Length compositions of the landings will be collected in cooperation with the Angling Associations and Angling Clubs. It is important to approach more Angling Clubs to provide their data from the angling events.

Normally no angling events for boat and cutter angling are realised in the first quarter of the year. Therefore three samples (one per month) will be taken to record the length composition of the catches on board of angling cutters in the first quarter.

## RECREATIONAL FISHERY WITH COMMERCIAL FISHING METHODS

$10 \%$ of the fishermen (randomly selected) which are fishing for cod will be interviewed for their effort and landings.

## North Sea

## Anglers

The studies and the sampling conducted in 2004/05 demonstrated that the landings of anglers are without importance for the cod stock in the North Sea. Therefore no further activities are planed for 2007.

## RECREATIONAL FISHERY WITH COMMERCIAL FISHING METHODS

The pilot study is only extended in 2006 to cover this aspect of the recreational fishery. Data is therefore insufficient at present to serve as basis for a detailed planning of sampling activities in 2007.

Note: Changes to the sampling scheme might be required following the evaluation of the Pilot Study for the recreational fishery on cod, taking place after the end of the study on March 31 ${ }^{\text {st }}$, 2007.

## Aggregation

Landings of the recreational fishery will be aggregated as required.

### 5.8 MP - Recreational - Derogations and non-conformities

None.

### 5.9 EP - Recreational - Planned sampling

Germany does not apply for an extended programme under this module.

### 5.10 EP - Recreational - Derogations and non-conformities

Not relevant.

## 6. Module $\mathbf{F}$ - Catches per unit effort

### 6.1 MP - Planned sampling

All CPUE series which have been provided to the relevant assessment working groups in preceding years will also be provided in 2007 (Table 6.1).

Other CPUE series used in the various stock assessments are also submitted to the corresponding ICES and NAFO working groups.

Germany applies for the inclusion of the Greenland halibut (Reinhardtius hippoglossoides) CPUE series in ICES sub-areas V and XIV in addition to the series listed in SEC 2003843. This series is provided to the ICES NWWG since 1995 and is used in the assessment (monitoring of trends in stock abundance) since 1995 (ICES 2006b). During recent years, Germany had major shares of the total landings (around $25 \%$ ) and $>80 \%$ of the EU TAC share.

### 6.2 MP - Derogations and non-conformities

None.

### 6.3 EP - Planned sampling

Germany does not apply for an extended programme under this module.

### 6.4 EP - Non-conformities

Not relevant.

## 7. Module G - Scientific evaluation surveys

## General comment

For most of the surveys listed below, the final planning for 2007 with regard to haul positions and hydroacoustic tracks has not been concluded by 31 May 2006. Thus, the given details and survey maps are only preliminary or show examples based on the 2005 or 2006 surveys.

### 7.1 MP - Planned Priority 1 surveys

Germany will continue to conduct the Priority 1 surveys as in previous years (Table 7.1) and will contribute financially (and with staff, if possible) in the Atlanto-Scandian Herring Acoustic Survey and Blue Whiting Survey conducted by Denmark. There will be no changes in strategy or design except when co-ordinated with the relevant ICES working group. Of
course, the number of hauls and length of tracks that can be achieved depend on weather conditions as well as on the performance of the equipment and/or of the vessel. The number of hauls and length of tracks (Table 7.1) will in all surveys be within the range of records for the former survey years.
In the following, the surveys are described in detail:

## 1) Baltic International Trawl Survey (BITS) in the $1^{\text {st }}$ and $4^{\text {th }}$ Quarter

Target species are demersal fish species, mainly Baltic cod, and flat fish species, mainly flounder, plaice, dab and turbot. The main aim is to determine the year-class strength of the target species. Target data are abundances, weight and length distributions of all fishes and length-weight-age-sex-maturity-feeding data of commercially important species as well as hydro-graphic data (temperature, salinity, oxygen). The collected data are stored in a national Access database and submitted to the ICES WGBFAS and DATRAS database.
Germany is participating in the survey in the first quarter and in the fourth quarter. Germany is co-ordinating this survey within the ICES WGBIFS (ICES 2003). The survey parts will be conducted from 14 Feb to 5 Mar 2007 and from 29 Oct to 16 Nov 2007 on FRV "Solea". Refer to Fig. 7.1 for an example of the station grid of both survey parts. The final station locations are randomly assigned at the next WGBIFS.


Fig. 7.1: Baltic International Trawl Survey (BITS, $1^{\text {st }}$ and $4^{\text {th }}$ quarter). Example of station grid (final positions will be allocated at the WGBIFS).

## 2) Baltic Herring Acoustic Survey

Target species are pelagic fish species, mainly herring and sprat. Target data are: Area scattering coefficient ( $\mathrm{s}_{\mathrm{A}}$ ) and related species composition as abundances, weights and length distributions of all species and additional length-weight-age-sex-maturity data of commercially important species, as well as hydrographic data of the water column at the fishing stations: Temperature, salinity and oxygen.
The collected data are stored in a national Access data base. Data are also submitted to ICES PGHERS and WGBIFS and BADII data bases. The survey will take place 4-23 Oct 2007 on FRV "Solea". Fig. 7.2 shows an example plot (from 2005) of the cruise tracks and fishery stations conducted on the German part of the Baltic Herring Acoustic Survey.


Fig. 7.2: Baltic Herring Acoustic Survey. Example of cruise track and fishery stations.

## 3) Baltic Sprat Acoustic Survey

The main objective of the survey is to assess the sprat stock in the south-western Baltic Sea. The main achievements of the survey are to get data on:

- basic values for the computation of the abundance (survey area, mean $\mathrm{s}_{\mathrm{A}}$, mean scattering cross section $\sigma$, estimated total number of fish and percentage of herring and sprat per rectangle),
- abundance of sprat per age group,
- mean weight of sprat per age group
- hydrography (salinity and temperature by depth, CTD) and oxygen data Summarized data are stored in the database BASS (Baltic acoustic spring survey), and detailed data are stored locally in specific databases of the Federal Research Centre for Fisheries. The survey will take place from 16 May to 4 Jun 2007 on FRV "Walther Herwig III". Please refer to Fig. 7.3 for an example of the cruise track and trawl stations to be conducted on the German part of the Baltic Sprat Acoustic Survey.


Figure 7.3: Baltic Sprat Acoustic Survey. Example of cruise track and trawl positions.

## 4) International Bottom Trawl Survey (IBTS) in Quarter 1

The main aim of the $1^{\text {st }}$ quarter IBTS is to provide abundance indices of the target species haddock, cod, saithe, herring, sprat whiting, mackerel and Norway pout. Types of data collected include biological data, gear, haul procedures, positions, hydrographic data, weather as well as the sea state. The data are stored locally on an Access data base in the national institute. Data are also submitted to ICES. The survey in quarter 1 will be conducted from 17 Jan to 16 Feb 2007 on FRV "Walther Herwig III". Please refer to Fig. 7.4 for a preliminary map of the survey area and allocation to the participating countries.


Fig. 7.4: International Bottom Trawl Survey (IBTS) $1^{\text {st }}$ quarter. Preliminary survey area and allocation to countries ( $G=G e r m a n y$ ). The first country mentioned in each rectangle has first responsibility for MIK sampling.

## 5) Atlanto-Scandian Herring Acoustic Survey

Germany will participate in this survey with staff and will continue to contribute to its financing in order to support Denmark to conduct the survey. The survey will take place in Apr-May 2007.

## 6) International Bottom Trawl Survey (IBTS) in Quarter 3

The main aim of the IBTS survey is to provide abundance indices of the target species haddock, cod, saithe, herring, sprat whiting, mackerel and Norway pout. Types of data collected include biological data, gear, haul procedures, positions, hydrographic data, weather as well as the sea state. Additionally, data of epibenthos, nutrients and seabirds are collected. The data are stored locally in Access databases in the national institutes. Data are also submitted to ICES. The IBTS survey in Quarter 3 is conducted in conjunction with a national survey from 17 Jul to 15 Aug 2007 on FRV "Walther Herwig III". Only eight days within this period are devoted to IBTS. The other days are covering a programme on national expense. Please refer to Fig. 7.5 for the investigation area of the German part of the International Bottom Trawl Survey in Quarter 3.


Fig. 7.5: International Bottom Trawl Survey (IBTS) $3^{\text {rd }}$ quarter. Preliminary investigation area allocated to Germany (grey) and small areas (black boxes) of the national survey in conjunction with the IBTS.

## 7) North Sea Herring Acoustic Survey

Target species are herring and sprat. The main aim of the survey is to provide an estimate of the abundance and biomass of the target species in the North Sea. Types of data collected include 1nm NASCs for clupeid fish (acoustic data), age and length distribution for all clupeids in the investigation area, maturity at age and parasite infestation. The data is stored locally in the national institute's database and centrally on the HERSUR database (raw and derived data). The survey will take place from 28 Jun to 17 Jul 2007 on FRV "Solea". Please refer to Fig. 7.6 for an example (from 2006) of the cruise track of the German part of the North Sea Herring Acoustic Survey.


Fig. 7.6: North Sea Herring Acoustic Survey. Example of cruise track.

## 8) North Sea Beam Trawl Survey (BTS)

Target species of this survey are mainly sole and plaice but also associated species. The survey provides densities (abundance and biomass) indices for the target species as well as hydrographic data. Data are stored locally in an Access data base and a database held by the chairman of ICES WGBEAM at CEFAS in Lowestoft. The survey will take place from 16-31 Aug 2007 on FRV "Solea". Please refer to Fig. 7.7 for an example of the trawl positions of the German part of the North Sea Beam Trawl Survey.


Fig. 7.7: North Sea Beam Trawl Survey (BTS). Example of trawl positions.

## 9) Demersal Young Fish Survey

The aim of the survey is to provide abundance indices of sole, plaice, whiting and cod as well as of brown shrimp in German coastal waters. The indices are part of a time series which started in the early 1970's. The collected data are stored locally in a national Access data base. Data are also submitted to ICES WGNSSK, WGBEAM and WGCRAN and will be relevant to the trilateral Wadden Sea Monitoring Programme (TMAP) of DK, D and NL. Comparable investigations are conducted in NL, B and the UK. The German part of the survey consists of five components (short trips on chartered fishing cutters) which will take place in five different areas (Fig. 7.8) in Sep-Oct 2007. The Jade/Weser area was added to the survey in accordance with the WGBEAM 2005 Report (ICES 2005c), section 3.2, page 36: "The Weser will be included in the survey by Germany from 2005 onwards (...)."


Fig. 7.8: Demersal Young Fish Survey (DYFS). Preliminary station map of the German part.

## 10) Mackerel and Horse Mackerel Egg Survey

The main objective of this triennial survey is to produce both an index and a direct estimate of the biomass of the North East Atlantic mackerel stock and the southern and western horse mackerel stocks. The general method is to quantify the freshly spawned eggs in the water column on the spawning grounds and to determine the fecundity of the females. This is done by sampling sufficient numbers of gonads before during and after the spawning. These are then histologically analysed. In combination, the realised fecundity (potential fecundity minus atresia) of the females and the actual number of freshly spawned eggs in the water render an estimate of the spawning stock biomass.
Data collected include plankton data mainly production data of mackerel and horse mackerel eggs in different development stages plus filtered water volumes, temperature and salinity data. For the adult sampling programme data on abundance, weight, length and individual gonad/liver/intestines-weights as well as samples for the determination of fecundity and fat contents are collected. Data are stored locally in the institute's database and a database held by the co-ordinator of the north-western part of the survey at FRS Marine Lab (Aberdeen, Scotland). The German part of the survey will take place at the beginning of the spawning season from 20 Mar to 26 Apr 2007 on FRV "Walther Herwig III". Fig. 7.9 shows the preliminary survey area.


Fig. 7.9: Mackerel and Horse Mackerel Egg Survey. Preliminary survey areas (GER=German part).

## 11) International Hydro-Acoustic Oceanic Redfish Survey

The main aim of this biennial survey is the investigation of the distribution and estimation of abundance and biomass of pelagic redfish (Sebastes mentella) in the Irminger Sea and adjacent areas by means of hydroacoustic measurements and trawl hauls. Besides the hydroacoustic data, biological data from the catches (length distributions, individual weights, sex and maturity and parasitation) are collected and raised to the total surveyed area. In addition, hydrographic (CTD) and weather data are collected. All data are stored in national and international databases and submitted to the ICES SGRS. The report from the survey is provided to the ICES NWWG. The German part of the survey will probably focus on the northern part of the survey area, as in 2005 (see Fig. 7.10), and will be carried out from 11 Jun to 13 Jul 2007 on FRV "Walther Herwig III".


Fig. 7.10: International Hydro-Acoustic Oceanic Redfish Survey. Hydroacoustic survey tracks (dotted line) and trawl hauls (open circles) of the German part of the survey in 2005. The planning of the survey tracks will be done at the ICES SGRS in Jan/Feb 2007.

## 12) Blue whiting survey

Germany will contribute to the survey financing in order to support Denmark to conduct the survey. The survey will take place in Mar-Apr 2007.

### 7.2 MP - Derogations and non-conformities

Due to bad weather conditions or technical problems of the vessels, some of the planned survey effort could be reduced. Vessels and equipment are always kept in good conditions; however, sudden technical problems cannot be prevented.
The number of trawl hauls on acoustic surveys is determined by the occurrence of the target species aggregations (ICES 2003, 2005a, 2005b, 2006). Therefore, the number of hauls cannot be exactly planned.

### 7.3 EP - Planned Priority 2 surveys

Surveys with Priority 2 (Table 7.2) that have been conducted in previous years will also be continued in 2007. Since the NP 2006, the Greenland groundfish survey is co-financed within the EP. The other Priority 2 surveys listed in Table 7.2 are carried out on national expense.

## Greenland groundfish survey

The German groundfish survey started in 1982 and was primarily designed for the assessment of cod, but covers the entire groundfish fauna down to 400 m depth. It is carried out annually during the 4th quarter and provides the only fishery-independent information about the abundance \& biomass of groundfish off Greenland (ICES Div. XIVb and NAFO Div. 1B-1F). Designed as a stratified random survey, the hauls are allocated to 14 strata (7 geographic areas * 2 depth strata, $0-200 \mathrm{~m}, 201-400 \mathrm{~m}$ ) off West and East Greenland. The fishing gear used is a standardized 140-feet bottom trawl. Biological data from the catches (length distributions for all species, individual weights, sex and maturity for the commercial species) are collected, raised to the total surveyed area and submitted to the ICES NWWG and NAFO SC and used in the respective stock assessments. In addition, hydrographic (CTD) and weather data are collected. The survey will be carried out 11 Oct to 23 Nov 2007 on FRV "Walther Herwig III". Figure 7.11 shows the survey area.


Fig. 7.11: Greenland groundfish survey. Survey area (strata), with depth strata 0-200m (Str. X.1) and 201-400m (Str. X.2).

## Herring Larvae Survey (Baltic)

The herring larvae survey in the western Baltic (ICES areas 22+24 and Div. IIIa) is focusing on the major spawning areas of the "Rügen" herring (Greifswalder Bodden, Strelasund) for the estimation of year-class strength. Larvae are sampled with a "bongo" (double-bag) plankton net during 10 weeks in April-June 2007 on FRC "Clupea. The resulting data on larvae density and length distributions are stored in a national database, and are being used in the ICES HAWG. In addition, hydrographic (CTD) data are collected on each station. Figure 7.12 shows the survey area.


Fig. 7.12: Herring Larvae Survey in the Baltic. Survey area.

## German Flatfish Survey

The main objective of the survey was to assess the young flounder stock in the south-west Oderbank Area (Baltic Sea, ICES areas 22+24). The main achievements of the survey are to obtain data on the determination of year class strength of demersal fish in the Arkona Sea for flounder, turbot and plaice and stock indices for flounder. In addition, biological data on length, age and individual weights are collected in SD 22 for cod and flatfish in SD 22. The data are stored in a national database, and aggregated data are transmitted to the ICES database DATRAS. The next survey will be carried out in July 2007 on FRC "Clupea". Figure 7.13 shows the survey area.


Fig. 7.13: German Flatfish Survey in the Baltic. Survey area.

## German Cod Survey

The main aim of this survey is the estimation of abundance and biomass of cod and other demersal fish in the German EEZ. Until 2004, the survey has been conducted in the $1^{\text {st }}$ and $4^{\text {th }}$ quarter. The survey has been reviewed nationally in 2005, and it has been decided to conduct the survey only in the 4th quarter. Bottom and beam trawls are deployed, alternating biennially. The data are stored in a national Access database and currently used nationally. In addition, hydrographic (CTD) data are collected on each station. The next survey will take place 22 Nov to 10 Dec 2007 on FRV "Solea". Figure 7.14 shows the survey area.


Fig. 7.14: German cod survey. Survey area and station grid.

## Herring Larvae Survey (North Sea)

The main objective of the survey is to assess the herring stock in the North Sea. The results of the herring larvae surveys are used to calculate a biomass index of the SSB of North Sea autumn spawning herring. The main achievements of the surveys are to obtain data on the distribution and abundance of herring larvae from the main spawning locations, the lengthfrequency of herring larvae, and CTD-data. Data about larvae abundance and lengthfrequencies are stored together with basic hydrographic information in the IHLS database (International Herring Larvae Surveys). The IHLS database is located at the Federal Research Centre for Fisheries in Hamburg, Germany. The CTD-profiles for each station are available from the individual institutes involved in the surveys. The next survey will take place in January and September 2007 on RV "Alkor" or RV "Heincke". Figure 7.15 shows the station grids.
a)

b)

c)


Fig. 7.15: Herring Larvae Survey in the North Sea and eastern Channel. Station grids in a) the southern North Sea and eastern Channel (January 2007), b) the Orkney/ Shetland area (September 2007), and c) the Buchan area (September 2007).

### 7.4 EP - Non-conformities and priority upgrades

The German Cod Survey has been reviewed nationally in 2005, and it has been decided to conduct the survey only in the 4th quarter. Due to the new survey design and strategy, it is not appropriate to upgrade this survey to Priority 1 for the target species cod (which is under the recovery plan).

## 8. Module $\mathbf{H}$ - Length and age sampling

## General remarks

Several reasons imply that the discard estimation part of Module E as well as Modules H and I should be handled at the same time in the German Data Collection Programme:

- Sampling at sea is necessary on board of freezer trawlers and trawlers with processing units. This is the case in the fishery for pelagic species as these are landed in frozen packages. The same is true for landings of demersal species from waters off Norway and Greenland which are landed as partly processed products.
- In order to monitor discarding (in relation to module E), sampling has to be done on board of vessels. It would be highly ineffective not to sample the landings and other biological data at the same time.
- Sampling at sea provides the possibility to sample at the same time landings, discards and other biological data referred to in module I.
- Discards of species listed in Appendix XV of Reg. 1639/2001 and 1581/2004 as bycatch in fisheries directed towards other species can only be recorded on board.
- $39 \%, 53 \%$ and $63 \%$ of the landings in $2003,2004,2005$, respectively, from stocks that have to be sampled (Table 8.2) occurred in foreign countries, which confirms the situation in recent years.

Due to the reasons mentioned above, Germany prefers in most cases to sample catches at sea. The provision of a legal basis for biological sampling on board of German fishing vessels is still in preparation. In 2005 and 2006, a legal text was prepared for this purpose. The present status of a sampler on board of a German fishing vessel is a guest status. The possibility for biological sampling depends on the hospitality of ship owners and companies. Based on the present situation, random sampling of the fleet is still difficult.

### 8.1 MP - Landings - Planned sampling

Table 8.1 gives an overview on the species and stocks that will be sampled in 2007, and Table 8.4 provides the fisheries that will be covered by length and age sampling of landings and discards.
Stocks in the Baltic will be sampled at harbours at the German Baltic coast and for discard estimation at sea. Stocks in the North Sea will be sampled at harbours along the German Bight, and saithe landings will be sampled in Cuxhaven. Stocks off Greenland and Norway will be sampled at sea as the fleet fishing there consists entirely of freezer trawlers. Pelagic stocks will also be sampled on board, as these species are also landed only as frozen product.

## Sampling Methodology

Sampling strategy, methods and sampling procedures will be the same as described in the Final Reports of EU-Study 97/004 "Sampling of 8 German Commercial Fisheries" as well as EU Studies 96/002 and 98/024 "International Baltic Sea Sampling Programme I and II" which provided data requested in modules H and I since 1996.

## Sampling at fish markets and processing plants

The fish markets in Bremerhaven and Cuxhaven are sampled irregularly, mainly for saithe and redfish landings. Redfish is usually landed by Icelandic trawlers and saithe by vessels flying the flag of EU member states including Germany. Additionally, herring landed at the fish plant in Mukran/Sassnitz (Rügen Island) will be sampled.
For stocks under recovery plans, the sampling intensity of the relevant extended programme will be provided.

## Bilateral agreements for foreign flag vessel landings

Three bilateral sampling agreements were reached for 2006 and 2007. Annex 2 provides an agreed text on sampling responsibilities between The Netherlands and Germany, and Annex 3 represents a formal agreement between Sweden and Germany concerning fisheries catch data. Between Denmark and Germany, the formal agreement from 2005 (see Appendix 13 of NP 2006) will be prolonged in 2006-2007, with adjustments to the amount of landings. The bilateral agreements include market sampling.

### 8.2 MP - Landings - Derogations and non-conformities

After utilisation of derogation rules, Germany needs to sample the stocks listed in Table 8.2 with the sampling intensity specified in Appendix XV of Regs. 1639/2001 and 1581/2004 for the stocks in question (Table 8.1). In case different sampling intensities were given in Appendix XV for stocks with a TAC covering several divisions, the sampling intensity of that division was chosen in which the German fleet took the bulk of the catches.
In many cases, a higher sampling effort than required will be applied to provide the relevant ICES/NAFO assessment working groups with catch in numbers at age, mean weight at age as well as maturity at age for the German landings. With the numbers requested in Appendix XV of Regs. 1639/2001 and 1581/2004, this cannot be ensured.

## Eel sampling

As the average annual eel landings during recent years were considerably lower than 100 t (Table 8.2), Germany is not obliged to provide data under this module.
Germany is currently preparing a pilot study on eel monitoring, which is outlined in Annex 1.

### 8.3 EP - Landings - Planned sampling

Germany does not apply for an extended programme under this module.

### 8.4 EP - Landings - Non-conformities

Not relevant.

### 8.5 MP \& EP - Discards - Planned sampling

Germany will monitor discards only in those stocks which are by-catches in the fisheries targeting the stocks to be sampled (Tables 5.2 and 5.3). Fisheries not listed in Table 8.4 proved to be less exploited by the German fleet applying the derogation rules in Chapter III, H. 1(d) of Regs. 1639/2001 and 1581/2004. This implies in most cases that discards are of lesser amount. If this is not the case, measures will be taken to cover the relevant fisheries. However, if species sampled in addition to the ones in Table 8.1 are caught, they are also sampled as well as any other species brought on deck.

### 8.6 MP \& EP - Discards - Derogations and non-conformities

See previous sections 8.2 and 8.5.

## 9. Module I - Other biological sampling

### 9.1 MP - Planned sampling

Biological data referred to in this module will be sampled in actions covered in Modules G (section 7) and H (section 8). Data of other biological parameters are gathered during sampling at sea of commercial vessels as well as during scientific surveys. Table 9.1 provides an overview over the species by area/stock that were sampled during 2002-2006 and will be sampled in 2007. Data are usually sampled on a yearly basis.
All species listed in Appendix XVI (Regs. 1639/2001 and 1581/2004) in addition to the species to be sampled according to Module H will be sampled on market and observer trips as well as surveys if they occur in the catch (Tables 9.2 and 9.3).

### 9.2 MP - Derogations and non-conformities

There are the same problems as described in section 5.6.

## Eel sampling

As the average annual eel landings during recent years were considerably lower than 100 t (Table 8.2), Germany is not obliged to provide data under this module.
Germany is currently preparing a pilot study on eel monitoring, which is outlined in Annex 1.

### 9.3 EP - Planned sampling

Germany does not apply for an extended programme under this module.

### 9.4 EP - Non-conformities

Not relevant.

## 10. Module $\mathbf{J}$ - Economic data on fishing vessels

### 10.1 MP - Planned sampling

- What data will be collected
- Who the data will be collected from.
- How the data will be collected.


## General remarks

A pilot study on the economic situation of the German fisheries has been started in 2004 (reference year for the 2006 NP), was carried out in 2005 and will be continued in 2006. The German data collection programme for 2005 to collect economic data of vessels is based on three sources: (i) an accountancy network which consists of about 140 vessels providing the requested economic data annually and (ii) a mail questionnaire which is regularly sent to owners of small scale vessels, and (iii) a questionnaire (face-to-face) for the two segments demersal trawl $>40 \mathrm{~m}$ and pelagic trawl $>40 \mathrm{~m}$. All surveys are carried out on a voluntary basis. The following parameters will be sampled.

## Segmentation

The procedure of segmentation follows Regulation 1639/2001. The first indicator is the overall length (LOA) and the more than $50 \%$ time spent using a specific type of fishing technique. Inactive vessels or vessels which are not obliged to logbook reporting (vessels less
than 10 m ) are segmented by their main (first) gear documented in the fleet register (see , Commission Regulation (EC) No 26/2004 of 30 December 2003). Hence, for segmentation all vessels under the German flag are included exhaustively.

## Landings by value and volume

According to the Regulation and the Paris workshop document, the income is defined as total proceeds from fish sales. The base for the calculation is the sales slips. All first-hand sales have to be reported to the German authorities, including volume and value. For the very small amount of fish for private consumption which has to be reported too, prices are not available. For this little fraction of nonmonetary income, the reported volume of fish will be multiplied by an price estimated within species, segment and season. So the calculation of the income covers the landings of the whole fleet (exhaustive) under the assumption of no or negligible 'unreported landings'. The landings by value are given on geographical disaggregation level 2 according to Appendix I, quarterly and per species. The sampling rate is $100 \%$, thus no precision level is needed. The Appendix III segmentation is used.

## Production Costs

The source of data of the below mentioned parameters is the tax return (taxable bookkeeping). This accounting system is based on the FADN (Farm Accountancy Data Network, http://europa.eu.int/comm/agriculture/rica/index_en.cfm) of the EU. Within this system the report contains data (sheets) to the following topics:
(1) General data to the enterprise and the accountancy
(2) Balance sheet with assets and liabilities
(3) Profit and loss statement of account
(4) An annex to the balance sheet with investments in material and tangible assets
(5) A second annex with the liabilities (part of the balance sheet)
(6) Employment sheet with data to the employed people on board include gender, age and

## FTE

(7) Additional data to the technical equipment on board particularly active and in-active time (for repairs and maintenance or for seasonal reasons (weather, closed season). About 140 vessels of the coastal and small high sea fisheries take part in this monitoring system. The participation on this FADN based system for the coastal fishery is not mandatory.
Furthermore, all eleven vessels of the long distance water fishery under the German flag are in a separate monitoring system. For these fisheries an agreement is reached between the vessel owner and the institute involved in the data collection programme to get access to their accounting, supplemented by face-to-face interviews. For details of the entries of the (taxable) accounting system, see Annex 4.

## Operating costs

There under:
Crew (including social cost)
Fuel oil costs / consumption
Repairs and maintenance
Other operational costs

## Crew (including social costs)

Based on the FADN adopted accounting data network a cost statement of the employment on board is available (see annex entries of the FADN system, code 2799).

## Fuel Consumption

The fuel consumption is estimated by a specific data collection procedure, based on the so called 'Testbetriebsnetz' in the framework of the FADN adopted data collection (code 8107 and 2773). For a vessel group of about 140 vessels the fuel consumption will be gathered on a voluntary base. The fuel consumption per fleet segment will be computed in three steps. In the first step, the specific fuel consumption per hour at sea and engine power ( kW ) will be calculated for the 'Testbetriebsnetz' - vessels. In the second step, the hours at sea for these vessels will be extracted from the logbook information. Finally, both gathered information of step 1 and 2 combine results in a segment specific fuel consumption (volume) as stored in the data collection database. This procedure includes all vessels of the active fleet. No precision level is needed, since the sampling rate is $100 \%$ (exhaustively). Costs (value) are estimated multiplying volume by an average, more or less constant, fuel price for 2004.

## Repairs and maintenance

Based on the FADN adopted accounting data network, detailed data of different disaggregated cost items of repairs and maintenance are available (see list of entries, profit and loss, of the FADN, code 2829, in Annex 4).

## Other operational costs

Based on the FADN adopted accounting data network detailed data of different disaggregated cost items of repairs and maintenance are available (see annex list of entries, profit and loss, of the FADN). All costs except the crew, fuel and costs for repairs and maintenance are covered by this item (code $2789+2897$ except 2773 (fuel) +2799 (crew) +2829 (repairs and maintenance)).

## Fixed costs

The fixed costs (average costs on investment) are defined tax based. The depreciation periods depend on the equipment (hull 20 years, equipment between one and five years). The costs are derived from these parameters, investment and depreciation period. The source of information is the data of the accounting (Annex of the FADN balance sheet, code $1019+1079$ resp. code $3019+3079$, column 7 and 8).

## Financial position

The annex of the FADN (assets and liabilities, include annex of liabilities) gives meaningful data to the own and borrowed capital. These data are used for computing the shares (code 1568, 1559 and 3996).

## Investments (assets)

There is no obligation (legislation) to insure vessels in Germany. For insured vessels the insured vessel value depends on the priorities and risk awareness of the vessel owner. Unlike the regulation 1639/2001, the assets of the balance sheet of the FADN is taken to calculate the assets (code $3019+3079$, column 2 and 7). For the small scale fisheries, the owner estimated value of the vessel (replacement value or current value) and is taken such as for the distant water fishery.

## Prices per species

The prices of all caught fish species will be computed at the same level as the landings (volume) and income (value, quarterly and the segmentation according to the Appendix III, see above).

## Employment

Forced by this data collection programme additional information to employment is included in the fleet register. Thus detailed information on employed persons on board of all registered vessels is exhaustively available in the official fleet register. The distinction between full / part time and FTE causes shortfalls for the whole population. Information in such detail (full / part time and full time equivalent )is only available for the small 'Testbetriebsnetz' vessels group (140 vessels, FADN, code 7001-7099) and the high sea fishery (11), but for vessels with more than 12m LOA part time employment is unusual (high fixed vessel costs). The study on the small scale fishery will give further information on the vessel group less than 12 m . The result will be given in this study when finished.

## Fleet <br> Number of Vessels

The basis for computing the quantity of the German fishing fleet is the official fishing vessel register (Commission Regulation (EEC) No 163/89 of 24 January 1989 and Commission Regulation (EC) No 109/94 of 19 January 1994, No 2090/1998 of 30 September 1998, No 26/2004 of 30 December 2003). All vessels registered in the fleet register are included. This population based calculation method (exhaustively) covers also vessels which have not been active all-season (EXP exported, IMP imported, CHA Change of activity during 2002). Therefore, this method of computation tends to result in a slight overestimation number of vessels compared to official German statistics.

## Gross tonnage

The gross tonnage calculation has the same base for computation as the above mentioned for the number of vessels calculation. All fleet registered vessels are included (exhaustively). So the declared gross tonnage capacity will be slightly overestimated (part-time active vessels).

## Engine power (kW)

The calculation of the engine power by segment is based on the whole vessel population (fleet registered vessels, exhaustively). As before, the overall kW capacity is moderately overestimated due to non-corrected temporary registered vessels (see chapter Number of vessels).

## Age

The entry 'year of construction' of the fleet register is the basis for the estimation of the age of the vessel. In an exhaustive way the data of the German register is used.

## Gear used

No further information is given how to "calculate" the gear used in the Regulation 1639/2001. As described in the chapter on the 'basic segmentation' (Appendix III) the gear (used or main gear-type) itself is the basis for the segmentation. Hence for 'gear used' see Appendix III segmentation table of the Regulation 1639/2001.

## Fishing effort

The basis for the calculation of the effort are the logbooks. Hence exhaustive collection for vessels more than 10 m LOA is established. The fishing effort for vessels with less than 10 m (no logbooks are available) was gathered in the framework of a pilot study on small scale fisheries - still in progress -, involving a questionnaire.

## Data Protection Act

In other cases the number of vessel within the length-gear-type group is less than three. The German Data Protection Act does not allow to publish these numbers. Also, for few segments there are no neighbouring length-gear-type vessel groups available.

Standard table 10.1. gives a general outline of (i) the population nos. by fleet segment, (ii) the planned sampling levels and sample rates no., and (iii) the sampling method(s) that will be used. The fleet segments in table 10.1 correspond to those listed in Appendix III (MP) of the DCR.

### 10.2 MP - Derogations and non-conformities

None.

### 10.3 EP - Planned sampling

Germany does not apply for an extended programme under this module.

### 10.4 EP - Non-conformities

Not relevant

## 11. Module K - Data Concerning Fish Processing Industry

Background data situation: In Germany, several indicators of Appendix XIX of the DCR could be provided by the Federal Statistical Office [turnover (total and by products based on the European PRODCOM classification), production cost, material use, energy cost, labour cost, investment, employment, prices per product based on the European PRODCOM classification] and the ifo Institute [capacity utilisation]. This data does not completely fulfil the requirements of the DCR:
(i) Raw material, investment (asset), and financial position are not available;
(ii) The Federal Statistical Office applies an employment threshold of 20 employees, i.e. the segment 1-19 employees is not considered.

To fulfil the requirements of the DCR additional surveys were carried out by the Federal Agricultural Research Centre (FAL). In 2004 a mail questionnaire was sent to 259 fish processing enterprises. Even with a reminder by telephone we received only 16 more or less filled questionnaire forms, which is insufficient for precise statistical analysis. In order to gather some basic information of the total population for stratifying an additional survey was initiated by FAL in 2005. Another mail questionnaire was sent to an updated number of 223 fish processing enterprises. This questionnaire consisted of very few easy to answer questions such as turnover and employment. However, only 38 filled questionnaires were received which is not enough to stratify the population.

Thus, in the current situation the main problem for the success of the additional surveys is the low willingness of fish processing enterprises to respond. As long as the additional surveys are on a voluntary basis, higher response rates cannot be expected. Since the business register of small scale fish processing enterprises ( $<20$ FTE) is and was hardly used for analytical or survey purposes, it can be expected that this database does not cover the 'real' total population very well.

### 11.1 MP - Planned sampling

Standard table 11.1. gives a general outline of (i) the population nos. by segment of the processing industry, (ii) the planned sampling levels and sample rates, and (iii) the sampling methods that will be used.

## What data will be collected.

The following indicators of appendix XIX of DCR will be collected. The definitions refer to EUROSTAT.
Income: Will be interpreted as gross production value and is defined as total value of sales by producing enterprises in an accounting period (includes turnover and turnover from trading).

Production cost (variable production cost) consists of personnel cost, consumption of raw material (material use), energy cost, and other running cost (consisting of cost for temporary worker and industrial services).

Packaging cost is surveyed every four years since it cannot be regarded as an important cost item (this view is consistent with STECF, cf. the report of SGECA-06-01: Processing Industry and Aquaculture: Review of Economic Issues). Because of its minor importance packaging cost will be interpolated for the annual statistics.

Fixed cost is interpreted as annual additional gross investment in tangible goods (including land).

Prices per product: The production statistics based on the European PRODCOM classification is used to provide average prices per product (group).

The indicator employment provides the total number of employees and the number of part time employees.

Capacity utilisation is defined as annual utilisation in relation to standard (average) utilisation (in \%).

Although additional surveys were carried out in 2004 and 2005 to provide missing indicators, the following items are not available (because of a very low response rate): investment (asset), financial position and raw material use (total and by species) (see chapter on nonconformities below).

## Who the data will be collected from.

The information will be collected from fish processing enterprises. Enterprises are allocated to industry branches according to their main activity. The processing industry is defined according to EUROSTAT definition NACE code 15.20: Processing and preserving of fish, crustacean and molluscs and production of products thereof. The Business Register is the population framework for enterprises with 20 and more employees.

## How the data will be collected.

Methods: For enterprises with 20 and more employees a stratified random sampling is carried out by the Federal Statistical Office. Strata are defined according to the employment classes (20-49; 50-99; 100-249; 250-499; >=500). The sample size per stratum is iteratively optimised using the known turnover of the last investment statistics a survey which comprises
the entire sector. This procedure ensures that strata with relatively higher total turnover are represented to a greater extent in the sample. The sample is constructed to estimate at least $90 \%$ of the indicators with a standard error of less than $5 \%$.

For enterprises with less than 20 employees, a mail questionnaire will be carried out by the Federal Agricultural Research Centre (FAL). The questionnaire will be sent to the known entire population.

Definitions of critical indicators:

- Investment (assets) is defined as capital value. It is an estimated indicator, for which different methods exist. The method applied depends on the objective of the survey. Companies' balance sheets contain the capital value for tax purposes and cannot be regarded meaningful for analysis of economic performance.
- Fixed cost can be interpreted as depreciation or annual additional investment in tangible goods. The weakness of using capital value is also valid for depreciation. Companies' balance sheets contain the depreciation for tax purposes which cannot be regarded meaningful for analysis of economic performance. Hence, for the case of Germany fixed cost is defined as annual additional gross investment in tangible goods.

Data sources per indicator are provided in the following table.

| Indicator | Source |
| :--- | :--- |
| income | company accounts |
| production cost | company accounts |
| fixed cost (defined as annual <br> investment in tangible goods) | company accounts |
| employment | company accounts |
| capacity utilisation | estimate by company |

### 11.2 MP - Derogations and non-conformities

Because of the above mentioned low response rate, the indicators investment (assets), financial position and raw material use could not be gathered so far for the fish processing sector. A request for support to the German association of food processing enterprises was rejected because they do not want to increase the bureaucratic burden of their members. It seems that additional indicators can only be successfully gathered if the response to our questionnaires will be compulsory for the fish processing enterprises.

Furthermore, identifying the total population of fish processing enterprises below 20 employees seems to be very difficult. The official business register contains about 270 fish processing enterprises, while more than 600 German enterprises have an official permission of public health authorities to process fish. However, the response rate of the small scale enterprises was also too low in 2004 and 2005. In 2006 and 2007, it is planned to introduce a significant financial incentive to increase the feedback rate.

## Suggestion:

The whole data collection exercise for the fish processing sector has not been seriously discussed yet on a European level. Further steps should only be taken into consideration after a detailed evaluation of the national data collection experiences regarding Module K.

### 11.3 EP - Planned sampling

Germany does not apply for an extended programme under this module.

### 11.4 EP - Non-conformities

Not relevant.

## 12. Databases

### 12.1 Database development and data management

The envisaged database development will focus on one common, central database (described in programmes 2002 to 2006) for all national institutes involved in the collection of fishery data, hosted by ZADI. In a stepwise process, the different databases at each institute will be integrated. Through controlled and secured remote access, the institutes remain the owner of their data, have full access to it and are responsible for data quality.

Goals are:

- To concentrate subject specific knowledge in fisheries science and fisheries statistics and to concentrate and use specialist IT and database management skills in a central information service centre.
- To improve information transparency on fishery data in Germany.
- To improve the quality and consistency of fishery data e.g. by avoiding duplicates.
- To improve actuality of data for national and international use.

The first step towards this direction will be the establishment of a central database as a prototype, including the following issues:

1) Establishing a central data server

- Hardware architecture: Network, server(s), software licences.
- Security aspects: Firewalls, VPN, authentication mechanisms.

2) Establishing a central database

- Design of a non redundant data model.
- Implementation of a relational database.
- Migration of existing data.

3) Establishing a data access interface (remote access, online content management)

- Rights and access control schemas.
- User friendly interfaces (also for input of large data sets).
- Integrity and plausibility checks.

4) Data presentation and output

- Web presentation of selected / aggregated data; graphical output when appropriate.
- Full access to the data for owner, SQL-querying.
- Data exchange interface (Web service, wrapper).
- Support of production of export files (XML, csv...).

Germany will continue to participate in the Web Services developments and Data Control Exercises of the Joint Research Centre (JRC) and all necessary adaptations of the database.

## 13. National and international co-ordination

### 13.1 National co-ordination

Apart from one extended national co-ordination meeting, several meetings will be held in Hamburg, Rostock and Bonn to consider different issues. However, for these meetings, no financial contribution can be requested in 2007.

### 13.2 International co-ordination

Please refer to table 13.1 for a list of ICES and other working groups coordinating surveys, databases and other issues of the DCR.

### 13.3 Follow-up of RCM recommendations and initiatives

The following table provides the actions that are and will be taken in accordance with the RCM recommendations related to MS.

## LIST OF RECOMMENDATIONS

| Source | Recommendation | Action |
| :---: | :---: | :---: |
| RCM Baltic (Jan 2005) | Baltic RCM recommends in case where more than 5 percent of the national quota is landed in a foreign country, bilateral agreements should be made. | Bilateral agreements were reached with The Netherlands, Denmark and Sweden for 2006 and 2007 (see section 8.1). |
| RCM Baltic (Jan 2005) | The RCM recommends that for both Eastern and Western Baltic cod, otoliths weight should on a routine basis be collected as a complement to age reading. This must start from 2005. | Due to the move of the Institute for Baltic Sea Fisheries (IOR) into a new building in 2005/6, the purchase and usage of special scales for otolith weighing was delayed. Otoliths will be weighed from material collected from January 2006 onwards. |
| RCM Baltic (Jan 2005) | The RCM recommends that sampling should be carried out through out the entire tri annual period. | Sampling of other biological parameters in the German NP is done annually. |
| RCM Baltic (Jan 2005) | (Section on economic parameters) MS should prepare a short presentation on methods and practical implementation in the next meeting for the small scale fishery. | Germany participated in the Meeting on small-scale fisheries in Kavala (12-16 Sep 2005) and presented these data. |
| $\begin{aligned} & \text { RCM Baltic (Oct } \\ & \text { 2005) } \end{aligned}$ | RCM Baltic concludes that MSs must conduct analysis of stability on the national fleet. This analysis could be conducted by comparing the results from segmentation of economic data according to Appendix III in the current segmentation and according to the exclusiveness criteria, suggested in the Nantes report. | conducted and submitted to Jenny Nord (IMR Sweden) |
| $\begin{aligned} & \text { RCM Baltic (Oct } \\ & \text { 2005) } \end{aligned}$ | The RCM Baltic concludes that MS must conduct analysis of national data on which length groups yield the most homogenous economic structure. | conducted and submitted to Jenny Nord (IMR Sweden) |
| RCM Baltic (Oct 2005) | RCM Baltic concludes that the two analyses [i.e. analysis of stability and analysis of fleet segments for homogeneity - LM rapporteur] should be conducted before 1st of January 2006. [...] The combined results from the Baltic will then be presented at the next workshop on fleet based approach in the beginning of 2006. | conducted and submitted to Jenny Nord (IMR Sweden) |
| RCM Baltic (Oct 2005) | The RCM Baltic recommends that all member states attempt to fill in the matrix (see annex 4) with readily available effort | conducted and submitted to Jenny Nord (IMR Sweden) |


|  | data (by default expressed in days at sea and <br> in number of vessels for 2004) with a view <br> to defining the final version of the matrix <br> before the 1st of January 2006. The data <br> must be sent to Jenny Nord (Sweden) before <br> this date. |  |
| :--- | :--- | :--- |
| RCM Baltic (Oct <br> 2005) | The RCM Baltic strongly recommends all <br> Baltic countries to upload or re-upload <br> quality checked CA data (SMALK data) to <br> the ICES DATRAS database before 1. <br> January 2006. | German data have been checked and <br> uploaded. |
| RCM Baltic (Jan <br> \& Oct 2005) | RCM Baltic recommends seeking <br> multilateral agreements to overcome the <br> obligation to provide data for species by <br> member states that have small catches of <br> these species. | First multilateral discussions were started <br> at the RCM Baltic in Oct 2005 and will be <br> continued in 2006 and 2007. |
| RCM Baltic (Oct <br> 2005) | RCM Baltic recommends that MS upload <br> landing statistics by fishing activity (level | The algorithm for determination of the <br> fishery (target species, gear, mesh size) <br> 6ere developed, but the data have not been <br> and 2005 startang from the beginning of <br> uploaded during 2005. <br> 2006 and preferable can re-upload landing <br> statistics on this low aggregation level a <br> couple of years back. |


|  | January 2006, Copenhagen, Denmark). |  |
| :---: | :---: | :---: |
| RCM North Sea (Sep 2005) | RCM North Sea expects that all institutes having data on NS cod for 2004 and 2005 upload these to FishFrame in order to ensure that the aggregations carried out in FishFrame exactly match those undertaken conventionally by stock coordinators and to allow exploratory analyses of the sampling data to be completed by stock coordinators. | The German North Sea cod data for 2004 were uploaded before the RCM North Sea in Sep 2005. |
| RCM North Sea (Sep 2005) | RCM North Sea insists that all countries participate in the exercise of comparing sampling strategies on commercial catches and discards by providing the relevant information to the Swedish coordinators. | The German sampling strategy specifications were submitted to the Swedish coordinators during the RCM North Sea 2005. |
| RCM North Sea (Sep 2005) | RCM North Sea recommends that where discard sampling coverage is restricted to a low level, the country concerned considers whether the inputs from other countries are sufficient and enters into bilateral agreements where appropriate. | There are no initiatives yet. These agreements should be handled during the RCM meetings. |
| RCM North Sea (Sep 2005) | RCM North Sea recommends that countries enter into bi- or multilateral agreements in cases where the required level of sampling under the DCR is too low to make a useful contribution to maturity estimates by individual member states. | There are no initiatives yet. These agreements should be handled during the RCM meetings. |
| RCM North Sea (Sep 2005) | The RCM North Sea reiterates its 2004 recommendation on the conclusion of formal bilateral agreements on the sampling of foreign flag vessels, and on the inclusion of these agreements in the MS' national program proposals. | Bilateral agreements were reached with The Netherlands, Denmark and Sweden for 2006 and 2007 (see section 8.1). |
| RCM North Sea (Sep 2005) | RCM North Sea understands that certain countries/institutes may have legal objections against signing formal bilateral agreements. RCM North Sea insists that agreement be reached between the countries/institutes concerned on the sampling of each other's flag vessels, and that the commitments made are clearly spelled out in the national program proposals. | Bilateral agreements were reached with The Netherlands, Denmark and Sweden for 2006 and 2007 (see section 8.1). |
| RCM North Sea (Sep 2005) | RCM North Sea considers that a MS’s agreement with the recommendations of a RCM or with its initiatives to set up concerted actions implies that the MS will take the necessary steps to implement these recommendations and to participate in the proposed actions. | Germany undertook the necessary actions to fulfil the recommendations of the RCMs and will continue to do so. |
| $\begin{aligned} & \text { RCM NEA (Sep } \\ & \text { 2004) } \end{aligned}$ | MEMBER STATES start bilateral talks as soon as possible, with a view to establishing bilateral agreements on the issue of foreign flag vessel sampling. <br> RCM encourages MEMBER STATES to include copies of these agreements in their National Program submissions for the year 2006 | In preparation. |
| $\begin{aligned} & \text { RCM NEA (Oct } \\ & \text { 2005) } \end{aligned}$ | The RCM NEA recommends that all member states attempt to fill in the matrix with readily available effort data with a view to defining the final version of the | The German fleet matrix was presented at the RCM NEA 2005 and was further adapted to the most recent version after the RCM. |


|  | matrix for the revision of the DCR, i.e. <br> before January 2006 |  |
| :--- | :--- | :--- |
| RCM NEA (Oct <br> 2005) | RCM NEA strongly recommends that MS <br> take necessary steps to fill in the gap in <br> discard sampling in Area X | As the German fisheries are not operating <br> in ICES Subarea X, there was no action <br> necessary. |
| RCM NEA (Oct <br> 2005) | RCM NEA recommends seeking <br> multilateral agreements to overcome the <br> obligation to provide data for species by <br> member states that have small catches of <br> these species. | In preparation. There are no initiatives yet. <br> These agreements should be handled <br> during the RCM meetings. First <br> discussions were started at the RCM NEA <br> in 2005 and will be continued in 2006 and <br> 2007. |
| RCM NAFO (Apr <br> 2005) | NAFO RCM recommends that all the <br> Member States involved in the fisheries in <br> the NAFO area attend future meeting | Germany did not attend the RCM NAFO <br> but submitted all data and descriptions <br> required and ensured that the relevant staff <br> was available to the Chair by e-mail. In <br> 2007, however, Germany will participate <br> in the RCM NAFO. |
| RCM NAFO (Apr <br> 2005) | NAFO RCM recommends that sampling <br> programmes be co-ordinated among <br> countries between bilateral or multilateral <br> agreements in order to require the precision <br> levels | There are only two German fisheries in the <br> NAFO area that are covered well by the <br> NP geographically and in terms of <br> precision. |
| RCM NAFO (Apr <br> 2006) | RCM NAFO recommends seeking <br> multilateral agreements to overcome the <br> obligation to provide data for species by MS <br> that have small catches of theses species. | There are no initiatives yet. These <br> agreements should be handled during the <br> RCM meetings. |
| RCM NAFO (Apr <br> 2006) | RCM NAFO recommends providing <br> aggregated maturity data to the assessment <br> working groups on a yearly basis for those <br> stocks that are sampled on a routine basis <br> yearly, in a format agreed by the working <br> group. | Germany is already providing maturity <br> data annually and will continue to do so. |

## 14. List of acronyms and abbreviations

| Acronym/ Abbreviation | Explanation |
| :---: | :---: |
| AFWG | Arctic Fishery Working Group |
| BAD | Baltic Acoustic Database (BADI = aggregated data; BADII = raw data) |
| BASS | Baltic Acoustic Spring Survey |
| BFAFi | Bundesforschungsanstalt für Fischerei (Federal Research Centre for Fisheries) |
| BITS | Baltic International Trawl Survey |
| BLE | Bundesanstalt für Landwirtschaft und Ernährung (Federal Agency for Agriculture and Food) |
| BMI | Bundesministerium für Inneres (Ministry for Internal Affairs) |
| BMELV | Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz (Ministry of Food, Agriculture and Consumer Protection) |
| CEFAS | Centre for Environment, Fisheries \& Aquaculture Science (Lowestoft, England) |
| CPUE | Catch per unit and effort |
| CTD | Conductivity-Temperature-Depth-Probe |
| DATRAS | Database trawl surveys |
| DCR | Data Collection Regulation |
| DYFS | Demersal Young Fish Survey |
| EU | European Union |
| EUROSTAT | Statistical Office of the European Communities |
| FADN | Farm Accountancy Data Network system |
| FAL | Bundesforschungsanstalt für Landwirtwirtschaft (Federal Agricultural Research Centre) |
| FIDES | Data transmission system |
| FRC | Fishery Research Cutter |
| FRS | Fisheries Research Services (Marine Lab, Aberdeen, Scotland) |
| FRV | Fishery Research Vessel |
| FTE | Full time employment |
| GNS | Set nets/Gill nets |
| gt | Gross Tonnage |
| HAWG | Herring Assessment Working Group for the Area South of $62^{\circ} \mathrm{N}$ |
| HERSUR | Herring Survey |
| JRC | Joint Research Centre |
| IBTS | International Bottom Trawl Survey |
| IBTSWG | International Bottom Trawl Survey Working Group |
| ICES | International Council for the Exploration of the Sea |
| IFREMER | French Institute for Exploitation of the Sea |
| IOR | Institut für Ostseefischerei, Rostock (Institute for Baltic Sea Fisheries) |
| ISH | Institut für Seefischerei, Hamburg (Institute for Sea Fisheries) |
| kW | kilowatt |
| LOA | Length overall |
| MAGP | Multi-annual Guidance Programme |
| MIK | Midwater-Isaak-Kidd (sampling device for fish plankton) |
| MS | Member State(s) |
| NACE | Nomenclature statistique des Activites economiques dans la Communaute Europeenne (Statistical classification of economic activities in the European Community; used to designate various statistical classifications of economic activities) |
| NAFO | Northwest Atlantic Fishery Organization |
| NASC | Nautical Area Scattering Coefficient |
| NEAFC | North East Atlantic Fisheries Commission |


| No | Number |
| :--- | :--- |
| NP | National Programme |
| NR | Not relevant |
| NWWG | North Western Working Group |
| OTB | Otter trawl bottom |
| OTM | Otter trawl midwater |
| PGCCDBS | Planning Group on Commercial Catch, Discards and Biological Sampling |
| PGHERS | Planning Group for Herring Surveys |
| PTB | Two ship trawl |
| PRODOM | PRODuction COMmunautaire (EU-wide harmonised classification of products produced by the <br> industrial sector, directly linked to the external trade commodity classification, specified in Council <br> Reg. 3294/91 |
| Reg. | Regulation |
| SC | Scientific Council |
| SGRN | Subgroup on research need and data collection |
| SGRS | Study Group on Redfish Surveys |
| SQL | Structured Query Language, standard computer language for accessing \& manipulating database <br> systems |
| StBA | Statistisches Bundesamt (Federal Statistical Office) |
| STECF | Scientific, Technical and Economic Committee for Fisheries |
| TAC | Total allowable catch |
| TBB | Beam trawl |
| UK | United Kingdom |
| WG | Working Group |
| WGBEAM | Working Group on Beam Trawl Surveys |
| WGBFAS | Baltic Fisheries Assessment Working Group |
| WGCRAN | Working Group on Crangon Fisheries and Life History |
| WGMEGS | Working Group on Mackerel and Horse Mackerel Egg Survey |
| WGMHSA | Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine, and Anchovy |
| WGNPBW | Northern Pelagic and Blue Whiting Fisheries Working Group |
| WGNSSK | Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerak |
| XML | Extensible Markup Language, text format |
| ZADI | Zentralstelle für Agrardokumentation und Information (German Centre for Documentation and <br> Information in Agriculture) |

## 15. Comments, Suggestions and Reflections

## Data safety and protection (Articles 9 and 12)

In full compliance with Articles 9 and 12 of Regulation 1639/2001, national access rights to the database are restricted to the institutions directly involved in the DCR only for their relevant part of the database. A separate secure server was purchased in 2003, and the relevant staff has been trained accordingly to ensure data safety. It is further secured that only aggregated data are available via internet and that no relation can be concluded between these data and individual ships, natural or legal persons.

## Data Accessibility

Provisions for the data accessibility by the commission and other member states in relation to articles 10 and 11 were made.

## Other Issues

- Units defined in Appendix V in relation to specific effort are not useful for static gears.
- Appendix III of Reg. 1581/2004 contains a category "Vessels without License". This is in contradiction to Reg. 1639/2001 Chapter II Module C - Collection of data concerning fishing capacities. Under C.1.a) it is stated that all vessels covered by the multi-annual guidance programme (MAGP) IV have to be included in the sampling. However, these vessels have to be registered by Reg. 3760/1992. More relevant for the data sampling programme would be vessels which are registered but not active in fishing. These vessels influence the perception of the economic situation of the fleet segments. They are, however, not relevant for the biological issues.
- The German version of Reg. 1639/2001 is incorrectly translated respective section chapter III Module H 1.d). in relation to ages. (1) i and ii says derogation for sampling if quota is less than $5 \%$, whereas the English version says $10 \%$.


## 16.References

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## Annexes

## Annex 1: Summary of the planned pilot study for eel monitoring

The recruitment of European eel (Anguilla anguilla) into the continental waters has been in decline since the late 1970s. ICES considered the eel stock to be "outside safe biological limits". The European Commission has issued a proposal for a Community Action Plan for the Management of European Eel (COM 2003, 573), aiming at recovery of the stock. Further implementation of the Action Plan is detailed in the proposed Council Regulation establishing measures for the recovery of the stock of European Eel.
In order to improve the data basis for eel catches and stock parameters, the eel was included in the EU Data Collection Regulation (DCR). The information gathered in this data collection programme will also be used to post-evaluate the effect of the national management plans.
In September 2005, a workshop on national data collection for the European eel under the DCR took place in Sånga Säby (Stockholm, Sweden). The workshop reviewed present practices and developed recommendations based on expert judgement. It was stated that, in the light of future implementation, the monitoring procedures have to be worked out in more detail and promising approaches have to be developed and tested, preferentially in pilot studies. Possible approaches may include quantification of recruitment and silver eel escapement in a river basin or the assessment of mortality rates in the river basin.
Since the goal of the management plan is defined in terms of silver eel escapement, it seems plausible to relate data collection also to this stage. Furthermore, a comprehensive monitoring of the eel stock during all of its freshwater stages is not feasible in the long run due to financial, personal and technical limitations. Due to the very scattered nature of the inland fishery (many small scale fisheries, different types of waters and fishing gears, the complex of recreational fishery) the typical instruments of the DCR from the marine areas do not appear to be suitable in the freshwaters. Instead, it appears promising to establish an estimate of silver eel escapement based on catch statistics (cpue data) of specialised silver eel fishing gears, in particular in the lower reaches of large catchments. On one side, such data have the advantage that they integrate over the whole catchment and consequently, the effort would no become too high. On the other side, the data will not allow conclusions about the stocks or mortalities in sub-catchments or tributaries. Yet, it is questionable if this is necessary, particularly, if the River Basin District (according to the Water Framework Directive) is the spatial unit for the eel management plan.
If it is possible to establish a relationship between total silver eel escapement and cpue data of one or a series of fishing gears, the data will be particularly valuable, if long-term data of these gears exist. This would enable estimates of silver eel escapement not only in the future but also for the past.
Based on these facts and considerations, a pilot study under the DCR is planned by the Federal Research Centre for Fisheries. The objective of this project is to develop a method for monitoring of glass eel immigration into and silver eel escapement from a large river system. However, the study will also include the assessment of population parameters during the yellow eel stage. This will offer the possibility to relate these parameters describing the stock to silver eel escapement in cases where silver eel monitoring can not be established. Data on fishing effort will become available, if the DCR is applied for the freshwater fishery on eel.
The main focus of the study is on the development of a practicable method for future monitoring purposes, which will enable assessment of silver eel escapement on a sufficient precision level at appropriate effort (personal, financial).
The study will be conducted at the River Elbe. With a length of 1094 km and a catchment area of $148,268 \mathrm{~km}^{2}$, it is one of the big and important catchments. Consequently, the data gathered here are of special importance in the "overall balance". The Elbe connects the
majority of the north German fresh waters with the North Sea. On a German basis, these waters belong to systems with the highest production potential for eel.
Glass eel monitoring will be conducted at the weir Geesthacht (approx. 140 km upstream from the estuary, forming the tidal limit), which is the only weir at the Elbe in Germany. The eels will be caught by an eel ramp which is installed in the fish pass. In 2006, preliminary investigations are conducted by the regional institution (the federal country Lower Saxony) at Geesthacht to establish the method (to find out the best position of the eel ramp; comparison of the catches of the eel ramp to the catch of the meshwire fykenets, which can be installed in the fish pass; timing of the glass eel immigration).
With regard to the time lag between immigration and spawning migration of the eel, a "true" balance will not be possible in the proposed study. Therefore, it is tried to obtain all stocking data, which are available for the relevant period.
Monitoring of yellow eel stocks in the catchment upstream of the silver eel monitoring station is planned to offer the possibility to estimate silver eel escapement in cases, where direct silver eel monitoring is not possible (e.g. if no suitable fishing gear is operating in the respective river). The study will provide data on length-frequency distributions, growth, sex ratios and on proportion of silver eels in the stocks. These data will be obtained in a range of typical waters in the catchment, including rivers and lakes. The results will also be used to estimate different mortalities (fishing, natural, cormorant predation, turbines / technical).
For silver eel monitoring, total coverage of the whole river by fishing gears is not possible in a big river like the Elbe. Consequently, for an assessment of total silver eel escapement, the efficiency of the fishing gear used must be known. Typical gears for the catch of migrating silver eels in the downstream regions of bigger rivers are stow nets which are operated from boats anchored in the river or from the shore. Principally, the efficiency of these fishing gears could be estimated by mark-recapture experiments. However, several studies have shown that even if only "silver eels" were tagged, not all of them really migrated in the same season. Consequently, the efficiency of such a passive gear can only be determined if the number of (tagged) fish, which really pass the river at the position of the fishing gear, is known. This information can be obtained by using a telemetric system which covers the entire river bed. For this purpose, it is planned to use the Nedap Trail system. It consists of an antenna covering the entire river bed and a semi-mobile detection station. The fish will be tagged by an individually coded transponder, which is surgically implanted into the body cavity. As the tag is not visible from outside, the fish will be additionally marked by an external mark (FLOY-Tags, colour marks - still to be determined in cooperation with the fishermen) in order to find the tagged fish in the catches.
One antenna and the detection station will be installed at the stow net fishery in Gorleben, Lower Saxony. From these stow nets, a detailed (daily) catch statistics exists reaching back to the year 1966. Up to four stow nets can be operated by the fisherman.
About 1500 silver eels caught at Gorleben or upstream in the Elbe or its tributaries will be tagged. From all fish, we will measure length, weight, length of the pectoral fins and eye diameter. These variables are related to silvering. The exclusive use of silver eels will at least increase the probability that the majority of the fish really start the migration during the study period. The fish will be released not more than $100-150 \mathrm{~km}$ upstream from Gorleben in the Elbe or a tributary.
The catches of the stow net fishery in Gorleben are available for the study. As the number of tagged fish passing the antenna, the number of tagged fish in the catch, and the proportion of tagged and non-tagged fish in the catch are known the total number of downstream migrating fish can be calculated. As a result, it will become possible to relate the cpue data of the stow net to total silver eel escapement at this position.
Another detection station (and antenna) will be installed further downstream (exact position still to be determined). This one will not be connected to a fishing gear. However, the
difference in passages between both detection stations will allow an estimate of mortality along the migration route. This can also be related to the fishery because at least the commercial and semi-commercial fisheries are well known.
All tagged fish in the catches and a sufficient number of all eels in the stow net will be sacrificed for further investigations. With regard to aspects of the migration, population dynamics and spawner quality, data on sex ratio, gonado-somatic index, hepato-somatic index gut index, age and growth (which age groups migrate?), condition factor, infection with Anguillicola crassus and possibly contamination (e. g. PCBs) will be obtained.
The method to estimate silver eel escapement, which will be developed in this pilot study, will offer a suitable solution for a cost-efficient silver eel monitoring in the future. Whereas the study itself requires a considerable financial effort due to the relatively high costs for the technical equipment, the future monitoring will be far less expensive. After the pilot study, the antenna and the detection station can be moved to other rivers. Thus, the relationships between cpue data and silver eel escapement could be obtained in succession at the other river systems.

## Annex 2: Agreed text on Sampling responsibilities between The Netherlands and

 GermanyA coordination meeting between The Netherlands (Sieto Verver) and Germany (Hans Peter Cornus) was held in Rostock on the $2^{\text {nd }}$ of March 2006.

The Netherlands and Germany agreed on the following transfers of sampling responsibilities for the 2007 program:

## German Landings into The Netherlands

Germany takes over the responsibility of The Netherlands to sample German Landings in the Netherlands: (because on-board sampling)

Herring 2a
Herring 4ab
Herring 5b,6aN,6b
Horse Mackerel IIa(EU), IV(EU)
Horse Mackerel Vb(EU),VI,VII,VIIIabde;XII,XIV
Mackerel IIa(nonEU),Vb(EU),VI,VII,VIIIabde,XII,XIV
Blue Whiting Vb(EU), VI,VII,XII,XIV
The sampling will be carried out by observers on board.

## Dutch Landings into Germany

Germany takes over the responsibility of The Netherlands to sample Dutch Landings in Germany:

Blue Whiting IIa,Vb,VI,VIIa-c,e-k,VIIIabde,XII,XIV (13 samples in 2007)

Due to the above agreement, there is no need for data transfer from the Netherlands to Germany. Data sampled by Germany on Netherlands landings of Blue whiting in Germany will be transferred to the Netherlands by ad hoc agreement on transfer procedures

# Agreement between the Swedish Board of Fisheries, Institute of Marine Research and the German Federal Research Centre for Fisheries concerning collection of fisheries catch data in 2006 and 2007 


#### Abstract

In accordance with the Data Collection Regulation (DCR) (Commission Regulation 1639/2001) Sweden and Germany have agreed entering co-operation on collection of fisheries data. This agreement has been establish due to common interests in the fisheries in the Baltic Sea and the North Sea. Furthermore, substantial landings by German flagged vessels take place in Sweden and therefore, in order to optimize the quality of the sampling programme, exchange of information and knowledge is necessary.


## Agreement:

It has been agreed that if landings in a specific country are below 5 percent of the national quota for the flag country then the receiving country is not obliged to sample these landings but the flag country should instead compensate for the missing samples in the national sampling scheme. If there is a change in the situation, it is the responsibility of both institutions to inform on eventual changes and initiate changes in the sampling scheme.

A certain fishery might be sampled anyway taking into account other issues even though the landings do not justify a sampling scheme for this fishery according to the DCR.

Sampling of the following species has been discussed and agreed:

## Baltic Sea

Cod
The German landings in Sweden in 2005 were below 5 percent of the German quota in 2004. Therefore, no sampling is made in Sweden. Germany will in 2006 and 2007 adjust the national sampling to compensate for the missing sampling of the landings in Sweden.

The Swedish landings in Germany in 2005 were below 5 percent of the Swedish quota. Sweden will adjust national sampling to compensate for the landings in Germany.

In relation to the change of management regime of the Baltic cod into separate management areas of eastern- and western cod stocks, the involved countries will be observant of any change in the distribution of landings from the two management areas and will inform on these changes and adjust the sampling schemes in relation to such changes in landing distribution. The sampling scheme will be carried out in accordance
with the DCR. Due to the present status of the stocks the sampling will be carried out according to the extended programme in DCR.

## Flounder

There were no German landings of Flounder in Sweden in 2005
There were no Swedish landings of flounder in Germany in 2005.

## Plaice.

German landings in Sweden in 2005 were less than $5 \%$ of the German quota. There is no need for sampling by Sweden.

There were no Swedish landings of plaice in Germany in 2005.

## Herring

German landings in Sweden in 2005 were more than $5 \%$ of the German quota (Landings in SWE $=3009 \mathrm{t}($ German record 3197t), DE quota $=26207 \mathrm{t})$. Sweden is responsible to take 3 samples of each 100 fish measured by length and taking otoliths of 100 fish for aging or adjusted for changes in landings one sample per 1000 t according to 100 fish for length measurement and 100 otoliths for aging following the DCR rules.

Swedish landings in Germany in 2005 were 1261t which is less than $5 \%$ of the Swedish quota of 47000 t. There is at the moment no need for Germany to take samples.

However, due to the development of the fish processing plant at Mukran (Rügen, Germany) it is expected that the selection of landing sites may change drastically in the next years. Therefore, both institutions will inform each other on eventual changes and adjust the sampling schemes in relation to such changes in landing distribution

## Sprat

German landings in Sweden in 2005 were more than $5 \%$ of the German quota (Landings in SWE $=18150 \mathrm{t}$, DE quota $=26299 \mathrm{t}$ ). Sweden is responsible to take 7 samples of each 100 fish measured by length and taking otoliths of 50 fish for aging or adjusted for changes in landings one sample per 2000t according to 100 fish for length measurement and 50 otoliths for aging following the DCR rules.

Swedish landings in Germany in 2005 were 165 t which is less than $5 \%$ of the Swedish quota of 75000 t. There is at the moment no need for Germany to take samples.

However, due to the development of the fish processing plant at Mukran (Rügen, Germany) it is expected that the selection of landing sites may change drastically in the
next years. Therefore, both institutions will inform each other on eventual changes and adjust the sampling schemes in relation to such changes in landing distribution

Concerning otoliths taken for herring and sprat it was agreed that at both institutions the otoliths are aged and sent to the other institution with accompanying relevant parameters for crosschecking. If any disagreement occurs a bilateral meeting will be called in to solve the problem.

Due to the fact that German landings were separated and transhipped before landed in Sweden, the landings could not be traced by Swedish scientists. Therefore no samples of landings could be taken in 2005. Germany in 2006 and 2007 will put scientific observers on board of vessels fishing for herring and sprat in the Baltic in order to get samples at sea of landings and discards. Therefore there is no need for Sweden to sample German landings of sprat and herring in Sweden in 2006 and 2007.

## North Sea

Herring (4a)
There were no German landings of Herring from 4a in Sweden in 2005
There were no Swedish landings of herring in Germany in 2005.
Mackerel (4a)
There were no German landings of Mackerel from 4a in Sweden in 2005
There were no Swedish landings of mackerel in Germany in 2005.

## Exchange of staff on surveys

It has been agreed to encourage cooperation on national surveys in the Baltic and the North Sea. The agreement would involve scientists and/or technicians. This may depend in praxis on the staff resources.

## Contact persons

The German contact persons in general matters concerning sampling and handling of samples is:

| North Sea and Skagerrak | Kay Panten | E-mail | kay.panten@ish.bfa.de |
| :--- | :--- | :--- | :--- |
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The Swedish contact persons in general matters concerning sampling and handling of samples are:

Sprat Baltic and North Sea herring Birgitta Krischansson
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Institut für Seefischerei

For IMR


Fredfik Arrhenius
National Correspondent
Institute of Marine Research
Swedish Board of Fisheries

Annex 4: List of entries (accounting) for economic data (Section 10)

## 0.) General data to the enterprise and the accountancy

| Description | Code |
| :--- | :--- |
| accountancy (encoded) 0001 <br> internal accountancy number of the enterprise 0002 <br> federal state 0003 <br> administrative district 0004 <br> NUTS Code 0005 <br> community 0006 <br> currency 0009 <br> EU Code of the vessel 0010 <br> not relevant for fisheries 0016 <br> socioecconomic type of enterprise 0018 <br> entfallt, da fisheries 0019 <br> legal form 0020 <br> objective (area) 0021 <br> kind of enterprise (conventiell/alternative) 0023 <br> date of the statemant of accounts 0024 <br> compensation recieved 0025 <br> type of the account statement (tax or others) 0026 <br> kind of entries (netto, brutto) 0027 <br> type of the turnover tax system 0028 <br> not televant 0029 <br> not relevant fishereries 0031 <br>   |  |

1.) balance sheet with assets

| Description | Code |
| :---: | :---: |
| A) Contribution |  |
| outstanding contributions | 1000 |
| there under accepted | 1002 |
| B) capital/fixed/permanent assets |  |
| I. tangible assets |  |
| tangible / immaterial assets | 1014 |
| sum of immatrial assets | 1019 |
| II. material assets |  |
| land and properities |  |
| land/property (\$55 Abs. 1 EStG ) | 1020 |
| land/properties, others | 1021 |
| buildings | 1023 |
| operating buildings | 1025 |
| sum of 1020-1025 | 1029 |
| technical equipment and machineries |  |
| facilities | 1030 |
| machinery | 1031 |
| vessel | 1035 |
| engine of the vessel | 1036 |
| fisheries equipment on board | 1037 |
| sum of 1030-1039 | 1039 |
| other assets |  |
| car | 1040 |
| fleet of lorries | 1041 |
| factory equipment | 1043 |
| sales equipment | 1045 |
| furniture and fixtures | 1046 |
| others | 1047 |
| inferior economic goods | 1048 |
| sum of 1040-1048 | 1049 |
| down payments and installations / plants under construction |  |
| down payments made and installations / plants in progress | 1078 |
| sum of 1029, 1039, 1049 and 1078 | 1079 |
| III. financial assets |  |
| financial participations | 1087 |
| financial investments | 1088 |
| sum of 1019, 1079 and 1088 | 1089 |
| D) Floating assets |  |
| I. stock in hand |  |
| row material and supplies | 1109 |
| products / service in progress | 1118 |
| produced products | 1120 |
| stock-in-trade | 1121 |
| down payment made | 1148 |
| sum of 1109, 1118, 1121 and 1148 | 1149 |
| II. debts |  |
| trade accounts receivable | 1150 |
| other debtors | 1158 |
| sum of 1150 and 1158 | 1159 |
| III. Securities |  |
| securities | 1168 |
| sum of 1168 | 1169 |
| IV. unconditional order of pay |  |
| cheques, bills an notes in hand | 1168 |
| sum of 1149, 1159, 1169 and 1179 | 1169 |
| E) deferral entry | 1199 |
| F) special loss account of reserves ( 817 Abs .4 DMBilG ) | 1209 |
| G) deficit not covered by equity capital | 1219 |
| activa sum of $1000,1089,1099$ | 1229 |

## 1.) balance sheet with liabilities

Description ..... Code
A) Property capitel
opening stock ..... 1449
deposit recieved ..... 1459
deposit issued ..... 1469
profit ..... 1479
loss ..... 1489
deficit not covered by equity capital ..... 1498
sum of 1449-1498 ..... 1499
B) Property capitel ..... 1518
C) sepcial entries (reserves)
due to currency change over ..... 1519
due to §6b EStG ..... 1520
due to tax based depreciation ..... 1521
due to grants, subsidies ..... 1522
others ..... 1528
sum of 1519-1528 ..... 1592
D) reserves
other reserves ..... 1538
sum of 1538 ..... 1539
E) liabilities
liabilities in bank ..... 1540
creditors ..... 1545
(own) bills payable ..... 1547
(other) bills payable ..... 1555
bills payable (tax based) ..... 1556
bills payable (social insurance) ..... 1557
sum of 1540-1557 ..... 1559
F) deferral entry
deferral entry ..... 1567
sum of $1499,1518,1529,1539,1559$ and 1567 ..... 1568

## 2.) Profit and loss statement of account (1)

Description ..... Code1. Turnover
g) turnover of fish and other sea food
turnover (domestic) from fish and other sea food ..... 2310
turnover (abroad) from fish and other sea food ..... 2311
sum of 2310 and 2311 ..... 2319
h) trade, services and other proceeds
from other activities (vessel related, but non-fisheries) ..... 2328
from wages and machine hire ..... 2332
from tourism ..... 2333
from charter ..... 2334
from other services ..... 2336
sum of 2328-2336 ..... 2337
i) impairments ..... 2338
sum of 2319, 2337 and 2339 ..... 2339
4. andere aktivierte Eigenleistungen ..... 2349
5. others earnings
a) grants and subsidies
on investments ..... 2357
grants for economic plights ..... 2358
other grants ..... 2359
subsidies on beginning ..... 2360
subsidies for economic plights ..... 2366
grants from scrapping ..... 2367
other subsidies ..... 2368
other subsidies on investments ..... 2377
subsidies on interest (annually) ..... 2381
subsidies on interest (once) ..... 2382
grants for social insurances ..... 2384
grants on wages ..... 2385
other subsidies on expenses ..... 2388
grants to secure the existency ..... 2447
other subsudies ..... 2448
sum of 2357-2448 ..... 2449
b) other operating earnings
lease and hire ..... 2451
activating reserves ..... 2452
appreciation (in value) ..... 2453
remuneration in kind ..... 2454
private parts ..... 2455
turnover tax (period related) ..... 2456
indemnification ..... 2457
other income on operating actvities ..... 2458
sum of 2451-2459 ..... 2459
c) non-period related earningsreturns from debits of tangible assets2460
returns from debits of land and buildings ..... 2461
returns from debits of technical equipment and machineries ..... 2462
returns from debits of other permanent assets and investments ..... 2463
returns from debits of financial contributions ..... 2489
returns from debits of valuation reserves (activating) ..... 2492
returns from debits of special entry reserves ..... 2493
returns from debits of reserves ..... 2494
non-period related turnover tax ..... 2495
other non-period related returns ..... 2496
sum of 2460-2496 ..... 2497
sum of 2449, 2459 and 2497 ..... 2498

## 2) Profit and loss statement of account (2)

## Description <br> Code

6. operating expenses
e) trade, services and others

| supplementary enterprises | 2758 |
| :--- | :--- |
| wages and hire on machines | 2762 |

tourism 2763
charter 2764
other services 2767
sum of 2758-2767 2769
f) other operating expenses
heating
electricity 2771
water, waste, ice 2772
fuel and lubrication oil 2773
$\begin{array}{ll}\text { packing } & 2780\end{array}$
other expenses 2781
wages and hire on machines 2782
charging and recharging 2783

| other miscellaneous services | 2784 |
| :--- | :--- |

sum of 2770-2784 2785
g) discounts/allowances 2786
h) changes of the inventory upon the raw material and suplies 2787
i) changes of the inventory upon products 2788
sum of 2769, 2785, 2786,2787 and $2788 \quad 2789$
7. personnel expenses
wages and salaries of permantal stuff 2790
wages of non-permantal stuff 2791
old-age pension 2792
social (insurance) costs 2793
other allowances 2794
accident insurance 2798
sum of 2790-2798 2799
8. depreciation
tangible assets (budgedet) 2800
impersonal assets (budgeted) 2801
tangible assets (unbudgedet) 2802
impersonal assets (unbudgeted) 2803
floating assets (special effects) 2805
floating assets (expected special effects in future) 2806
special loss account 2808
sum of 2800-2809 2809
9. other operating expenditure
a) maintenance
maintenance buildings 2813
maintenance operating devices 2816
maintenance machines and technical tools 2817
maintenance fishing vessel 2821
maintenance fishing vessel engine 2822
maintenance fish finding equipment 2823
maintenance car
2824
maintenance fleet of lorries 2825
maintenance others 2826
sum of 2800-2809 2809
b) working insurance
building insurance 2830
car insurance 2831
lorry insurance 2832
legal costs insurance 2836
third party insurance 2837
other insurances 2838
sum of $2830-2838 \quad 2839$

## 2) Profit and loss statement of account (3)



## 3.) appendix sheet with assets

| code | description | historic value at market | additions | transfers | 'etirements | $\begin{gathered} \text { depreciation } \\ \text { value } \\ \text { (accumulated) } \end{gathered}$ | book value (current year) | book value (previous year) | depreciation value (current year) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3014 3019 | I Intangible asset sum of 3014 |  |  |  |  |  |  |  |  |
|  | II) tangible asset |  |  |  |  |  |  |  |  |
| 3020 | 1. land and buildings |  |  |  |  |  |  |  |  |
| 3021 | other land/ property |  |  |  |  |  |  |  |  |
| 3022 3023 | soli mpovement |  |  |  |  |  |  |  |  |
| 3023 3025 | buildings operating buildings |  |  |  |  |  |  |  |  |
| 3029 | sum of 3020-3025 |  |  |  |  |  |  |  |  |
|  | 2. technical equipment and machineries |  |  |  |  |  |  |  |  |
| ${ }_{3031} 0$ | tacilites |  |  |  |  |  |  |  |  |
| 3035 |  |  |  |  |  |  |  |  |  |
| 3036 | engine of the vessed |  |  |  |  |  |  |  |  |
| 3037 3039 | fisheries equipment on board sum of 3030-3037 |  |  |  |  |  |  |  |  |
|  | 3. other assets and furnitures and fixtures |  |  |  |  |  |  |  |  |
| ${ }_{3040}^{3040}$ | cas |  |  |  |  |  |  |  |  |
| 3043 | tactory equipment |  |  |  |  |  |  |  |  |
| 3045 | sales equipment |  |  |  |  |  |  |  |  |
| 3046 3047 | fumiture and fixtures others |  |  |  |  |  |  |  |  |
| 3048 | inferior economic goods / assets |  |  |  |  |  |  |  |  |
| 3049 | sum of 3040 - 3048 |  |  |  |  |  |  |  |  |
| 3078 3079 | 6. advanced payments and plants in progress advanced payments and piants under construction sum of 3029, 3039, 3049, 3078 |  |  |  |  |  |  |  |  |

## 4.) Itemized list of liabilities to banks

| code | description | nominal value [€] | total term of loan [years] | residual term of loan [years] | Ioan rate [\%] | Ioan payments [€] | amount (business year) [€] | amount (previous year) [€] | redemption <br> [ $]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3920 |  |  |  |  |  |  |  |  |  |
| 3921 <br> 3922 |  |  |  |  |  |  |  |  |  |
| 3923 |  |  |  |  |  |  |  |  |  |
| 3924 |  |  |  |  |  |  |  |  |  |
| 3925 |  |  |  |  |  |  |  |  |  |
| 3926 |  |  |  |  |  |  |  |  |  |
| 3927 |  |  |  |  |  |  |  |  |  |
| 3928 |  |  |  |  |  |  |  |  |  |
| 3929 |  |  |  |  |  |  |  |  |  |
| 3930 |  |  |  |  |  |  |  |  |  |
| ... |  |  |  |  |  |  |  |  |  |
| ... |  |  |  |  |  |  |  |  |  |
| 3996 | sum of 3920-3995 |  |  |  |  |  |  |  |  |
| 3997 | thereunder shon-term |  |  |  |  |  |  |  |  |
| 3998 | thereunder mediu-term |  |  |  |  |  |  |  |  |
| 3999 | thereunder long-term |  | $\square$ |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |



## 8.) additional data to the enterprise

Description Code
I. vessel
vessel EU No.
type of construction / vessel (encoded)
length overall
gross tonnage
year of construction
engine power
fuel oil consumption
I. activity
fishing area (encoded, Baltic and North Sea)
type of fishery (active/passive/both)
fishing days
supply and services days at sea
shipyard and repair and maintenance days
bad wheather down days
III. share of sales
shrimpe [\%]
salt - water fish [\%]
fresh water fish [\%]
8100
8101
8102
8103
8105
8106
8107

8110
8111
8112
8113
8114
8115

8117
8118
8119

