



EUROPEAN MARKET OBSERVATORY FOR FISHERIES AND AQUACULTURE PRODUCTS

Metadata 2

Data management



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EUMOFA

European Market Observatory for
Fisheries and Aquaculture Products

An initiative of the



European
Commission

Metadata 2 Data management

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KEY NOTE TO THE DOCUMENT

“Data management” describes the procedures adopted by the European Market Observatory for Fisheries and Aquaculture products (EUMOFA) to harmonise data collected.

The types of harmonisation that are performed by EUMOFA are:

- 1. Harmonisation of nomenclature;**
- 2. Conversion of currencies into Euro;**
- 3. Conversion from net weight to live weight;**
- 4. Ports/seaboards correlation.**



1 Nomenclature harmonisation

EUMOFA aims at providing all data collected in different nomenclatures aggregated into two groups at two different levels of aggregation:

- At the lowest level: Main Commercial Species (MCS);
- At the highest level: Commodity Groups (CG)

which are deemed more adequate than the ERS or CN-8 codes for a market monitoring tool. Indeed, EUMOFA aims to fulfil the need for an harmonised nomenclature between production and trade data.

For this reason, the **common grouping into Main Commercial Species (MCS) and Commodity Groups (CG)** has been established considering both (i) the significant relevance of fresh fish in the market, namely at the first-sale stage, and (ii) the importance of the respective species in the trade flow.

A detailed description of the methodology which has been used for grouping purposes is given below. The methodology involves several stages. The first stage refers to the selection of the ERS codes that are going to be grouped and for which the corresponding procedures are common for both the ERS grouping and CN-8 grouping. The second stage involves the grouping process. For this stage, two different methodologies are used, the ERS and CN-8 codes grouping, respectively.

1.1. Electronic Reporting System (ERS) codes

1.1.1. General aspects on the ERS codes

ERS codes for all species are published in the Master Data Register available through the European Commission CIRCABC¹. Along with the scientific names, the names of fish species are provided along with their respective ISO-3 codes and 3-Alpha codes. It needs to be underlined that ISO-3 code and 3-Alpha code have the same meaning, while for the EUMOFA purposes it is called the ERS code.

1.1.2. Selection of the ERS codes

This stage includes a pre-selection of the ERS codes that are to be used for the grouping.

Of the species for which the ERS codes exist in the Master Data Register, a selected are chosen in view of their relevance for the EU and that are consequently published by EUROSTAT as landings, catches and/or aquaculture production data. The list of the MCS and respective CG is developed taking into account the importance of certain fish species at the MS and EU level. The selection of the most relevant species for the first sale supply chain stage is carried out **on the basis of the top-15 species identified by the MS**.

The species selection represents only part of the MS and the established MCS may not be equally important and relevant, or equally representative in other MS for which data are not analysed within the scope of the EUMOFA project. Therefore, the number of MCS for the first-sale stage might change if some species should be deemed important in those MS which are not analysed or the species selection might change also based on the most recent statistical data of landings, catches and aquaculture production. Potential future EU

¹ Communication and Information Resource Centre for Administrations, Businesses and Citizens



enlargement (e.g., Iceland) may also result in production or marketing of other species that could be considered for the nomenclature purposes.

Other ERS codes have been added following the development of the assessment of origin of imports and exports in terms of production methods (fishery vs aquaculture), in order to meet the needs of the analysis for being developed properly.

1.1.3. Procedures to group the ERS codes

The grouping of different species into the MCS is largely based on the ISSCAAP grouping considering to which classification group fish or seafood belongs. The ISSCAAP codes are well-defined aggregations of 3-alpha codes; however, the approach followed tends to be more biological rather than market oriented. By using different sources (basically FAO) and leveraging on experience of experts, decision is taken to which MCS and CG respective fish or seafood species belong.

The analysis has also identified some contradictions in the usage of fish names. For example, although *Pollachius virens* is named as saithe in the first sale supply chain stage, the CN-8 classification identifies it as coalfish. Thus, the MCS is named as “Saithe(=Coalfish)”.

The grouping exercise is largely based on EUMOFA analyst’s best knowledge and expertise.

1.2. Combined Nomenclature (CN)-8 codes

1.2.1. General aspects on the CN-8

The CN-8 coding system serves as an EU tariff and statistical classification system. The CN is composed of the Harmonised System (HS) nomenclature with further EU sub-divisions. Each CN sub-division has an eight-digit code number or CN-8 code, followed by a description. It allows to cross-view the same categories of products in all MS in EUROSTAT-COMEXT’s data base.

The CN-8 classification is revised annually. As far as fishery products are concerned, there are about 500 items representing the traded products.

1.2.2. Selection of CN-8 codes

EUMOFA aims at providing export/import data from EUROSTAT-Comext, aggregating them by MCS and CG, which are deemed more adequate than CN-8 code for a market monitoring tool.

In view of this, EUMOFA analysts selected the products that are included in Annex I of the CMO Regulation, which are recorded in the EUROSTAT-COMEXT’s data base.

1.2.3. Procedures to group the CN codes

Only those species that are relevant for the EU and that are consequently published by EUROSTAT as export and import data (both intra-EU and extra-EU) are selected as MCS. The data were analysed basing on the available EUROSTAT statistics and the list of the MCS and respective CG is established taking into account the



importance of certain fish species in the trade at the EU level. For the purpose of the grouping of the CN-8 codes the most recent Commission Regulation on the Combined Nomenclature is used.

The importance of certain fish species in the trade at the EU level is considered for the selection of the most representative MCS. For example, having negligible trade data for ray's bream and pink cusk-eel, these species are classified as MCS "Other marine fish", although they can be clearly identified from the description of the CN-8 codes.

The MCS "Other products" includes flour and edible oils for food use, etc., while "Non-food use" includes ornamental fish, fish waste, fats and oils and other products foreseen not for human consumption.

In general, **the grouping exercise is largely based on EUMOFA analysts' best knowledge and expertise.**

1.3. Preservation and presentation state codes

There are many differences in the preservation state and presentation codes used by various systems, namely EUROSTAT, ERS, FIDES and CN-8.

Presentation and preservation states are clearly identified and classified (e.g., fresh, frozen, etc. and whole, gutted, fillets, etc. respectively) as per the codes given in the Master Data Register and which are used by the MS in the reporting system of the first sale data. In general, the ERS system has more exhaustive list than CN-8. The codes given in the Master Data Register also do not cover all possible presentation options (e.g. other meat (whether or not minced); whole or in pieces, but not minced etc.) deriving from the CN-8 classification.

The presentation codes provided by EUROSTAT for landing data statistics can be associated to both preservation state (e.g., fresh, frozen, smoked, etc.) and presentation state (whole, claws, roes, and presentation-unknown) (http://ec.europa.eu/eurostat/cache/metadata/en/fish_id_esms.html). It also reveals that EUROSTAT data base does not report all presentation forms defined by the Regulation (EC) No 1921/2006 of 18 December 2006 on the submission of statistical data on landings of fishery products in Member States (<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1921&from=EN>).

1.3.1. Procedures to group the presentation and preservation state codes

In order to make data published by the EUMOFA easier to understand, more market-oriented aggregations are chosen on the basis of different classifications available for presentation and preservation states (see Annex).

In view of this, all **presentation and preservation state codes in all classifications**, namely ERS, EUROSTAT, and CN-8 **are cross-checked and aggregated into one common list** which aims to serve the EUMOFA purposes. The most meaningful presentation and preservation states are chosen. For example, as far as presentation concerned, the EUMOFA presentation code PR1 Whole includes also gutted, headed and skinned fish. Similarly to the presentations, the same principle is applied for the preservation state aggregation.

In view of EUROSTAT and CN-8 classification specificity where some presentation and preservation states are not specified, e.g., "Others", "Not specified", etc., two codes as "Unspecified" are introduced. These are: PR4 Unspecified and PS5 Unspecified.



For the EUMOFA purposes with regard to the grouping of CN8 codes, the most common preservation state is chosen when it is not clear from the description. As far as 1604 and 1605 products concerned, PS4 Prepared-Preserved code is chosen assuming that these products are mostly either prepared or preserved products.

As regards the codes or dimensions assigned for each presentation, these are 3-digit codes (i.e., PR1, PR2, PR3, PR4 and PR5) and for each preservation state these are PS1, PS2, PS3, PS4, PS5, PS6, PS7 and PS8.

When the CN-8 code description of 03 heading products does not provide the presentation, then PR1 “Whole/Gutted” is proposed. In case the description gives the mixture of all possible presentation types, PR2 “Other cuts” code is chosen.

For the purposes of 1604 and 1605 sub-heading products PR2 “Other cuts” code is chosen (even if it is not specified).

The assessment of different classifications emerged the need to add one more presentation state - PR3 “By-products” which includes by-products obtained without using the flesh of the fish. This code is used also for all type of non-food products.

As far as presentation concerned, EUROSTAT provides statistical data “Cooked” not for all MS. This means that for some MS the code PS1 “Live/Fresh” will stand for “Total fresh” plus “Cooked”, while for other countries the code PS1 will stand for “Total fresh” only.

2 Currency exchange rates harmonisation

The Observatory is in charge of the currency conversion from local currencies to Euro. The currencies used to transmit data to the EUMOFA are reported in the following table:

Country	Currency used
BE – DE – EE – GR – ES – FI – FR – HR – IE – IT – LT – LV – NL – PT	Euro
DK	Danish Krone
PL	Polish zloty
SE	Swedish Krona
IS	Icelandic Krona
NO	Norwegian Krone
FO	Danish Krone
UK	Pound Sterling



The EUMOFA's data source concerning currency exchange rates is the **European Central Bank (ECB)** which provides bilateral exchange rates between the Euro and all the other currencies in the world (<http://www.ecb.int/stats/exchange/eurofxref/html/index.en.html>).

The following currencies exchange rates are adopted by the EUMOFA:

- for **weekly data**, the daily bilateral exchange rate refer to the Thursday of the week of reference;
- for **monthly data**, the monthly exchange rates are calculated as simple average of daily exchange rates, according to the same methodology used by the ECB.

3 Conversion factors from net weights to live weights equivalent

Conversion factors (or coefficients) of fish are a tool of converting net weight to live weight equivalents. Conversion factors enable to follow the volumes of fish in live weight equivalent through some value chain stages which in turn is the basis for Supply Balance sheets.

Harmonization of **conversion factors is applicable only for import/export stage** in the supply value chain as production (from aquaculture and catches) is covered by the EUROSTAT database where figures are available in live weight.

3.1 Methodology for developing Conversion factors

The following methodology has been adopted for developing the conversion factors for the Observatory:

1. It is requested to identify CN-8 codes for which CF will be developed. This has been done on a yearly basis by taking the CN-8 codes from the procedure described in Metadata *Harmonisation of nomenclature*.
2. When evaluating conversion factors, the wording of each CN-8 category has been taken into account in order to identify the presentation form;
3. At the same time, specific information about the products has been collected separately in order to study the exact product presentation if it is not clear from the wording. In this case the following approaches have been followed:
 - a. identifying the main importing/exporting nations from the COMEXT statistics,
 - b. searching, mainly in professional literature, for quantitative, or qualitative information on the main presentations under which trade takes place. If needed, private stakeholders from the processing or trade sector have also been questioned.

When the product mix will be identified, a mean average has been calculated taking into account the dominating product included in the CN-8 article in question.

4. Searching for the possible values of the conversion factors for a given species under a given presentation based among others on the EU Regulation, the EUROSTAT, FAO Circular 847, or any other relevant studies;



5. Searching for the conversion factors for several different species and calculating an average in the cases the CN-8 article includes several species.

For the CN articles concerning preparations (sub-sections 1604 and 1605) in which the raw fish material is mixed with other food ingredients, it has been used the findings of the Oceanic Development's survey or establishing best estimate based on trade and industry information.

✓ Products not for human consumption

Fish flour, oils and similar products are considered to be used mainly in industrial production, and not for direct human consumption. For this reason, the conversion factors for these products have not been provided (CF = 0). On the other hand, some changes have to be taken into account. Especially with the EU enlargement, some new MS may use imported products for human consumption, while in the past the same products were used only for the non-food use, e.g. fish meals.

For example, in the EU-15 (before 2004), imported "European sprat" was reserved only for non-food use because all the EU MS used this species for producing fish meals, etc. On the contrary, new EU MS (which have been included in the EU starting from 2004) use this species mainly for human consumption and is traded mainly whole. Taking into account the above, relevant CN-8 items should be reviewed.

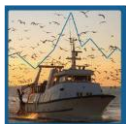
✓ By-products for human consumption

For all the CN-8 items which presentation is PR 3 (by-product), it was proposed not to develop conversion factors for them especially because of their scarce relevance in terms of imported volumes. As a matter of fact, these items, e.g. caviar, are usually high-value products, but values have not been taken into account in the supply balance methodology.

Fish meat for human consumption is considered to be a by-products of mainly filleting industry, thus the conversion factor for fish meats is calculated as 0 in order to avoid double calculation.

✓ Confidential codes

Finally, as concerns confidential codes included in the COMEXT database, these codes will not be taken into account by the EUMOFA in any case.



4 Ports/Seaboards correlation

The Ports/Seaboards correlation table has been built by carrying out a spatial analysis in a Geographic information system (GIS) environment, in order to associate the geographical data (coordinates) related to ports (as from the Master data Register) with Seaboards.

Seaboards areas refer to the European Atlas of the Seas sea-basins (https://ec.europa.eu/maritimeaffairs/atlas/maritime_atlas/#lang=EN;p=w;bkgd=1;theme=2:0.75;c=1224514.3987259883,6446275.8410170125;z=4), which are based on ICES areas for Atlantic, North Sea, Baltic Sea (for identifying the areas, see table at the link http://www.neafc.org/system/files/ices_areas_weuro.png) – and FAO – for Mediterranean and Black Seas.

As regards the Mediterranean area, the FAO defines the Mediterranean as “all the marine waters bounded, to the West, by a line running from a point on the coast of Morocco at 5°36' W longitude due North to the coast of Spain (isthmus of Punta Marroqui)”. As regards the Black Sea, the FAO defines it as the *37.4 subarea*, which comprises the Sea of Marmara, the Black Sea and the Sea of Azov. The border line between the Mediterranean and the Black Sea has been identified “by a line running from Cape Hellas to Kumkale at the entrance of the Dardanelles”.

In order to identify the correspondence between EUMOFA’s Seaboards and FAO / ICES areas precisely, please refer to the following table:

Seabord	ICES/FAO areas
Mediterranean	FAO subarea 37.1 FAO subarea 37.2 FAO subarea 37.3
Bay of Biscay and the Iberian Coast	ICES area VIII ICEA area IX
Celtic Seas	ICES area VI ICES area VII
North Sea	ICES area IV ICES area IIIa
Baltic Seas	ICES area IIIb ICES area IIIc ICES area IIId
Outermost Regions	Canary Islands, Madeira, the Azores, French Guiana, Guadeloupe, Martinique, Réunion
Black Sea	FAO subarea 37.4

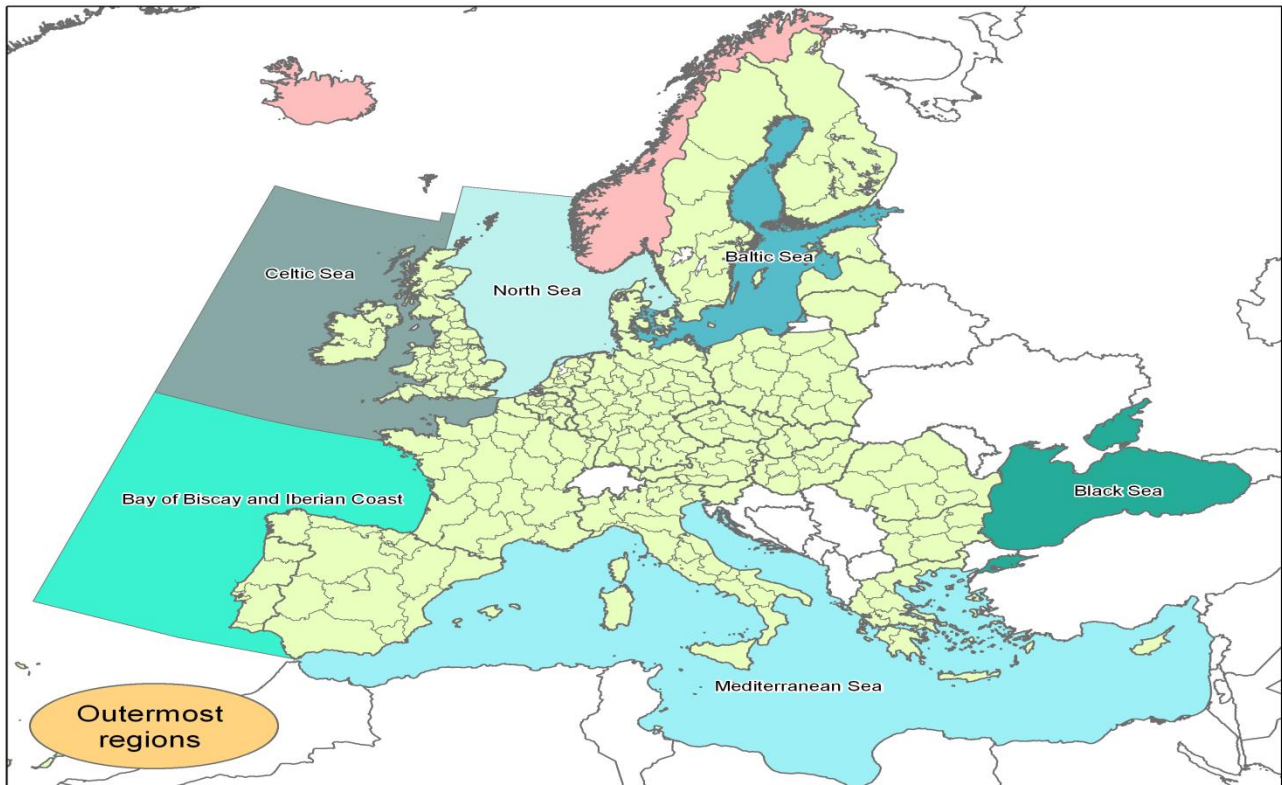


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The first step for building the correlation table has consisted in matching the maps provided by ICES and the FAO with the maps provided by the European Commission (publicly available on the European Environmental Agency - EEA) in a GIS environment, in order to define the sea basins.

The result is the map of the EU broken down by sea basins.



Not every port (places of sale) listed in the Master data register has been used for the purposes of the EUMOFA and correlated to a specific seaboard. Therefore, in the Master data Register, ports (places of sale) of interests have been selected according to the following criteria:

1. Within the EU territory
2. Being EU-Fish Port;
3. Reporting coordinates (longitude/latitude).



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