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**DIRECTORATE GENERAL FOR INTERNAL POLICIES**  
**POLICY DEPARTMENT B: STRUCTURAL AND COHESION POLICIES**  
**FISHERIES**

# **CHARACTERISTICS OF SMALL-SCALE COASTAL FISHERIES IN EUROPE**

**STUDY**

This document was requested by the European Parliament's Committee on Fisheries.

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Original: EN  
Translation: DE, ES, FR, IT.

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Manuscript completed in July 2011.  
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**DIRECTORATE GENERAL FOR INTERNAL POLICIES**  
**POLICY DEPARTMENT B: STRUCTURAL AND COHESION POLICIES**

**FISHERIES**

# **CHARACTERISTICS OF SMALL-SCALE COASTAL FISHERIES IN EUROPE**

**STUDY**

**Abstract:**

The study analyses the structure and economic performance of small-scale coastal fisheries (SSF) in Europe. Eighteen main clusters within SSF are identified and their distribution by NUTS-2 region is presented. The contribution of SSF in terms of income and employment to the economies of the NUTS-2 regions is also assessed. Some potential policy implications of the study's findings are considered in light of the reform of the Common Fisheries Policy.



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## LIST OF ABBREVIATIONS

<b>CAP</b>	Common Agricultural Policy
<b>CFP</b>	Common Fisheries Policy
<b>CFR</b>	Community Fleet Register
<b>DCF</b>	Data Collection Framework
<b>DCR</b>	Data Collection Regulation
<b>EU</b>	European Union
<b>GDP</b>	Gross Domestic Product
<b>GVA</b>	Gross Value Added
<b>LSF</b>	Large-Scale Fisheries
<b>MS</b>	Member States (of the European Union)
<b>SPSS</b>	Statistical Package for the Social Sciences
<b>SSF</b>	Small-Scale Fisheries

## FISHING GEARS

<b>DFN</b>	Drift and fixed nets
<b>DRB</b>	Dredge
<b>DTS</b>	Demersal trawl and seine
<b>FPO</b>	Pots and traps
<b>HOK</b>	Hooks and lines
<b>MGO</b>	Other mobile gears
<b>MGP</b>	Polyvalent mobile gears
<b>MXD</b>	Mixed gears
<b>PG</b>	Passive gears
<b>PGO</b>	Other passive gears
<b>PGP</b>	Polyvalent passive gears
<b>PMP</b>	Combining mobile and passive gears
<b>PTS</b>	Pelagic trawl and seine
<b>TBB</b>	Beam trawl
<b>UNK</b>	Unknown



## EXECUTIVE SUMMARY

### Background

In 2008 the Commission launched a review of the CFP (Common Fisheries Policy) reflecting a number of changes since the 2002 reforms, including the EC's new Integrated Maritime Policy, entry into force of the Marine Strategy Framework Directive which obliges Member States to ensure the good environmental status of the seas under their jurisdiction until 2020, and a movement towards rights-based fisheries management to increase industry responsibility for management outcomes. This reform is currently gathering pace and more concrete proposals will be presented in 2011 and adopted by 2012.

The maintenance of small-scale fleets is a widespread policy objective in many EU Member States, and recognition of the social and cultural role of small-scale fishermen was explicitly included in the European Commission's Green Paper on the Reform of the CFP. Current deliberation about reform of the CFP includes for example the possible need for special treatment of small-scale fisheries under a future European Fisheries Fund, the exemption of small-scale fisheries from particular management requirements, and/or safeguards for small-scale fisheries under any rights-based management system involving transferable quotas.

### Aim and Methodology

The aim of this study is to provide a comprehensive quantitative and qualitative analysis of small-scale fisheries (SSF) in Europe. In particular, the approach is focused on describing and discussing SSF at NUTS-2 and Member State (MS) levels so as to generate a systematization of the diversity within SSF, to develop a typology of SSF which would enable the Common Fisheries Policy (CFP) to properly manage SSF. To this aim, the study examines:

- Clusters of small-scale fisheries that exist in terms of key characteristics such as fishing gear, vessel material and construction year, and vessel length;
- The role of small-scale fisheries in terms of their economic and social contribution; and
- The potential justification for, and impacts of, any special treatment for small-scale fisheries under a reformed CFP.

The methodology used during the study included:

- Analysis and interpretation of data (using both SPSS and excel) contained within
  - the Community Fleet Register (CFR)
  - the Data Collection Regulation (DCR) and the Data Collection Framework (DCF)
  - Eurostat;
- Review of case study information on small-scale fisheries contained within a number of recent studies and publications;
- Use of in-country fisheries experts/correspondents to provide additional qualitative interpretation of the data; and
- A series of methodological meetings and discussions throughout the study with technical staff in Directorate B Structural and Cohesion Policies, of the European Parliament.

## Overview of small-scale fisheries in Europe

Council Regulation (EC) No 1198/2006 on the EFF specifically refers to vessels in 'small-scale coastal fisheries' being less than 12 meters and not using towed gear. The Data Collection Framework (DCF) also makes a clear distinction between vessels over and under 12m in length.

In this report SSF vessels are simply defined as those under 12m in length, which represent more than 70% of the total fleet in all Member States of the European Union, except for Belgium and the Netherlands. However, the small-scale fleet represents just 10% of the total gross tonnage of the EU fishing fleet and about 35% of its engine power. The small-scale fleet has declined by 20% in terms of numbers of vessels over the last 10 years, to just over 70,000 vessels. Greece (23%), Spain (11.3%), Portugal (11%), Italy (13.3%) and France (8.8%) account for the largest share of the total small-scale fleet. The United Kingdom and Finland also have large numbers of small-scale vessels compared to other Member States.

Small-scale vessels are most commonly between 5-7m in length, weigh around 3GT, and have engines with a power of about 35kW. More than 90% primarily use passive gears (i.e. gears that are not towed or dragged through the water) such as drift and fixed nets, hook and lines, or pots and traps. Those vessels using more mobile gears such as dredges and trawls tend to be over 8m in length.

More than half of all small-scale vessels are made of wood, and metal/steel vessels are rare. But the type of construction material has been changing over time, and newer vessels tend to be built of fibreglass rather than wood.

## Small-scale fisheries clusters

Clusters of small-scale fisheries were identified using SPSS, based on seven criteria relating to fishing gear (primary and secondary), vessel size (length, GT and kW), hull material and construction year. The analysis identified 402 clusters in the 131 NUTS-2 regions where fishing vessels are registered.

Analysis of the small-scale fleet based on individual criteria shows that:

- About 55% of the vessels use various drift and fixed nets as their main gear, with 23% using hooks and lines;
- These two gear groups dominate also the classification by secondary gear;
- Almost 70% of all vessels are in the range of 4.1m-8.0m, mostly with engines of less than 50kW;
- Age and hull material are closely linked – 54% of the fleet is constructed of wood, with an average construction year of 1977. The 39% of the vessels constructed of fibreglass have an average construction year of 1992.

The 402 individual clusters in the NUTS-2 regions were then further analysed to assess whether any EU-wide clusters of comparable properties could be identified based on three key criteria – main gear, length class and hull material. A NUTS-2 cluster was assigned to an EU-wide cluster according to its average length, and if at least 65% of the vessels used a specific main gear or were built in a specific material. If the threshold of 65% was not reached the NUTS-2 cluster was allocated to a 'mixed' EU cluster.

This analysis resulted in some interesting findings:

- By far the largest cluster, with 12,500 vessels, is composed of wooden netters of 6-9m;
- Other important clusters, all with more than 5,000 vessels are netters of 3-6m constructed in wood or fibreglass, wooden netters of 3-6m, and wooden hook and line vessels of 6-9m;
- These five main clusters with more than 5,000 vessels, contain 34,900 vessels, i.e. almost 50% of the small-scale fleet in Europe;
- A second group of 12 distinct clusters, each with 1,000-4,000 vessels, accounts for 25,500 vessels, i.e. 37% of the total small-scale fleet. Within this group, the most important single cluster is one of fibreglass hook and line vessels of 6-9m (with a total of 4,000 vessels). Most other clusters in this group used mixed gears;
- A final cluster of vessels operating towed gears shows a mixture of the size, age and power characteristics seen with the mixed gear clusters indicating that many of these towed-gear vessels still target a variety of fisheries with different gears; and
- Most of these 17 EU-wide clusters can be found in a large number of NUTS-2 regions, along the EU coasts. However, some of the different EU-wide clusters there are concentrated in different countries and regions.

Qualitative interpretation indicates that the reasons behind the presence of particular clusters, both within NUTS-2 regions, and within the EU as a whole, differ between regions. It is also clear from previous case studies and from consultation undertaken as part of this study that the characteristics of small-scale (and larger-scale) fisheries change over time. However, some reasons for the presence of small-scale fisheries clusters may include:

- The availability of different stocks in different fishing environments i.e. clusters of pots and trap vessels in areas of good shellfish fisheries (e.g. Highlands and Islands in Scotland and the Border and Midlands region in Ireland), and clusters of fixed and drift nets in areas with good demersal resources (e.g. Attiki in Greece). The location of specific species types often reflects the prevailing marine and coastal conditions e.g. rocky, rugged coastlines are a good habitat for shellfish and not good ones in which to use nets due to resulting risks and costs associated with damage/entanglement;
- Regulations either preventing some types of gear (e.g. the homogeneity of gear type in Amvrakikos in Greece is supported by the fact that fishing with mobile gears is prohibited in the region), or incentivising particular vessel characteristics (e.g. the exemption of vessels under 10m in the UK from certain quota management and reporting regulations has led to a large concentration of vessels just under 10m);
- Operational economics, which dictate the appropriateness of investment in particular vessels sizes or gear, based on expectations and experience of potential/likely catches, revenues, operational costs, fixed costs, and net profits. Many vessel owners/operators prefer small vessels with lower investment and fixed costs, and are reluctant or unable to re-invest significant sums of money, in an attempt to reduce the risk of their investments;
- These financial/economic considerations, and their impact in terms of favouring smaller vessels (generally of 4-8m and small engine size), are further supported by the part-time nature of much small-scale fishing activity, which also tends towards low investment costs. This may be necessitated by weather and because owners/operators chose, or are forced to engage in alternative income activities.

Indeed, the availability of other alternative and seasonal income generating activities e.g. agriculture, may be a strong reason for the presence of clusters of small vessels, which may on their own not generate sufficient earnings for owners/operators over the course of any one year to earn a reasonable living; and

- The availability of different technologies and suppliers in particular locations, and a strong cultural/conforming element, whereby new investments in vessels and gear tend to follow historical patterns, until particular key drivers of change may result in step-changes in new vessel characteristics in a particular location e.g. one or more particularly innovative fishermen may demonstrate the success of a new combination of vessel characteristics (e.g. the increasing focus on shellfish fisheries and single-handed operations in the UK has encouraged a move towards inshore catamarans that show more stability and deck space than most mono-hulls), or a boatyard historically supplying a particular region may upgrade its technological capabilities and begin to make vessels to new specifications.

The clusters identified in this study focus only on the characteristics of the *vessels*, and the extent to which homogenous clusters are present. Interesting from the perspective of the dependency of NUTS-2 regions on SSF, and their economic and socio-economic role, is the characteristics of the *fishers* themselves. A set of recent regional social and economic dependency case studies<sup>1</sup> explored issues of ethnicity in 24 case study areas, and the general finding across almost all case studies was one of relative homogeneity in each location, with only small concentrations of 'foreign' populations, and such immigrant labour tending to be employed on larger-scale vessels or in the processing sector rather than in small-scale fisheries, if at all.

## The role of small-scale fisheries

The total value of landings of the fisheries sector in EU-27 is estimated at about Euro 7.9 billion, of which Euro 2.1 billion (27%) is produced by small-scale fisheries. Between 2006-8 SSF employed on average around 90,000 people, compared to some 78,000 on board vessels over 12m.

On average, small-scale fisheries are significantly less productive than larger vessels and than other professions. On average, small-scale fisheries are significantly less productive than the larger vessels or other professions. In SSF the average value of landings per person employed is about Euro 23,000, while with the larger vessels achieve a turnover of Euro 75,000 per employed person. The average GDP/employed across the EU as a whole is Euro 56,000.

Twenty NUTS-2 regions show dependence rates of at least 0.1% in terms of employment and 0.05% in terms of income. Most of these regions are in Greece (8) and in the French overseas territories (4). The remaining eight regions are dispersed along the EU coast from Finland to Bulgaria. A little over 40% of all small-scale fishermen work in these NUTS-2 regions.

In most NUTS-2 regions, the size of the small-scale fleet is decreasing, with the exception of the French overseas territories. These decreases range from 10-30% for the period 2000-2010. In addition, the poor state of stocks in the EU in general, and particularly with respect to demersal species, has resulted in declining volumes of catch. These declining volumes have only been partly offset by rising prices, often because over-exploitation of traditional stocks has resulted in switches to catches of lower unit values. This has meant

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<sup>1</sup> MRAG et al, 2011



that the overall value of catches made by SSF is more typically declining than increasing, thus reducing the contribution of small-scale fisheries in the overall economy of many NUTS-2 regions.

At the same time as the small-scale fisheries sector has been declining in terms of income and employment, between 2000 and 2008 the NUTS-2 regional economies have been growing, mostly by 30%-60% in terms of income and 5%-15% in terms of employment. Growth in many NUTS-2 regions has been strongly based on increases in tertiary and service sectors. These trends mean that the relative role of SSF in the regional economy has fallen, by some 20-30% in employment terms and 30-50% in terms of income over the past 10 years.

The ability of those employed in SSF in the NUTS-2 regions to adapt to reduced employment and income from fisheries, depends on diversification creating alternative work opportunities to which they are suited. It should be noted that in most cases these alternative employment opportunities are not necessarily appropriate to the skill sets of small-scale fishers.

In some instances, fishermen and their fishing vessels can be alternatively employed in fishing tourism or other marine/offshore activities e.g. (power generation), but such opportunities may be seasonal and support only a small fraction of commercial fishing operators. Instead, those leaving small-scale fisheries may do so through retirement, may try to obtain low-skilled employment, or may seek to re-train and acquire new skills in order to access alternative employment opportunities in other (e.g. service) sectors.

## Policy implications

SSF clusters are numerous and widely dispersed around the EU with subtle differences in characteristics between the clusters, making more specific distinction at an EU level difficult. This means that policy at EU level may need to be generalised, allowing for appropriate levels of locally applied policy and management measures.

The cluster analysis shows that a tighter definition of SSF may not be appropriate. Instead, the integration of fisheries into maritime policy suggests that future policy proposals to support SSF should focus on the relatively low environmental impact; the contribution to social cohesion in coastal communities and the SSF sector's particular needs as micro-enterprises in rural economies.

SSF are characterised by having small average GT, kW and length and are in decline in almost all countries and are generally underperforming economically. Arguments in support of SSF are not obviously justifiable in objective rather than subjective/emotional terms. The comparative environmental impacts and social linkages are strengths of SSF that can be viewed as a reason to focus policy on improving their economic, social and environmental performance, while the economic weaknesses of SSF could be taken as justification that policy should not support SSF sectors that may not be economically sustainable.

Policy proposals will be formulated under the reformed CFP as part of the broader context of Maritime policy; balancing social, environmental and economic considerations of the wider maritime environment. Proposals relating to SSF include retaining devolved management within 12nm; exemption of SSF from the introduction of individual transferable rights and preferential financial assistance, which is to be more focused than current EFF support.

The data presented in this report on the clusters of SSF and their location, and the dependence of different NUTS-2 regions on SSF, should however aid policy makers in assessing potential policy impacts.

## GENERAL INFORMATION – EU OVERVIEW OF SMALL-SCALE FISHERIES

### KEY FINDINGS

- There is no single definition of small-scale fisheries in European legislation that is applicable across all Member States. The most specific description is of 'small-scale coastal fisheries', which is 'vessels under 12m in length not using towed gear'.
- Small-scale fishing vessels of under 12m in length represent more than 83%% of the total fleet in all Member States of the European Union, except for Belgium and the Netherlands;
- However, the small-scale fleet represents just 10% of the total gross tonnage of the EU fishing fleet and about 35% of its engine power;
- The small-scale fleet has declined by 20% over the last 10 years, to just over 70,000 vessels;
- Greece (23%), Spain (11%), Portugal (11%), Italy (13%) and France (9%) account for the largest share of the total small-scale fleet;
- Small-scale vessels are on average between 5-7m in length, weigh 3GT, and have engines with a power of 34kW. More than 90% primarily use passive gears (i.e. gears that are not towed or dragged through the water) such as drift and fixed nets, hook and lines, or pots and traps;
- Those vessels using more 'active' gears such as dredges, trawl and set nets tend to be over 8m in length;
- More than half of all small-scale vessels are made of wood, and metal/steel vessels are rare. But the type of construction material has been changing over time, and newer vessels tend to be built of fibreglass rather than wood.

This section provides a general presentation of the characteristics of the small-scale fisheries (SSF) fleet in the EU as a whole, before the following two sections describe first the clusters of SSF that exist, and then the economic role of SSF in the EU.

### Definition of small-scale fisheries

There are a high proportion of micro enterprises in fisheries sector, which are defined by the EU as enterprises with a headcount of less than 10 and a turnover of less than €2 million (REC 361/2003/EC). Most of these would be involved in small-scale fisheries, but there is no single definition of small-scale fisheries in European legislation that can then be applied across all EU Member States.

The United Nations Food and Agriculture Organisation (FAO) glossary<sup>2</sup> describes a fishery as "*an activity leading to the harvesting of fish*" which is typically defined in terms of the

<sup>2</sup> <http://www.fao.org/fi/glossary>

people, species, location and method of fishing that is involved. "Small-scale producers" are defined as *"producers operating at a small-scale to distinguish from industrialised producers. In truth the line separating small and large-scale producers is arbitrary. What is considered small-scale in one country or region may be considered large scale in another."*

Providing a definition of small-scale fisheries that is applicable across all Member States of the European Union is notoriously difficult, due to the different interpretations by Member States as to what constitutes a small-scale fishery within their national context. These differences in interpretation are reflected in a variety of different definitions of small-scale, or inshore-fisheries in different Member States (some specifically define small-scale or inshore fisheries while others do not), as well as in management conditions in different Member States which may provide special provision for 'small-scale fisheries' that are very different in terms of their characteristics.

Given the arbitrary distinction between small-scale and industrialised fishing operations; the diversity of fishing fleets across the EU and also the external dimension of the Common Fisheries Policy (CFP), it is understandable that the CFP recognises the importance of small-scale fisheries but does not provide a definition of small-scale fisheries.

Some clarification is provided under the provisions for European Fisheries Fund (EFF) support: Council Regulation (EC) No 1198/2006 on the EFF specifically refers to 'small-scale coastal fisheries' with Article 26 defining 'small-scale coastal fishing' as fishing carried out by fishing vessels of an overall length of less than 12 meters and not using towed gear. The Data Collection Framework (DCF) also makes a clear distinction between vessels over and under 12m in length.

A report on small-scale fisheries in Europe (Ifremer, 2007) concluded, *"a useful and operational definition of SSCF must include at least vessel size, gear polyvalence, degree to which gear is active or passive and the level of dependence on national territorial waters."* The final aspect, a dependence on territorial waters, may characterise small-scale fisheries, but is not currently reported under the DCF and doing so would create some difficulties as this is less fixed than particular vessel characteristics. Therefore no definition of small-scale fisheries beyond 'under 12m not using towed gear' has been established to date.

For the purpose of this study, and as specifically required by the Terms of Reference (TOR), this research adopts a simple definition of small-scale fisheries as being all vessels under 12m in length, using this as the basis on which to explore other distinguishing characteristics of small-scale fishing fleets in Europe. Our analysis in subsequent chapters of this report is confined to the under- 12m fleet, but some additional information on the over- and under-12m fleet is provided in Annex E by NUTS-2 region.

## **Distribution of European small-scale fisheries**

Small vessels are strongly represented in all EU Member States. On 30.6.2010, The EU Community Fleet Register (CFR) recorded 84,056 vessels, of which 70,087 (83%) were smaller than 12m. The small-scale fleet represents about 10% of the total gross tonnage of the EU fishing fleet and about 35% of its engine power. The small-scale fleet varies between 72% and 97% of each MS's total fleet in terms of the number of vessels, with the exception of the Netherlands and Belgium where it represents 37% and 1% respectively.

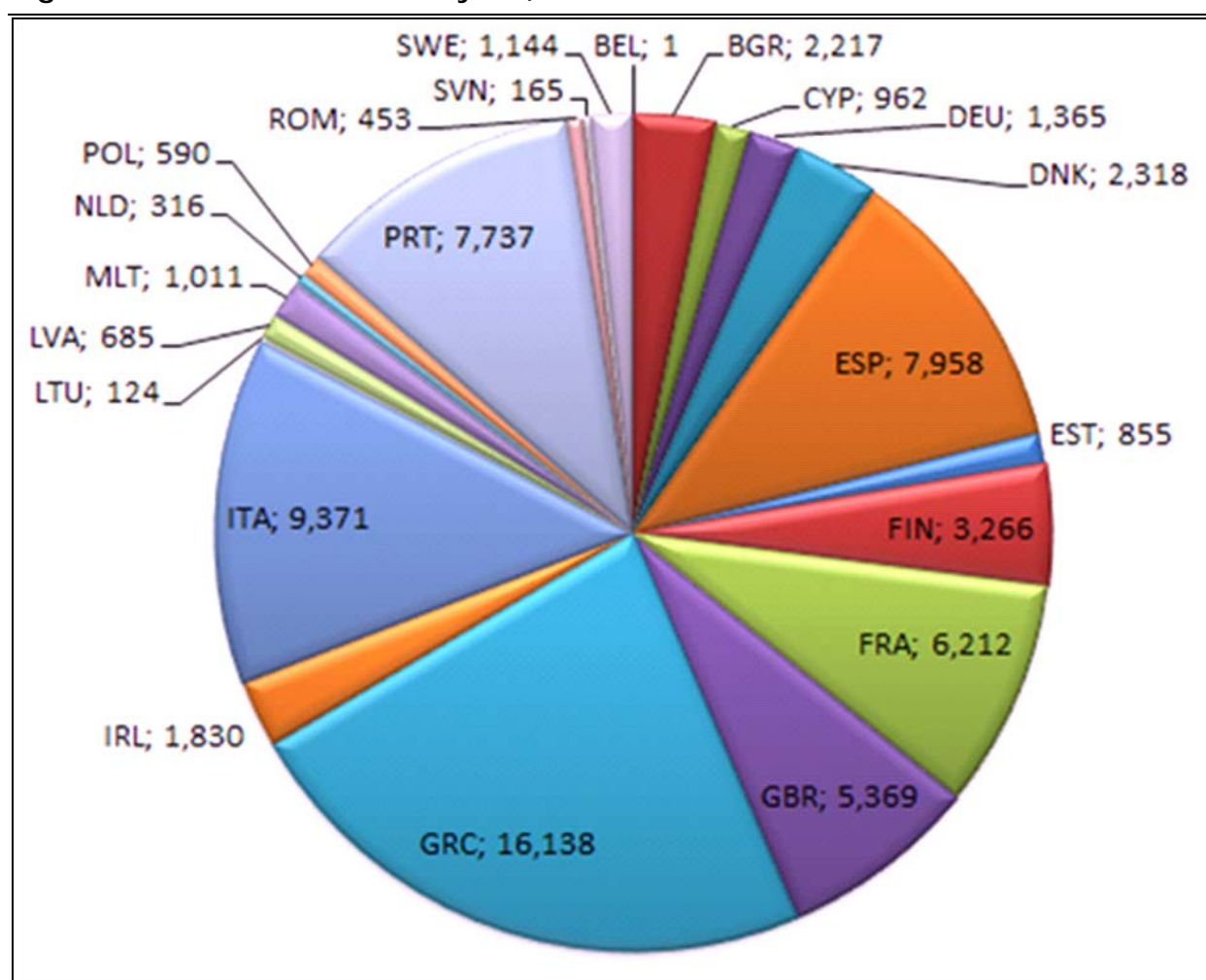
**Table 1: Small-scale fleet within the EU**

	<12m	>12m	Total
Number	70,087	13,969	84,056
1000kW	2,392	4,212	6,604
1000GT	177	1,603	1,780

Source: CFR, 30.6.2010.

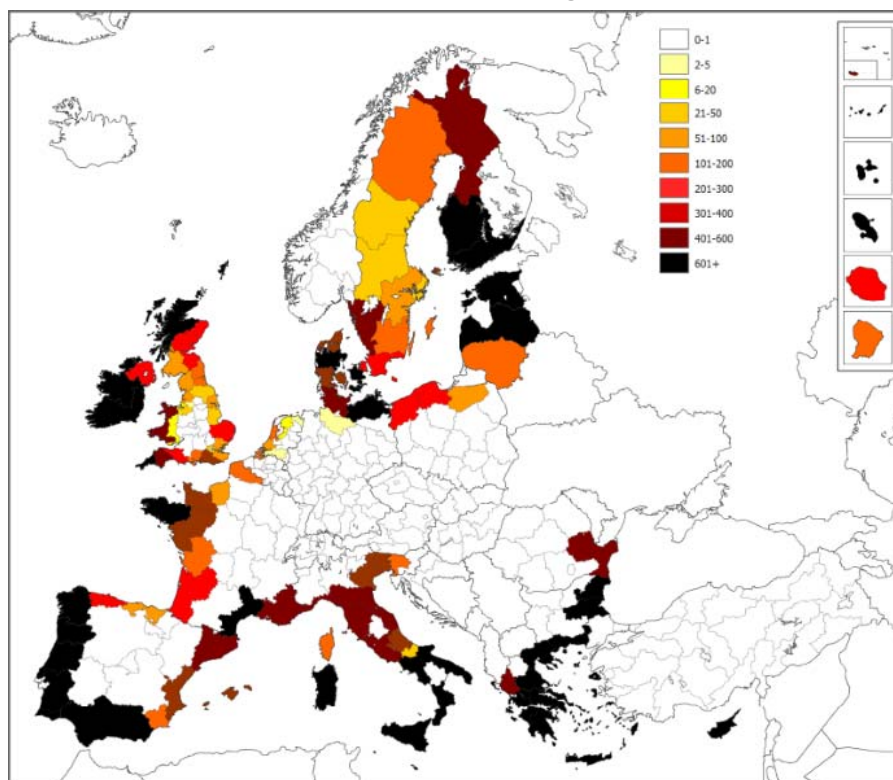
About two thirds of the small-scale fleet can be found in 5 countries: Greece (23%), Spain (11%), Portugal (11%), Italy (13%) and France (9%) (see Annex F for more details). With respect to NUTS-2 regions, the UK, Ireland and some Baltic States also have regions with large numbers of under 12m vessels (see Map 1).

The trend in the number of small-scale vessels under 12m (see Annex F) shows that the EU small-scale fleet has declined from 87,894 in 2000, through 78,037 in 2005 to just over 70,000 in 2010, a decline of 20% in just 10 years.

**Figure 1: Under-12m vessels by MS, 2010**


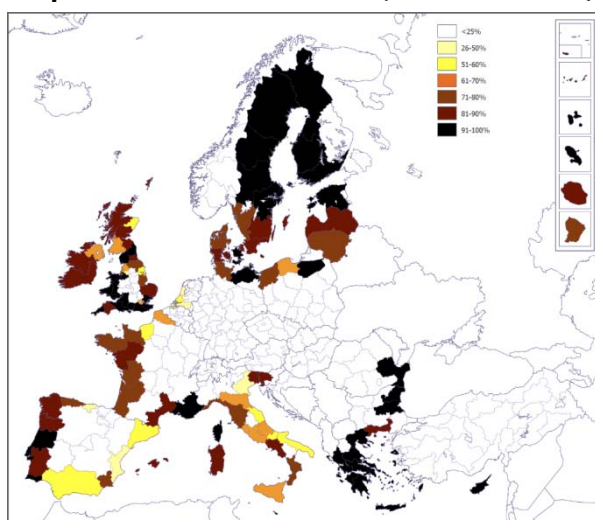
Source: CFR, 30.6.2010

**Map 1: Small-scale vessel numbers in NUTS-2 regions**



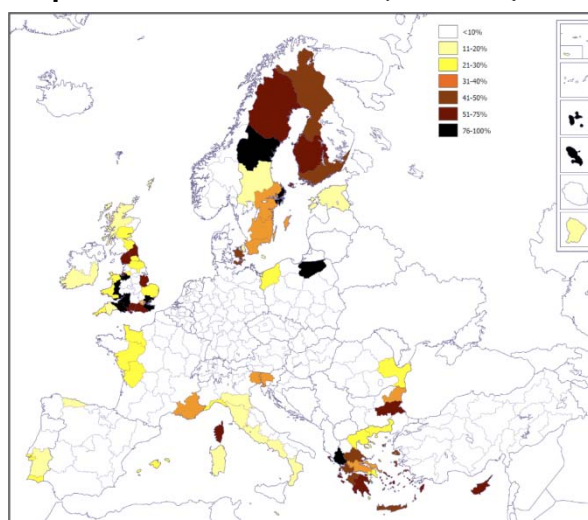
Source: CFR, 31.6.2010

**Map 2: SSF in total fleet (% of number)**



Source: CFR, 31.6.2010

**Map 3: SSF in total fleet (% of GT)**



Source: CFR, 31.6.2010

Maps 2 and 3 illustrate the role of SSF within the total regional fleet. In some regions (mainly Greece, Sweden, Finland) small-scale fleet is dominant in terms of number of vessels and GT. In those regions vessels over 12m are not active. IN many important fishery regions (Brittany, Galicia, Scotland and Sicily) SSF is significant in numbers, but its share in GT is very low.



## Description of the small-scale fishing fleet

Most SSF vessels use passive/static fishing techniques (see Table 2 and Annex F for more details), and around 64,000 vessels report a passive gear as their primary fishing gear. Active gears (just over 6,500 vessels) are predominantly demersal trawl and seine being used in UK, France, Italy, and Greece and to a lesser extent in Portugal, Denmark and Spain, and dredge in Ireland, France, UK, Italy, Portugal and Denmark. It is generally the case that the larger vessels under 12m use these active gears. Within the passive gear vessels, more than half (38,960) are drift and fixed nets concentrated most strongly in Greece, Spain, Portugal, Italy, Finland, France and Denmark. Hook and line vessels (15,619) are most common in Greece, Italy, Portugal and Spain. Pots and traps vessels (8,946) are most common in the UK, France, Portugal and Finland.

**Table 2: Main gears used by the SSF fleet**

Secondary gears	Main gears			
	Mobile	Static	Towed	Total
Towed	8	1,348	853	2,209
Static and mobile	415	48,329	3,431	52,175
Unknown	88	13,807	1,808	15,703
Total	511	63,484	6,092	70,087

Source: DCR, 30.6.2010

**Table 3. SSF fleet by main gear (CFR classification)**

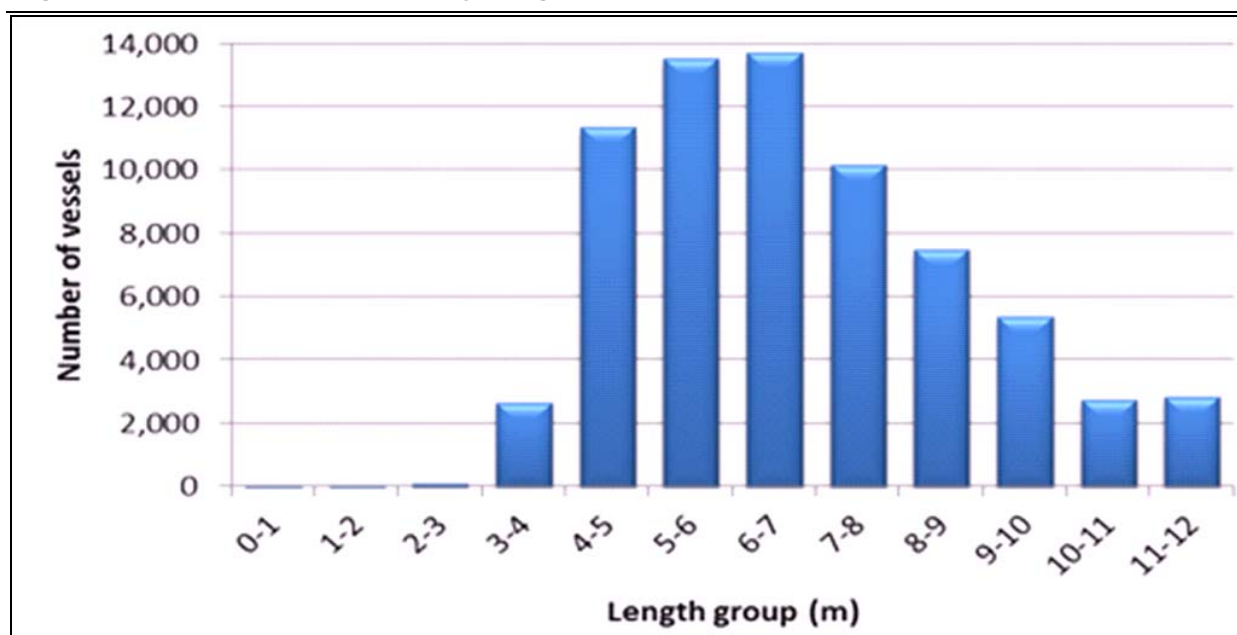
Gear	Number	1000 GT	1000 kW
Set gillnets	27,270	58.1	704.4
Set longlines	12,676	25.6	329.3
Trammel nets	10,065	21.0	249.8
Pots (traps)	8,946	26.4	522.7
Hand lines and pole lines (hand operated)	2,204	4.3	76.2
Bottom otter trawl	1,810	14.6	160.9
Purse seine	1,810	4.6	63.7
Boat dredge	1,034	6.1	65.2
Driftnets	799	2.6	35.3
Combined trammel and gillnets	718	1.8	16.4
Beach seine	496	2.3	22.8
Troll lines	475	1.2	39.3
Longlines (drifting)	431	1.5	27.3
Hand lines and pole lines (mechanised)	308	0.7	9.3
Beam trawl	222	1.5	13.9
Midwater otter trawl	201	1.4	14.1
Mechanised dredges (incl. suction)	193	1.5	17.6
Other*	429	1.9	23.7
Grand Total	70,087	177.0	2,392.0

Source: CFR, 30.6.2010

\*11 gears with less than 100 vessels

A large proportion (almost 40%) of the total SSF fleet is comprised of vessels between 5m and 7m in length, and almost 70% of vessels are between 4m and 8m. Just 8% (5,596 vessels) of the total fleet is over 10m in length, and there are only 2,816 vessels of under 4m in length. Interestingly, the distribution of vessels by length also shows that relatively large numbers of vessels occur at precise lengths of 5m, 6m, 7m, 8m, 9m and 10m. This may be a consequence of previous policies and regulations, or of available technologies (i.e. standard vessel sizes available on the market).

**Figure 2: Distribution of SSF by length class**



Source: CFR, 30.6.2010

Within the EU as a whole, the SSF fleet has an average of 3GT (compared to an average of 115GT for over-12m vessels), and an average of 34kW (compared to an average of 302kW in the over-12m fleet). The average construction year for the SSF fleet is 1984, and this does not differ significantly from the over-12m fleet. However, within this overall average for the construction year, data show that there was a peak in construction of new vessels between 1979 and 1990 (with on average 1900 new vessels entering the fleet every year). In the following 16 years (1991-2006) the rate of entries decreased to about 1,300 vessels per year. Most recently, in the 18 months from January 2009 to June 2010, less than 800 small-scale vessels were added to the EU fleet. Many older vessels will have been modernized, but there are no data on such modernizations.

Most small-scale vessels are made of wood (53%) and fibre glass (39%) with a clear relationship between the construction year and material (as shown in Table 4) with older vessels are more likely to have been constructed of wood, as would be expected. Steel/metal vessels represent less than 4% of total vessel numbers, but are significantly larger than wooden and fibreglass boats.



**Table 4. SSF fleet by material of hull**

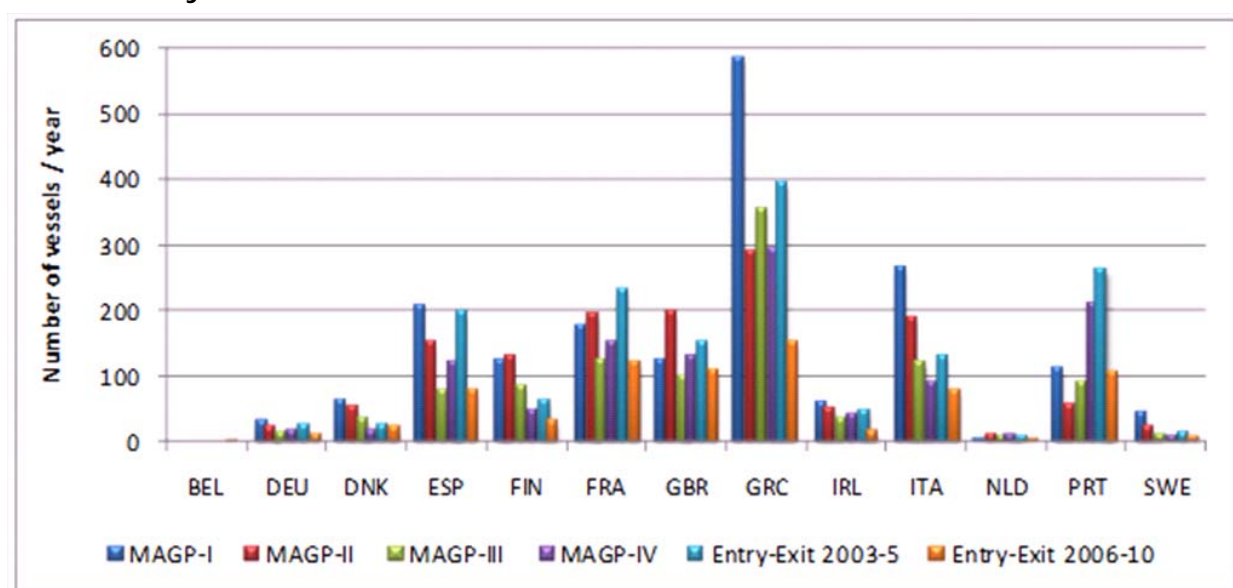
Material of hull	Number of vessels	GT	kW	GT/vessel	kW/Vessel
Wood	37,964	88.8	901.7	2	24
Fibre	26,808	68.1	1,223.5	3	46
Metal	2,504	13.9	163.7	6	65
Other	2,811	6.1	103.2	2	37
Total	70,087	177.0	2,392.0	3	34

Source: CFR, 30.6.2010

## Impact of the CFP on construction of small-scale vessels

The Common Fisheries Policy was introduced in 1983. During the first twenty years (1983-2002) the structural policy for the CFP, supported construction of new vessels within Multi-annual Guidance Programmes I-IV (MAGPs). In 2002 the MAGPs were replaced by an Entry-Exit regime<sup>3</sup>. With the Council Regulation 2369/2002, support of fleet renewal (i.e. construction subsidy) was abolished as of 31.12.2004. After 2005 (the last year in which construction subsidy would be paid) there has been a sharp decline in the annual construction of new vessels in almost all MS.

The impact of the policy decision described above is evident in Figure 3. The figure is divided into six periods – the four MAGPs and the Entry-Exit regime under CFP 2003-2012, which is split according to availability of support for new constructions. With some exceptions, relatively high numbers of vessels joined the fleet in the beginning of the period and in the period 2003-2005.

**Figure 3: Construction of new vessels per year under the different CFP regimes by MS**

Source: CFR 30.6.2010

<sup>3</sup> Article 13 of the EC Reg. 2371/2002



# 1. TYPOLOGY OF SMALL-SCALE FISHING FLEETS IN EUROPE – BY CLUSTER

## KEY FINDINGS

- Clustering is based on the seven criteria related to gear (primary and secondary), vessel size (length, GT and kW), hull material and construction year, produced 402 NUTS-2 regional clusters in the 131 regions where fishing vessels are registered.
- About 55% of the vessels use various nets as their main gear, followed by 23% using hooks and lines. Almost 70% of the vessels are in the range of 4.1-8.0m, mostly with engines of less than 50kW. Construction year and hull material are closely linked – 54% of the fleet is constructed of wood, with an average construction year of 1977. The 39% of the vessels constructed of fibre have average construction year of 1992.
- EU-wide clusters of comparable properties were derived from 3 criteria – main gear, length class and hull material. A regional cluster was assigned to an EU cluster according to its average length and if at least 65% of the vessels used specific main gear or were built in specific material. If the threshold of 65% was not reached the regional cluster was allocated to a 'mixed' EU cluster.
- By far the largest cluster, with 12,500 vessels, is composed of wooden netters of 6-9m. Other important clusters are netters of 3-6m constructed in wood or fibreglass, wooden netter of 3-6m and wooden hook and line vessels of 6-9m. These five clusters, each having more than 5,000 vessels, contain 34,900 vessels, i.e. almost 50% of the SSF.
- A second group of 12 clusters, each with 1,000-4,000 vessels, covers 25,500 vessels, i.e. 37% of the total SSF. Within this group, the most important single cluster is 'fibreglass hook and line vessels of 6-9m' totalling around 4,000 vessels. Most other clusters in this group used mixed gears or are constructed of mixed materials.
- A final cluster including all towed gears is described. The largest numbers of inshore vessels using towed gear are found in Italy (Calabria, Tuscany), France (Bretagne) UK and Irish regions. The towed gear cluster shows similar age, power and GT characteristics to other mixed gear clusters and many will operate other gears on a seasonal basis.
- Most clusters can be found in a large number of regions along the EU coasts, but there are also some marked concentrations of the different EU-wide clusters in different countries and regions.

## 1.1. Introduction

This chapter presents the results of clustering analysis using the statistics software package, SPSS. The objective of clustering is to identify homogeneous groups within a heterogeneous population. The objects within each population are usually characterized by

a large number of characteristics. These characteristics serve also as criteria for the clustering.

Following the Terms of Reference, the study considers seven criteria:

- Overall length;
- Gross tonnage;
- Main power;
- Main gear (gear type and whether active or passive);
- Secondary gear (gear type and whether active or passive);
- Hull material; and
- Age.

The first part of this chapter is devoted to the analysis and discussion of the relevance of each of the mentioned criteria for the definition of the clusters. The second part of the chapter presents the main results of the cluster analysis within individual NUTS-2 regions and the analysis of similar clusters across the EU as a whole.

## **1.2. Analysis of criteria**

The criteria used in the cluster analysis can be divided into three groups:

- Gears, main and secondary. In this group it is necessary to consider the link between the Community Fleet Register (CFR) and the Data Collection Framework (DCF) data to achieve consistency between this Chapter and Chapter 2;
- Vessel size – length, engine power and gross tonnage. These three indicators are closely related; and
- Vessel construction year and hull material. These two indicators are also closely related, as will be demonstrated below.

These criteria are either continuous (length, GT, kW and construction year) or categorical (main gear, secondary gear and hull material).

### **1.2.1. Analysis of gears**

The CFR distinguishes 30 different gear types (including unknown and no gear). Although not all combinations occur, in some Member State the number of combinations is rather large, e.g. 211 in France, 123 in Greece and 113 in Portugal. Furthermore, many of those combinations contain only very small number of vessels. Out of about 900 combinations in all MS, some 600 represent between 1-10 vessels.

Use of these detailed CFR definitions of gears for clustering purposes did not produce reliable results<sup>4</sup>. There are different kinds of gears such as a) hook and line or b) gillnets, but in formal classification they will be all dealt with as distinct values. This means that some vessels using hook and line may be classified within an overwhelmingly trawl segment on the basis of other criteria. It is also evident from CFP reform (EC Reg. 425/2011) that SSF will not be defined at this level of detail.

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<sup>4</sup> TwoStep clustering was also applied to the CFR gear definitions. This has produced a lower number of clusters, which were consequently less homogenous.

Furthermore, CFR gears cannot be used for the analysis of regional dependence as they do not correspond with DCF data, which uses a much shorter list of gears, and which is consequently more distinct and better suited for cluster analysis. It can be expected also that the reliability of the results will be greater when using a shorter (but still significant) list of gears, considering that switching between different kinds of gillnets is easier than switching from gillnets to trawl. Annex H presents a complete overview of CFR and DCF gears and links the 30 CFR gear definitions to the 9 DCF definitions (including unknown).

Regarding the secondary gear, the following comments must be made:

- In view of the dynamics of the fishery and the likely problems to match CFR to reality on an on-going basis, its quality is questioned;
- The relevance of the secondary gear for future CFP may be considered rather limited; and
- DCF does not provide any information on secondary gear.

Still, secondary gears have been used in the clustering process.

For the reasons outlined above, the CFR gears were translated into DCF gear definitions (see Annex H). Table 5 shows the SSF composition in terms of combinations of main and secondary gears. The drift and fixed nets and hook and line account for almost 80% of main gears and 67% of secondary gears, but for the latter almost 16,000 vessels do not declare any gear at all. The third most important gear is pots and traps, with a share of 13% of main gears.

**Table 5: Groups of vessels according to main and secondary gear (DCF classification)**

Secondary gears	Main gears							Total
	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Drift and fixed nets	Pelagic trawl / seine	Beam trawl	
Dredge	75	253	82	32	347	36	6	831
Demersal trawl / seine	103	67	53	28	444	33	24	752
Pots and traps	195	59	661	1,301	2,857	71	18	5,162
Hook and line	89	255	1,329	2,485	9,612	1,380	6	15,156
Drift and fixed nets	317	692	2,108	9,999	18,469	338	25	31,948
Pelagic trawl / seine	19	194	31	67	79	10	3	403
Beam trawl	1	15		5	111			132
Unknown	517	966	4,682	2,177	7,036	185	140	15,703
Total	1,316	2,501	8,946	16,094	38,955	2,053	222	70,087

Source: CFR, 30.6.2010. Note the date chosen is specified in the ToR.

### 1.2.2. Analysis of vessel size

Length, GT and kW are all criteria for the size of the vessel. A significant level of autocorrelation can be expected.

Measurement of GT relates to the volume of the vessel and is based on *International Convention on Tonnage Measurement of Ships, 1969*. But the Convention does not apply to vessels of less than 24m (article 4) and Regulation 6, paragraph 3 states that *Volumes of spaces open to the sea may be excluded from the total volume*. Gross tonnage of vessels below 15m is calculated according methodology specified in the Council Decision 95/84/EC.; and about 5,700 vessels have a declared engine power of 0 kW. These are

probably either rowing boats or possibly boats with outboard engine. In addition, kW measurements are often unreliable due to the differences in reported and effective engine power. This problem arises because of the ease with which engine injection settings can be adjusted when tested to reduce kW recordings, and then later reversed allowing for greater power. Verification and control of such measurements is very difficult. Under the new Control Regulation (1224/2009), Member States will be obliged to certify each engine and to undertake additional controls, but the obligation applies to engines over 120 kW, so most of the small-scale fleet remains outside its scope.

The extent to which the three size criteria are the basis for sufficient distinction between clusters can be evaluated on the basis of Table 6. The table shows that 87% of the fleet is below 5 GT and 70% below 50 kW. Unless the future CFP made policy distinctions at the level of each '1 GT' and / or each '5 kW' (i.e. different policies for 0-1GT, 1-2GT, etc), which seems very unlikely, the two criteria do not offer any 'evaluative power' (44,000 vessels are below 2 GT) in terms of informing policy. In other words, the population is already quite homogeneous from the perspective of these two criteria.

Contrary to GT and kW, length over all (LoA) is easy to measure and it may be assumed that the data in CFR is reasonably reliable. The diversity is a little greater from the perspective of the length of the vessels. Table 6 shows that in the range of 3-12m it is possible to distinguish several relatively large groups using 2m or 3m size ranges.

**Table 6: Distribution to SSF by GT, kW and length**

Gross tonnage		Engine power		Length	
GT-class	Number	kW-class	Number	Length-class (m)	Number
Unknown	0	Unknown	5,696	Unknown	1
0 - 5	61,156	0 - 25	36,746	0 - 1	0
5 - 10	6,715	25 - 50	12,366	1 - 2	2
10 - 15	1,615	50 - 75	6,556	2 - 3	140
15 - 20	368	75 - 100	3,451	3 - 4	2,673
20 - 25	162	100 - 125	1,956	4 - 5	11,351
25 - 30	51	125 - 150	1,225	5 - 6	13,519
30 - 35	15	150 - 175	873	6 - 7	13,721
35 - 40	2	175 - 200	442	7 - 8	10,193
40 - 45	2	200 - 225	361	8 - 9	7,494
45 - 50	0	225 - 250	114	9 - 10	5,397
50 -	1	250 - 275	78	10 - 11	2,749
		275 - 300	97	11 - 12	2,847
		300 -	126		
Total	70,087		70,087		70,087

Source: CFR 30.6.2010

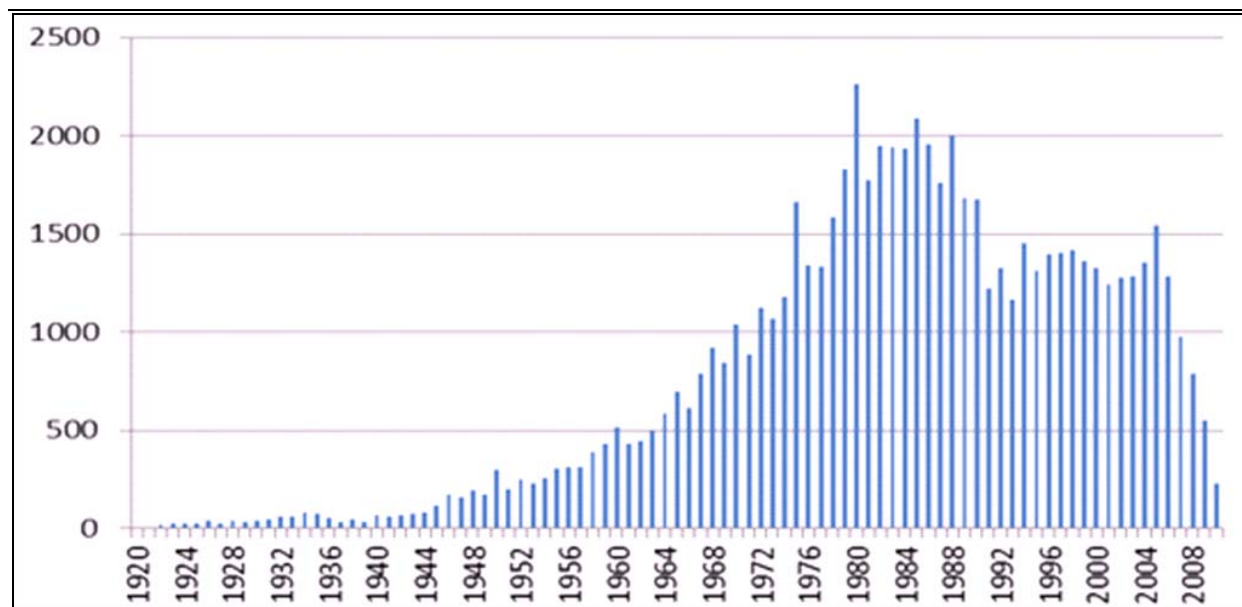
Consistency between CFR and DCF can be only achieved at a relatively high level of aggregation. DCF data 2002-7 do not make a distinction by size within the <12m groups. 2008 data makes a distinction of 0-6 and 6-12 for the Mediterranean and Black Sea and 0-10 and 10-12 for Atlantic, North Sea and Baltic Sea.

### 1.2.3. Analysis of construction year and hull material

Probably the most important information obtained from the distribution of fleet size by construction year is the intensity of the renovation, i.e. the number of new vessels constructed recently (e.g. during the past 5 years). At the EU level as a whole there is a clear decrease in construction of new vessels in the period 2007-2010; this largely coincides with the implementation of the European Fisheries Fund, which stopped providing assistance for construction of new vessels.

The small increase in 2005 was a consequence of vessels ordered in 2003 and 2004 as fishermen wished to make use of the last opportunity to get public support for new constructions. After 2005, there is a rapid decrease of new vessels entering the fishery (the 2010 represents only the first 6 months).

**Figure 4: SSF - distribution by construction year, 1920-2010 (number of vessels)**



Source: CFR, 30.6.2010

The SSF fleet is mostly constructed of wood (54% of the vessels) and fibreglass (39%). Only 2,500 vessels (3.5%) are built in metal and for the remaining vessels in the fleet the material is not known.

The relation between construction year and hull material is clearly seen in figure 5. Since 1970, using fibreglass has become increasingly common and by 1985-89 almost 50% of new vessels were constructed in fibreglass. In the period 2005-10, more than 70% of the new vessels were built in fibreglass and only about 18% in wood. Consequently, the average year of construction for wooden vessels is 1977, while for the fibreglass vessels it is 1992.

**Table 7: Average construction year of SSF by hull material**

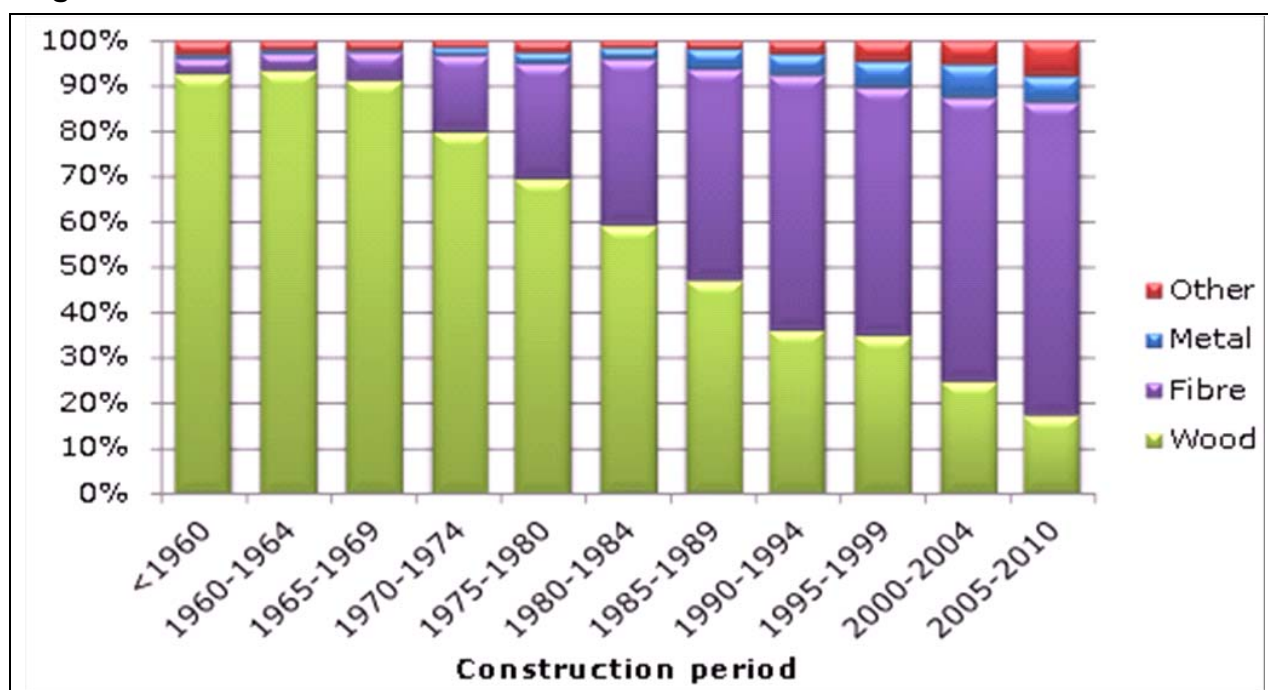
Hull material	Number vessels	Average construction year
Wood	37,964	1977
Fibre	26,808	1992
Metal	2,504	1992
Other	2,246	1989
Unknown	565	
Total	70,087	1984

Source: CFR 30.6.2010

The DCF only provides the average construction year of the distinguished segments in 2008. It does not provide any information regarding the hull material.

With the application of all seven criteria, clustering was carried out using SPSS. Details of the clustering methodology and techniques are presented in Annex A.

**Figure 5: Period of construction and hull material**



Source: CFR 30.6.2010

### 1.3. Results of clustering

Clustering was carried out in two steps:

1. Fleets in all 131 NUTS-2 coastal regions where fishing vessels are registered have been clustered independently of each other. **In this step all criteria specified in the Terms of Reference have been used: Main and secondary gear (DCF definitions), hull material, construction year, engine power, length and gross tonnage.**
2. In the second step EU-wide comparable clusters were defined on the basis of comparability of three criteria: main gear, four 3-m length categories and hull material. The choice of these three key criteria is justified based on the analysis of the criteria presented in Section 1.2 above. The detailed results of the clustering are presented in Annex B.

Annex A provides more detail on the methodology employed, including an identification of the most significant clusters per Member State and NUTS-2 region (Table 51).

This section presents the main results of the clustering, starting with a summary of the results of the cluster analysis for individual NUTS-2 regions, before presenting in greater detail the EU-wide clusters and the main NUTS-2 regions where these clusters are located.



### 1.3.1. Clusters in individual NUTS-2 regions

Annex B provides data on all the clusters identified in each of the NUTS-2 coastal regions. The table shows that:

- The total number of clusters in the 131 NUTS-2 regions is 402;
- The average number of clusters per region is 3.07;
- The number of clusters per region ranges from 1 to 9. Greece has a particularly large number of NUTS-2 regions with large numbers of clusters i.e. 6 or more per region;
- The average number of vessels per cluster is 174;
- The number of vessels per regional cluster ranges from 1 to 2,423; and
- Galicia in Spain is notable for having the two largest clusters (one of 2,423 vessels and one of 1,436 vessels).

An indication of the homogeneity of the clusters in different Member States can be inferred from the table below. This shows, along with the number of clusters per Member State, the number of vessels in the two largest clusters and the share of the total vessels that these two largest clusters represent. This homogeneity is of course to some extent determined by the number of vessels e.g. in countries with only 1 small-scale vessel (Belgium) there is by definition only 1 cluster and 100% homogeneity. But for most countries with considerable number of vessels, a surprising level of homogeneity is displayed with large percentages of the total number of vessels being contained within the two largest clusters. For example in Greece two of a total 68 clusters account for almost half of the vessel numbers, 2 of 42 clusters in Italy account for more than half of vessel numbers, and in Spain 2 of 25 clusters account for exactly 50% of all vessel numbers.

**Table 8: SSF clusters and homogeneity by Member State**

MS	No. of NUTS 2 regions	No. of clusters	No. of vessels	No. of vessels in 2 largest clusters	Share of total vessels in largest 2 clusters	2 largest clusters (length, gear, hull material)
BE	1	1	1	1	100%	9-12, drift and fixed nets, fibre
BG	2	8	2,217	1,184	53%	6-9, mixed gears, mixed materials 6-9, drift and fixed nets, fibre
CY	1	2	962	962	100%	6-9, drift and fixed nets, wood 3-6, drift and fixed nets, fibre
DE	3	10	975	717	74%	3-6, drift and fixed nets, fibre 6-9, drift and fixed nets, fibre
DK	5	23	2,318	1,646	71%	3-6, drift and fixed nets, fibre 6-9, drift and fixed nets, fibre
EE	1	3	855	651	76%	3-6, drift and fixed nets, fibre 6-9, drift and fixed nets, wood
ES	11	25	7,958	3,980	50%	3-3, drift and fixed nets, wood 6-9, drift and fixed nets, wood
FI	4	18	3,266	1,393	43%	3-6, drift and fixed nets, fibre

MS	No. of NUTS 2 regions	No. of clusters	No. of vessels	No. of vessels in 2 largest clusters	Share of total vessels in largest 2 clusters	2 largest clusters (length, gear, hull material)
						6-9, drift and fixed nets, wood
FR	14	39	6,211	2,530	41%	6-9, pots and traps, fibre 6-9, drift and fixed nets, fibre
GR	13	68	16,138	7,784	48%	6-9, drift and fixed nets, wood 6-9, hook and line, wood
IE	2	8	1,830	801	44%	9-12, mixed gears and materials 6-9, mixed gears, fibre
IT	14	42	9,213	4,849	53%	6-9, hook and line, wood 6-9, drift and fixed nets, wood
LT	1	3	124	124	100%	3-6, drift and fixed nets, mixed m. 9-12, drift and fixed nets, metal
LV	1	5	685	521	76%	3-6, drift and fixed nets, fibre 3-6, drift and fixed nets, wood
MT	1	4	1,003	858	86%	3-6, drift and fixed nets, fibre 3-6, drift and fixed nets, wood
NL	7	10	313	184	59%	3-6, mixed gears, fibre 3-6, mixed gears, wood
PL	3	8	590	331	56%	6-9, drift and fixed nets, mixed m. 9-12, drift and fixed nets, metal
PT	7	22	7,737	2,656	34%	3-6, mixed gears, wood 6-9, drift and fixed nets, wood
RO	3	4	453	451	100%	6-9, drift and fixed nets, wood 6-9, drift and fixed nets, fibre
SE	8	19	1,140	638	56%	6-9, pots and traps, fibre 6-9, drift and fixed nets, fibre
SI	1	3	164	151	92%	3-6, drift and fixed nets, fibre 6-9, drift and fixed nets, wood
UK	27	77	5,369	2,522	47%	6-9, pots and traps, fibre 6-9, mixed gears, fibre
<b>Total</b>	<b>130</b>	<b>402</b>	<b>69,522</b>	<b>34,934</b>	<b>50%</b>	

Source: CFR 30.6.2010 and TwoStep Cluster Analysis

### 1.3.2. EU-clusters

The regional clusters may contain vessels of different gears, hull materials and lengths. In order to classify them into EU-wide clusters a 65% threshold was introduced for main gear and hull material. This means that a regional cluster was defined as e.g. drift and fixed nets cluster if at least 65% of the vessels in that cluster declared drift and fixed nets as their main gear. The same threshold was applied to the hull material. Length class was defined

on the basis of the average length of the cluster<sup>5</sup>. If none of the gears or materials exceeded 65%, the criterion was defined as 'Mixed' in that respect.

The threshold of 65% can be justified as follows: with this threshold 2/3 of each cluster (from the perspective of one criterion) is homogenous. Applying a lower threshold would produce a somewhat lower number of EU clusters that would be relatively less homogenous. Conversely, applying a higher threshold would produce the opposite – a higher number of clusters, which would be relatively more homogenous. The disadvantage of the latter approach is that the clusters would be increasingly NUTS based and less identifiable at an EU-wide level.

The application of the 65% threshold has produced very homogeneous EU clusters, when main gear is specified. For most of the clusters more than 90% of the vessels in the clusters have declared the specified gear as their main gear. On the other hand, in clusters that are classified as mixed gears, the most important gears remain in the range of 40-50%. Table 9 and Figure 6 present the results of EU clustering, which found:

- Five clusters contained more than 5,000 vessels (red/bold);
- Twelve clusters contained 1,000-4,000 vessels (blue/italics); and
- All remaining clusters contained less than 1,000 vessels.

**Table 9: EU clusters by gear, hull material and length class \***

Gear / length class	Hull material (no. vessels)				Number regional clusters			
	Wood	Fibre	Mixed	Total	Wood	Fibre	Mixed	Total
<b>Drift and fixed nets</b>	<b>18,370</b>	<b>11,099</b>	<b>3,656</b>	<b>33,517</b>	<b>64</b>	<b>69</b>	<b>27</b>	<b>166</b>
2. 3.1-6.0	<b>5,056</b>	<b>5,212</b>	<i>1,012</i>	11,456	<b>10</b>	<b>23</b>	<i>5</i>	40
3. 6.1-9.0	<b>12,548</b>	<b>5,408</b>	<i>1,957</i>	20,027	<b>50</b>	<b>38</b>	<i>11</i>	101
4. 9.1-12.0	766	479	687	2,034	4	8	11	25
<b>Dredge</b>	<b>139</b>	<b>43</b>	<b>46</b>	<b>228</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>
3. 6.1-9.0	111	43		154	1	1		2
4. 9.1-12.0	28		46	74	1		1	2
<b>Demersal trawl / seine</b>	<b>222</b>		<b>576</b>	<b>942</b>	<b>3</b>		<b>8</b>	<b>14</b>
3. 6.1-9.0				128				2
4. 9.1-12.0	222		576	814	3		8	12
<b>Pots and traps</b>	<b>1,144</b>	<b>4,291</b>	<b>957</b>	<b>6,495</b>	<b>8</b>	<b>30</b>	<b>9</b>	<b>48</b>
3. 6.1-9.0	<i>1,144</i>	<i>4,017</i>	885	6,149	<i>8</i>	<i>27</i>	7	43
4. 9.1-12.0		274	72	346		3	2	5
<b>Hook and line</b>	<b>7,686</b>	<b>1,186</b>	<b>1,990</b>	<b>11,227</b>	<b>28</b>	<b>10</b>	<b>9</b>	<b>49</b>
2. 3.1-6.0	826	537		1,728	4	4		10
3. 6.1-9.0	<b>6,684</b>	649	<i>1,845</i>	9,178	<b>21</b>	6	<i>8</i>	35
4. 9.1-12.0	176		145	321	3		1	4
<b>Mixed gears</b>	<b>6,438</b>	<b>6,880</b>	<b>3,108</b>	<b>16,550</b>	<b>36</b>	<b>45</b>	<b>29</b>	<b>115</b>
2. 3.1-6.0	<i>1,754</i>	<i>2,562</i>	265	4,581	<i>3</i>	<i>10</i>	<i>3</i>	16
3. 6.1-9.0	<i>2,777</i>	<i>3,711</i>	<i>1,739</i>	8,265	<i>17</i>	<i>31</i>	<i>13</i>	63
4. 9.1-12.0	<i>1,907</i>	607	<i>1,104</i>	3,704	<i>16</i>	4	<i>13</i>	36
<b>Pelagic trawl / seine</b>	<b>440</b>		<b>103</b>	<b>543</b>	<b>3</b>		<b>1</b>	<b>4</b>
3. 6.1-9.0	372		103	475	2		1	3
4. 9.1-12.0	68			68	1			1
<b>Beam trawl</b>				<b>20</b>				<b>2</b>
4. 9.1-12.0				20				2
<b>Total</b>	<b>34,439</b>	<b>23,499</b>	<b>10,436</b>	<b>69,522</b>	<b>144</b>	<b>155</b>	<b>84</b>	<b>402</b>

Source: CFR 30.6.2010 and TwoStep Cluster Analysis

<sup>5</sup> This procedure implies that the number of vessels with same characteristics obtained from the CFR is not same as the number of vessels based on the clusters; e.g. DFN-wood-3.1-6.0m in CFR is 10,155 vessels, while clustering gives 12,548 vessels. This is a consequence of the 65% threshold. The CFR classification is presented in Annex C.

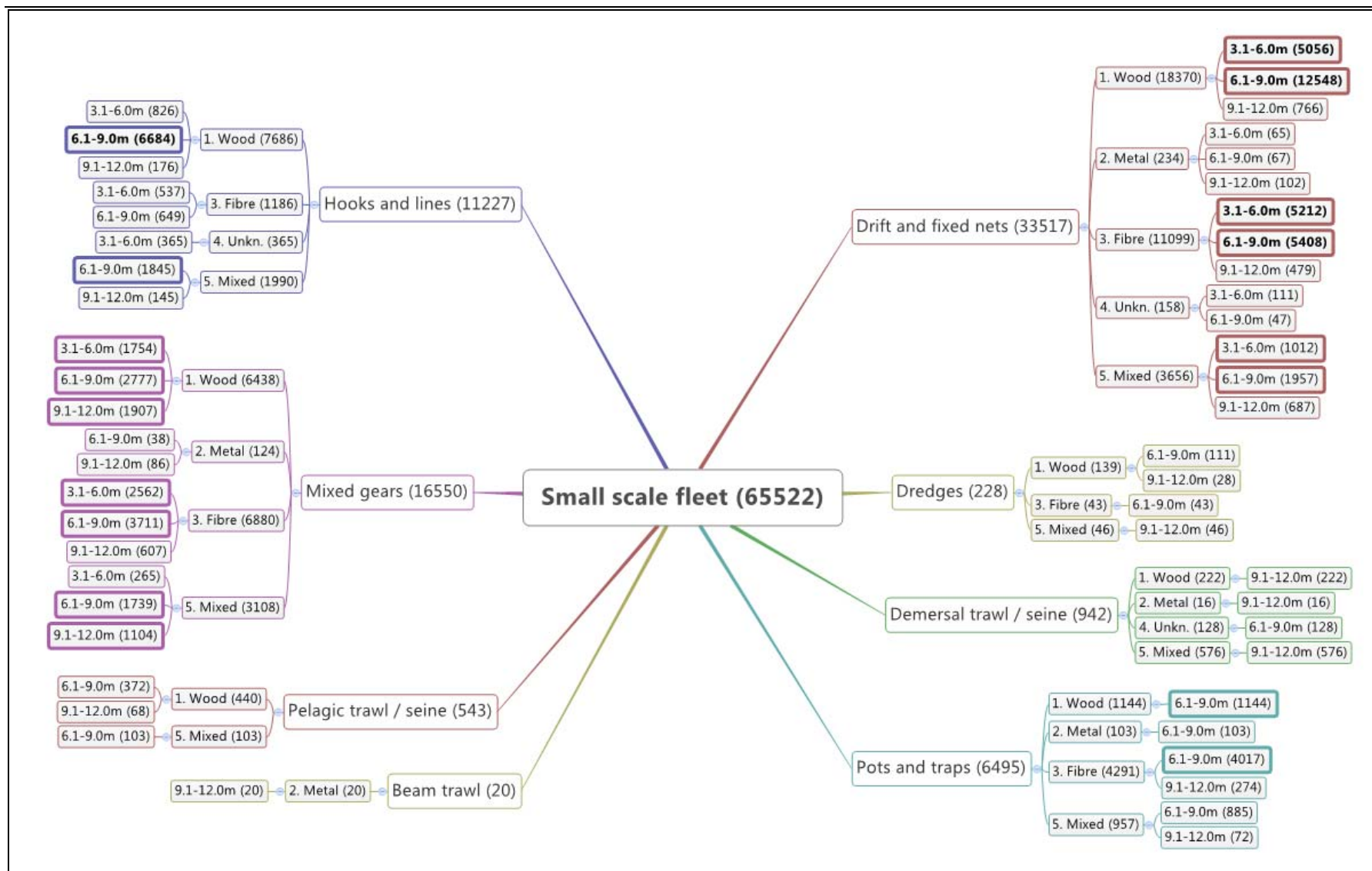
\* 13 clusters of vessels built in metal (497 vessels) and 6 clusters classified as unknown material (651 vessels) are not presented. Furthermore, 565 vessels have not been included in any cluster as a result of SPSS procedures.

Five main EU clusters with more than 5,000 vessels may be distinguished. These five clusters are composed of 142 regional clusters. They contain a total of almost 35,000 vessels, i.e. 50% of the small-scale fleet. The single most important cluster is for the 12,500 vessels of 6-9m, made of wood and using predominantly drift and fixed nets. Three other drift and fixed nets clusters also have more than 5,000 vessels. The second most important cluster is of the 6,700 wooden hook and line vessels of 6-9m.

There are twelve medium-sized EU clusters with a total of 25,500 vessels, i.e. 37% of the total SSF. These clusters cover 165 regional clusters. About 80% of this fleet belongs to clusters which are either 'Mixed' gears or "Mixed' hull material, i.e. none of the specific gears or materials reached the threshold of 65%. The two relatively homogeneous clusters are potters (pots and traps) of 6-9m, made either of wood (1,100 vessels) or fibreglass (4,000 vessels).

Figure 6 presents these EU clusters. The 17 most significant clusters (in bold), representing around 87% of the European SSF are further detailed in the following sections, along with a further grouping of the SSF vessels using 'towed gears'. This final group cluster is useful to consider given the definition of SSCF as 'all vessels under 12m not using towed gear'.

Figure 6. Cladogram of EU clusters (gear, hull material, length and number of vessels)



Source: CFR 30.6.2010 and TwoStep Cluster Analysis

### 1.3.3. Drift and fixed nets, 6-9m, wood

The medium sized wooden netters form by far the largest single EU cluster, with a total of 12,500 vessels. The cluster is dispersed around the EU coast in 39 EU NUTS-2 regions. The five most important NUTS-2 regions account together for only about 27% of the total number of vessels in this cluster. The most important NUTS-2 region is Attiki with 763 vessels; this cluster represents 44% of the SFF in Attiki.

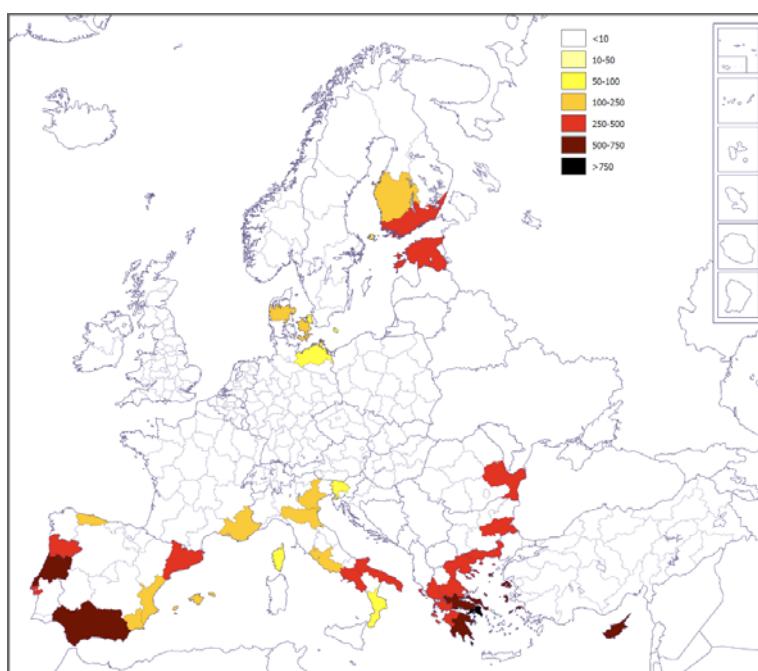
The average age of the vessels in this cluster is 31 years old. The average length of vessels is 6.8m with an average engine power of 18 kW. Greece accounts for 40% of the vessels within this cluster and a quarter of the NUTS-2 regions with significant numbers of vessels in this cluster. The cluster is concentrated in Mediterranean and Baltic regions, with an exception being significant numbers along the Atlantic coast of Portugal, particularly Centro and to a less extent Spain.

Approximately half of this cluster uses also drift and fixed nets as secondary gear (DFN), while some 28% of the vessels use hook and line gears (HOK). The cluster in Centro, Portugal is an exception, with dredge (DRB) as the second major secondary gear.

**Table 10: Five most important NUTS-2 regions for the cluster drift and fixed nets, 6-9m, wood**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material	Share main gear	Shares secondary gear
ES61 - ANDALUCIA	615	1968	2	18	6.9	99%	100%	DFN 100%
GR25 - PELOPONNISOS	623	1983	4	29	13.7	100%	100%	DFN 42%, HOK 52%
PT16 - CENTRO	698	1983	1	9	6.5	100%	78%	DFN 43%, DRB 19%
GR24 - STEREA ELLADA	724	1979	3	29	12.7	100%	86%	DFN 53%, HOK 44%
GR30 - ATTIKI	763	1978	4	31	13.5	100%	86%	DFN 55%, HOK 38%
Other regions	9125	1980	2	20	6.9	96%	95%	
Total	12548	1980	2	18	6.8	97%	93%	DFN 52%, HOK 28%

**Map 4: Drift and fixed nets, 6-9m, wood**



Source: DCR/F and own calculations

#### 1.3.4. Hook and line, 6-9m, wood

The second largest EU cluster is of 6,700 wooden hook and line vessels, of between 6-9m. These vessels operate in 19 NUTS-2 regions, of which the top five account for 48% of the total number of vessels in the cluster. This fleet is mainly located in the eastern Mediterranean.

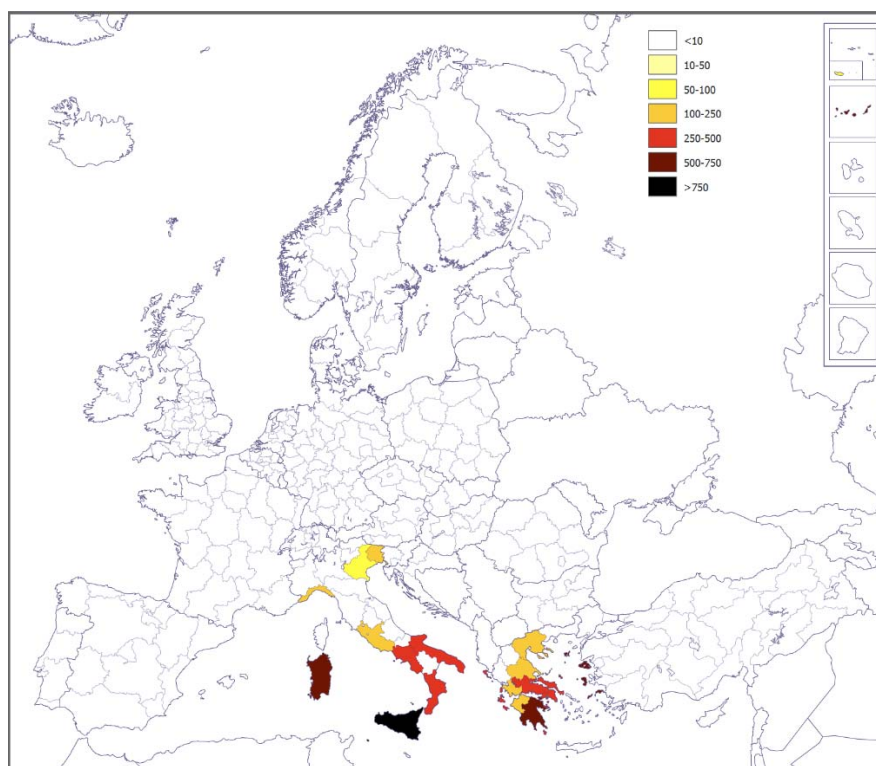
The average age of the vessels in this cluster is 34 years old. The average length of vessels is 6.5 m with an average engine power of 17 kW. The cluster is mainly in Italian and Greek regions, accounting for 50% and 41% respectively. The highest numbers in any NUTS-2 region is in Sicily, the most fisheries-dependent region in Italy in employment terms where this cluster represents 42% of the Sicilian SSF.

By far most vessels in this cluster use drift and fixed nets (DFN) as their most important secondary gear. An exception is the fleet on the Canary Islands, where pots and traps (FPO) are used.

**Table 11: Five most significant NUTS-2 regions for the cluster hook and line, 6-9m, wood**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material (wood)	Share main gear (DFN)	Shares secondary gear
GR25 - PELOPONNISOS	516	1968	2	18	6.9	99%	94%	DFN 68%, HOK 18%
ES70 - CANARIAS	544	1983	2	15	6.9	100%	100%	FPO 100%
ITG2 - SARDEGNA	572	1983	1	9	6.5	100%	100%	DFN 100%
GR42 - NOTIO AIGAIO	670	1979	2	15	6.3	100%	67%	DFN 100%
ITG1 - SICILIA	900	1978	2	16	6.8	100%	100%	DFN 100%
Other regions	3482	1979	2	21	6.7	96%	97%	
Total	6684	1977	2	17	6.5	98%	95%	DFN 85%, FPO 8%



**Map 5: Hook and line, 6-9m, wood**

Source: DCR/F and own calculations

**1.3.5. Drift and fixed nets, 6-9m, fibreglass**

The third largest EU cluster is formed by 5,400 drift and fixed nets vessels, of 6-9m and made of fibreglass. These vessels operate in 31 NUTS-2 regions, of which the five most significant account for 38 % of the total number of vessels of this cluster. This fleet is located in various parts of the EU coast.

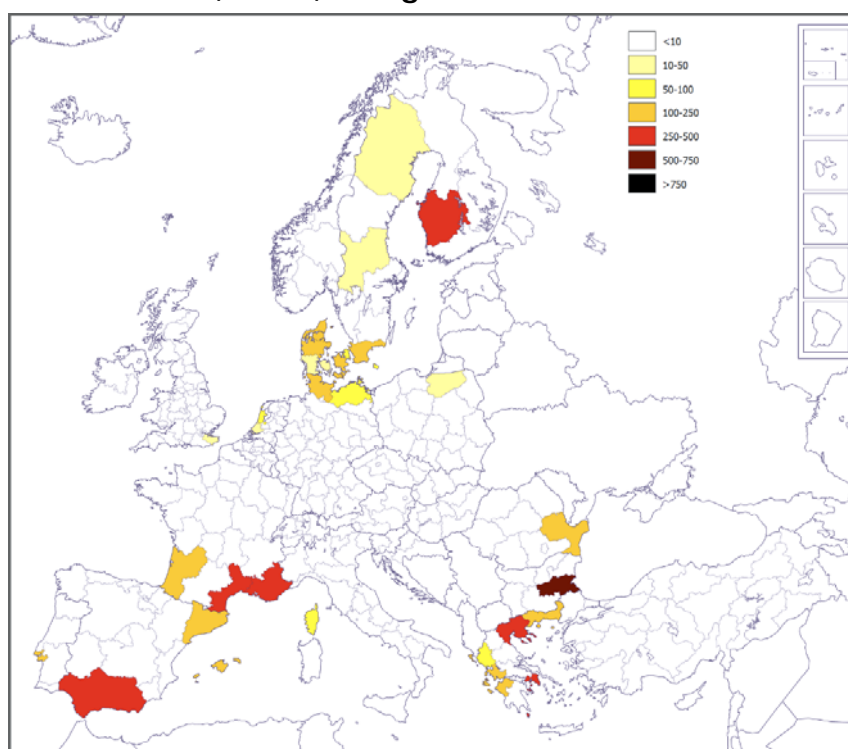
The average age of the vessels in this cluster is 20 years old, significantly more recent fleet additions than the clusters of wooden vessels. The average length of vessels is 6.8 m (in line with wooden vessels), but the average engine power of 37 kW is around twice that of the older wooden vessels. The cluster is predominantly found in French and Greek regions, accounting for 25% and 21% of vessels respectively. There are also significant numbers in Danish (13%) and German (11%) regions as well as the Yugoiztochen region in Bulgaria where this cluster includes 43% of the SSF.

In this cluster approximately half of the vessels are specialized netters, having also drift and fixed nets (DFN) as their secondary gear. Approximately one third uses also hook and line gears (HOK) and a small number uses pots and traps.



**Table 12: Five most significant NUTS-2 regions for the cluster drift and fixed nets, 6-9m, fibreglass**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material (fibre)	Share main gear (DFN)	Shares secondary gear
GR12 – KENTRIKI MAK.	337	1994	1	23	6.2	99%	100%	DFN 53%, HOK 47%
FR82 - PROVENCE – ALP	346	1985	3	85	7.4	85%	94%	DFN 67%, HOK 31%
ES61 - ANDALUCIA	348	1998	3	26	8.6	99%	100%	DFN 100%
FI19 - LANSI - SUOMI	466	1989	2	39	6.4	95%	91%	DFN 38%, FPO 31%
BG34 - YUGOIZTOCHEN	564	1997	1	20	6.2	99%	100%	DFN 63%, HOK 37%
Other regions	3347	1989	3	40	7.1	94%	94%	
Total	5408	1991	2	37	6.8	95%	95%	DFN 48%, HOK 31%

**Map 6: Drift and fixed nets, 6-9m, fibreglass**

Source: DCR/F and own calculations

### 1.3.6. Drift and fixed nets, 3-6m, fibre

The fourth largest EU cluster is 5,200 vessels. These vessels operate in 18 NUTS-2 regions, of which the five most important ones account for 59% of the total number of vessels of this cluster. About 27% of this fleet is located Galicia alone, Spain's most fisheries-dependent region; this cluster accounts for 33% of Galicia's SSF.

The average age of the vessels in this cluster is 23 years old. The average length of vessels is 5.4 m, which is around a metre shorter than previous clusters but retains a similar average engine power of 18 kW. There are clearly a limited number of areas suitable for these vessels – Galicia, Gulf of Finland and Riga, the Danish Belts and several locations in the Mediterranean.

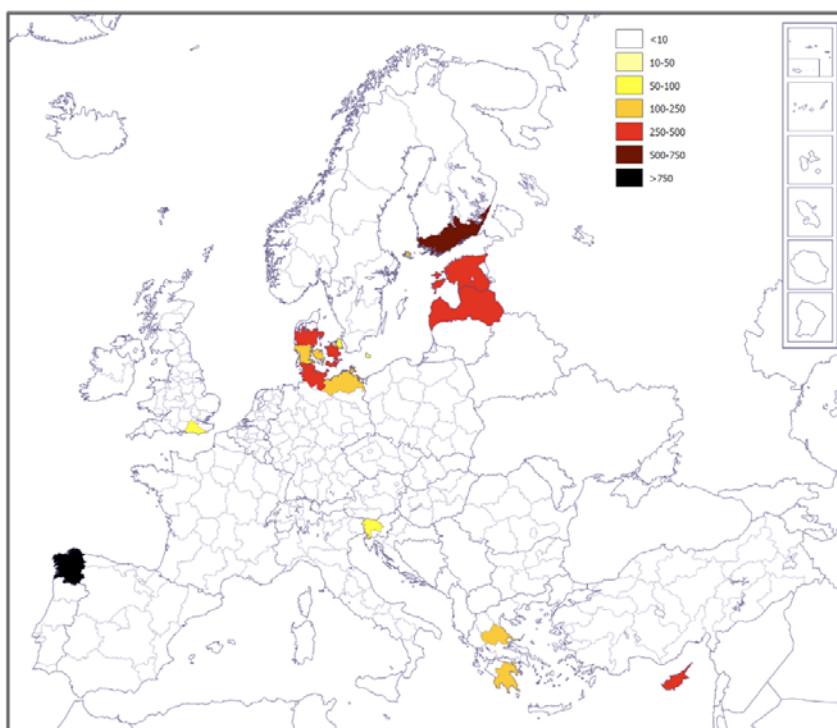
Half of this cluster is specialized netters, using nets (DFN) also as their secondary gear. Hook and line gears (HOK) are used Cyprus and Latvia, while pots (FPO) are popular in Finland.

**Table 13: Five most significant NUTS-2 regions for the cluster drift and fixed nets, 3-6m, fibre**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material (fibre)	Share main gear (DFN)	Shares secondary gear
DK04 - MIDTJYLLAND	348	1986	2	22	6.0	100%	95%	DFN 100%
LV00 - LATVIJA*	378	1986	1	4	4.6	98%	100%	HOK 24%
CY00 - KYPROS/KINRIS	384	1995	2	37	5.5	98%	92%	HOK 71%
FI18 - ETELÄ - SUOMI*	532	1987	1	30	5.3	100%	100%	FPO 30%
ES11 - GALICIA	1436	1989	1	16	5.8	100%	100%	DFN 100%
Other regions	2134	1987	1	18	5.2	94%	94%	
Total	5212	1988	1	18	5.4	97%	96%	DFN 50%, HOK 18%

\*most vessels do not declare any secondary gear

**Map 7: Drift and fixed nets, 3-6m, fibre**



Source: DCR/F and own calculations

### 1.3.7. Drift and fixed nets, 3-6m, wood

The fifth largest EU cluster is of about 5,000 small drift and fixed nets vessels. These vessels operate in 9 NUTS-2 regions, of which the five most significant ones account for 92% of the total number of vessels of this cluster. Almost half of this fleet is located Galicia alone where this cluster accounts for 56% of Galicia's SSF. A second concentration area is the southern Aegean Sea (26% of vessels in the cluster).

The average age of the vessels in this cluster is 37 years old, the oldest fleet identified. The average length of vessels is 5.5 m, which is a similar length to the fibreglass-hulled netters, but less powerful with an average engine power of just 8 kW.

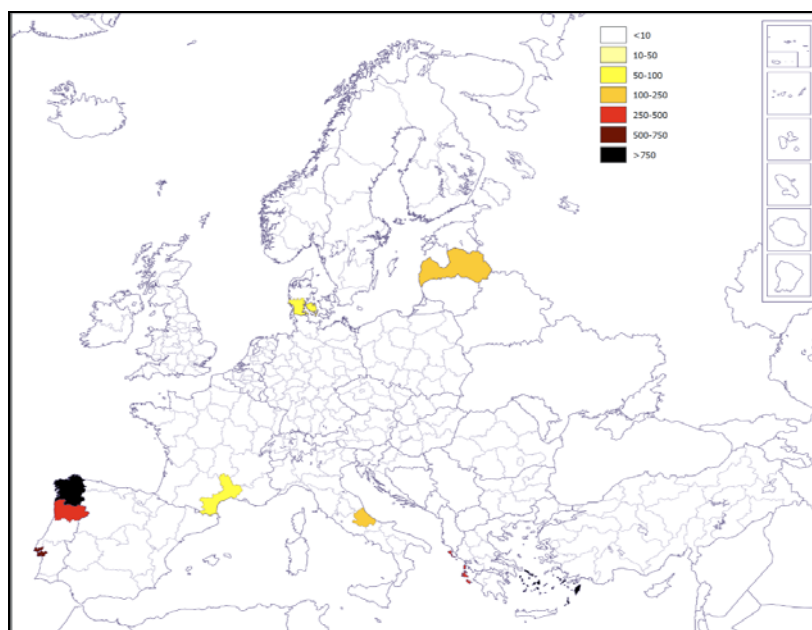
The Galician fleet within this cluster are specialized netters (DFN) targeting a wide range of seasonal fisheries for fish, shellfish and cephalopod species, while the Ionian fleet uses hook gears (HOK) as their exclusive secondary gear. Hook gears are also important in the Voreio Aigaio. The Portuguese vessels do not declare any secondary gears.

**Table 14: Five most significant NUTS-2 regions for the cluster drift and fixed nets, 3-6m, wood**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material (wood)	Share main gear (DFN)	Shares secondary gear
GR22 - IONIA NISIA	302	1974	1	8	5.4	100%	100%	HOK 100%
PT11 - NORTE*	316	1975	1	8	5.7	72%	100%	
PT17 - LISBOA*	586	1972	1	4	5.3	98%	100%	
GR41 - VOREIO AIGAIO	1029	1981	1	10	6.0	100%	100%	DFN 35%, HOK 62%
ES11 - GALICIA	2423	1968	1	7	5.1	100%	100%	DFN 100%
Other regions	400	1980	1	12	5.7	91%	97%	
Total	5056	1974	1	8	5.5	97%	100%	DFN 57%, HOK 20%

\*most vessels do not declare any secondary gear

**Map 8: Drift and fixed nets, 3-6m, wood**



Source: DCR/F and own calculations

### 1.3.8. Pots and traps, 6-9m, fibre

The 4,000 vessels belonging to this segment are concentrated in two French overseas territories, United Kingdom and Sweden. The five most significant regions account for 62% of the total number of vessels in this segment.

The average age of the vessels in this cluster is relatively young at 19 years old and includes a comparatively bigger and more powerful vessel on average at 7 m and 71 kW averages. The greatest number and most powerful vessels are associated with the French overseas territories of Martinique and Guadeloupe (France's most fisheries-dependent region in both employment and income terms) where larger distances are covered to target reef fisheries for grouper, snapper and spiny lobster. All of Martinique's SSF is included in this cluster. The fleets in the UK, Ireland and Sweden are targeting shellfish such as *Nephrops*, crab and lobster. 39% of the UK SSF in the Highlands and Islands are included in this cluster and it also includes 45% of the SFF in Västsvierge, Sweden.

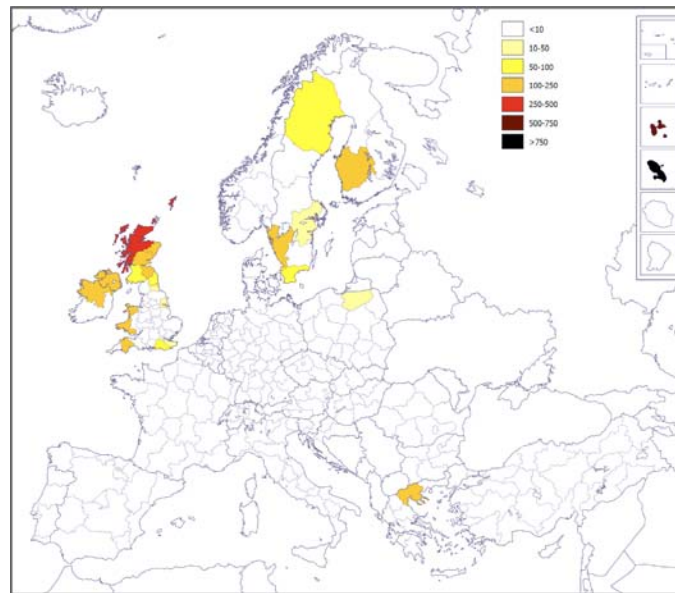
Evaluation of the role of secondary gears in this cluster is not possible, as 65% of the vessels have not declared any. One third for which secondary gears are known use nets, hooks and traps.

**Table 15: Five most significant NUTS-2 regions for the cluster pots and traps, 6-9m, fibre\***

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material (fibre)	Share main gear (FPO)	Shares secondary gear
SE23 - VÄSTSVERIGE	212	1987	3	62	7.3	100%	100%	DFN 13%, HOK 8%
IE01 - BORDER, MIDL.	233	1993	2	25	6.5	98%	71%	DFN 18%, HOK 9%
UKM6 - HIGHL. AND I.	423	1990	2	35	6.5	100%	100%	
FR91 - GUADELOUPE	530	1998	2	126	7.1	100%	100%	DFN 12%, HOK 26%
FR92 - MARTINIQUE	1095	1992	2	75	7.1	94%	90%	DFN 26%, HOK 12%
Other regions	1524	1990	3	47	6.9	88%	93%	
Total	4017	1992	2	71	7.0	94%	93%	DFN 17%, HOK 7%, FPO 7%

\*most vessels do not declare any secondary gear

**Map 9: Pots and traps, 6-9m, fibre**



Source: DCR/F and own calculations

### 1.3.9. Mixed gears, 6-9m, fibre

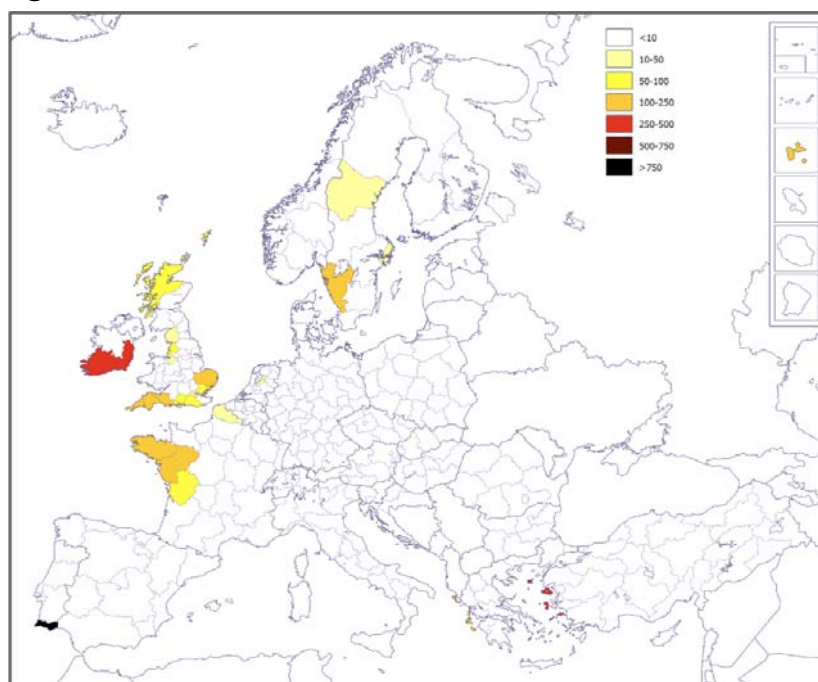
The 3,700 vessels belonging to this cluster are located in 28 regions. The highest number of vessels can be found in southern Portugal; this cluster accounts for 56% of the SSF in the Algarve region. Many of these vessels are in southern Ireland, United Kingdom and western France. The five most significant NUTS-2 regions account for 52% of the vessels in this cluster.

The average age of the vessels in this cluster is 19 years old. The average length of vessels is 7.1 m with an average engine power of 55 kW. The largest and most powerful vessels belonging to this cluster are found in the French NUTS-2 regions of Bretagne and Pays de la Loire.

This cluster is rather heterogeneous in relation to the primary as well as secondary gears reflecting the highly seasonal fisheries targeted. All main gear groups are represented (DFN, HOK and FPO). About a quarter of the vessels have not declared any secondary gear.

**Table 16: Five most significant NUTS-2 regions for the cluster mixed gears, 6-9m, fibre**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material (fibre)	Share main gear	Shares secondary gear
FR51 - PAYS DE LA LOIRE	211	1988	6	94	8.6	78%	DFN 48%, FPO 22%	DFN 29%, HOK 32%
FR52 - BRETAGNE	213	1992	4	86	7.8	74%	DFN 36%, HOK 38%	HOK 63%
IE02 - SOUTH. AND EA.	327	1990	2	16	6.1	100%	DFN 46%, DRB 37%	DFN 24%, FPO 39%
GR42 - NOTIO AIGAIO	424	1996	2	16	6.6	99%	DFN 64%, HOK 35%	DFN 54%, HOK 46%
PT15 - ALGARVE	946	1994	3	38	6.9	83%	DFN 59%, HOK 14%	DFN 31%, FPO 32%, HOK 27%
Other regions	1590	1991	3	70	7.2	93%	DFN 30%, HOK 27%	
Total	3711	1992	3	55	7.1	90%	DFN 44%, HOK 22%	DFN 30%, HOK 22%, FPO 19%

**Map 10: Mixed gears, 6-9m, fibre**

Source: DCR/F and own calculations

**1.3.10. Mixed gears, 6-9, wood**

The 2,777 vessels of to this cluster are spread in 17 regions along the EU coast, with the highest concentrations in Sicily and Northern Aegean. This cluster includes 33% of SSF vessels in Sicily and 20% of SSF vessels in Notioaigaio. The five most significant regions account for 64% of the total number of vessels in this segment.

As with other clusters featuring wooden-hulled vessels, the average age is old at 34 years. The average length of vessels is however significantly greater than other clusters of wooden-hulled vessels at 7.6 m which may reflect the relatively exposed conditions this fleet encounters in some regions such as Bretagne, France and Northern Portugal.

In general the structure of this cluster in relation to gears is rather mixed, with the exception of Sicily where hook and line are dominant secondary gears.

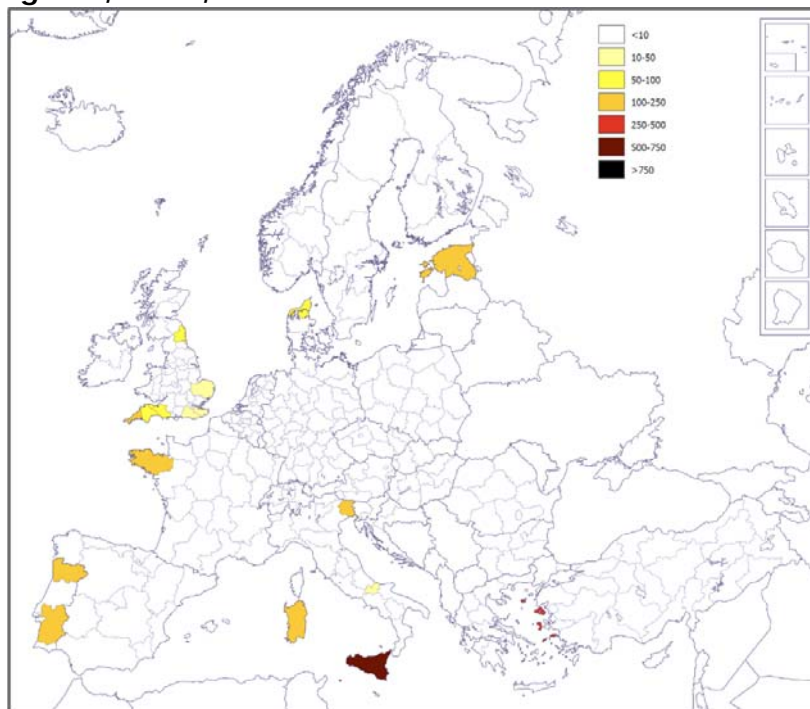


**Table 17: Five most significant NUTS-2 regions for the cluster mixed gears, 6-9m, wood**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material (wood)	Share main gear	Shares secondary gear
PT11 - NORTE	221	1984	2	23	6.3	95%	DFN 45%, HOK 29%	HOK 21%, FPO 33%
ITG2 - SARDEGNA	226	1975	3	41	7.8	87%	DFN 45%, PTS 42%	DFN 13%, HOK 52%
FR52 - BRETAGNE	247	1976	5	68	8.2	98%	DFN 30%, DRB 37%	DFN 25%, FPO 34%
GR42 - NOTIO AIGAIIO	400	1982	5	42	8.9	93%	DFN 26%, HOK 53%	DFN 41%, HOK 49%
ITG1 - SICILIA	690	1971	2	15	6.6	100%	DFN 34%, PTS 62%	HOK 78%
Other regions	993	1979	4	39	7.8	83%	DFN 26%, FPO 21%	
Total	2777	1977	3	35	7.6	91%	DFN 32%, PTS 26%	DFN 20%, HOK 41%

\*20-35% of the vessels do not declare any secondary gear

**Map 11: Mixed gears, 6-9m, wood**



Source: DCR/F and own calculations

### 1.3.11. Mixed gears, 3-6, fibre

This cluster is concentrated in 9 regions, the most important being in the Mediterranean, but also in southern Finland and to lesser extent South-Western UK. This cluster accounts for 52% of Maltese SSF. Of the 2,562 vessels in this cluster, 79% are based in the five regions listed in Table 18.

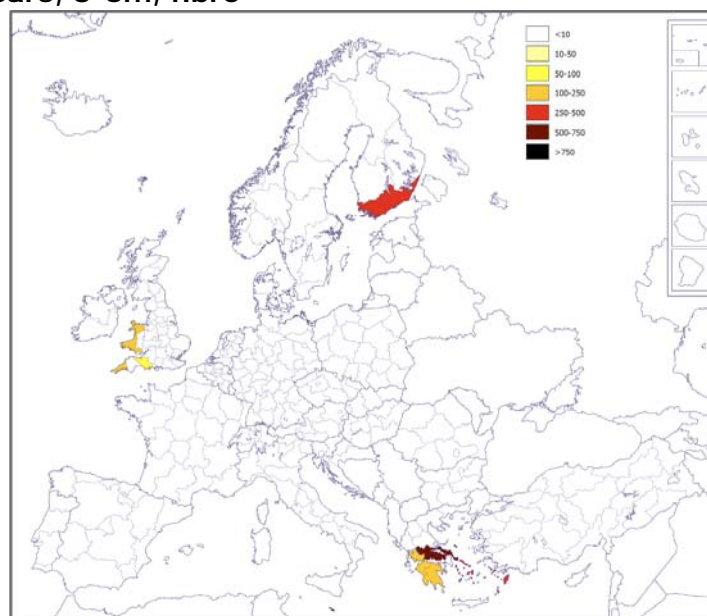
The average age of the vessels in this cluster is 19 years old. The average length of vessels is 5.7 m, and an average engine power of 34 kW. These characteristics are similar to the average characteristics of fibreglass-hulled vessels in the European fleet under 12m overall.

About half of the vessels use nets (DFN) as their secondary gears and another 25% hooks and lines. In some regions there is a high level of specialization in this respect.

**Table 18: Five most significant NUTS-2 regions for the cluster mixed gears, 3-6m, fibre**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material (fibre)	Share main gear	Shares secondary gear
GR25 - PELOPONNISOS	213	1993	1	13	6.0	99%	DFN 50%, HOK 49%	DFN 100%
GR41 - VOREIOAIGAIO	303	1993	1	13	5.7	100%	DFN 62%, HOK 35%	DFN 51%, HOK 46%
FI18 - ETELÄ - SUOMI	482	1991	1	29	5.3	100%	DFN 50%, FPO 49%	DFN 84%
GR24 - STEREAELLADA	504	1992	1	15	5.7	98%	DFN 60%, HOK 38%	DFN 69%, HOK 28%
MT00 - MALTA	525	1994	2	57	5.7	90%	DFN 26%, HOK 54%	DFN 17%, HOK 64%
Other regions	535	1991	2	28	5.8	98%	DFN 46%, FPO 24%	
Total	2562	1992	2	34	5.7	97%	DFN 48%, HOK 31%	DFN 52%, HOK 25%,

**Map 12: Mixed gears, 3-6m, fibre**



Source: DCR/F and own calculations

### 1.3.12. Drift and fixed nets, 6-9m, mixed materials

Of the 1,957 vessels of this cluster, 72% can be found in the 5 main regions and 36% in the two Portuguese NUTS-2 regions alone. This cluster accounts for 55% of the SSF vessels in the Polish region of Pomorskie.

The average age of the vessels in this cluster is 22 years old. The average length of vessels is 7.1 m, with an average engine power of 27 kW. The North Portuguese fleet has a noticeably more recent average year of construction than in other regions, including Portugal Centro which has twice as many vessels in this cluster than the North and accounts for 26% of the SSF in the region.



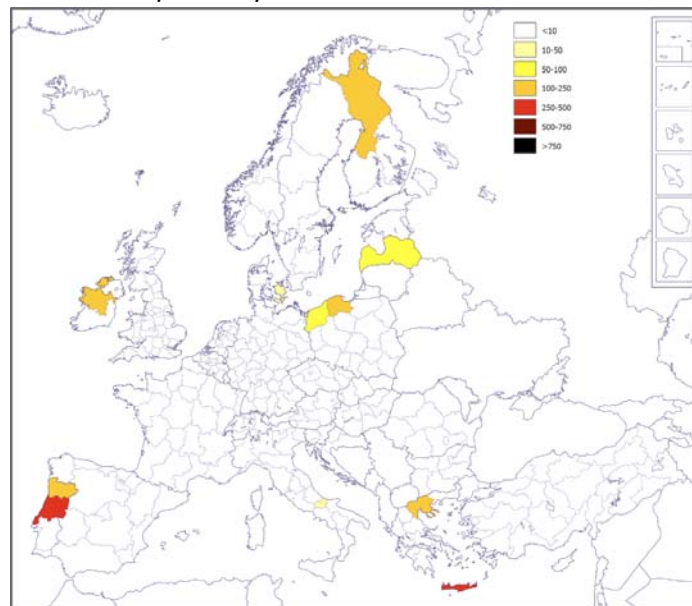
In this cluster, different secondary gears are dominant in different regions. The Crete fleet declares exclusively hook and line gears while in Irish and Finish regions pots and traps represent 60-70% of secondary gears.

**Table 19: Five most significant NUTS-2 regions for the cluster drift and fixed nets, 6-9m, mixed**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material	Share main gear (DFN)	Shares secondary gear
PL63 - POMORSKIE	159	1982	3	27	7.1	Wood 60%, Fibre 39%	100%	FPO 69%
FI1A - POHJOIS – SUO.	189	1986	2	29	6.6	Wood 38%, Fibre 60%	71%	FPO 61%
PT11 - NORTE	225	2000	4	39	7.7	Metal 53%, Fibre 40%	86%	DFN 70%, FPO 15%
GR43 - KRITI	338	1987	2	15	6.8	Wood 61%, Fibre 38%	100%	HOK 100%
PT16 - CENTRO	489	1991	3	28	6.9	Wood 16%, Fibre 51%	68%	DFN 30%, FPO 18%
Other regions	557	1986	3	28	7.5	Wood 34%, Fibre 45%	94%	
Total	1957	1989	3	27	7.1	Wood 33%, Fibre 46%	86%	DFN 17%, HOK 32%, FPO 25%

\*20-40% of the vessels do not declare any secondary gear

**Map 13: Drift and fixed nets, 6-9m, mixed materials**



Source: DCR/F and own calculations

### 1.3.13. Mixed gears, 9-12m, wood

The 1,907 wooden vessels of 9-12m using mixed gears are mostly located in the Mediterranean, with Sicily and four main Greek regions account for 59% of this cluster, which is represented in 16 regions. Outside the 14 Mediterranean NUTS-2 regions, this cluster is only present in Poitou-Charente (FR) and Highland and Islands (UK).

The average age of the vessels in this cluster of larger vessel is 32 years, similar to wooden hulled vessels in the smaller length band. The main Greek regions hosting this cluster are also the same as the smaller size band. However the Sicilian fleet is only noted in this size

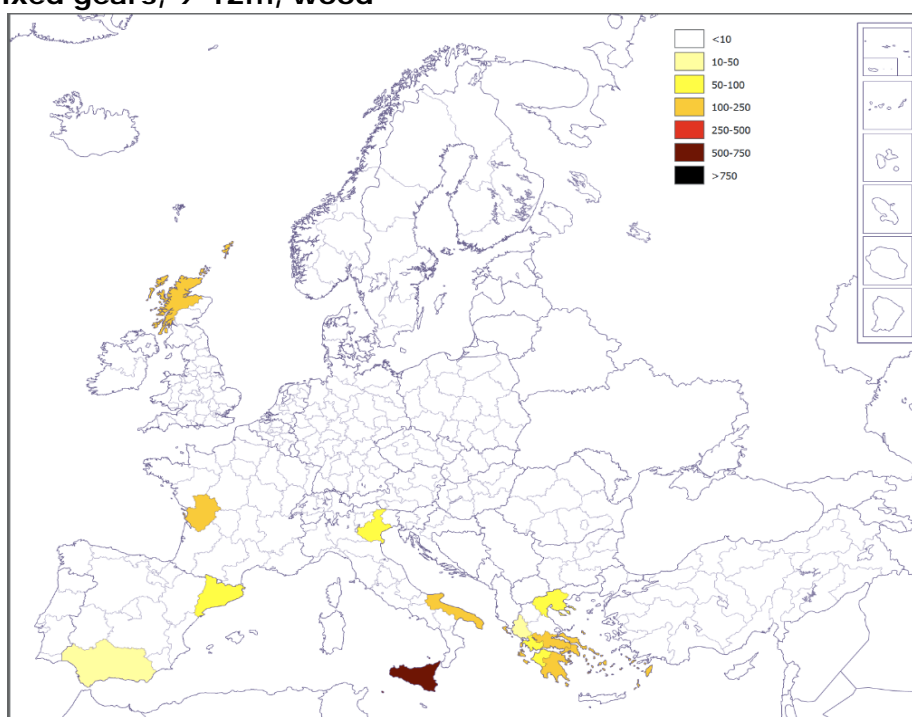
band. The average length of vessels in this band is 9.8m, with an average engine power of 64 kW and 6 GT reflecting the larger size of the vessels.

The cluster is characterized by mixed gear for primary as well as secondary gears. Nets (DFN) are used by 52% of the vessels and hooks (HOK) by 25%.

**Table 20: Five most significant NUTS-2 regions for the cluster mixed gears, 9-12m, wood**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material (wood)	Share main gear	Shares secondary gear
GR25 - PELOPONNISOS	115	1978	6	55	9.8	94%	DFN 28%, DTS 45%	DFN 60%, HOK 37%
GR30 - ATTIKI	124	1974	7	60	10.3	99%	DTS 31%, HOK 44%	DFN 64%, HOK 34%
GR24 - STEREA ELLADA	145	1975	6	70	10.0	97%	DTS 32%, HOK 33%	DFN 73%, HOK 24%
GR41 - VOREIO AIGAIO	202	1980	5	50	9.5	99%	DFN 52%, HOK 23%	DFN 43%, HOK 53%
ITG1 - SICILIA	533	1984	4	57	9.2	77%	PTS 33%, HOK 51%	DFN 68%, HOK 26%
Other regions	788	1977	7	72	10.2	91%	DFN 20%, DTS 38%	
Total	1907	1979	6	64	9.8	89%	DTS 27%, HOK 30%	DFN 52%, HOK 25%

**Map 14: Mixed gears, 9-12m, wood**



Source: DCR/F and own calculations

### 1.3.14. Hook and line, 6-9m, mixed materials

The hook and line vessels of 6-9 m built in mixed materials are characteristic for a small number (8) of mainly Mediterranean NUTS-2 regions. The five most important regions account for 86% of the total of 1,845 vessels.

The average age of the vessels in this cluster is 23 years. The average length of vessels is 7.4m, with an average engine power of 42 kW. The cluster is dominated by vessels targeting swordfish, tuna and hake around the islands of Crete (Greece), Sardinia (Italy) and the Azores (Portugal), representing 62%, 26% and 42% of the SSF in the respective regions.

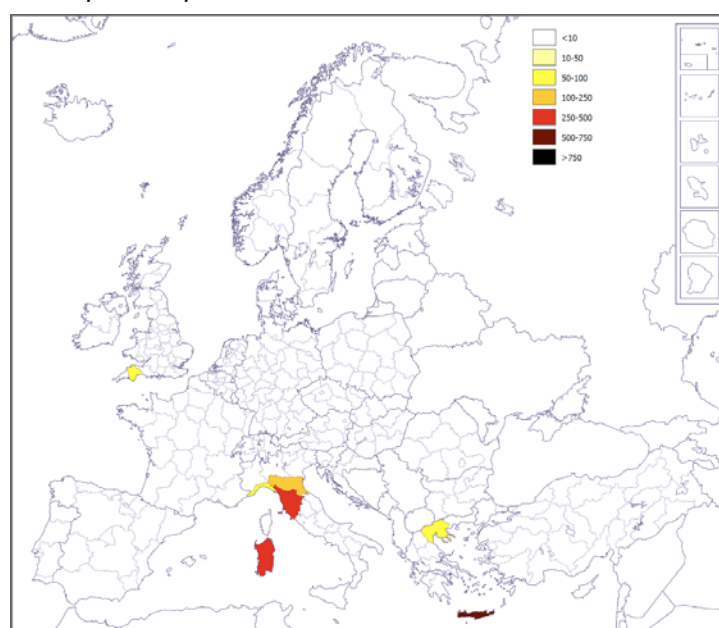
In this cluster drift and fixed nets (DFN) represent the most important secondary gear. Other gears play a significantly less pronounced role.

**Table 21: Five most significant NUTS-2 regions for the cluster hook and line, 6-9m, mixed**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material	Share main gear	Shares secondary gear
ITD5 - EMILIA - ROMAGNA	162	1988	2	63	7.0	Wood 47%, Fibre 6%	85%	DFN 93%, HOK 7%
ITE1 - TOSCANA	281	1982	3	42	7.4	Wood 60%, Fibre 13%	85%	DFN 91%, HOK 6%
ITG2 - SARDEGNA	283	1985	4	64	8.7	Wood 59%, Fibre 10%	99%	DFN 100%
PT20 - AÇORES	309	2000	4	54	7.8	Wood 39%, Fibre 50%	98%	FPO 19%, HOK 37%
GR43 - KRITI	554	1985	2	19	6.9	Wood 56%, Fibre 42%	76%	DFN 87%, HOK 12%
Other regions	256	1990	2	43	6.5	Wood 12%, Fibre 52%	88%	
Total	1845	1988	3	42	7.4	Wood 47%, Fibre 32%	87%	DFN 69%, HOK 15%

\*30% of the vessels do not declare any secondary gear

**Map 15: Hook and line, 6-9m, mixed materials**



Source: DCR/F and own calculations

### 1.3.15. Mixed gears, 3-6m, wood

This cluster, composed of 1,754 vessels using different gears, is concentrated in only 3 regions; two in Portugal (accounting for over 80% of vessels) and Malta (the remaining 20%). In Malta this cluster accounts for 75% of the SSF and 36% of the SSF in Portugal Centro.

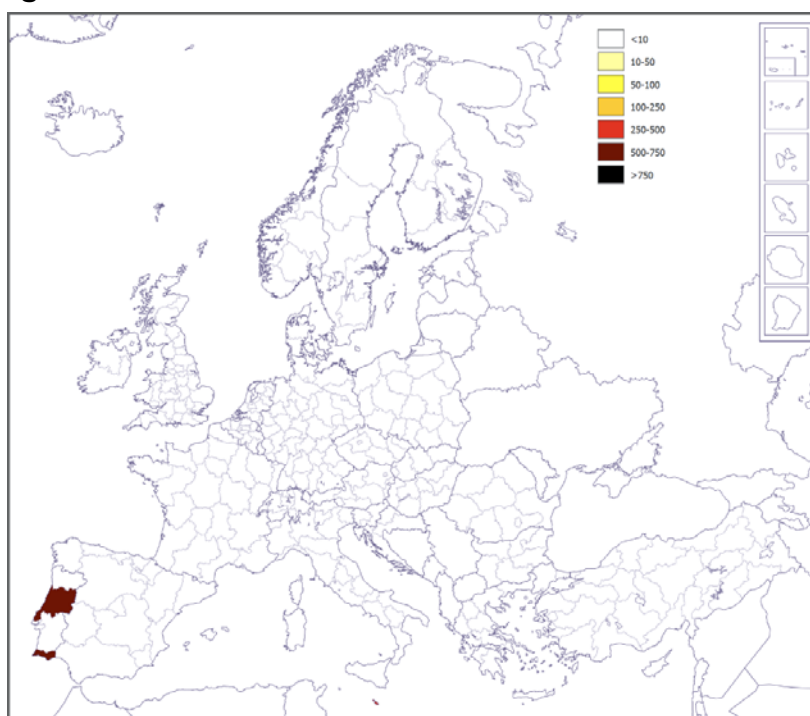
These are relatively old vessels averaging 41 years old and are also small (5.1m) and low powered (9 kW). Evaluation of the role of secondary gears is not possible for this cluster, due to lack of information regarding the Portuguese fleet.

**Table 22: Five most significant NUTS-2 regions for the cluster mixed gears, 3-6m, wood**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material	Share main gear	Shares secondary gear
PT15 – ALGARVE*	333	1972	2	28	5.9	99%	DFN 43%, HOK 55%	
PT16 – CENTRO*	673	1966	1	3	5.0	99%	DFN 52%, HOK 31%	
MT00 - MALTA	748	1972	1	6	4.8	99%	DFN 50%, HOK 40%	DFN 9%, HOK 14%
Total	1754	1970	1	9	5.1	99%	DFN 49%, HOK 40%	

\*most vessels do not declare any secondary gear

**Map 16: Mixed gears, 3-6m, wood**



Source: DCR/F and own calculations

### 1.3.16. Mixed gears, 6-9m, mixed materials

This cluster is mixed in terms of gears as well as hull materials. The 1,739 vessels are spread over 13 regions, ranging from the Black Sea to the Baltic. The five most significant regions account for 72% of the total number of vessels. This cluster accounts for 54% of SSF vessels in the Bulgarian region of Severoiztoch.

An average age of 23 years, 7.3m length and 45kW makes vessels in this cluster relatively indistinct from the average European small-scale fishing vessel. The vessels in West Wales and Normandy, France are noticeably larger and more powerful than those in other regions.

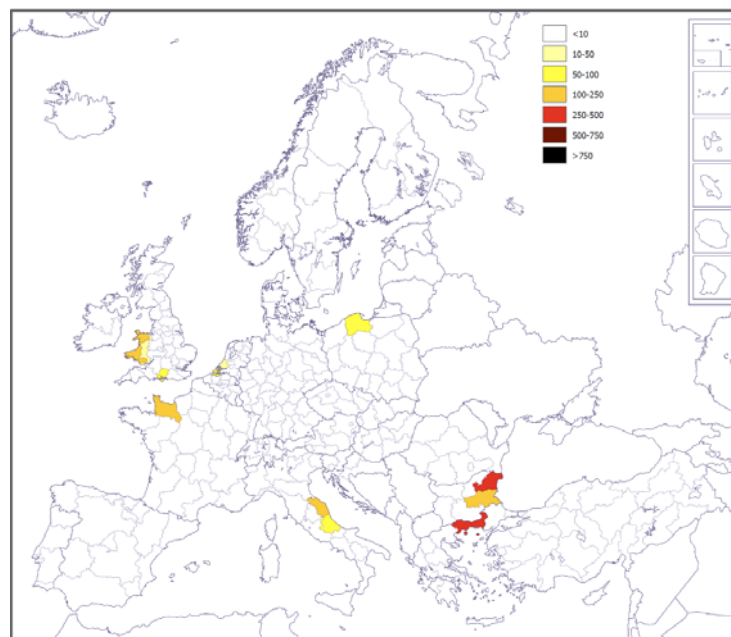
Overall nets (DFN) and hooks (HOK) play a comparable role as secondary gears. In the main Greek and Italian regions the nets predominate, while in Bulgaria the hooks are more popular.

**Table 23: Five most significant NUTS-2 regions for the cluster mixed gears, 6-9m, mixed**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material	Share main gear	Shares secondary gear
UKL1 – WEST WALES*	124	1986	6	89	8.6	Wood 25%, Fibre 33%	DTS 18%, FPO 59%	
ITE3 – MARCHE	197	1986	3	59	7.6	Wood 44%, Fibre 9%	DTS 19%, HOK 54%	DFN 76%, HOK 15%
FR25 – B. NORMANDIE*	200	1989	4	89	8.1	Metal 38%, Fibre 49%	DFN 25%, FPO 49%	DFN 26%, HOK 26%
GR11 – ANAT. MAKED.	279	1983	2	25	7.0	Wood 63%, Fibre 36%	FPO 36%, HOK 60%	DFN 86%, HOK 12%
BG33 – SEVEROIZTOCH.	499	1992	2	20	6.4	Wood 36%, Fibre 45%	DFN 59%, HOK 35%	DFN 17%, HOK 72%
Other regions	440	1987	3	48	7.6	Wood 37%, Fibre 29%	FPO 25%, HOK 34%	
Total	1739	1988	3	45	7.3	Wood 38%, Fibre 35%	DFN 25%, HOK 37%	DFN 38%, HOK 34%

\*97% of the vessels in UKL1 and 32% in GR11 do not declare any secondary gear

**Map 17: Mixed gears, 6-9m, mixed materials**



Source: DCR/F and own calculations

### 1.3.17. Pots and traps, 6-9m, wood

The fleet of 1,144 wooden 6-9m vessels using pots and traps is concentrated in 8 regions. The five most significant ones account for 88% of the total number of vessels. In the Portuguese Azores this cluster includes 58% of vessels in the SSF.

The most significant region is the Azores with 37% of all vessels in this cluster. Other than a significantly younger (and more powerful) fleet in Guadeloupe at 19 years, the average age is 34 with a very old fleet of potting vessels on the West coast of Sweden. Average length is 7m with an average power of 35 kW. Northern European vessels target shellfish such as *Nephrops*, crab and lobster while the Azorean fleet also targets cephalopods and in Guadeloupe reef fish are also targeted.

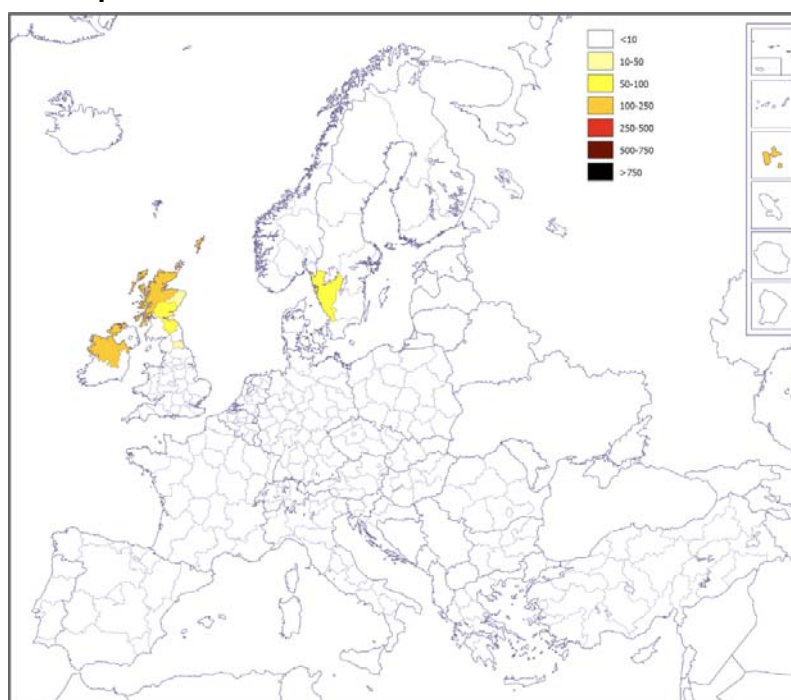
Almost half of the vessels in this cluster have not declared any secondary gear, so that an overall evaluation is not possible, except for Azores where hook (HOK) gears play an overwhelming role.

**Table 24: Five most significant NUTS-2 regions for the cluster pots and traps, 6-9m, wood**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material	Share main gear	Shares secondary gear
SE23 - VÄSTSVERIGE	76	1965	3	33	7.5	100%	97%	DFN 16%, FPO 53%
FR91 - GUADELOUPE*	101	1991	2	103	6.7	70%	66%	FPO 14%, HOK 26%
UKM6 - HIGHL. AND I.*	190	1974	3	26	6.9	100%	91%	
IE01 - BORDER, MIDL.*	217	1986	2	16	6.8	100%	100%	DFN 8%, HOK 5%
PT20 - AÇORES	428	1973	2	31	7.0	91%	95%	HOK 99%
Other regions	132	1976	3	38	7.5	90%	79%	
Total	1144	1977	2	35	7.0	93%	91%	DFN 4%, HOK 41%, FPO 5%

\*most of the vessels do not declare any secondary gear

**Map 18: Pots and traps, 6-9m, wood**



Source: DCR/F and own calculations



### 1.3.18. Mixed gears, 9-12m, mixed materials

This is a very mixed cluster, having only the vessel size in common. Consequently, the 1,104 vessels are spread across 13 NUTS-2 regions from eastern Mediterranean to Baltic. The five most significant regions represent 67% of the total number of vessels.

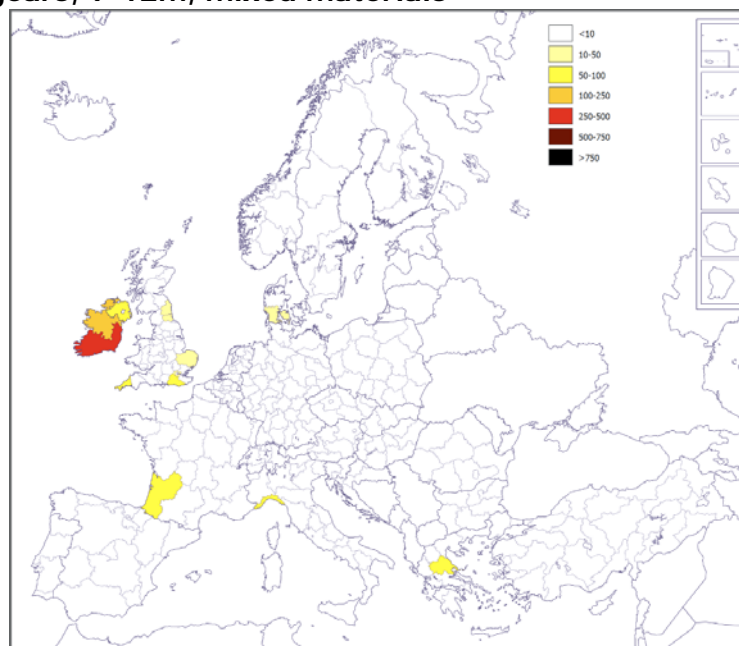
The average age of the fleet is 26 years with an average length of 9.6 m and 84 kW power. The Irish fleet in this cluster includes the majority within the fleet described as 'polyvalent', switching between various gears to target seasonal fisheries. The UK's Cornwall fleet is the most powerful with an average of 144 kW as it includes inshore passive gear vessels that may switch to seasonal mobile gear e.g. for scalloping. Around 45% of the vessels in this cluster have not declared any secondary gear. The data that are available indicate that secondary gears are also rather mixed.

**Table 25: Five most significant NUTS-2 regions for the cluster mixed gears, 9-12m, mixed**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material	Share main gear	Shares secondary gear
ITC3 - LIGURIA	75	1982	4	85	9.1	Wood 52%, Fibre 18%	PTS 34%, HOK 36%	DFN 59%, HOK 21%
GR14 - THESSALIA*	90	1990	5	56	9.4	Wood 57%, Fibre 40%	DFN 50%, HOK 40%	DFN 53%, HOK 41%
UKK3 - CORNW. AND I*	96	1988	12	144	10.2	Wood 28%, Fibre 59%	DTS 22%, FPO 55%	
IE01 - BORDER, MIDL.*	102	1982	10	78	10.7	Wood 57%, Fibre 23%	DFN 28%, DRB 27%	DFN 12%, FPO 21%
IE02 - SOUTH. AND E.*	372	1983	7	52	9.0	Wood 58%, Fibre 22%	DFN 32%, DRB 36%	DFN 16%, FPO 28%
Other regions	369	1987	9	110	9.8	Wood 23%, Fibre 46%	DFN 23%, DTS 33%	
Total	1104	1985	8	84	9.6	Wood 43%, Fibre 35%	DFN 27%, DRB 19%	DFN 22%, FPO 14%

\*most of the remaining vessels do not declare any secondary gear

**Map 19: Mixed gears, 9-12m, mixed materials**



Source: DCR/F and own calculations

### 1.3.19. Drift and fixed nets, 3-6m, mixed materials

The 1,012 netters of 3-6m, made of mixed materials are concentrated in only 4 regions located in Bulgaria (41% of vessels); Italy and Portugal (around 25% each) and Lithuania (10% of vessels). The mix of hull materials varies between regions with Portugal and Lithuania having some metal-hulled boats, wood is most common in Italy and fibreglass in Bulgaria.

The average age of vessels in this cluster is 21 and it includes relatively small, low powered vessels reflecting the more sheltered inshore conditions experienced in most of the regions (Black Sea, Baltic, and Adriatic).

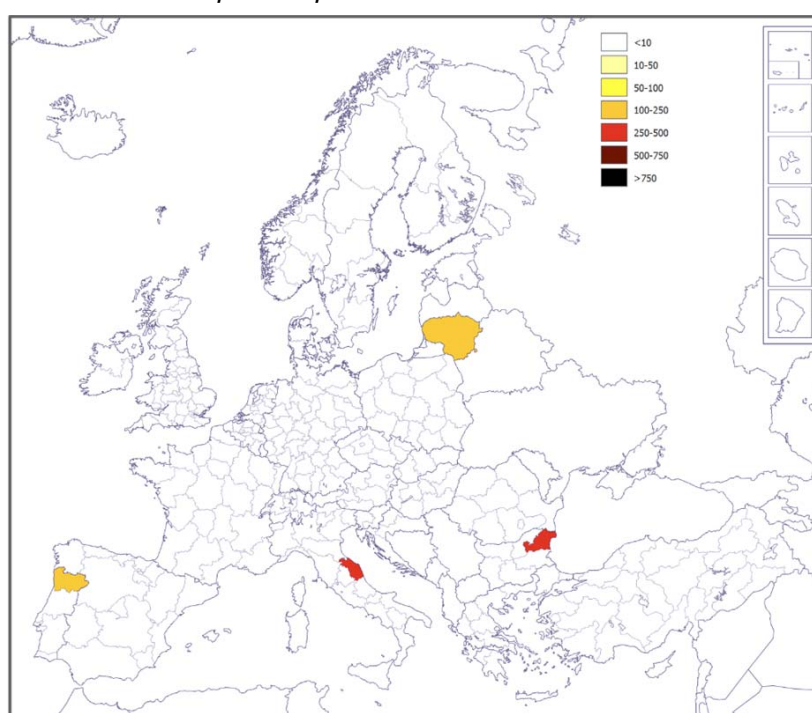
About 40% of the vessels in this cluster have not declared any secondary gear. The data that are available indicate that secondary gears are also rather mixed, except in Severoiztochen where nets represent 100% of secondary gears.

**Table 26: Five most significant NUTS-2 regions for the cluster drift and fixed nets, 3-6m, wood**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material	Share main gear	Shares secondary gear
LT00 - LIETUVA	104	1987	1	17	5.3	Metal 36%, Fibre 38%	98%	FPO 13%, HOK 63%
PT11 - NORTE*	224	1999	1	14	5.3	Metal 47%, Fibre 52%	100%	
ITE3 - MARCHE*	266	1982	1	18	5.5	Wood 59%, Fibre 5%	98%	DTS 29%, HOK 8%
BG33 - SEVEROIZTOC.	418	1992	1	9	5.5	Wood 44%, Fibre 55%	100%	DFN 100%
Grand Total	1012	1990	1	13	5.4	Wood 36%, Fibre 39%	99%	DFN 42%, HOK 9%

\*most of the remaining vessels do not declare any secondary gear

**Map 20: Drift and fixed nets, 3-6m, mixed materials**



Source: DCR/F and own calculations



### 1.3.20. Towed gears, 6-12m, mixed materials

This section presents an aggregation of all segments where towed gears (i.e. demersal and pelagic trawl and seine and dredge) are the main primary gear. These clusters are presented as one whole for two reasons. First, towed gears are often mentioned separately in the legislation related to SSF. Second, the total number of vessels using towed gears in the 22 EU clusters amounts to 1,713. The largest one is composed of demersal trawlers / seiners of 9-12m made of mixed materials, with 576 vessels (see figure 6). Further separation would therefore lead to a discussion of numerically very small clusters.

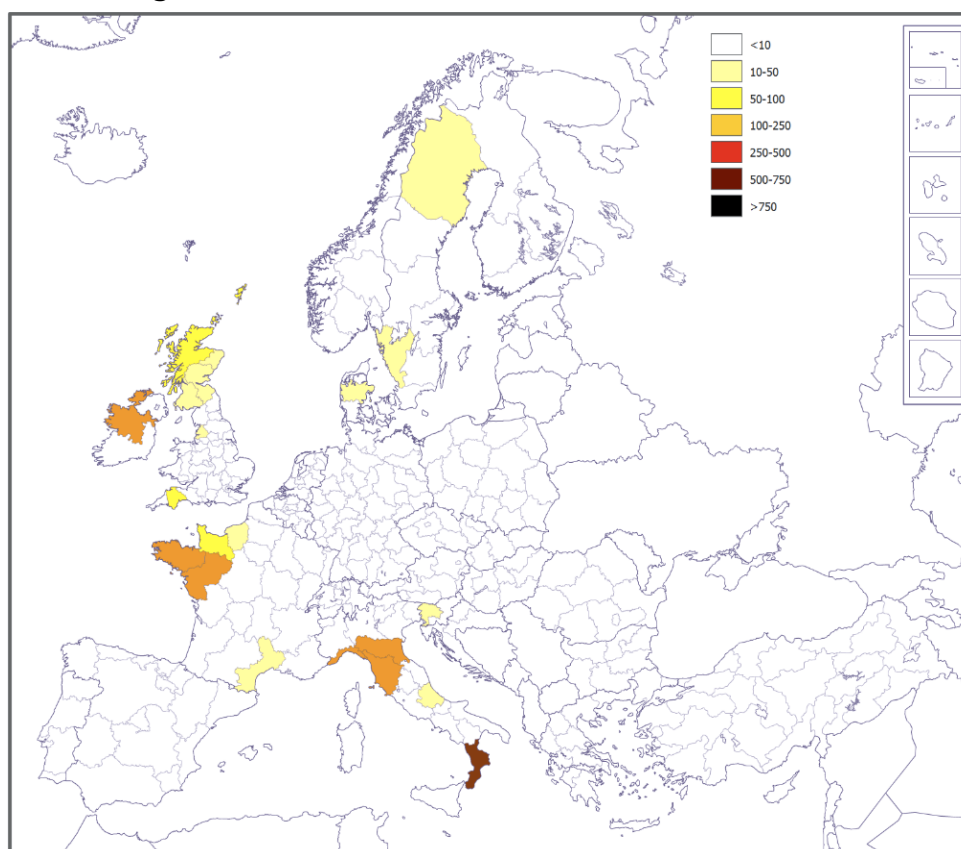
The vessels in this cluster is spread over 21 NUTS-2 regions, of which the seven most important ones (with more than 100 vessels) represent 66% of the total number of vessels. 40% of vessels are in Italian regions with 30% in France and 16% in the UK.

The average age of these vessels (29) sits between the averages seen for the more recent fibreglass fleets and the older wooden hulled fleets, which is to be expected given the mix of hull materials seen. More surprisingly, the average kW of 72 is not significantly higher than many of the mixed gear clusters identified previously. This leads to the expectation that although towed gears are listed as the main gear, these vessels remain part of a multi-purpose fleet that switches between various gears. The Italian clusters declare mostly hooks and lines as their secondary gears. The other main regions show a significant heterogeneity in the respect.

**Table 27: Seven most significant NUTS-2 regions for the cluster using towed gears**

NUTS-2 region	Number vessels	Const. year	GT	kW	LoA	Share hull material	Share main gear	Shares secondary gear
ITC3 - LIGURIA	103	1979	2	29	6.7	Wood 53%, Fibre 25%	PTA 100%	HOK 100%
IE01 - BORDER, MIDL.*	111	1977	3	19	7.3	Wood 98%, Fibre 0%	DRB 93%	FPO 23%, DFN 22%
ITD5 - EMIL. ROMAGNA	111	1981	5	76	10.3	Wood 95%, Fibre 0%	DTS 92%	DFN 52%, HOK 23%
FR51 - PAYS DE LA LOIRE	164	1985	8	99	9.6	Wood 43%, Fibre 52%	DTS 70%, HOK 25%	PTS 30%, DRB 24%, FPO 18%
ITE1 - TOSCANA	187	1978	2	24	6.7	Wood 74%, Fibre 10%	DFN 34%, PTS 65%	HOK 71%
FR52 - BRETAGNE	200	1984	13	129	10.6	Wood 61%, Fibre 28%	DTS 89%	DFN 82%, PTS 8%
ITF6 - CALABRIA	253	1978	3	38	8.3	Wood 98%, Fibre 0%	PTS 98%	HOK 100%
Other regions	584	1985	10	108	9.5	Wood 30%, Fibre 27%	DTS 69%, DRB 22%	
Total	1713	1982	6	72	8.8	Wood 60%, Fibre 20%	DTS 47%, PTS 28%	HOK 31%, DRB 16%

\*Many vessels do not declare any secondary gears

**Map 21: All towed gears**

Source: DCR/F and own calculations

### 1.3.21. Summary and interpretation

The above maps and tables can be summarised to highlight the key concentration of particular clusters in different countries and regions, as shown below.

**Table 28: Key concentration of particular EU-wide clusters in different countries and regions**

Cluster (gear, length, construction material)	Main regions / countries
Drift and fixed nets, 6-9m, wood	Dispersed widely but not in UK, Ireland, France, Germany or Belgium
Hook and line, 6-9m, wood	Only in Eastern Mediterranean, Italy and Greece
Drift and fixed nets, 6-9m, fibreglass	Widely spread, no special concentrations
Drift and fixed nets, 3-6m, fibreglass	Gulf of Finland and Riga, Denmark, Galicia
Pots and traps, 6-9m, fibreglass	French overseas territories, UK, and Sweden
Mixed gears, 6-9m, fibreglass	Southern Ireland, UK, NW France, Portugal
Mixed gears, 6-9m, wood	Widespread in EU but important concentrations in Sicily and North Aegean
Mixed gears, 3-6m, fibreglass	Malta, Greece, Southern Finland
Drift and fixed nets, 6-9m, mixed materials	Portugal, Greece, Ireland, northern Finland
Mixed gears, 9-12m, wood	Strongly concentrated in Med - Sicily and other areas in Italy, Greece
Hook and line, 6-9m, mixed materials	Greece, Italy
Mixed gears, 3-6m, wood	Portugal, Malta only
Mixed gears, 6-9m, mixed materials	Dispersed in Bulgaria, Greece, France, Italy and Wales
Pots and traps, 6-9m, wood	Azores, Ireland, Scotland, Guadeloupe, Sweden
Mixed gears, 9-12m, mixed materials	Widespread by especially in Ireland
Drift and fixed nets, 3-6m, mixed materials	Only in Bulgaria, Northern Italy, Portugal, Lithuania

Qualitative interpretation for the reasons behind the presence of particular clusters, both within NUTS-2 regions, and within the EU as a whole, is not especially conclusive. In addition, it is clear from previous case studies and from consultation undertaken as part of this study that the characteristics of small-scale (and larger-scale) fisheries are not static, but change over time. However, some reasons for the presence of particular small-scale fisheries clusters may include:

- The availability of different stocks in different fishing environments i.e. clusters of pots and trap vessels in areas of good shellfish fisheries (e.g. Highlands and Islands in Scotland and the Border and Midlands region in Ireland), and clusters of fixed and drift nets in areas with good demersal resources (e.g. Attiki in Greece);
- Regulations either preventing some types of gear (e.g. the homogeneity of gear type in Amvrakikos in Greece is supported by the fact that fishing with dynamic/active gears is prohibited in the region), or incentivising particular vessel characteristics (e.g. the exclusion of the under 10m fleet in the UK from certain quota management regulations led to a large concentration of vessels just under 10m);
- Operational economics, which dictate the appropriateness of investment in particular vessels sizes or gear, based on expectations and experience of potential/likely catches, revenues, operational costs, fixed costs, and net profits. Many vessel owners/operators prefer small vessels with lower investment and fixed costs, and are reluctant or unable to re-invest significant sums of money, in an attempt to reduce the risk of their investments;
- These financial/economic considerations, and their impact in terms of favouring smaller vessels (generally of 4-8m and small engine size), are further supported by the part-time nature of much small-scale fishing activity, which also tends towards low investment costs. This may be necessitated by weather and because owners/operators chose, or are forced to engage in alternative income activities. Indeed, the availability of other alternative and seasonal income generating activities e.g. agriculture, may be a strong reason for the presence of clusters of small vessels, which may on their own not generate sufficient earnings for owners/operators over the course of any one year to earn a reasonable living; and
- The availability of different technologies and suppliers in particular locations, and a strong cultural/conforming element, whereby new investments in vessels and gear tend to follow historical patterns, until particular key drivers of change may result in step-changes in new vessel characteristics in a particular location e.g. one or more particularly innovative fishermen may demonstrate the success of a new combination of vessel characteristics (e.g. new vessel size, new gear type), or a boatyard historically supplying a particular region may begin to make vessels out of new materials or to new specifications.

The clusters identified in this study focus only on the characteristics of the *vessels*, and the extent to which homogenous clusters are present. Interesting from the perspective of the dependency of NUTS-2 regions on SSF, and their economic and socio-economic role, is the characteristics of the *fishers* themselves. A set of recent regional social and economic dependency case studies<sup>6</sup> explored issues of ethnicity in 24 case study areas, and the general finding across almost all case studies was one of relative homogeneity in each location, with only small concentrations of 'foreign' populations, and of such immigrant labour tending to be employed on larger-scale vessels or in the processing sector rather than in small-scale fisheries, if at all.

<sup>6</sup> MRAG et al, 2011.



## 2. DESCRIPTION OF SMALL-SCALE FISHERIES CLUSTERS – ECONOMIC PERFORMANCE AND REGIONAL DEPENDENCY ISSUES

### KEY FINDINGS

- The total value of landings of the fisheries sector in EU-27 is estimated at almost 8 billion Euros, of which 2.1 billion euro (23%) is from small-scale fisheries.
- SSF employed on average almost 90,000 people between 2006 & 2008, against some 78,000 men on board vessels over 12m.
- On average, small-scale fisheries are significantly less productive than the larger vessels or other professions. The average value of landings per person employed in SSF amounts to about Euro 23,000, while the larger vessels achieve a turnover of Euro 75,000 per employed person. The average GDP/employed amounts to Euro 56,000 for the EU as a whole.
- SSF generate Euro 20,135 of GVA per FTE.
- Twenty NUTS-2 regions show dependence rates of at least 0.1% in terms of employment and 0.05% in terms of income. Most of these regions are in Greece (8) and in the French overseas territories (4). The remaining eight regions are dispersed along the EU coast from Finland to Bulgaria. A little over 40% of all small-scale fishermen work in these regions.
- In most areas the size of the small-scale fleet is decreasing with the exception of the French overseas territories. The decrease ranges from 10-30% for the period 2000-2010. At the same time between 2000 and 2008 the regional economies have been growing, mostly by 30-60% in income and 5-15% in employment. These trends imply that the relative role of SSF in the regional economy has gradually fallen, by some 20-30% in employment and 30-50% in terms of income.

### 2.1. Introduction

This chapter discusses the regional role of small-scale fisheries in terms of their contribution to employment and income, and in terms of a comparison of average productivity between SSF and the NUTS-2 regions in total.

As explained more fully in Annex A (on methodology), the available data on earnings and employment unfortunately does not allow for a comprehensive assessment of the roles of the various clusters identified in Chapter 1 and presented in more detail in Annex B). Therefore we present here the total SSF for each region and in some cases differences in performance of various gears are highlighted at the Member State level. Qualitative discussion is supported by information boxes that further describe SSF in certain Member States; these are based on recent case studies.

## 2.2. EU-overview

The significance of the SSF within the EU fishing fleet is very different, depending on the selected indicator. SSF represents 80% of the number of vessels, but only 10% of the Gross Tonnage<sup>7</sup> and 36% of the aggregate engine power.

SSF employed on average about 85,000 people between 2006 and 2008, slightly more than half the total employed in the catching sector. The value of landings from SSF is estimated at around €2 billion per year, which amounts to 27% of the total value of landing in the EU-27.

The regional economic role of SSF is detailed in the tables presented in Annex D by NUTS-2 region and Member State. The significance of the SSF in relation to the LSF and the whole sector is presented in Annex E for each Member State and NUTS-2 region. Annex J provides data on gross value added (GVA), GVA per employed, and GVA per FTE for the under 12m segments specified in the DCF. The detailed information in these Annexes is summarised in the tables and described in the text below.

**Table 29: Comparison of small-scale (<=12m) and large-scale (>12m) fleets per MS, average 2006-8**

MS	Value of landings (mln €)		Employment	
	SSF	LSF	SSF	LSF
BEL	0.1	85.7	2	507
BGR*	10.6	11.2	1,330	472
CYP	14.4	6.8	844	209
DEU	10.9	148.2	1,298	1,094
DNK	41.6	331.1	473	1,850
ESP	116.5	1,415.0	11,051	21,174
EST	3.4	34.9	2,770	470
FIN	10.1	17.6	1,532	149
FRA*	534.2	819.5	9,442	5,307
GBR	151.9	697.0	7,214	5,050
GRC	601.1	220.5	21,608	4,163
IRL	59.5	153.4	1,632	2,046
ITA	338.1	990.7	13,856	16,354
LTU	0.3	78.6	292	1,292
LVA	0.7	20.5	1,038	629
MAL	6.0	5.5	192	117
NLD	6.0	385.8	459	5,811
POL	10.4	29.9	1,361	1,461
PRT	147.5	266.6	11,006	8,604
ROM	0.3	0.4	790	85
SVN	0.6	1.6	77	36
SWE	33.0	101.7	1,225	883
Total	2,097.2	5,822.2	89,492	77,763

Source: DCF/F 2006-8,

\*FRA DCF/F data increased for DOM, BGR data estimated, see Annex G.

SSF are concentrated in five MS: Greece, Italy, France, Spain and Portugal. These Member State represent 85% of SSF in terms of value of landings and 75% in terms of employment. Table 29 illustrates that the average value of landings per person employed in SSF amounts to about 23,000 euro, while the larger vessels achieve a turnover of Euro 75,000 per employed person. This seems to indicate that part-time employment is quite wide spread within the small-scale fleet. The price per tonne of fish landed however is likely

<sup>7</sup> There is no international standard for measuring gross tonnage of small vessels. Furthermore, GT are measured for enclosed spaces of decked vessels. Therefore GT value of SSF is probably not very reliable.

to be higher in SSF as average prices in large-scale fisheries are depressed due to a greater share of low value small-pelagic catches.

The SSF in most Member States is significantly less productive than the large-scale fleet for the overall economy. The GVA/employed for SSF may be negatively affected by a comparatively higher level of part time employment.

Table 30 compares 'earning power' per employed and full time equivalent (FTE) of small-scale fleet to the fleet of >12m vessels and to the economy of coastal NUTS-2 regions overall. Data show that on average SSF generate Euro 20,135 of GVA per FTE (Annex J). This varies between Member State and gear types. The smallest GVA/FTE average was found in Romania at just €391 GVA/FTE and the largest in Finland with €121,000 GVA/FTE. In Sweden with an average of €36,000 GVA/FTE the demersal trawl and seine fleet segments generated nearly €260,000 GVA/FTE while the passive gear fleet only amounted to €14,000 GVA/FTE.

The relatively low earning capacity of SSF must be at least partly attributed to the relatively low capital intensity of this activity. In the economy in general, investments in equipment (capital goods) replace labour and increase productivity of people employed in the various sectors. This process has not taken place in most small-scale fisheries, if it had, they would not be perceived to be small-scale any more. Thus, relatively low labour productivity is a consequence of low capital endowment per person.

**Table 30: Comparison of gross value added per FTE and employed in small-scale fisheries, large scale fisheries (>12m) and regional economy as a whole (average 2006-8)**

	GVA/Employed	GVA/FTE	GVA / FTE	GVA/Employed	GDP/Employed
	SSF	SSF	LSF	LSF	NUTS-2 totals
BEL	28	28	68	50	68
BGR*	3	4	20	20	7
CYP	12	14	7	6	42
DEU	2	4	100	81	52
DNK	53	59	117	105	80
ESP	7	14	29	29	49
EST	1	1	54	29	23
FIN	5	122	335	64	72
FRA*	37	44	80	58	65
GBR	9	21	63	58	62
GRC	21	23	37	33	49
IRL	16	17	40	36	90
ITA	17	21	39	34	64
LTU	1	1	16	5	18
LVA	0	1	23	17	17
MAL	-4	-5	-21	-7	34
NLD	13	28	82	26	67
POL	6		9	8	20
PRT	10	15	23	9	33
ROM	0	0	3	3	16
SVN	6	6	22	19	40
SWE	19	36	59	49	73
Total	16	20	42	34	56

Source: DCF, Eurostat

The regional contribution of SSF has been calculated for both income and employment. Four levels of dependence, or dependence groups, are distinguished: 0-0.05%, 0.05-0.1%,

0.1-0.5%, 0.5-1% and more than 1%. The maximum value for employment is about 4% and for income about 2%.

The regional role of SSF is summarized in Table 31 (see Annex D for detailed figures per Member State and NUTS-2 region). In only 4 NUTS-2 regions is the contribution of SSF to regional employment and income above 0.5% (Ionia-Nisia, Voreio-Aigaio & Notio-Aigaio in Greece and in the French Overseas Territory, Guadeloupe). Thus only these 4 NUTS-2 regions have dependencies whereby for each €1,000 of regional income, in excess of €5 are derived from SSF, and for every 1,000 jobs in the region more than 5 are in SSF.

As the above analysis identified, it is in employment rather than GVA where SSF makes the greatest contribution to regions. Taking 0.1% employment dependence and income dependence as a threshold (i.e. one job in every 1,000, and one Euro in every 1,000 of income), Table 31 indicates that 20 NUTS-2 regions display this level of dependence. Most of these are in Greece (11), which covers all Greece with the exception of Attiki (GR30)<sup>8</sup>. The second most significant Member State in SSF dependency terms is France, with 5 regions, including all four Overseas Territories. Finally, there are 2 regions in Portugal and one each in Bulgaria, Spain, United Kingdom and Finland.

**Table 31: Regional role of SSF in terms of income and employment creation**

Income dependence	Employment dependence					Total
	1. 0-0.05%	2. 0.05-0.1%	3. 0.1-0.5%	4. 0.5-1.0%	5. 1.0-4.0%	
1. 0-0.05%	63 reg	19 reg	17 reg			99
2. 0.05-0.1%			10 reg	<i>ES11 - GALICIA</i>	<i>FI20 - ÅLAND</i>	12
3. 0.1-0.5%			<i>BG34 - YUGOIZTOCHEN</i> <i>FR83 - CORSE</i> <i>FR94 - RÉUNION</i> <i>GR11 - ANATOLIKI M., THRAKI</i> <i>GR12 - KENTRIKI MAKEDONIA</i> <i>GR14 - THESSALIA</i> <i>GR23 - DYTIKI ELLADA</i> <i>GR43 - KRITI</i>	<i>GR21 - IPEIROS</i> <i>GR25 - PELOPONNISOS</i> <i>PT15 - ALGARVE</i> <i>UKM6 - HIGHLANDS AND ISLANDS</i>	<i>FR92 - MARTINIQUE</i> <i>FR93 - GUYANE</i> <i>GR24 - STEREA ELLADA</i> <i>PT20 - AÇORES</i>	16
4. 0.5-1.0%				<b>FR91 - GUADELOUPE</b>	<b>GR42 - NOTIO AIGAIO</b>	2
5. 1.0-2.0%					<b>GR22 - IONIA NISIA</b> <b>GR41 - VOREIO AIGAIO</b>	2
Total	63	19	35	6	8	131

The role of SSF in the regional economies can thus be classified into three levels:

- High, with both income and employment dependence rates over 0.5%. This group contains four NUTS-2 regions (Notio Aigaio, Ionia Nisia, Voreio Aigaio and Guadeloupe) (in red / bold);
- Medium, with a value of income or employment dependency of at least 0.1% and the other dependency being over 0.5%. This group contains 22 regions (in green/italics); and
- Low, all other 107 regions, not specified by name in Table 31.

<sup>8</sup> It must be pointed out that the DCFR data on Greece refer only to 2006 and the quality is uncertain.



Based on these categories, Table 32 shows that about 10% (8,498) of all small-scale fishermen work in regions that are considered as having high SSF dependence, 32% (28,877) work in medium-dependent areas, and 58% work in regions with low SSF dependence.

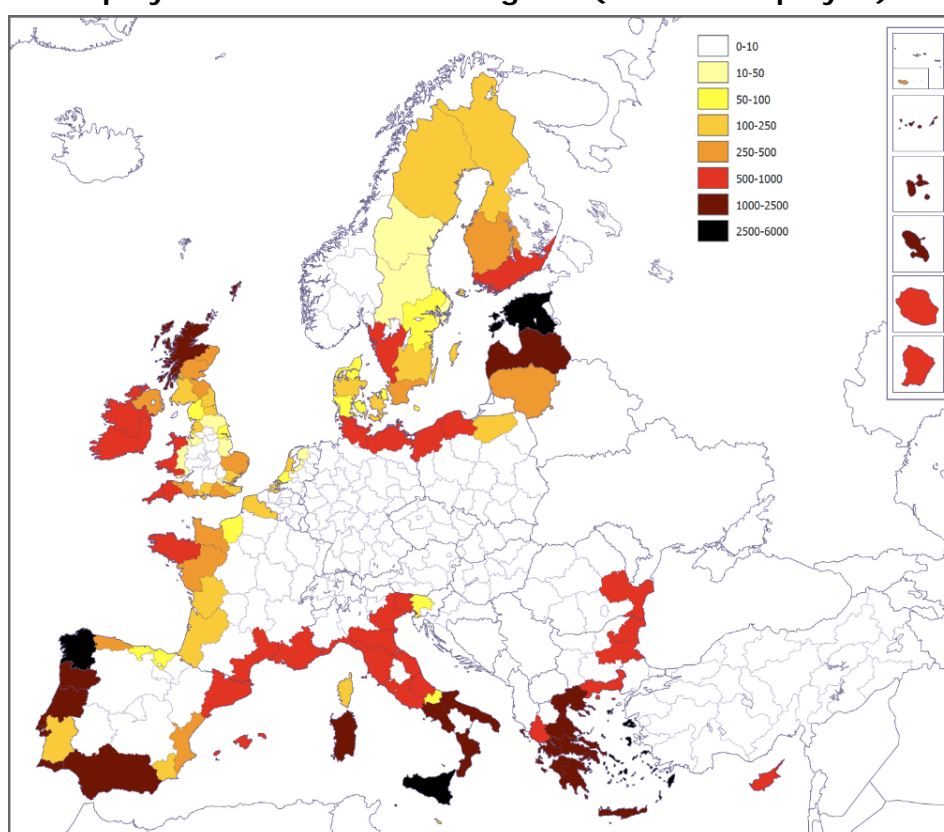
**Table 32: Employment in SSF according to dependence level**

Income dependence	Employment dependence					Total
	1. 0-0.05%	2. 0.05-0.1%	3. 0.1-0.5%	4. 0.5-1.0%	5. 1.0-4.0%	
1. 0-0.05%	12,491	11,500	15,094			39,085
2. 0.05-0.1%			13,031	6,024	146	19,201
3. 0.1-0.5%			8,387	5,969	8,351	22,706
4. 0.5-1.0%				1,118	2,714	3,832
5. 1.0-2.0%					4,666	4,666
<b>Total</b>	<b>12,491</b>	<b>11,500</b>	<b>36,512</b>	<b>13,111</b>	<b>15,878</b>	<b>89,491</b>

Source: own calculation

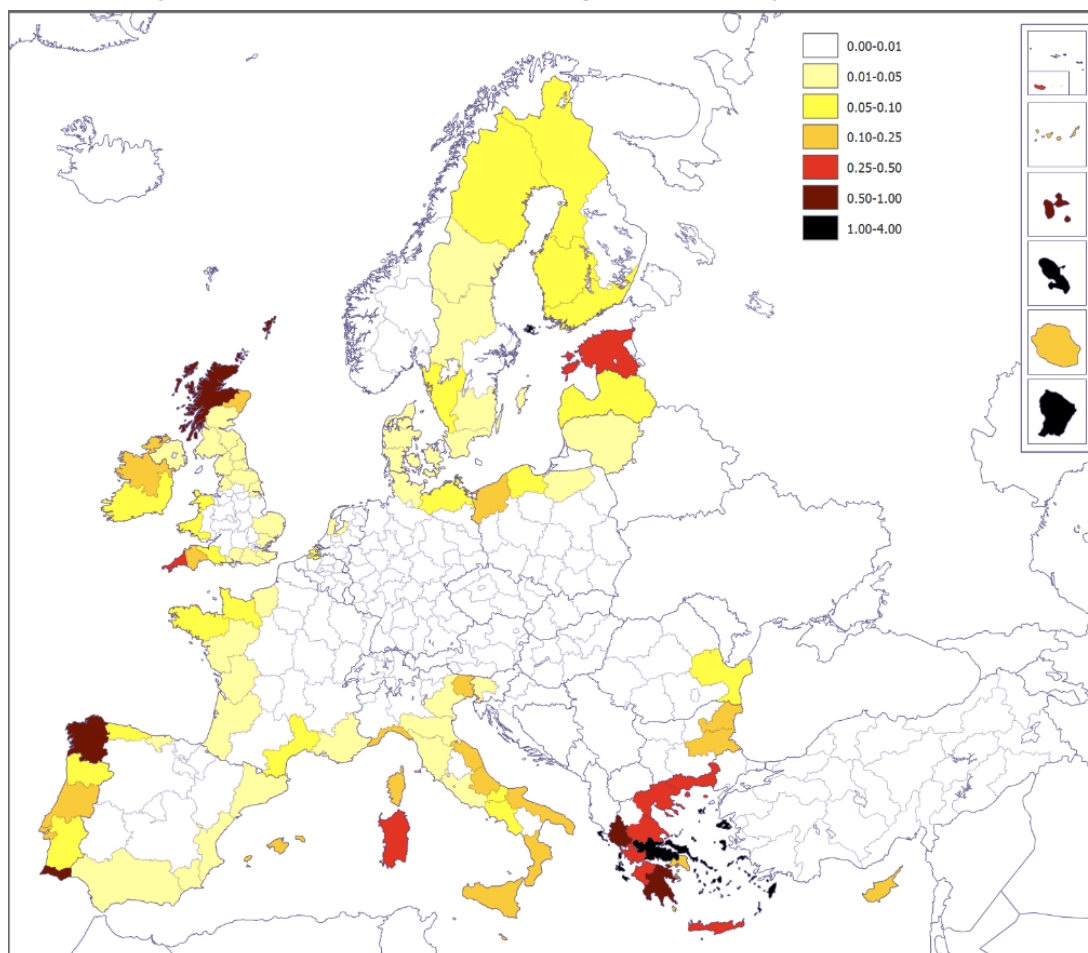
The income and employment dependency of NUTS-2 regions is displayed pictorially in the following maps. The greatest numbers are employed in Galicia, Spain (over 4,000); Sicily, Italy and the key Greek regions mentioned (over 2,000).

**Map 22: SSF Employment in the NUTS-2 regions (number employed)**



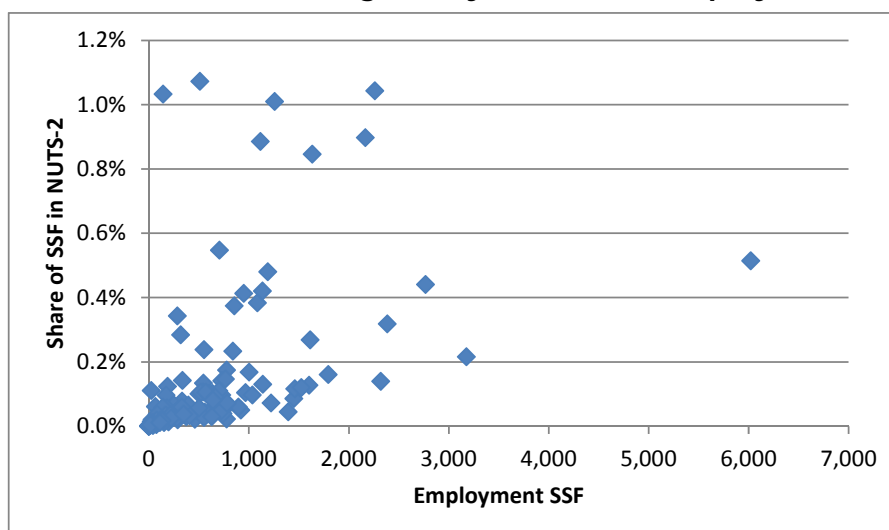
Source: DCR/F and own calculations

**Map 23: Employment dependence (% of regional employment)**



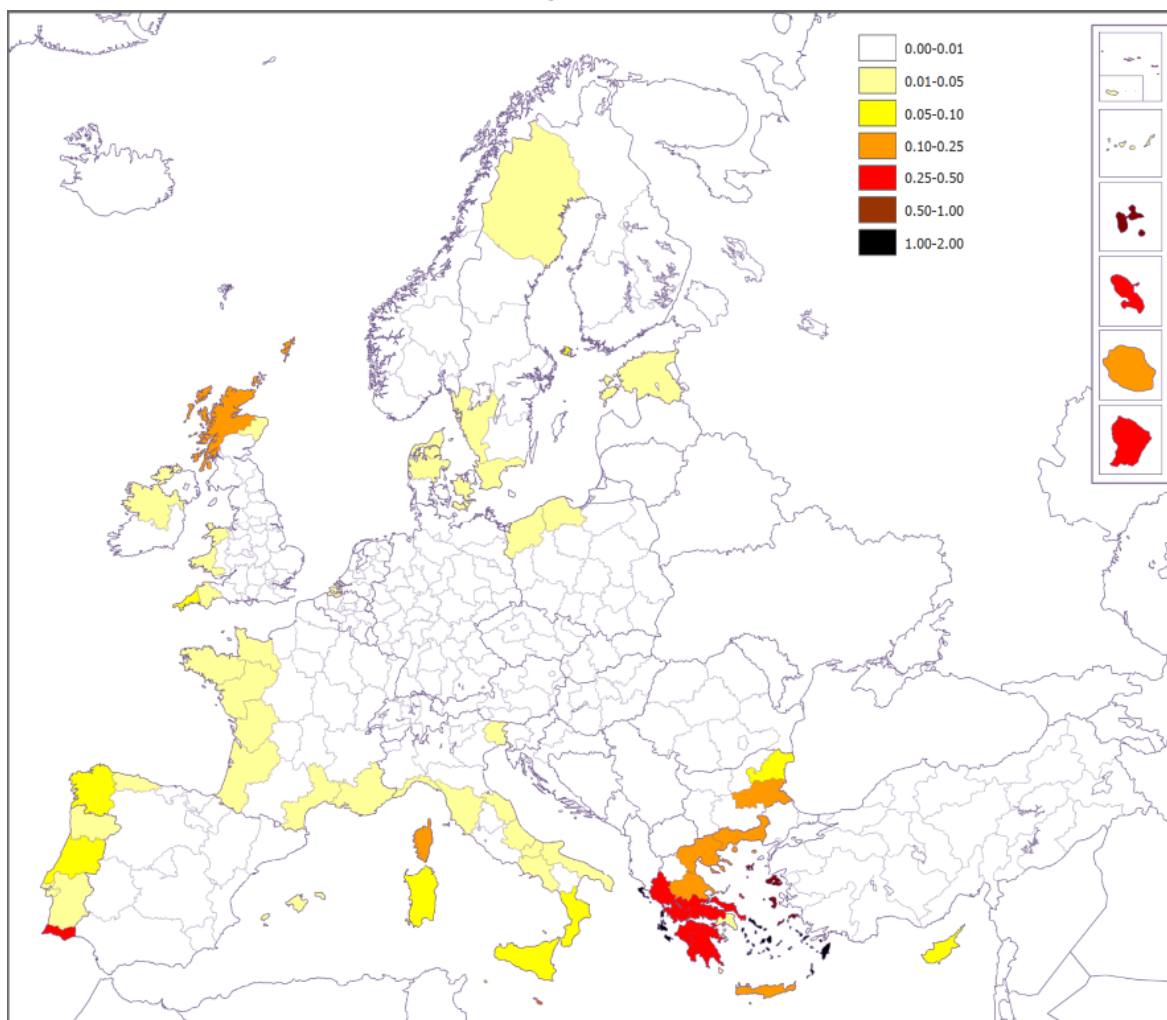
Source: DCR/F and own calculations

**Figure 7: Distribution of NUTS-2 regions by SSF role in employment<sup>9</sup>**

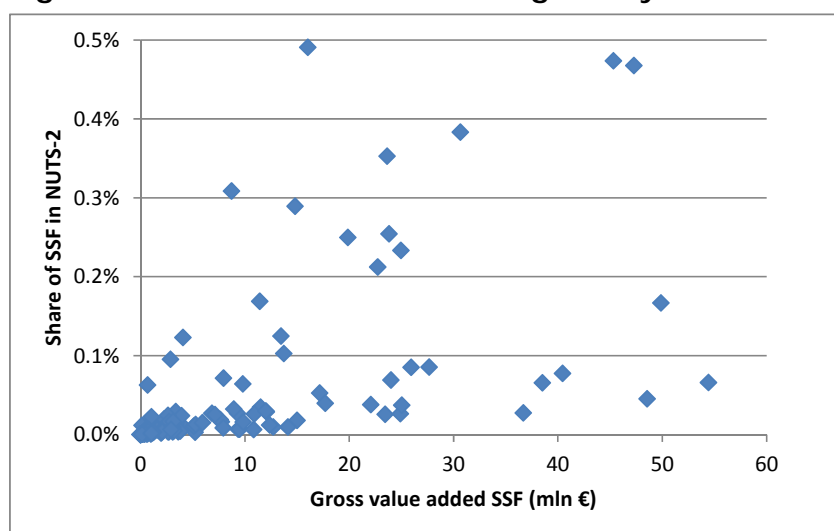


Source: DCR/F and own calculations

<sup>9</sup> Four regions with share of SSF of 1-4% have been excluded from the graphic for better presentation.

**Map 24: Income dependence (% of regional GDP)**


Source: DCR/F and own calculations

**Figure 8: Distribution of NUTS-2 regions by SSF role in income<sup>10</sup>**


Source: DCR/F and own calculations

<sup>10</sup> Four regions with share of SSF income of 0.5-2% have been excluded for better presentation.

## 2.3. SSF dependent NUTS-2 regions

This section provides additional analysis of the Member States with the most dependent NUTS-2 regions (France and Greece) and the Member States with the largest small-scale fleets (Italy, Spain and Portugal). Furthermore, several specific SSF dependent regions are discussed that are not in the five mentioned Member States.

### 2.3.1. Greece

The Greek coastal regions are the most dependent on SSF, compared to the rest of the EU<sup>11</sup>.

#### 2.3.1.1. Highly dependent regions in Greece

The details of the three most dependent Greek NUTS-2 regions are presented in Table 33. SSF generate about 2-4% of total employment and 1-2% of income in these regions. This is more than in any other EU NUTS-2 regions other than in the French Overseas Territory, Guadeloupe.

**Table 33: Characteristics of the high dependent Greek NUTS-2 regions**

NUTS-2 region	Fleet 2000	Fleet 2010	Employment	GVA	Employment dep.	Income dep.
GR22 - IONIA NISIA	1,554	1,466	1,963	41.0	2.3%	1.1%
GR41 - VOREIO AIGAIO	2,310	2,019	2,703	56.5	3.8%	2.0%
GR42 - NOTIO AIGAIO	2,289	2,027	2,714	56.7	2.3%	0.9%

Source: CFR, DCF and Eurostat

Table 34 presents the summary of the characteristics of the clusters in the three regions. Drift nets are the most important main gear, with about two thirds of the vessels using them. Hook and line is the second most important gear type. Only a small number of vessels use other gears. There are relatively few vessels that exclusively use only one gear. The table clearly shows clusters with an average year of construction post-1990 mostly built in fibreglass, while older vessels are generally built in wood. The average size of the vessels is about 7m / 2GT, which is not a very distinctive factor between the clusters. All three regions have a small group of somewhat larger vessels with 5GT and 9-10m.

Between 2000 and 2010 the number of registered fishing vessels decreased by about 6% in Ionia Nisia and about 12% in the other two regions. At the same time the regional GDP grew between 2000 and 2008 by a little over 70%<sup>12</sup>. This means that the role of small-scale fisheries decreased by almost 40-50% in terms of income. The growth of employment amounted to about 10% in Aegean Sea and 17% in Ionia Nisia. If the decrease in the number of vessels reflects the decrease in SSF employment, then the relative contribution of SSF to regional employment has decreased by about 20-25% since 2000<sup>13</sup>.

<sup>11</sup> Data for Greece is available only for 2006.

<sup>12</sup> Eurostat, nama\_r\_e2gdp - Gross domestic product (GDP) at current market prices at NUTS level 2.

<sup>13</sup> The percentages presented in relation to the SSF's contribution to the regional employment and income refer to the relative share, e.g. this means that decrease of 25% means that the contribution dropped from 1% to 0.75%.

**Table 34: Main characteristics of Greek clusters**

NUTS-2 / cluster*	Number vessels	Average value				Hull material		Main gear	
		Const. year	GT	kW	LoA	Wood	Fibre	Drift and fixed nets	Hook and line
<b>GR22 - IONIA NISIA</b>	<b>1,466</b>	<b>1,984</b>	<b>2</b>	<b>20</b>	<b>7</b>				
Drift and fixed nets	302	1,974	1	8	5	302		302	
Drift and fixed nets	245	1,980	2	14	7	243		245	
Drift and fixed nets	230	1,989	3	19	8	230		230	
Mixed gears	104	1,975	5	62	10	95	9	35	13
Drift and fixed nets	173	1,994	2	17	6		173	173	
Hook and line	64	1,984	2	14	7	51	12		64
Hook and line	242	1,980	2	13	6	242			240
Mixed gears	106	1,996	1	15	6		106	49	57
<b>GR41 - VOREIO AIGAIO</b>	<b>2,019</b>	<b>1,983</b>	<b>2</b>	<b>19</b>	<b>7</b>				
Drift and fixed nets	635	1,981	1	10	6	635		635	
Mixed gears	202	1,980	5	50	9	199	2	107	47
Mixed gears	303	1,993	1	13	6		302	189	109
Drift and fixed nets	394	1,980	1	10	6	394		393	1
Hook and line	485	1,979	1	11	6	485			467
<b>GR-42 - NOTIO AIGAIO</b>	<b>2,027</b>	<b>1,986</b>	<b>3</b>	<b>22</b>	<b>7</b>				
Drift and fixed nets	533	1,983	2	14	7	533		533	
Mixed gears	400	1,982	5	42	9	371	29	107	213
Mixed gears	424	1,996	2	16	7		419	272	151
Mixed gears	670	1,983	2	14	7	670		222	448
<b>Total</b>	<b>5,512</b>	<b>1,984</b>	<b>2</b>	<b>20</b>	<b>7</b>	<b>4,450</b>	<b>1,052</b>	<b>3,492</b>	<b>1,810</b>

Source: CFR, 30.6.2010

\*Some clusters are similar in terms of main gear and construction year. The distinction lies in the secondary gear (see Annex D)

### 2.3.1.2. Regions of medium dependence in Greece

Eight regions in Greece show a medium level of dependence. SSF typically contribute 0.4-1% of employment and 0.2-0.5% of GDP. About 11,000 fishermen work in these areas.

**Table 35: Characteristics of the medium dependent Greek NUTS-2 regions**

	Fleet 2000	Fleet 2010	Employment	GVA (mln €)	Employment dep.	Income dep.
GR11 - ANATOLIKI MAKED., THRAKI	856	711	952	19.9	0.413%	0.250%
GR12 - KENTRIKI MAKEDONIA	2,039	1,783	2,387	49.9	0.318%	0.167%
GR14 - THESSALIA	941	813	1,089	22.8	0.384%	0.212%
GR21 - IPEIROS	669	530	709	14.8	0.547%	0.289%
GR23 - DYTIKI ELLADA	983	852	1,141	23.9	0.420%	0.254%
GR24 - STEREA ELLADA	2,100	1,690	2,263	47.3	1.043%	0.468%
GR25 - PELOPONNISOS	1,822	1,620	2,169	45.4	0.897%	0.473%
GR43 - KRITI	929	892	1,194	25.0	0.480%	0.233%

Source: CFR, DCF and Eurostat

The details of the regional clusters are presented in Annex D. Consistent with the highly dependent regions, the clusters are primarily determined by two gears, drift and fixed nets and hook and lines, which together represent 95% of main as well as secondary gears. Out of a total of some 8,900 vessels, less than 500 use additional gears (mainly bottom trawls and pots/traps).

Between 2000 and 2010 the number of registered vessels decreased on average by 14%, i.e. 1.3% per year. The highest decrease was in Ipeiros (20%), while the lowest was in Crete (4%). Between 2000 and 2008 total employment in the eight regions grew by about 5% and regional GDP by 60%. Assuming that the trend in the size of the fleet reflects the

trend in employment and that income generated by SSF has remained constant at best, it can be concluded that the role of SSF decreased by approximately 20% in terms of employment and 60% in terms of income.

### BOX 1: Small-scale fisheries in Greece

The Greek small-scale fleet represents more than 80% of Greece's total catching sector. The numerous islands and rugged coast of the mainland, coupled with relatively low fish densities of the Mediterranean are among the main characteristics determining the small-scale nature of the Greek fisheries. Similarly to other Mediterranean countries, the catches are composed of a large number of species, many caught in specific seasons.

The registered small-scale fleet decreased by about 13% between 2000 and 2010 to a little over 16,000 vessels, of which about 75% were estimated to be active. The total employment on board is around 22,000 fishermen. According to DCF, the value of landings by the small-scale fleet amounted in 2005-6 to Euro 500-600 million. Assuming that gross value added is around 60% of the value of landings, gross income per fisherman is in the order of 10-15,000 euro per year.

### 2.3.2. France

Five French NUTS-2 regions show medium to high dependency on SSF. Four out of these five regions are overseas territories and the fifth is Corsica. Employment dependence ranges from 0.2% to 1.1% and income dependence between 0.1 and 0.7%.

In most Overseas Territories the size of the fleet has remained relatively constant in recent years, except for Fr. Guiana where it doubled between 2000 and 2010. The fleet in Corsica decreased by 10%. The regional economies themselves grew rapidly from 2000 till 2008 (regional GDP by an average of 55% and employment by an average of 16%<sup>14</sup>), but the nominal income contribution of SSF to the economies has remained constant<sup>15</sup>, so that SSF's relative role has diminished.

The five regions are evidently completely different in terms of marine environment and fisheries. This is reflected in the characteristics of the distinguished clusters. The fleet of the Overseas Territories is relatively new, most clusters having an average year of construction of 1996 or more recent. A large majority of the vessels there are built in fibreglass, with the exception being the Fr. Guianese fleet where wooden hulls dominate.

**Table 36: Characteristics of the French SSF dependent NUTS-2 regions**

NUTS-2 region	Fleet 2000	Fleet 2010	Employment	GVA (mln €)	Employment dep.	Income dep.
FR83 - CORSE	204	183	288	11.4	0.343%	0.169%
FR91 - GUADELOUPE	923	934	1,118	53.5	0.885%	0.653%
FR92 - MARTINIQUE	1,081	1,096	1,262	30.7	1.009%	0.383%
FR93 - GUYANE	55	118	515	8.7	1.072%	0.308%
FR94 - RÉUNION	259	256	556	13.7	0.238%	0.103%
Total	2,522	2,587	3,739	118.1		

Source: CFR, DCF and Eurostat

<sup>14</sup> There are significant differences in employment growth between the five regions ranging from 1% in Martinique to 24% in Fr. Guiana.

<sup>15</sup> Time series are not available as economic data is not collected in the DOM. Corsica cannot be distinguished from the rest of France.

**Table 37: Characteristics of the French clusters in SSF dependent regions**

NUTS-2 / cluster (characteristics)	No. vessels	Average value				Hull material		Main gears		
		Const. year	GT	kW	LoA	Wood	Fibre	Drift and fixed nets	Pots and traps	Hook and line
<b>FR83 - CORSE</b>	<b>183</b>	<b>1982</b>	<b>4</b>	<b>95</b>	<b>8</b>	<b>74</b>	<b>99</b>	<b>165</b>	<b>0</b>	<b>16</b>
Drift and fixed nets	99	1990	3	116	8	0	99	86	0	12
Drift and fixed nets	84	1973	4	74	8	74	0	79	0	4
<b>Fr91 - Guadeloupe</b>	<b>934</b>	<b>1998</b>	<b>3</b>	<b>156</b>	<b>8</b>	<b>74</b>	<b>820</b>	<b>81</b>	<b>682</b>	<b>140</b>
Hook and line	202	2000	3	152	7	0	201	67	0	118
Pots and traps	101	1991	2	103	7	71	0	7	67	13
Pots and traps	101	2001	7	271	10	3	89	7	85	9
Pots and traps	208	1998	3	133	7	0	208	0	208	0
Pots and traps	322	1999	2	120	7	0	322	0	322	0
<b>Fr92 - Martinique</b>	<b>1,095</b>	<b>1992</b>	<b>2</b>	<b>75</b>	<b>7</b>	<b>66</b>	<b>1,024</b>	<b>7</b>	<b>985</b>	<b>89</b>
Pots and traps/hook - line	415	1988	1	59	7	66	348	3	311	88
Pots and traps	680	1997	2	92	7	0	676	4	674	1
<b>Fr93 - Guiana</b>	<b>118</b>	<b>2000</b>	<b>4</b>	<b>52</b>	<b>10</b>	<b>101</b>	<b>8</b>	<b>118</b>	<b>0</b>	<b>0</b>
Drift and fixed nets	118	2000	4	52	10	101	8	118	0	0
<b>Fr94 - Réunion</b>	<b>256</b>	<b>1997</b>	<b>3</b>	<b>100</b>	<b>7</b>	<b>16</b>	<b>232</b>	<b>0</b>	<b>0</b>	<b>256</b>
Hook and line	189	1996	1	36	6	16	166	0	0	189
Hook and line	67	1997	5	164	9	0	66	0	0	67
<b>Total</b>	<b>2,586</b>	<b>1994</b>	<b>3</b>	<b>114</b>	<b>8</b>	<b>331</b>	<b>2,183</b>	<b>371</b>	<b>1,667</b>	<b>501</b>

Source: CFR, 30.6.2010

**BOX 2: Small-scale fisheries in France (excl. DOM)**

The number of small-scale registered vessels in France (excl. Overseas Territories) has decreased by about 15% between 2000 and 2010 to a total of 3,800 units. The decrease in the number of active vessels was much less pronounced. About 3,400 vessels were operating in 2008, only 6% less than in 2002.

Between 2006 and 2008 the small-scale fleet landed 60-70,000 tonnes of fish, with a total value of Euro 180-210 million. Among the most important species are sole, scallops, sea bass, whelk and anglerfish, which account for approximately 50% of the value and volume of SSF production.

The fleet employed about 6,000 fishermen in 2008, probably 5-10% less than in 2002 (based on the number of vessels). The average crew share alone amounted in 2006-8 to Euro 25-30,000 per man per year. Considering that the gross value added amounts to about 60% of the value of landings, the gross value added per man can be estimated at 35-40,000 euro. This compares to the average gross value added per employed person of about 70,000 euro in the French economy as a whole

**2.3.3. Italy**

There are no NUTS-regions in Italy with an especially high dependency on SSF. However, Italy is clearly an important country in the EU in terms of small-scale vessel numbers. With some 9,000 vessels below 12m and 14,000 fishermen in 2008, Italy has one of the largest small-scale fishing sectors in the EU. The long coast, narrow continental shelf and relatively low productivity of the Mediterranean waters lead to overall low concentrations of the small-scale fishing fleet. Sicily is one of the areas with a long fishing tradition, dating back to pre-Roman times.



The catches of the Italian SSF amounted to about 34,000 tonnes in 2008, valued at almost 270 million euro. With an average price of 7.80 euro/kg, the Italian fishermen enjoy significantly higher prices than most other fishermen in the EU. Their catches are composed of a large number of species, with cuttlefish, hake and mullets being among the most important ones, but with no one species truly dominating landings.

Despite the favourable market conditions, the Italian small-scale fisheries and their production have been shrinking. The number of registered vessels below 12m has fallen from 12,900 in 2000 to a little less than 9,400 in mid-2010. Between 2002 and 2008 the volume of landing dropped more than 44,000 tonnes, i.e. by 56%. This negative trend was slightly offset by a 27% increase in average price, but the total value of landings still dropped by 45%. Parallel to this development, the number of fishermen decreased by about 37%, so that remuneration of the crew remained approximately constant, fluctuating between Euro 6,000 and 9,000 per man. Although an additional part of the income of small-scale fishermen is in profits, the overall level of earnings seems to be far below average earning per employed in Italy, and suggest a strong part-time nature of fishing activity.

The three most NUTS-2 regions with the highest employment dependency are Sicilia, Calabria, and Sardegna. Sardegna shows the highest dependence in terms of employment (0.27%) as well as income (0.09%). In most regions the dependency rates do not exceed 0.1% for employment and 0.03% for income.

**Table 38. Three most employment dependent regions in Italy**

NUTS-2 region	Fleet 2000	Fleet 2010	Employment	GVA (mln euro)	Employment dep.	Income dep.
ITF6 - CALABRIA	888	680	1,005	17.2	0.17%	0.05%
ITG1 - SICILIA	2,978	2,153	3,181	54.5	0.22%	0.07%
ITG2 - SARDEGNA	1,179	1,094	1,616	27.7	0.27%	0.09%
Other	7,824	5,452	8,055	138	0.03-0.12%	0.01-0.04%
Total	12,869	9,379	13,856	237.3	0.09%	0.02%

Sources: CFR, DCF 2008, Eurostat

Note: Employment, GVA and dependence rates refer to average 2006-2008. Dependence rates refer to coastal regions only, not to the whole country.

In total 43 regional clusters have been identified in Italy. The largest clusters have been identified on Sicily – 900 specialized hook and line vessels of about 6m, 690 relatively old (built on average in 1971) and smaller (average 6.6m) vessels using either drift nets or pelagic trawls and 533 vessels newer built on average in 1984) and larger (average 9.2m) vessels hook and line or pelagic trawl and seine. Another important cluster is the 572 Sardinian hook and line vessels.

The ten largest clusters represent 55% of the total SSF. This means that the remaining 33 clusters have on average about 125 vessels, which illustrates how heterogeneous the Italian SSF is.



**Table 39. 10 largest clusters in Italy**

NUTS-2	No. Vessels	Average value				Hull material		Main gears		
		Const. year	GT	kW	LoA	Wood	Fibre	Drift and fixed nets	Hook and line	Pelag. trawl /seine
ITE1 - TOSCANA	281	1982	3	42	7.4	170	39	0	239	5
ITF3 - CAMPANIA	480	1977	2	27	7.0	475	5	0	480	0
ITF3 - CAMPANIA	486	1981	2	35	7.4	421	7	351	40	58
ITF4 - PUGLIA	474	1983	2	27	6.9	427	9	0	474	0
ITF4 - PUGLIA	385	1977	1	10	6.4	357	11	351	13	15
ITG1 - SICILIA	690	1971	2	15	6.6	690	0	239	16	434
ITG1 - SICILIA	533	1984	4	57	9.2	411	39	51	274	176
ITG1 - SICILIA	900	1973	1	11	6.0	899	0	0	900	0
ITG2 - SARDEGNA	283	1985	4	64	8.7	169	31	3	280	0
ITG2 - SARDEGNA	572	1972	1	12	6.4	572	0	0	572	0
Other clusters	4129	1979	2	36	7	3079	265	1497	1322	853
Total	9213*	1978	2	31	7	7670	406	2492	4610	1541

Source: CFR, 30.6.2010

\*The total number of clustered vessels is slightly lower than the total in table 38 as not all vessels could be allocated to a cluster.

### 2.3.4. Spain

The Spanish small-scale fleet is composed of almost 8,000 vessels, employing some 11,000 fishermen, whose earnings are on average 7,400 euro per year. Between 2000 and 2010 the number of the vessels decreased by 40%. More than half of this fleet is located in Galicia. Therefore Galicia achieves also the highest employment dependency rate of 0.5%. However, due to low income levels, the income dependency is estimated at 0.08% only. In all other regions the dependency levels are significantly lower, with an average for all coastal regions (excl. Galicia) of about 0.06% for employment and 0.01% for income.

**Table 40. Three most employment dependent regions in Spain**

NUTS-2 region	Fleet 2000	Fleet 2010	Employment	GVA (mln euro)	Employment dep.	Income dep.
ES11 - GALICIA	7,267	4,338	6,024	40.5	0.51%	0.08%
ES53 - I. BALEARS	586	363	504	3.4	0.10%	0.01%
ES70 - CANARIAS	1,264	822	1,141	7.7	0.13%	0.02%
Other regions	4,155	2,435	3,381	22.7	0.01-0.08%	0.00-0.06%
Grand Total	13,272	7,958	11,051	74.2	0.08%	0.01%

Sources: CFR, DCF 2008, Eurostat

Note: Employment, GVA and dependence rates refer to average 2006-2008. Dependence rates refer to coastal regions only, not to the whole country.

A total of 25 clusters were identified in Spain. The two largest clusters, representing almost half of the Spanish SSF are in Galicia. The largest cluster, with 2,400 boats was the old, small, wooden netters. The second cluster is netters built in fibre on average 20 years later (1989).

The ten major clusters, covering 85% of the Spanish SSF, are all specialized in one gear – either nets or hooks. In regions where two clusters are distinguished, there is one cluster with smaller, older vessels built in wood and another with newer, larger vessels built in fibreglass. The age of the small-scale fleet is in line with the rest of the EU, dating on average from 1977. The oldest cluster, specified below, are the Balears vessels being over 50 years old.

**Table 41. 10 largest clusters in Spain**

NUTS-2	No. vessels	Average value				Hull material		Main gears		
		Const. year	GT	kW	LoA	Wood	Fibre	Drift and fixed nets	Hook and line	
ES11 - GALICIA	2423	1968	1	7	5.1	2422	0	2423	0	
ES11 - GALICIA	1436	1989	1	16	5.8	0	1433	1436	0	
ES11 - GALICIA	479	1993	6	42	10.1	349	84	461	3	
ES51 - CATALUÑA	353	1965	2	22	6.8	353	0	353	0	
ES52 - C. VALENENCIANA	191	1973	3	33	8.0	182	8	174	16	
ES53 - ILAS BALEARS	168	1959	1	20	6.9	168	0	168	0	
ES61 - ANDALUCIA	348	1998	3	26	8.6	0	346	348	0	
ES61 - ANDALUCIA	615	1968	2	18	6.9	610	0	615	0	
ES70 - CANARIAS	166	1987	3	33	7.9	0	160	0	166	
ES70 - CANARIAS	544	1964	1	11	6.5	544	0	0	544	
Other clusters	1235	1984	4	39	8.7	576	597	965	200	
Total	7958	1977	2	20	6.7	5204	2628	6943	929	

Source: CFR, 30.6.2010

### 2.3.5. Portugal

There are some 7,700 small-scale vessels in Portugal providing employment to 11,000 fishermen. The small-scale fleet has been reduced by more than 20% in the past 10 years. This may be at least partly attributed to the low level of earnings of around 9,000 euro per man per year (average 2006-8).

The Azores region shows one of the highest employment dependence rates in the EU of 4%, although the income dependence is only 0.5%. Other relatively SSF-dependent NUTS-2 regions are Algarve and Madeira. The dependence rates in all other regions are around 0.1% for employment and 0.07% for income.

**Table 42. Three most employment dependent regions in Portugal**

NUTS-2 region	Fleet 2000	Fleet 2010	Employment	GVA (mln euro)	Employment dep.	Income dep.
PT15 - ALGARVE	2,060	1,694	1,637	23.7	0.85%	0.35%
PT20 - AÇORES	1,526	737	4,311	16.1	4.05%	0.49%
PT30 - MADEIRA	446	405	321	1.1	0.28%	0.02%
Other	5,783	4,901	4,737	68.4	0.06-0.16%	0.02-0.09%
Grand Total	9,815	7,737	11,006	109.2	0.23%	0.07%

Sources: CFR, DCF 2008, Eurostat

Note: Employment, GVA and dependence rates refer to average 2006-2008. Dependence rates refer to coastal regions only, not to the whole country.

In total 33 clusters were identified in Portugal. The 10 largest clusters presented in Table 43 represent over 70% of the total fleet. The two main clusters are located in Algarve. These vessels are involved in all main fisheries – nets, lines and pots. Their differences lie in construction year, size and hull material. Similar argumentation applies to the clusters in Centro, although these use mainly drift and fixed nets. Finally, there are two distinct clusters on the Azores: one composed of older wooden vessels fishing with nets and another one composed of vessels built on average in 2000 of wood or fibreglass using hooks and lines.

**Table 43. 10 largest clusters in Portugal**

NUTS-2	No. vessels	Average value				Hull material		Main gears		
		Const. year	GT	kW	LoA	Wood	Fibre	Drift and fixed nets	Pots and traps	Hook and line
PT11 - NORTE	316	1975	1	8	5.7	228	0	316	0	0
PT15 - ALGARVE	946	1994	3	38	6.9	141	783	563	195	141
PT15 - ALGARVE	748	1972	1	6	4.8	742	0	375	68	305
PT16 - CENTRO	698	1983	1	9	6.5	698	0	542	27	71
PT16 - CENTRO	489	1991	3	28	6.9	81	254	333	42	74
PT16 - CENTRO	673	1966	1	3	5.0	673	0	354	56	215
PT17 - LISBOA	586	1972	1	4	5.3	576	0	586	0	0
PT20 - AÇORES	309	2000	4	54	7.8	122	155	3	2	304
PT20 - AÇORES	428	1973	2	31	7.0	388	35	22	406	0
PT30 - MADEIRA	316	1962	1	2	4.1	0	0	0	0	316
Other clusters	2228	1988	2	25	6.2	1375	590	1426	122	596
Total	7737	1982	2	20	6.0	5024	1817	4520	918	2022

Source: CFR, 30.6.2010

### 2.3.6. Other regions with high SSF dependency

The three other SSF dependent regions are Yugoiztochen in Bulgaria, Åland in Finland and Highlands and Islands in the UK. The employment dependence rates range from about 0.2% to 1%. Income dependencies are significantly lower with a maximum of 0.1%.

**Table 44: Characteristics of the other SSF dependent NUTS-2 regions**

NUTS-2 region	Fleet 2000	Fleet 2010	Employment	GVA	Employment dep.	Income dep.
BG34 - YUGOIZTOCHEN	1,510	1,300	780	4.1	0.174%	0.123%
FI20 - ÅLAND	324	312	146	0.7	1.033%	0.063%
UKM6 - HIGHLANDS AND ISL.	1,314	1,081	1,453	13.5	0.519%	0.125%

Source: CFR, DCF and Eurostat

The clusters in Bulgaria are on average newer, with an average construction year of 1995. Despite the recent construction, both wood and fibre have been used in equal proportion. Drift and fixed nets are the dominant gear.

The fleet of Åland is composed of clusters of netters of differing construction year. Only one cluster of relatively old vessels is constructed in wood, while all others are built in fibre.

The fleet of Highlands and Islands are mostly potters. The older vessels are built in wood and the newer in fibreglass. There is no clear difference in size between the old and the new generation.

**Table 45: Characteristics of the clusters in other SSF dependent regions**

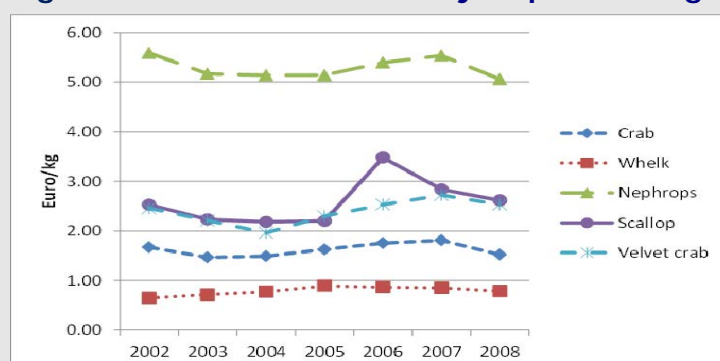
NUTS-2 region / main gear	Num. vessels	Average				Hull material		Main gears		
		C. year	GT	kW	Lo	Wood	Fibre	Drift and fixed nets	Pots and traps	Hook and line
<b>BG34 - YUGOIZTOCHEN</b>	<b>1,300</b>	<b>1995</b>	<b>2</b>	<b>29</b>	<b>7</b>	<b>630</b>	<b>634</b>	<b>1,192</b>	<b>32</b>	<b>74</b>
drift and fixed nets	316	1991	1	18	7	316		316		
drift and fixed nets	120	1999	5	68	9	58	40	111	5	3
mixed gears	121	1992	2	27	8	77	37	23	27	71
drift and fixed nets	210	1996	1	21	6		203	210		
drift and fixed nets	179	1991	1	18	7	179		178		
drift and fixed nets	354	1999	1	19	6		354	354		
<b>FI20 - ÅLAND</b>	<b>312</b>	<b>1986</b>	<b>3</b>	<b>45</b>	<b>7</b>	<b>69</b>	<b>224</b>	<b>300</b>	<b>9</b>	<b>3</b>
drift and fixed nets	62	1973	2	16	7	62		62		
drift and fixed nets	71	1991	1	26	5	1	70	62	8	1
drift and fixed nets	38	1986	7	112	9	6	30	35	1	2
drift and fixed nets	62	1991	2	37	5		47	62		
drift and fixed nets	79	1988	2	35	6		77	79		
<b>UKM6 – HIGHL. AND ISL.</b>	<b>1,081</b>	<b>1986</b>	<b>7</b>	<b>76</b>	<b>8</b>	<b>298</b>	<b>687</b>	<b>26</b>	<b>893</b>	<b>38</b>
Pots and traps	190	1974	3	26	7	190			173	17
Pots and traps	103	1977	11	83	10	103			65	
Pots and traps	67	1990	4	61	7			3	57	3
Pots and traps	423	1990	2	35	6		423		423	0
Mixed gears	72	1989	3	55	7	5	67	23	4	18
Pots and traps	171	1993	8	147	10		171		171	

Source: CFR, 30.6.2010

**BOX 3: Small-scale fisheries in the United Kingdom**

The UK small-scale fleet was composed of some 5,400 vessels in 2010, of which about 70% were considered active. In 2008 their catches amounted to 54,000 tonnes, valued at almost Euro 138 million, i.e. 2.5 euro/kg. The five most important species are crabs, whelk, *nephrops*, scallop and lobster, which accounted of 70% of the landed volume and 75% of landed value. The prices of these five species have remained quite constant between 2002 and 2008, as shown below. These species are indicative of the dependence on non-quota species, particularly shellfish, with potting activity (and some netting in the South of the UK) taking over from inshore trawling for quota species such as cod.

The UK small-scale fleet provided employment to about 7,500 people, who earned an average wage of Euro 5,000 in 2008 and probably another Euro 5,000 through crew share of profits. In the period 2006-2008 the size and performance of SSF in the UK was relatively stable.

**Figure 9: Prices of the five major species caught by the UK SSF**

Source: DCF 2008

### 3. IMPLICATIONS FOR POLICY

#### KEY FINDINGS

- SSF-related policy may be formulated under the reformed CFP as part of the broader context of Maritime policy; balancing social, environmental and economic considerations of the wider maritime environment;
- Arguments in support of SSF are not easily defensible or obviously justifiable in objective rather than subjective/emotional terms. The comparative environmental impacts and social linkages are strengths of SSF that can be viewed as a reason to focus policy on improving their economic, social and environmental performance, while the economic weaknesses of SSF could be taken as justification that policy should not support non-viable businesses in the sector;
- SSF clusters are numerous and widely dispersed around the EU with subtle differences in characteristics between the clusters, making more specific distinction at an EU level difficult. This means that policy at EU level may need to be generalised, allowing for appropriate levels of locally applied policy and management measures;
- SSF related policy measures under a reformed CFP include retaining devolved management within 12nm; exemption of SSF from the introduction of individual transferable rights and preferential financial assistance which is to be further focused than current EFF support; and
- The previous cluster analysis shows that a tighter definition of SSF may not be appropriate. Instead, the integration of fisheries into maritime policy suggests that future policy proposals to support SSF should focus on the relatively low environmental impact, the contribution to social cohesion in coastal communities and the SSF sector's particular needs as micro-enterprises in rural economies.

#### 3.1. Broad legal and economic policy context

The Terms of Reference do not require this study to consider the implications of Chapter 1 and 2 on fisheries policy. Rather the purpose of the study is to provide information that could be used by others e.g. policy makers, to ensure that the Common Fisheries Policy (CFP) properly manages small-scale coastal fisheries. However we have chosen to provide some brief views on the policy aspects of SSF under a reformed CFP.

This chapter reviews first the broader context of the current situation within which the CFP is reviewed, and focuses then on the implications of the conclusions of Chapters 1 and 2 in relation to SSF-related policy.

The present policy context may be summarized as follows:

1. The **Lisbon Treaty** forms the basis of the Common Fisheries Policy, linking it to the Common Agricultural Policy. Important topics of the CAP are a fair standard of living of the producers, increases in productivity, stabilisation of markets and the principle of gradual adjustment.
2. **Europe 2020** strategy calls for sustainable, smart and inclusive development. Social justice, innovation and environmental protection go hand in hand.

3. **New policies are** formulated in the Maritime Strategy Framework Directive, Natura 2000 and the Habitat Guideline. These policies are likely to influence CFP to account more explicitly for broader environmental issues, although it can be argued that the ecosystem approach, which is becoming the basis of the CFP, already does this. However, these policies do not have similar foundations in the Treaty, so they are unlikely to formulate the guiding principles of the future CFP.
4. CFP Reform proposals. The proposed protection of small-scale fisheries must be seen in the light of the text of the Treaty. However, this does not mean that the small-scale fishermen would not be expected to assume responsibility for management of stocks, comply fully with regulations, and if relevant should not reduce overcapacity.

The reform of the Common Market Organisation (CMO) has occurred concurrently with CFP reform. Both proposals have been formulated within the global context of the recent credit crisis and the on-going globalisation of trade in general and trade in fish and fishery products in particular.

Any policy in relation to small-scale fisheries will have to define a balance between 'planet, profit and people'. In view of the budgetary constraints of the EU and Member States, it may be expected that a SSF-specific policy will be geared towards the creation of conditions under which small-scale producers will be able to thrive in a sustainable fashion balancing these three pillars of sustainability (environment, economics, social), but with less direct subsidy.

### 3.2. Should there be a special SSF policy?

Chapter 2 showed that:

- The contribution of SSF to regional income and employment in most NUTS-2 regions is well below 0.1%, and declining;
- Average earnings per fisherman employed in SSF are significantly lower than in large-scale fisheries (LSF) and also lower than the regional average income; and
- The economic dynamics in SSF are low, with limited reinvestment since 2000, and especially since the abolition of subsidies for vessel construction in 2004.

In addition, it should be noted that the value of landings from large-scale fisheries is almost three times higher than from SSF, while contribution of large-scale fisheries in terms of income is more than double that of SSF. Large-scale fisheries employment in terms of full-time equivalents (FTE) is equal to SSF.

There is, however, a continuing perception that SSF are inherently more sustainable than LSF. In fact the economic data presented here shows that one of the three sustainability pillars, the economy, is not well served by SSF. The ability of SSF to impact the marine environment adversely is recognised, but this is assumed to be less likely due to the inability of SSF vessels to travel large distances from port if they over-fish nearby-grounds. This link to the local area is also highlighted as an important contribution to social cohesion in certain areas. However, it is the limited contributions of SSF to the economy (limited GVA and poor profitability) and society (few full time jobs that tend to be poorly paid) that creates the need to provide specific support to the SSF.

Special support for SSF is of course a political decision, and a result of weighing arguments in favour and against such support. Different stakeholders are likely to have different opinions about whether there should be any special treatment of SSF in the future CFP, as

demonstrated by the wide differences in views expressed during public consultation on the Green Paper (see Box below).

#### **BOX 4: Summary of the reform of the CFP, as pertaining to small-scale fisheries**

There is general agreement on the importance of the small-scale coastal fleets for the European fishery. Among Member State some support the idea of a differentiated regime, while a number do not favour a specific approach. The EP supports differentiation and calls for specific programmes for small-scale coastal fleets. The EC determined that "small-scale and coastal fisheries are considered important but limited support was shown for the idea of a differentiated regime beyond current legal provisions" (COM 425/2011). This includes maintaining the 12 mile limit to enable Member State to establish differential regimes if they see fit.

The majority of stakeholders recognise the SSF link to local communities, the use of passive and selective gear, and lower fuel consumption. Some stakeholders pointed to potential problems if different regimes are established for SSF and LSF targeting the same stocks on the same fishing grounds. Many contributions underline however that small-scale coastal fisheries have a (sometimes considerable) impact on the resources, so they should not be exempted from conservation and control measures.

A large number of contributions (including the EP) point to the variety of situations across the EU calling for a flexible approach - adapting the definition of small-scale fisheries to the specificities of regions and/or fisheries. Most supporters advocate a mix of criteria, including vessel length, action radius of the fishery, trip duration, catch volumes, type of gear. Several NGOs and fishing industry contributions want to consider social criteria and the link to the local/regional community. Some propose fishery-based ring fencing and a few suggest inclusion of recreational fisheries in the specific regime.

With regards to decision making, most stakeholders are supportive of a regionalized approach, setting overall criteria at the EU level with management being devolved to some extent to either the national level (MS support this option) or regional/local level. Many within the private sector calls for management at the level of the fishery or fishermen (co- or self-management).

There is general agreement that introduction of rights-based management and individual transferable rights (ITR) should not jeopardize the continued existence of the small-scale coastal fleet. Hence the proposal for CFP reforms stated that while ITR would be required for LSF, the introduction of ITR for SSF will be left to Member States.

Specific financial assistance to SSF for actions such as safety improvement (through modernization aid), increased selectivity, training, certification of fisheries etc. is proposed. However public support for construction of new SSF vessels is not proposed.

Source: op cit. Commission Staff Working Document; Synthesis of the Consultation on the Reform of the Common Fisheries Policy, 16.4.2010; SEC (2010)428 final. Proposal for Reform of the Common Fisheries Policy COM (425) 2011.

The table below presents a SWOT analysis for small-scale fisheries. The SWOT analysis reviews a problem from four perspectives. Evaluation of the Strengths and Weaknesses of SSF is the starting point. Strengths can be viewed as arguments both for special support and for SSF not needing special support. Likewise, weaknesses could be viewed as providing reasons for a special policy to address them, or as suggesting that there is little point in a special policy in support of a 'weak' sector. The SWOT analysis contains arguments related to three dimensions: economic, social and environmental.



**Table 46: SWOT analysis of SSF**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Resilience of small-scale businesses due to low investment and operational costs (and perhaps due to acceptance of low incomes)</li> <li>• Widespread use of passive gears which may reduce the negative impacts of fishing on the environment</li> <li>• Significant contributor to social fabric of many (often remote) communities in some small-defined areas</li> <li>• Creation of considerable numbers of jobs</li> <li>• Short fishing trips may result in high quality of catch</li> <li>• Part-time nature of many SSF mean operators less dependent on sector due to other economic activities</li> <li>• Low energy intensity</li> </ul>	<ul style="list-style-type: none"> <li>• Economic performance is very mixed</li> <li>• Fishermen often earn low incomes</li> <li>• Contribution to NUTS-2 regional incomes and employment is generally very low compared to other non-fishing sectors, declining, and not necessarily more significant than for larger-scale fisheries</li> <li>• Economic dynamism is low, leading to ageing fleet</li> <li>• Weak producer organizations, leading to weak market position (e.g. inability to supply main retail channels)</li> <li>• Vessels may fish in coastal / nursery areas of environmental importance</li> <li>• Focus on short term results</li> <li>• May be harder to patrol/police that larger-scale vessels due to numbers involved</li> <li>• Limited ability to invest, especially over the long term</li> <li>• Small vessel size means strongly impacted by weather conditions</li> <li>• Difficulties in recruiting crew due to low earnings, is leading to an ageing fisher population and more single-operators with increased safety risks</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Strong selling points: local, environmentally friendly, small scale</li> <li>• MSC certification</li> <li>• Application of modern technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of ITRs</li> <li>• Environmental and stock deterioration</li> <li>• Competition for coastal space</li> <li>• Relative earnings in other sectors</li> </ul>

Assessment can also be made of the Opportunities and Threats to a specific SSF policy.

#### **SSF Policy Opportunities**

- Strengths listed above being used as justification for supporting a 'special' sector
- More nuanced definition of SSF reflecting the multiple characteristics of small-scale vessels and regional differences/needs
- Preferential support under EFF, especially for actions supporting environmental and social sustainability
- Protection under any transferable rights policy
- Support to help with diversification and adaptation away from fisheries
- Support for maintenance of tradition/ attractiveness benefitting other economic activities e.g. tourism

#### **Threats to a specific policy for SSF**

- Weaknesses listed above being used as arguments not support a 'weak' sector
- Accusations of an unfair playing field *vis a vis* larger scale vessels
- Ability of EC and Member State to pay for any costs associated with special support (e.g. under EFF)
- Empirical basis for special treatment of SSF is largely lacking



- Possibility that technological innovation may be limited in SSF due to attitudes and lack of resources for investment, meaning that attempts to promote improvements under a future EFF may not be taken up.

### 3.3. Options for special treatment of SSF in a future CFP

#### 3.3.1. Policies relating to definitions of SSF

Critical to the impacts of future policy on small-scale fisheries, will be the definition of small-scale fisheries used to determine any preferential support (e.g. under a future EFF) or protection (e.g. under future policy on rights-based mechanisms). The proposal for the new CFP regulation does not provide a definition of SSF with other definitions under Article 5, but Article 27 does effectively define Small-scale Coastal Fishing (which would be exempt from ITR regimes) as all vessels under 12m not using towed gears (EC COM (2011) 425).

EC COM (2011) 417 states that *"Fishing sustainably is essential for the future of coastal communities, which in some cases will need specific measures to help manage their small-scale coastal fleets. The Commission proposes to develop the CFP as part of the broader maritime economy. This will result in more coherent policies for the EU's seas and coastal areas, and a better contribution to helping coastal regions diversify their sources of income so as to ensure a better quality of life there."*

Future policies could therefore relate to maritime micro enterprises rather than SSF specifically. Given the heterogeneity identified in this analysis this may be more appropriate than attempting to specify exactly what types of vessels are within or not part of a small-scale fishery.

#### 3.3.2. Policy options

There is no specific SSF policy proposed within the reformed CFP, but it does recognise the need to differentiate SSF in relation to the introduction of ITRs, management of the inshore zone within 12nm and provides the potential for preferential financial assistance:

*"The social and economic importance of small-scale coastal fleets and aquaculture in certain regions calls for specific measures for these fleets. The measures should support green, smart and inclusive growth and should contribute to sustainable, low-impact fishing and aquaculture, innovation, income diversification, reconversion, improvement of science and a culture of compliance."* (COM (2011) 417).

Small-scale fishers can be considered as the *'guardians of the coastal zone'*, similar to the role of some farmers in the rural areas. Furthermore, the Green paper states (p.13): *"Bringing and keeping the capacity of the fishing fleets in line with fishing opportunities will inevitably lead to less overall employment in the catching sector. There is a legitimate social objective in trying to protect the most fragile coastal communities from this trend."* This research has identified that there are a number of different clusters of SSF dispersed around the EU. The heterogeneity of the small-scale fleet and recognising the arbitrary line between 'small-scale' and industrialised fleets that differ between Member States, means that a fully differentiated regime based on a precise definition of SSF is not appropriate. Instead the contribution of SSF as small businesses within rural maritime economies should be supported. The following policies and measures could be developed relating to SSF.

### **3.3.2.1. Environmental measures**

Objective: Improvement of environmental status of the coastal marine areas, in relation to fisheries as well as non-fisheries indicators.

Measures:

- Training in environmental monitoring and data collection;
- Creation of regional coastal monitoring networks;
- Fishing for litter and ghost nets;
- Introduction of increased environmentally friendly and 'green' fishing technologies;
- Cooperation with science and environmental protection agencies.

### **3.3.2.2. Social measures**

Objective: Strengthening of the social fabric and resilience of coastal communities, *inter alia* to avoid depopulation of the coastal rural areas.

Measures:

- (Vocational) training to assist diversification and adaptation into new activities / professions;
- Setting up and capacity building of organizations aimed at local development e.g. fisheries local action groups (FLAGs) under Axis 4 of EFF, but focussing on SSF;
- Training and capacity development of small-scale fishers in safety issues, and on issues aimed at ensuring viable businesses and employment generation;
- Support of local SSF initiatives, e.g. development of local/regional fisheries products; and
- Image building in relation to traditional activities, including fisheries.

Measures taken to promote social development can draw on extensive experience of EFF Axis 4, RDF, Leader II and Farnet.

### **3.3.2.3. Economic measures**

Objective: Promotion and safeguarding of economic performance / profitability of SSF through innovation, increasing revenues and reducing costs.

In relation to *increasing productivity* the following measures may be considered:

- Technical innovation: increased efficiency of gears, vessels, on-board equipment and engines. Cooperation with technological firms and research organizations may be stimulated by public provision of R&D funds for development as well as product testing;
- Organizational innovation: strengthening the role of the POs in relation to buying inputs as well as the marketing of fish – promotion of horizontal and vertical linkages;
- Achieving economies of scale through cooperation in administration, logistics, promotion, and sales; and
- Development of new activities related to fisheries: sports fishing, eco-tourism, diving, regional fairs.

*Stabilisation of markets* may be promoted through:

- Development of new (niche) markets, co-operation in the chain and shortening of distribution chains;
- Product development and improvements in labelling, certification, quality, traceability, food hygiene, the 'story behind the product', gastronomy, seasonality, packaging<sup>16</sup>, participation on trade fairs and product testing; and
- Setting up market information systems to achieve greater market transparency.

*Safeguarding small-scale fisheries:*

SSF will to a certain extent be protected from the potentially negative impacts of ITRs such as asset concentration. This protection may maintain the status quo, but this may not be the optimal management of inshore resources as a lack of well-defined rights can prevent effective management of resources. So while not introducing ITRs to SSF may prevent concentration of ITRs in the hands of ever-smaller group of owners, it may also restrict the possibilities of communities of small-scale fishermen, who could potentially acquire additional ITRs and thereby assure a strong economic position.

Fishing communities might therefore be allowed to create 'local ITR funds' managing (incl. buying and selling) community quota. In this context it must be pointed out that legislation in relation to property rights is an exclusive competence of Member States (article 345 of the Treaty). While it is a requirement in the CFP proposal for LSF, it will remain at the discretion of Member States for SSF.

#### **3.3.2.4. Governance measures**

Monitoring and control of small-scale fisheries poses certain difficulties which are apparent from the characteristics shown in Chapters 1 and 2 – large numbers of small vessels widely dispersed along the EU coasts. Detailed controls of landings and effort are likely to become costly and consequently measures in this respect may not be effective.

In view of the relatively short range of small vessels, SSF seem particularly suitable for regionalized local management. Such management could be defined in dialogue with the directly-involved stakeholders and should be based on simply controllable measures, such as:

- Limitation of the number of vessels in a specific area through licensing;
- Licensing must contain a measure of capacity, to avoid increases in the size of the vessels to the legal limit, as many Member States have introduced legislation specifying limits of 6m (Italy), 10m (UK) and 12m (EU for access in specific coastal zones);
- Clear output controls in the form of seasonal and area restrictions; and
- Clear technical measures (characteristics of gear) to protect non-target species.

<sup>16</sup> Farnet – Adding value to local fisheries products, 2011.



## REFERENCES

### References

- Council Regulation (EC) No 1198/2006 of 27 July 2006 on the European Fisheries Fund
- EC COM (2011) 417 Communication from the Commission to the European Parliament, the Council, The European Economic And Social Committee and the Committee of the Regions. Reform of the Common Fisheries Policy.
- EC COM (2011) 425 Proposal for a Regulation of the European Parliament and of the Council on the Common Fisheries Policy.
- FAO, United Nations Fisheries Glossary <http://www.fao.org/fi/glossary>
- REC 361/2003/EC Commission Recommendation of 6<sup>th</sup> May 2003 concerning the definition of micro, small and medium-sized enterprises.

### Reports

- MRAG, Poseidon, IFM, Oceanic, IEEP, Lamans. (2011). *Regional social and economic impacts of change in fisheries-dependent communities: Studies in the Field of the Common Fisheries Policy and Maritime Affairs, Lot 4 Impact Assessment Studies related to the CFP*. DG MARE FISH 2006/06.
- Ifremer (coord.) 2007. *Small-Scale Coastal Fisheries in Europe*. Final report of the contract No FISH/2005/10, 447 p.

### Data Sources

- Community fleet register, 1.1.2000, 1.1.2005 and 30.6.2010
- Eurostat, regional statistics
  - Regional income table lfst\_r\_lfe2emp
  - Regional employment table nama\_r\_e2gdp
- DCF data 2002-2008, Annual Economic Report 2008
- Data on Spain: 'Encuesta económica de pesca marítima – 2008' of the Ministerio de Medio Ambiente y Medio Rural y Marino
- Data on DOM: AND Int and E&Y, Aspects structurels de la politique commune de la pêche dans les RUP, 2006



## ANNEX A – METHODOLOGY NOTE

### Overall Approach

Throughout the study, the methodology was implemented respecting the following criteria:

- Division of the work into two discrete tasks, the first aimed at presenting a typology of SSF, and the second aimed at discussing the economic and socio-economic importance of SSF;
- Use of the most recent data available, subject to reliability and comparability;
- Presentation of all detailed data in Annexes, with the main text of the report being used to provide a presentation of the findings and recommendations; and
- An attempt to provide a study output that is of benefit to policy decision-makers, while also being clear, comprehensive and comprehensible to non-specialists.

### Methodology for clustering

The ToR requires clustering to be based on the following characteristics:

- Length
- Gross tonnage
- Main power
- Main gear
- Secondary gear
- Hull material
- Construction year

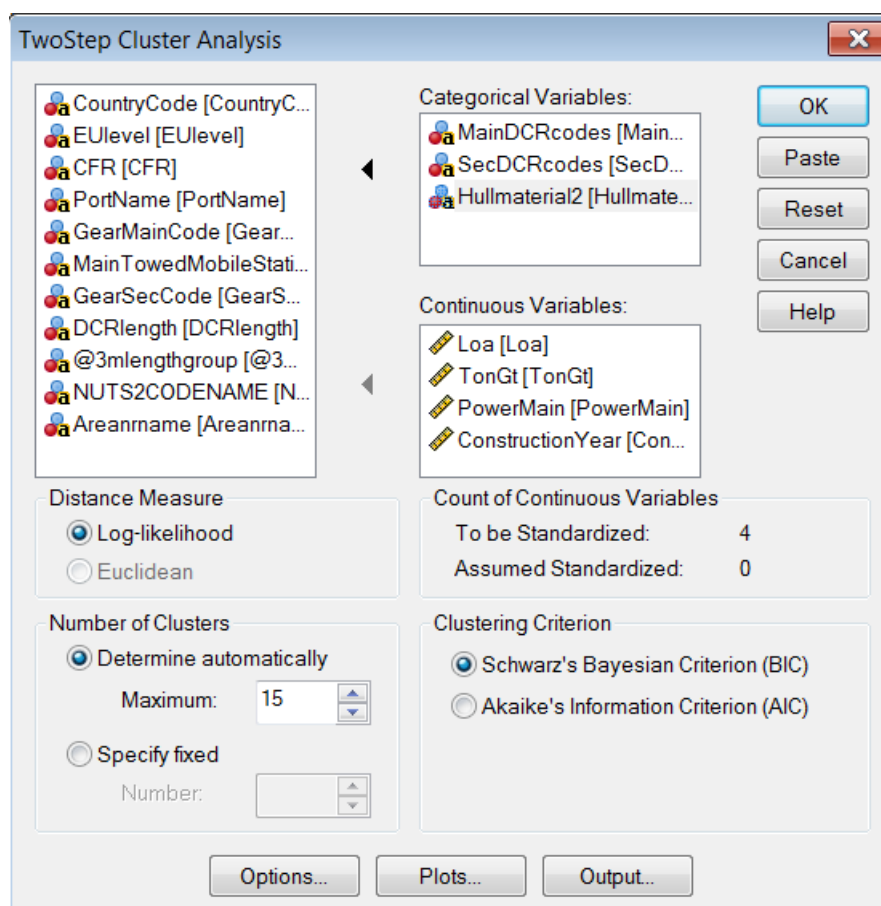
Clustering is carried out in three steps:

1. Adaptation of some of the CFR data;
2. Application of TwoStep Cluster Analysis in SPSS to identify clusters per NUTS-2 region in all Member States. In this step all above mentioned vessels characteristics were included.
3. Identification of 'comparable' NUTS-2 clusters within the EU NUTS-2 regions.

The following adaptations were first made to the CFR data:

- The CFR identifies a large number of gears, some of which are closely related. Therefore, CFR gears were translated into DCF gear definitions which are clearly distinct from each other. In this way, the number of gears was reduced from about 30 to 7. This approach was deemed valid for two main reasons:
  - Clustering with SPSS was tested applying all CFR main and secondary gears. This resulted in 270 regional clusters, compared to 398 clusters based on DCF gears. This means that larger number of gears leads to less clusters, which are necessarily less homogeneous.
  - Use of the 7 DCF gear definitions means that statements can be made about the economic performance at national level of such gears. Sub-dividing gears into 30 different gear types would mean that nothing could be said about such performance, given the resolution of DCF data.
- In the case of hull material, CFR distinguishes four categories: Wood, Metal, Fibre and Other. Furthermore for some vessels no information is provided at all (i.e. the cell is blank). The class 'Other' was merged with the blank cells into a category titled as 'Unknown'.
- Blank cells for secondary gear were also classified as 'Unknown'.

The fleet file containing the above adaptations was imported to SPSS and all required elements were used as criteria for clustering. TwoStep Cluster Analysis together with the Bayesian Information Criterion (BIC) was used, as the criteria contain categorical as well as continuous variables. The file was split according to the NUTS-2 location of the vessels.



Source: SPSS

SPSS generates information on the values of each criterion in each cluster, as presented in the example for Brittany (see Table 47 ). Furthermore, SPSS generates values of BIC, BIC change, Ratio of BIC Changes and Ratio of Distance Measures (RoDM). The number of clusters is usually selected on the basis of the lowest value of the RoDM. The algorithm weighs the trade-off between increased complexity (more clusters) and additional information value and in some cases SPSS selects a lower number of clusters at a second lowest value of RoDM.



**Table 47 Cluster analysis data for FR52 - Brittany**

NUTS2CODENAME = FR52 - BRETAGNE															
Cluster Distribution(a)															
		N	% of Combi ned	% of Total											
Cluster	1	200	19.6%	19.6%											
	2	213	20.9%	20.9%											
	3	169	16.6%	16.6%											
	4	247	24.2%	24.2%											
	5	192	18.8%	18.8%											
	Combined	1,021	100.0%	100.0%											
Total		1,021		100.0%											
Centroids(a)															
		Loa		TonGt		Main		uctionY							
		Mean	Deviati on	Mean	Deviati on	Mean	Deviati on	Mean	Deviati on						
Cluster	1	10.6	1.2	13.1	5.8	128.7	34.3	1983.7	11.0						
	2	7.8	1.5	3.7	2.4	85.9	47.2	1992.4	10.7						
	3	7.8	1.7	4.6	4.0	66.9	38.5	1982.2	10.2						
	4	8.2	1.6	5.3	3.5	68.2	36.1	1976.0	8.1						
	5	9.2	2.1	7.7	5.9	114.0	53.6	1990.4	8.7						
	Combined	8.7	2.0	6.8	5.6	92.1	48.9	1984.7	11.5						
MainDCRcodes(a)															
		DFN		DRB		DTS		FPO		HOK		PTS		TBB	
		Freque ncy	Perce nt	Freque ncy	Perce nt	Freque ncy	Perce nt	Freque ncy	Perce nt	Freque ncy	Perce nt	Freque ncy	Perce nt	Freque ncy	Perce nt
Cluster	1	3	1.2%	3	2.3%	178	98.9%	14	6.1%	0	0.0%	1	5.3%	1	100.0%
	2	78	31.0%	0	0.0%	2	1.1%	48	20.8%	81	39.5%	4	21.1%	0	0.0%
	3	0	0.0%	0	0.0%	0	0.0%	169	73.2%	0	0.0%	0	0.0%	0	0.0%
	4	75	29.8%	92	69.2%	0	0.0%	0	0.0%	66	32.2%	14	73.7%	0	0.0%
	5	96	38.1%	38	28.6%	0	0.0%	0	0.0%	58	28.3%	0	0.0%	0	0.0%
	Combined	252	100.0%	133	100.0%	180	100.0%	231	100.0%	205	100.0%	19	100.0%	1	100.0%
Hullmaterial2(a)															
		Wood		2, Metal		3, Fibre		Unkn,							
		Freque ncy	Perce nt	Freque ncy	Perce nt	Freque ncy	Perce nt	Freque ncy	Perce nt						
Cluster	1	123	26.9%	19	17.6%	56	12.4%	2	33.3%						
	2	4	0.9%	48	44.4%	158	35.1%	3	50.0%						
	3	89	19.5%	30	27.8%	50	11.1%	0	0.0%						
	4	241	52.7%	6	5.6%	0	0.0%	0	0.0%						
	5	0	0.0%	5	4.6%	186	41.3%	1	16.7%						
	Combined	457	100.0%	108	100.0%	450	100.0%	6	100.0%						

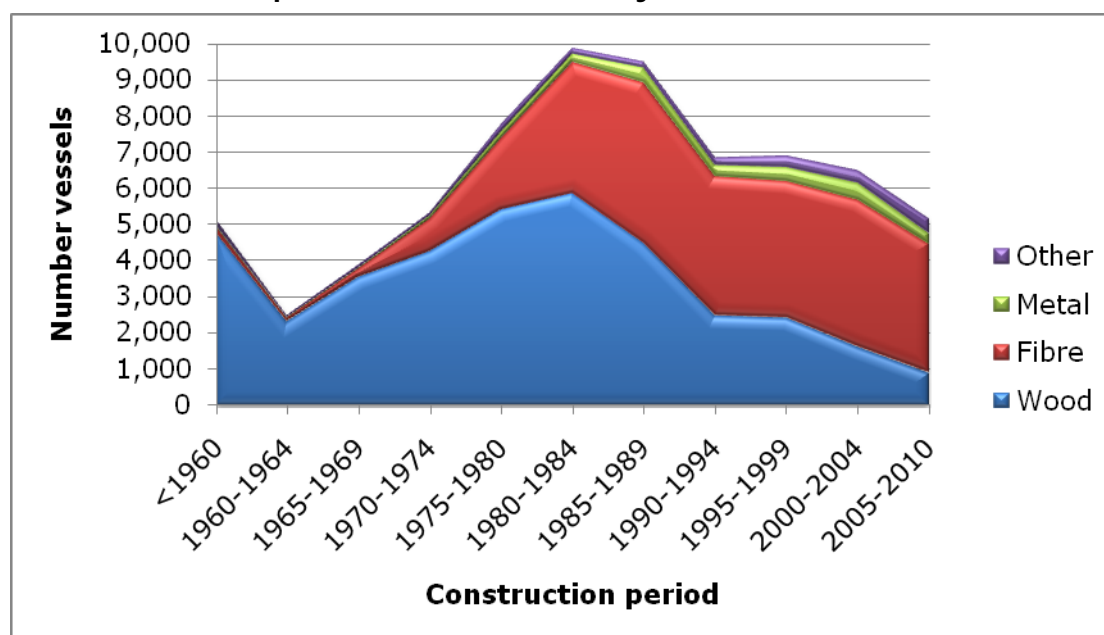
SPSS generates in this way 402 regional (NUTS-2) clusters within the 131 NUTS-2 regions, each with the following information:

- Number of vessels
- Average value (centroids) of
  - Length
  - GT
  - kW
  - Construction year
- Composition (frequencies and shares) in terms of
  - Main gear
  - Secondary gear
  - Hull material

Derivation of comparable clusters across the EU is based on three considerations:

1. Main gear is assumed to be significantly more relevant than secondary gear. Main gear is taken as the first criterion of EU comparability. A cluster is defined as gear X, if at least 65% of the vessels in that clusters declare X as their main gear. Composition of the segment in terms of secondary gears is presented as a descriptor.
2. Vessel length, GT and kW are all characteristics of vessel size, which may be expected to be closely related. Therefore vessel length is taken as the second criterion of EU comparability. Four 3-m length classes have been distinguished in order classify the clusters by length. Average sizes of the clusters in GT and kW are presented as descriptors.
3. Hull material and construction year are closely related. Older vessels are relatively more often built in wood, while the newer vessels are built in metal or fibre. The four hull materials (wood, metal, fibre and other) have been taken as a third criterion of EU comparability. A cluster is characterized as 'Wood' if at least 65% of the vessels are made of wood. Average construction year is presented as a descriptor.

**Figure 10: Relationship between construction year and construction material**



Source: CFR, 30.6.2010

Using the three considerations, all NUTS-2 clusters could be sub-divided into EU-wide clusters and named accordingly. In addition to specific gears and hull materials, a class 'Mixed' had to be added for clusters where the threshold of 65% is not reached by any gear and/or material.

Several comments need to be made in respect of this methodology:

- Each regional cluster may be more or less homogenous given the standard deviations involved:
  - a cluster identified as a drift and fixed nets cluster may have up to 35% of vessels which are not drift and fixed nets vessels;
  - a regional cluster with an average length of 5.8 m is classified among EU clusters of 3.1-6.0 m. However, the relative standard deviation of the length may be 25%, which implies that 95% of the vessels are in the range of 2.9 m and 8.7 m.

Consequently, the number of vessels belonging to drift and fixed nets clusters is different from the number of vessels declaring drift and fixed nets as the main in gear in the CFR. The same applies for all other criteria.

- Cluster analysis using SPSS becomes less meaningful as more characteristics are included in the analysis<sup>17</sup>;
- Cluster analysis relies on relative comparison of the 'Schwarz's Bayesian Information Criterion' (BIC). BIC does not express absolute quality of the clusters, but only whether x-clusters give a better 'fit' than x+1 clusters. The fit itself may or may not be 'good'<sup>18</sup>.
- Clustering in our analysis is based on 7 criteria (the elements specified in the ToR). The role of the criteria may be different for each cluster, i.e. one cluster may be primarily based on gear, while another on hull material. SPSS does not allow specifying any hierarchy of the criteria. It shows which criteria are most important for which cluster on the basis of the Student's t value.

### Methodology for assessment of economic importance of SSF

Given data limitations, it is unfortunately not possible in Chapter 2 of the report to link AER/DCF data to the clusters identified. The table below (Table 48) shows that data from the CFR and the DCF/DCR must be brought to one common denominator. The economic data compiled under the Data Collection Framework (2008) and previously under the Data Collection Regulation (2002-2007) (DCR) does not allow us to take into account NUTS-2 regional differences in fleet composition and its changes. Given that DCF/DCR contains data on Member State level only, analysis at NUTS-2 level has therefore to assume that the distribution of the fleet and the economic performance is approximately similar among all NUTS-2 region within one MS. It is also not possible to identify the specific economic importance of clusters identified in Chapter 1 of this report.

**Table 48: Comparison of data available in CFR and DCF end of 2010**

Coverage	CFR	DCF/DCR
Period	1989-2010	2002-2008
Fleet <12m	Full coverage, data on 70,280 vessels (per 1.1.2010)	Sample, covering a population of 29.121 vessels (62 segments, in 2008)
Member States	All MS	Incomplete, e.g. data from Greece and Spain is fragmentary
NUTS-2	Can be determined	Only at Member State level, no regional distinctions
Gears	All main and secondary gears (as specified in the CVR regulation)	Only 6-8 main gears
Length	Each vessel with its length	2002-7 – one length group (0-12m); 2008 3 length groups (<6, 6-10,10-12, but also 6-12 and 0-12))
Tonnage	Each vessel with its GT	Total GT per segment
Engine power	Each vessel with its kW	Total kW per segment
Hull material	5 materials	Not specified
Construction year	Each vessel with its construction year	Average construction year per segment for 2008, but not 2002-7

<sup>17</sup> SPSS TwoStep performs well if all variables are continuous. The results are less satisfactory, if the variables are of mixed type. One reason for this unsatisfactory finding is the fact that differences in categorical variables are given a higher weight than differences in continuous variables. Different combinations of the categorical variables can dominate the results. In addition, SPSS TwoStep clustering is not able to detect correctly models with no cluster solutions. Source: J. Bacher, K. Wenzig and M. Volger, SPSS TwoStep Cluster – a first evaluation, study carried out at the University of Erlangen-Nürnberg.

<sup>18</sup> A word on caution is also expressed by E. Mooi & M. Sarsted, Concise Guide to Market Research, The Process, Data and Methods Using the IBM SPSS Statistics, Springer, 2011: *Do not rely on the automatic model selection when there is a mix of continuous and categorical variables, as this does not always work well. Examine the results very carefully! .... Again, choosing the number of segments should not be exclusively based on the results provided by SPSS. Data only provide a rough guideline.*

The study has thus exploited regional data available from Eurostat – in particular data on employment and income by NUTS-2 region – to assess the economic and socio-economic importance of small-scale fisheries in the NUTS-2 regions of each MS. The following Eurostat statistical series have been used:

- Gross domestic product (GDP) at current market prices at NUTS level 2 (nama\_r\_e2gdp);
- Real growth rate of regional gross value added (GVA) at basic prices at NUTS level 2 - percentage change on previous year (nama\_r\_e2grgdp);
- Regional structural business statistics (reg\_sbs);
- Number of local units, persons employed and wages and salaries by region (sbs\_cre\_rreg)

### **Methodology for qualitative interpretation of data**

Qualitative information in this report is based on both desk study sources and in-country investigations, to provide an interpretation of the data generated by the cluster analysis and the assessment of the economic role of small-scale fisheries in NUTS-2 regions.

A recent study<sup>19</sup> on behalf of DG MARE (finalised in March 2011), which the consultants were also involved with, has provided a particularly rich source of information. The study provides economic and social information on 24 case studies completed to inform the CFP reform process. The objective of the studies, which covered both small-scale and large-scale fisheries, was to provide a picture of the economic and social impacts on local and regional coastal communities brought about by the fisheries sector, disaggregated into catching, processing, support services, and aquaculture sub-sectors. Data and interpretation are provided in the studies on. Amongst other things, the evolution of fleets, employment, target stocks, drivers of change, methods of adaptation, the economic contribution of fisheries, and the role of public sector support, over the last ten years.

The table below provides a list of the case studies completed.

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<sup>19</sup> MRAG, Poseidon, IFM, Oceanic, IEEP, Lamans (2011).  
[http://ec.europa.eu/fisheries/documentation/studies/index\\_en.htm](http://ec.europa.eu/fisheries/documentation/studies/index_en.htm)

**Table 49: Regional social and economic case studies (2011)**

No.	Marine Basin	Country	Specific location	NUTS-2 region <i>(text in red italics if overlap with important clusters in Table 51)</i>
1	Atlantic	United Kingdom	Stornoway	UKM64
2	Atlantic	Ireland	Killybegs	<i>IE01 Border Midland</i>
3	Atlantic	France	Lorient	<i>FR52 Bretagne</i>
4	Atlantic	Spain	Celeiro	<i>ES11 Galicia</i>
5	Atlantic	Spain	Costa da Morte	<i>ES11 Galicia</i>
6	Atlantic	Portugal	Ria de Aveiro	<i>PT16 Centro</i>
7	Atlantic	Portugal	Peniche	<i>PT16 Centro</i>
8	Mediterranean	Spain	Carboneras	<i>ES61 Andalucia</i>
9	Mediterranean	France	Sète	FR81 Languedoc Roussillon
10	Mediterranean	Italy	Oristano	<i>ITG2 Sardegna</i>
11	Mediterranean	Italy	Mazara del Vallo	<i>ITG1 Sicilia</i>
12	Mediterranean	Greece	Amvrakikos	GR21 Ipeiros and GR23 Dytiki Ellada
13	Black Sea	Bulgaria	Burgas	BG34 Yugoiztochen
14	Black Sea	Romania	Danube Delta	<i>RO22 Sud-Est</i>
15	Baltic	Estonia	Lake Peipsi	<i>EE00 Estonia</i>
16	Baltic	Latvia	Kolka	<i>LV00 Latvia</i>
17	Baltic	Poland	Wladyslawowo	<i>PL63 Pomorskie Voyvodship</i>
18	Baltic	Poland	Darlowo	<i>PL42 Zachodniopomors</i>
19	Baltic	Germany	Rugen Island	<i>DE8 Mecklenburg-Vorpommern</i>
20	North Sea	Denmark	Hirtshals	DK05 - Nordjylland
21	North Sea	Germany	Bremerhaven	DE5 Bremen
22	North Sea	Netherlands	Urk	NL23 Flevoland
23	North Sea	Belgium	Oostende	<i>BE25 West Vlaanderen</i>
24	North Sea	United Kingdom	Grimsby	UKE1 East Riding

Other qualitative information informing the interpretation in this study for the European Parliament of the characteristics and drivers of SSF clusters, has included the EC-funded project on SSF published in 2007<sup>20</sup>, which while older also contains useful information, especially given its focus on small-scale fisheries. The table below shows the case studies presented in the 2007 study, and their NUTS-2 regions.

**Table 50: SSF case studies (2007)**

Country	Case study area	NUTS 2 region <i>(text in blue italic if overlap with important clusters in Table 51)</i>
Estonia	Herring and in garpike Gulf of Riga	<i>EE00 Estonia</i>
Greece	Mesolonghi lagoon and Gulf of Patras	GR23 Dytiki Ellada
France	Spiny lobster and finfish netters in Southern Corsica	FR83 Corse
Portugal	Dredge fleet of the Algarve	<i>PT15 Algarve</i>
France	Hook and line fleet and seaweed and bivalve dredgers of the Iroise Sea	<i>FR52 Bretagne</i>
Ireland	Whelk fishery of SW Irish Sea	<i>IE02 Southern and Eastern</i>
Ireland	Crab and lobster trap fisheries off the north west coast of Ireland	<i>IE01 Border Midland</i>
France	Pelagic liners/longliners on moored FASs in Martinique	<i>FR92 Martinique</i>

Particularly important clusters in terms of vessel numbers for each Member State are identified in Annex B, and are highlighted/summarized as follows (top few clusters for each country) in Table 51 below. **Figures in red italic** are for those NUTS-2 regions/clusters in which a socio-economic dependency case study (2011) was based, **figures in blue underline** are for those NUTS-2 regions/clusters in which a small-scale fishery study (2007) was

<sup>20</sup> Ifremer (2007)

based, and figures in green bold are for those NUTS-2 regions/clusters in which both a socio-economic dependency case study and a small-scale fishery study were based:

**Table 51: Most important clusters (by vessel numbers) in Member States**

MS	NUTS2	Nr. vessels	Con. Year	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl
BE	BE25 - WEST - VLAANDEREN	1	2007	11.8			1		1						
BG	BG33 - SEVEROIZTOCHEN	418	1992	5.5	186		231	1	418						
		499	1992	6.4	184	81	229	5	299		7	18	175		
CY	CY00 - KYPROS/KINRIS	578	1985	8.1	577	1			548			2	28		
		384	1995	5.5	4	4	376		354				30		
DE	DE80 - MECKLENBURG - VOR	192	1996	5.1			192		192						
	DEF0 - SCHLESWIG - HOLST	277	1981	5.9	39		238		276						1
DK	DK02 - SJÆLLAND	211	1983	5.2			211		211						
	DK03 - SYDDANMARK	179	1982	6.0			179		178		1				
	DK04 - MIDTJYLLAND	348	1986	6.0			348		330	11	6		1		
EE	EE00 - EESTI	335	1991	4.7		64	269	2	293		1	30	6	5	
		316	1988	7.4	306	4	6		293			23			
		204	1988	8.3	155	13	36				64	42	11	87	
ES	ES11 - GALICIA	2,423	1968	5.1	2422			1	2423						
		1,436	1989	5.8		2	1433	1	1436						
	ES61 - ANDALUCIA	348	1998	8.6			346	2	348						
		615	1968	6.9	610	2		3	615						
	ES70 - CANARIAS	544	1964	6.5	544								544		
FI	FI18 - ETELÄ - SUOMI	532	1987	5.3			532		532						
		400	1978	6.3	291	102		7	297			101		2	
		482	1991	5.3			482		242		1	239			
FR	FR52 - BRETAGNE	213	1992	7.8	4	48	158	3	78		2	48	81	4	
		247	1976	8.2	241	6			75	92			66	14	
	FR82 - PROVENCE - ALPES -	241	1964	7.4	241				199	41				1	
		346	1985	7.4	36	9	293	8	325	6	1		13	1	
	FR91 - GUADELOUPE	322	1999	7.0			322					322			
	FR92 - MARTINIQUE	415	1988	7.0	66	1	348	-	3	-	12	311	88	1	-
		680	1997	7.2	-	4	676		4			674	1	1	
GR	GR24 - STEREA ELLADA	504	1992	5.7	2	2	496	4	306			4	194		
	GR41 - VOREIO AIGAIO	635	1981	6.0	635				635						
	GR42 - NOTIO AIGAIO	533	1983	6.5	533				533						
		424	1996	6.6		4	419	1	272			1	151		
		670	1983	6.6	670				222				448		
	GR43 - KRITI	554	1985	6.9	314	4	235	1	119		11		423	1	
IE	IE01 - BORDER,MIDLAND	233	1993	6.5		4	229			49	2	166	2	14	
		217	1986	6.8	216		1					217			
	IE02 - SOUTHERNANDEA	327	1990	6.1	-	-	327	-	153	121	-	52	1	-	-
		372	1983	9.0	218	66	85	3	122	134	11	9	19	76	1
		309	1985	6.8	116	1	191	1	-			308		1	

MS	NUTS2	Nr. vessels	Con. Year	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl
IT	ITF3 - CAMPANIA	480	1977	7.0	475		5						480		
		486	1981	7.4	421	1	7	57	351	13	24		40	58	
	ITF4 - PUGLIA	474	1983	6.9	427		9	38					474		
	ITG1 - SICILIA	690	1971	6.6	690				239	1			16	434	
		533	1984	9.2	411		39	83	51		32		274	176	
		900	1973	6.0	899	1							900		
	ITG2 - SARDEGNA	572	1972	6.4	572								572		
LT	LT00 - LIETUVA	53	1985	5.0		26	27		53						
		51	1988	5.6	24	12	13	2	49				2		
LV	LV00 - LATVIJA	143	1991	5.8	126			17	143						
		288	1987	4.7			288		288						
MT	MT00 - MALTA	333	1972	5.9	332	1			145		1		184		3
		292	1996	5.9			288	4	112				180		
NL	NL32 - NOORD - HOLLAND	69	1988	6.2			63	6	45		10	4	6		4
	NL34 - ZEELAND	64	1998	6.8	1	4	49	10		1	2	9	47	1	4
PL	PL42 - ZACHODNIOPOMORS	90	1982	7.9	28		32	30	90						
	PL63 - POMORSKIE	159	1982	7.1	96		63		159						
		76	1986	9.2	15	29	1	31	74				2		
PT	PT15 - ALGARVE	946	1994	6.9	141	12	783	10	563	37	4	195	141	6	-
	-	748	1972	4.8	742			6	375			68	305		
	PT16 - CENTRO	698	1983	6.5	698				542	58		27	71		
		489	1991	6.9	81	35	254	119	333	4	34	42	74	1	1
		673	1966	5.0	673				354	1	47	56	215		
		586	1972	5.3	576			10	586						
RO	RO22 - SUD - EST	290	1995	6.8	288		2		283		5		2		
		161	1992	7.6	5	4	152		158		1	1	1		
S	SE22 - SYDSVERIGE	172	1980	8.8	40	11	121		167		2	1	1	1	
	SE23 - VÄSTSVERIGE	100	1985	8.8	18		82		59		13		28		
		135	1987	7.3			135					135			
SI	SI02 - ZAHODNASLOVENI	82	1984	5.8			78	4	82						
		69	1968	6.1	69				69						
UK	UKK3 - CORNWALLANDIS	158	1992	6.5			153	5	15			53	90		
	UKL1 - WESTWALES&TH	185	1991	5.6	10		175		97		18		66		4
		170	1993	6.3	1		169					170			
	UKM6 - HIGHLANDSANDI	190	1974	6.9	190							173	17		
		423	1990	6.5			423					423			
	UKN0 - NORTHERNIRELAN	177	1990	7.2	32	5	136	4	6			166	5		

Source: CFR 30.6.2010 and SPSS TwoStep Cluster Analysis

The regional social and economic case studies, along with the small-scale fisheries studies, present much information which in many respects is applicable to the clusters identified, even though the case studies are generally NUTS 3-5 level. We have therefore drawn on the wide range of case studies to provide qualitative information on key factors affecting

and determining clusters, and driving change in SSF, in the clusters/NUTS-2 regions, and have contacted the case study authors where necessary for additional insights.

These information sources, along with consultations with local experts in a number of countries, have been used to provide qualitative interpretation of the data presented in this study.



## **ANNEX B – CLUSTER ANALYSIS: TABLES BY NUTS-2 REGIONS**

This Annex provides the SPSS outputs identifying SSF clusters in each NUTS-2 region (see Table 52). There are 398 clusters identified in the 131 NUTS-2 regions, implying an average of just over 3 clusters in each region. But as is evident from Table 52, some regions have only 1 cluster identified, while the maximum number of clusters identified is 11, and a number of regions have more than 6 or 7 clusters.

The clusters are based on all the criteria required in the Terms of Reference as needing to be used, namely:

- Primary gear;
- Secondary gear;
- Length;
- Construction material;
- Construction year;
- GT; and
- kW.

Tables 3, 4 and 5 use an 'expert opinion' method to determine the extent to which the clusters identified in different NUTS-2 regions using SPSS may be considered 'similar', as described in Annex A.

**Table 52: Clusters identified in all NUTS-2 regions in the EU**

				Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)							Sec DCR codes (no. vessels)								
MS	NUTS2	Seg. nr.	Nr. vessels	Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un-known
BE	BE25 - WEST - VLAANDEREN	1	1	2007	21	221	11.8			1		1									1						
BE			1	2007	21	221	11.8			1		1									1						
Total																											
BG	BG33 - SEVEROIZTOCHEN	1	418	1992	1	9	5.5	186		231	1	418								418							
		2	499	1992	2	20	6.4	184	81	229	5	299		7	18	175				86		1		360			52
	BG34 - YUGOIZTOCHEN	1	316	1991	1	18	6.7	316				316								316							
		2	120	1999	5	68	9.1	58	22	40		111			5	3	1			100				15			5
		3	121	1992	2	27	7.5	77	7	37		23			27	71				2			2	89			28
		4	210	1996	1	21	6.2		7	203		210															
		5	179	1991	1	18	6.8	179				178		1							2	1	207				
		6	354	1999	1	19	6.1			354		354								354							
BG			2,217	1994	2	25	6.8	1000	117	1094	6	1909		8	50	249	1			1276		3	3	850			85
Total																											
CY	CY00 - KYPROS/KINRIS	1	578	1985	3	38	8.1	577	1			548			2	28				430			1	139			8
		2	384	1995	2	37	5.5	4	4	376		354				30				82			9	272			21
CY			962	1990	2	37	6.8	581	5	376		902			2	58				512			10	411			29
Total																											
DE	DE80 - MECKLENBURG - VOR	1	39	1970	11	81	10.6	20	11	8		34		2	2	1				4		12	3	17			3
		2	56	1979	1	7	5.5	35		21		31			25					13						43	
		3	54	1987	5	55	8.8			54		54												54			
		4	192	1996	1	13	5.1			192		192												192			
		5	50	1995	1	14	5.4			50		49				1							50				
		6	92	1977	2	13	6.2	92				92												92			
		7	67	1983	2	19	7.6	16	51			67										28	38			1	
	DE93 - LUENEBURG	1	4	1976	11	109	10.8	1	3									4	1		1					2	
	DEF0 - SCHLESWIG - HOLST	1	277	1981	2	16	5.9	39		238		276							1				277				
		2	144	1984	5	50	7.8	22	10	112		116		9	9	1		9	26		18	4	48			1	47
DE			975	1983	4	38	7.4	225	75	675		911		11	36	3		14	44		31	362	441			1	96
Total																											
DK	DK01 -	1	78	1982	3	28	6.9			78		77		1							13		47				18

MS	NUTS2	Seg. nr.	Nr. vessels	Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)								Sec DCR codes (no. vessels)							
				Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un- known
	HOVEDSTADEN	2	35	1984	10	98	10.3		3	32		27		7		1			19				14				2
		3	74	1982	2	20	5.9			73	1	60	1	5		8			72				2				
		4	66	1969	6	44	8.4	66				56		7		3			29		6		17				14
	DK02 - SJÆLLAND	1	211	1983	1	13	5.2			211		211							211								
		2	49	1988	6	58	8.9	1	13	31	4	41		8					14		1		5				29
		3	77	1980	4	46	7.9	8		69		63				14			57		20						
		4	74	1969	2	17	6.3	73			1	73				1			74								
		5	73	1969	5	36	7.6	73				72		1									24				49
		6	81	1982	3	29	7.0		2	78	1	80				1							81				
		7	73	1982	1	11	5.1			73		72			1												73
	DK03 - SYDDANMARK	1	179	1982	2	19	6.0			179		178		1					179								
		2	66	1981	1	17	5.4			66		65		1													66
		3	51	1975	1	13	5.9	43	5		3	50	1						27			1					23
		4	43	1971	10	81	10.1	25	4	14		23	1	18		1			19		11		3				10
	DK04 - MIDTJYLLAND	5	49	1981	4	37	7.5	1		48		49									16		33				
		1	180	1986	3	39	7.3		2	178		175		2	2	1				4	34	6	60				76
		2	348	1986	2	22	6.0			348		330	11	6		1			348								
		3	147	1977	2	21	6.3	130	7		10	142	2	2		1			94	1	9	1	18				24
	DK05 - NORDJYLLAND	4	46	1979	13	116	11.4	24	16	6		2	33	10			1		10	22	7		1				6
		1	88	1975	5	47	8.1	63	3	19	3	55	3	21		9			53	1	10		14				10
		2	117	1986	3	39	7.2			115	2	113		3		1				2	31		56				28
		3	113	1986	2	25	6.1		1	112		111	2						112			1					
			2,318	1980	4	38	7.3	507	56	1730	25	2125	54	93	3	42	1		1318	30	158	9	375				428
DK Total																											
EE	EE00 - EESTI	1	335	1991	1	10	4.7		64	269	2	293		1	30	6	5		20			115	134				66
		2	316	1988	2	15	7.4	306	4	6		293			23					1	6	160	103		2		44
		3	204	1988	3	26	8.3	155	13	36				64	42	11	87		146	1	14	20	2		5		16
EE Total			855	1989	2	17	6.8	461	81	311	2	586		65	95	17	92		166	2	20	295	239		7		126
ES	ES11 - GALICIA	1	2,423	1968	1	7	5.1	2422			1	2423							2423								
		2	1,436	1989	1	16	5.8		2	1433	1	1436							1436								
		3	479	1993	6	42	10.1	349	31	84	15	461				3	15		460								19
	ES12 - PRINCIPADODEA	1	89	2000	5	40	9.7		45	44		89							89								
		2	127	1981	3	28	7.3	127				127							127								
		3	25	1989	5	47	9.6	17	4	4		3				21	1										25

				Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)							Sec DCR codes (no. vessels)								
MS	NUTS2	Seg. nr.	Nr. vessels	Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un-known
ES	ES13 - CANTABRIA	1	52	1989	5	40	9.3	21	5	25	1	51				1			45								7
	ES21 - PAISVASCO	1	63	1994	4	34	9.0	10	2	51		63							62								1
	ES51 - CATALUÑA	1	150	1993	4	41	8.8			147	3	150							150								
		2	60	1965	6	40	9.2	44		16				21		35	4										60
		3	353	1965	2	22	6.8	353					353							353							
	ES52 - COMUNIDADVALEN	1	143	1994	5	41	9.4			143		143							143								
		2	191	1973	3	33	8.0	182		8	1	174				16	1		174			10					7
	ES53 - ILASBALEARS	1	123	1991	3	37	7.8			123		123							123								
		2	72	1973	4	58	9.4	68	1	3		55				11	6		55								17
		3	168	1959	1	20	6.9	168				168							168								
	ES61 - ANDALUCIA	1	348	1998	3	26	8.6				346	2	348							348							
		2	615	1968	2	18	6.9	610	2			3	615							615							
		3	43	1967	7	49	10.0	34			9				6		14	23									43
	ES62 - REGIÓNDEMURCI	1	103	1967	1	16	6.4	103					103							103							
		2	54	1988	4	41	9.0	26			28		50		1		2	1		50							4
	ES63 – CEUTA Y MELILLA	1	19	1965	5	48	9.3	14	1	4		8					8	3		8							11
	ES70 - CANARIAS	1	166	1987	3	33	7.9			2	160	4					166					166					
		2	112	1978	5	47	10.0	112									108	4				108					4
		3	544	1964	1	11	6.5	544									544					544					
	ES Total		7,958	1980	4	33	8.3	5204	95	2628	31	6943			28		929	58		6932			828				198
FI	FI18 - ETELÄ - SUOMI	1	532	1987	1	30	5.3			532		532									1	161	40				330
		2	400	1978	2	23	6.3	291	102		7	297				101		2	165		2	66	20		2	145	
		3	235	1985	7	124	9.6	47	17	169	2	140				48	31	16	150			25	34		2	24	
		4	482	1991	1	29	5.3			482		242		1	239				404			30	6			42	
	FI19 - LANSI - SUOMI	1	187	1980	2	26	6.6	187				147				38	2		86			27	5				69
		2	169	1990	2	43	6.4		20	149		127				42			5			146	3			15	
		3	77	1993	8	173	9.8		21	56		57				20			49			2	3		3	20	
		4	125	1985	2	38	6.5			124	1	125														125	
		5	172	1992	2	37	6.2			172		172							172								
		6	117	1988	2	35	6.3			3	113	1				117			117								
	FI1A - POHJOIS - SUOMI	1	201	1990	2	29	6.3	78	19	104		39				162			195			5					1
		2	189	1986	2	29	6.6	72	3	114		135				54						115					74

				Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)							Sec DCR codes (no. vessels)									
MS	NUTS2	Seg. nr.	Nr. vessels	Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un-known	
	FI20 - ÅLAND	3	68	1987	7	110	9.7	20	15	33		55		2	6		5		25		1	17	3		1		21	
		1	62	1973	2	16	6.9	62				62							25			6	8				23	
		2	71	1991	1	26	5.1	1		70		62			8	1			71									
		3	38	1986	7	112	9.5	6	2	30		35			1	2			29				8				1	
		4	62	1991	2	37	5.4		15	47		62							6			35	19				2	
		5	79	1988	2	35	5.8			77	2	79																79
FI Total		3,266	1987	3	53	6.9	764	217	2272	13	2368			3	836	36	23		1499		4	635	149		8		971	
FR	FR23 - HAUTE - NORMANDIE	1	52	1990	7	140	10.0	2	17	32	1	40			8	4			19			20	7		2		4	
		2	30	1981	15	135	10.7	24		6				25			3	2	4	11	1				7	1	6	
	FR25 - BASSE - NORMANDIE	1	81	1982	14	138	10.7	57	3	21			18	61				1	1	4	32	13	7	1		14	4	6
		2	103	2000	4	83	7.9		103						103				103									
		3	200	1989	4	89	8.1	24	76	98	2	51	9		99	41			51	4	3	26	52				64	
	FR30 - NORD - PAS - DE - CAL	1	23	1989	4	71	7.3		8	15		5		4	4	3	7		5			2	2	1			13	
		2	63	1987	10	166	11.4	4	2	57		63							52			7	3				1	
		3	41	1989	15	130	10.7	9	4	28		3	3	22	3			10	11	8	10				8	2	2	
	FR51 – PAYS DE LA LOIR	1	164	1985	8	99	9.6	71	7	86			2	116		41	5		17	39	4	30	7	1	50	1	15	
		2	211	1988	6	94	8.6	36	10	165		103	3		47	36	22		62	8	9	26	74		21		11	
	FR52 - BRETAGNE	1	200	1984	13	129	10.6	123	19	56	2	3	3	178	14		1	1	10	163	1	5	2		15		4	
		2	213	1992	4	86	7.8	4	48	158	3	78		2	48	81	4			17	3	13	134	4			42	
		3	169	1982	5	67	7.8	89	30	50					169				133				12				24	
		4	247	1976	5	68	8.2	241	6			75	92			66	14		62	12	10	84	52				27	
		5	192	1990	8	114	9.2		5	186	1	96	38			58			103		2	72	14	1				
	FR53 - POITOU - CHARENTE	1	88	1989	6	89	9.0		17	70	1	49		7	13	17		2	26	2	3	14	14		9		20	
		2	105	1977	8	85	10.6	94		9	2	20	1	65	6	9	4		14	24	4	6	13	1	29		14	
	FR61 - AQUITAINE	1	167	1992	2	51	6.4	15	22	120	10	132			18	6	11		66	3		15	9		1		73	
		2	73	1985	8	145	10.3	29	7	36	1	38		9	2	16	8		26			5	28		1		13	
	FR81 - LANGUEDOC - ROUSS	1	43	1985	1	51	6.5			43			30			12	1		1			1	1				40	
		2	76	1970	1	25	5.9	66	10			64	2			10			54	1		2	17				2	
		3	145	1985	1	44	6.1			144	1				1	144			145									
		4	98	1985	2	57	6.7			98		97			1					4			83				11	
		5	59	1992	6	165	10.4	5	3	48	3	40	11		1	5	2		43				10		2		4	
		6	195	1983	1	53	6.5			195		195							195									
	FR82 - PROVENCE -	1	241	1964	3	40	7.4	241				199	41				1		229	4		1					7	

				Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)								Sec DCR codes (no. vessels)								
MS	NUTS2	Seg. nr.	Nr. vessels	Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un-known	
FR	ALPES -	2	346	1985	3	85	7.4	36	9	293	8	325	6	1		13	1		232	1		1	106		1		5	
	FR83 - CORSE	1	99	1990	3	116	7.8			99		86		1		12			18			2	60				19	
		2	84	1973	4	74	8.0	74	10			79		1		4			15				55				14	
	FR91 -	1	202	2000	3	152	7.4		1	201		67		2		118	15		19		1	83	44		1		54	
	GUADELOUPE	2	101	1991	2	103	6.7	71			30	7		3	67	13	11		12			14	26		2		47	
		3	101	2001	7	271	9.9	3	8	89	1	7				85	9		9				1	13		1		77
		4	208	1998	3	133	7.2			208						208			65					137		6		
		5	322	1999	2	120	7.0			322						322											322	
	FR92 -	1	415	1988	1	59	7.0	66	1	348		3			12	311	88	1		170		11	69	127		1		37
	MARTINIQUE	2	680	1997	2	92	7.2			4	676		4			674	1	1		2		1		5				672
	FR93 - GUYANE	1	118	2000	4	52	9.6	101	9	8		118								105								13
	FR94 - RÉUNION	1	189	1996	1	36	5.9	16	6	166	1						189						1	187				1
		2	67	1997	5	164	8.5			1	66						67							64				3
	FR Total		6,211	1988	5	99	8.3	1501	446	4197	67	2047	259		509	2204	1063	113	16	2082	333	76	507	1359	8	171	8	1667
	GR	GR11 -	1	279	1983	2	25	7.0	176		103				7	101	170	1		241		1	2	33				2
		ANATOLIKIMAKED	2	131	1992	2	24	6.3			130	1	122	5		3	1			70	2		16	36				7
			3	301	1986	2	23	7.3	300	1			300	1						217			25	46				13
		GR12 - KENTRIKI	1	175	1984	2	23	6.8	175				175												175			
		MAKEDONIA	2	72	1988	2	20	6.5	32		40					16	56					6			66			
		3	128	1988	1	29	6.5	45		82	1	108	1		2	17				16		72					40	
		4	160	1993	2	26	6.1		1	159		160												160				
		5	177	1994	1	20	6.3		1	174	2	177							177									
		6	139	1992	5	78	9.0			139		74	5		1	59			139									
		7	301	1983	2	21	6.7	301				301							301									
		8	84	1981	7	85	10.0	83			1	24	2	20	2	36			64	2		1	17					
		9	121	1987	1	20	6.8	32		89						121			121									
		0	216	1979	2	19	6.4	215	1								216			216								
		1	210	1994	1	21	6.0			210							210			210								
GR14 - THESSALIA		1	151	1991	1	10	4.8			151		108					43			107			1	43				
		2	90	1990	5	56	9.4	52	1	36	1	45	1	3	5	36			48			4	37				1	
		3	122	1977	2	13	6.3	120	1			1	122									1	121					
		4	298	1980	2	16	6.9	298				298							298									
		5	152	1973	1	11	6.0	152							1		151			108			1	42				1

MS	NUTS2	Seg. nr.	Nr. vessels	Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)								Sec DCR codes (no. vessels)							
				Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un- known
	GR21 - IPEIROS	1	94	1996	2	15	6.3		1	93		73				21			74			1	18				1
		2	53	1983	1	8	6.0	50		3					4	49			40				11				2
		3	30	1987	5	58	9.4	27		3		18		2		10			24				6				
		4	62	1983	1	11	6.7	57		5		62								1			61				
		5	236	1983	1	10	7.0	236				236							236								
		6	55	1978	1	7	6.0	53	1	1		55										16					39
	GR22 – IONIA NISIA	1	302	1974	1	8	5.4	302				302											302				
		2	245	1980	2	14	6.7	243	2			245							233			3					9
		3	230	1989	3	19	7.7	230				230											230				
		4	104	1975	5	62	9.6	95		9		35		56		13			56		3		45				
		5	173	1994	2	17	6.1			173		173											172				1
		6	64	1984	2	14	6.6	51	1	12						64						1	61				2
		7	242	1980	2	13	6.4	242							2	240			242								
		8	106	1996	1	15	6.1			106		49				57			106								
	GR23 – DYTIKI ELLADA	1	184	1976	1	10	6.3	184				174				10							136				48
		2	110	1992	2	17	6.1	17		92	1	108			1		1						110				
		3	202	1979	1	13	6.6	202				193		6	3				197			5					
		4	127	1993	1	16	5.8			126	1	73	1			53			107			1	10				9
		5	177	1981	1	12	6.6	177								177			115				62				
		6	52	1982	6	71	9.9	47	1	4		28		11		12	1		36				15				1
	GR24 – STEREA ELLADA	1	317	1979	2	14	6.3	317					1		1	315			316	1							
		2	504	1992	1	15	5.7	2	2	496	4	306			4	194			346	1		6	139				12
		3	336	1977	1	14	6.1	335	1			232				104						6	317				13
		4	145	1975	6	70	10.0	141		3	1	39	1	47	9	49			106	2		1	35				1
		5	388	1980	2	15	6.5	388				388							386	2							
	GR25 - PELOPONNISOS	1	165	1979	2	12	6.3	158		7		27			3	135						7	92				66
		2	351	1982	2	13	6.4	351								351			351								
		3	115	1978	6	55	9.8	108		7		33		52	3	27			69		1		42				3
		4	213	1993	1	13	6.0		1	211	1	107			1	105			213								
		5	153	1992	1	12	6.0		1	152		128	1			24						2	151				
		6	259	1983	2	15	7.0	259				258			1				259								
		7	364	1982	2	14	6.7	364				364											364				
	GR30 - ATTIKI	1	352	1977	2	14	6.5	349		3		243	18		3	88			9	5		18	290				30

				Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)							Sec DCR codes (no. vessels)									
MS	NUTS2	Seg. nr.	Nr. vessels	Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un-known	
	GR41 – VOREIO AIGAIO	2	306	1998	3	24	7.6			306		298	3		1	4			154	2		8	129				13	
		3	411	1979	2	17	7.0	411				411							411									
		4	124	1974	7	60	10.3	123	1			28		39	2	55			79			2	42		1			
		5	166	1994	2	29	7.1		1	165		2	5		6	153			150	4			8				4	
		6	376	1978	2	13	6.4	376							5	371			376									
		1	635	1981	1	10	6.0	635				635												635				
		2	202	1980	5	50	9.5	199	1	2		107	1	47		47			87		6		107				2	
		3	303	1993	1	13	5.7		1	302		189	1		4	109			156	1		5	140				1	
		4	394	1980	1	10	6.0	394				393				1			357	9		15		3			10	
		5	485	1979	1	11	5.9	485					2		16	467			395	1		3	86					
	GR42 – NOTIO AIGAIO	1	533	1983	2	14	6.5	533				533												533				
		2	400	1982	5	42	8.9	371		29		107	1	63	16	213			164		4	19	197				16	
		3	424	1996	2	16	6.6		4	419	1	272			1	151			228			1	193				2	
	GR43 - KRITI	4	670	1983	2	14	6.6	670				222					448			670								
		1	338	1987	2	15	6.8	207	1	130		338											1	337				
		2	554	1985	2	19	6.9	314	4	235	1	119			11		423	1		480		1	2	66		1		4
GR Total		16,138	1984	2	23	6.9	11684	30	4408	16	9847	50	365	337	5535	4			9545	55	16	246	5918	3	2		353	
IE	IE01 - BORDER, MIDLAND	1	159	1986	2	17	7.0	89		70		155				3	1		6	2	1	109	8		2		31	
		2	102	1982	10	78	10.7	59	16	24	3	29	28		19	2	24		12	11	5	21	2	1	7		43	
		3	233	1993	2	25	6.5		4	229			49	2	166	2	14		42	13	4	11	20	2	5		136	
		4	217	1986	2	16	6.8	216		1					217				17	7			11	1	1		180	
		5	111	1977	3	19	7.3	109	1		1		104			7			24		1	25		3			58	
	IE02 – SOUTHERN AND EASTERN	1	327	1990	2	16	6.1			327		153	121		52	1			78	3		128	35	3	4		76	
		2	372	1983	7	52	9.0	218	66	85	3	122	134	11	9	19	76	1	61	24	9	106	6	2	24		140	
		3	309	1985	2	31	6.8	116	1	191	1				308		1		18	19	1		11				260	
	IE Total		1,830	1985	4	32	7.5	807	88	927	8	459	436	13	771	34	116	1	258	79	21	400	93	12	43		924	
IT	ITC3 - LIGURIA	1	103	1979	2	29	6.7	55	1	26	21						103						103					
		2	149	1970	2	22	6.7	149								149			148				1					
		3	75	1982	4	85	9.1	39	1	14	21	11		11		27	26		44		4		16		4		7	
		4	98	1987	1	22	6.0			49	49					98			98									
	ITD3 - VENETO	1	184	1969	1	22	6.9	184				183							1	1							22	161
		2	47	1996	3	72	7.9		2	12	33	34					12	1		16				4			1	26
		3	79	1978	6	91	11.0	74	1	1	3	6	24	47				2		41		6		5		6	1	20



				Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)							Sec DCR codes (no. vessels)									
MS	NUTS2	Seg. nr.	Nr. vessels	Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un-known	
	ITD4 - FRIULI - VENEZIA	4	64	1972	1	16	6.3	62		2				1		53	10		58				6					
		1	183	1976	3	47	7.8	158		13	12	40	13	21			109		22		10		98		14	2	37	
		2	182	1979	1	36	6.6	151		7	24						182		182									
	ITD5 - EMILIA - ROMAGNA	1	111	1981	5	76	10.3	106				5	1	4	103				3	58		1		25		12	3	12
		2	226	1976	2	34	6.8	160	1	8	57	224							2		3		17			34	172	
		3	162	1988	2	63	7.0	77	4	11	70	8			5		137	12		151				11				
	ITE1 - TOSCANA	1	281	1982	3	42	7.4	170	1	39	71				37		239	5		257				18		6		
		2	187	1978	2	24	6.7	139	1	19	28	64						123		6	2	7		133			39	
	ITE3 - MARCHE	1	266	1982	1	18	5.5	159	4	14	89	261						5				77		22				167
		2	197	1986	3	59	7.6	88	10	18	81	10	18	39		108	22		149		4		29		7		8	
	ITE4 - LAZIO	1	185	1979	2	26	7.1	162			11	12	185						1	51	7		3			1	122	
		2	236	1979	3	46	8.2	194			21	21	3	10	5		169	49		195				39		2		
	ITF1 - ABRUZZO	1	28	1987	8	103	11.4	21	6			1		24	2		1	1		6		18		1				3
		2	78	1990	1	34	6.3	29	9	4	36	21			9		44	4		55		9		14				
		3	111	1999	1	14	5.7		11	16	84	111																111
		4	130	1974	1	12	5.3	130				130										1						129
	ITF2 - MOLISE	1	14	1986	4	56	8.3	11	2	1		1	4				8	1		9		2						3
		2	32	1985	1	12	6.2	20	1	2	9	32										1		1				30
	ITF3 - CAMPANIA	1	480	1977	2	27	7.0	475			5						480			480			1					
		2	486	1981	2	35	7.4	421	1	7	57	351	13	24			40	58		113	15	7		82		6	1	262
	ITF4 - PUGLIA	1	109	1983	7	73	10.8	105	4			21	29	49			1	9		39		18		12		4	2	34
		2	474	1983	2	27	6.9	427			9	38					474			473							1	
		3	385	1977	1	10	6.4	357			11	17	351				13	15	6	8		6		100			8	263
	ITF6 - CALABRIA	1	49	1998	1	9	5.3		2	8	39	3					37	9		38		2		8				1
		2	264	1973	1	10	6.1	264									264			263		1						
		3	39	1986	5	71	10.3	35				4			6		29	4		34						3		2
		4	62	1973	1	12	6.1	62					46					16		28		12		2				20
		5	185	1973	1	12	6.5	185										185						185				
		6	68	1983	4	64	10.1	63				5			3			65						68				
	ITG1 - SICILIA	1	690	1971	2	15	6.6	690					239	1			16	434				5		539				146
		2	533	1984	4	57	9.2	411			39	83	51		32		274	176		360		1	1	139		11		21
		3	900	1973	1	11	6.0	899	1								900			900								
	ITG2 - SARDEGNA	1	226	1975	3	41	7.8	197			8	21	102		24		3	97		29		1		118		1		77
		2	283	1985	4	64	8.7	169	3	31	80	3					280			283								

				Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)							Sec DCR codes (no. vessels)								
MS	NUTS2	Seg. nr.	Nr. vessels	Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un-known
IT Total	LT00 - LIETUVA	3	572	1972	1	12	6.4	572								572			572								
			9,213	1981	3	38	7.4	7670	66	406	1071	2492	140	418		4610	1541	12	5117	68	203	1	1799		76	76	1873
		1	53	1985	1	16	5.0		26	27		53												53			
		2	51	1988	1	17	5.6	24	12	13	2	49				2			7			13	13				18
LT Total		3	20	1981	7	57	9.8		17	3		18			1	1			5		1	6	8				
			124	1985	3	30	6.8	24	55	43	2	120			1	3			12		1	19	74				18
		1	143	1991	1	6	5.8	126			17	143											19				124
		2	288	1987	1	3	4.7			288		288															288
LV Total	LV00 - LATVIJA	3	65	1977	1	6	4.7		65			65															65
		4	90	1985	1	5	4.5		7	83		90											90				
		5	99	1987	5	32	8.8	10	53	36		98						1				1	21			77	
			685	1985	2	10	5.7	136	125	407	17	684						1				1	130				554
MT Total	MT00 - MALTA	1	145	1984	6	110	9.5	88	2	54	1	15				104	26		8			4	81		47		5
		2	333	1972	2	28	5.9	332	1			145			1		184		3	69		1	55	180			28
		3	233	1992	2	51	5.5	46		187		26				100	107			89			62	44		2	36
		4	292	1996	2	63	5.9			288	4	112					180							292			
MT Total			1,003	1986	3	63	6.7	466	3	529	5	298		1	100	575	26	3	166		1	121	597		49		69
NL Total	NL11 - GRONINGEN	1	5	1970	6	52	7.6	2	1	2		1			1		1	2			3	2					
	NL12 - FRIESLAND	1	9	1969	1	18	5.8		4	4	1	3			2	3		1			2	1	1				5
	NL23 - FLEVOLAND	1	18	1985	3	47	6.3		4	13	1	4		5	1	3	1	4	3		6				1	8	
	NL32 - NOORD - HOLLAND	1	36	1982	2	25	7.2	11	25			4		6	10	7	6	3	3		4	6	4		7		12
		2	69	1988	3	36	6.2			63	6	45		10	4	6		4	12		10	8	12		5	2	20
	NL33 - ZUID - HOLLAND	1	24	1991	5	75	8.2		4	20		24							1		9	4	7			3	
	NL34 - ZEELAND	2	30	1989	2	52	6.8		14	12	4	1		9	8	10		2	7	1			3			2	17
		1	64	1998	2	125	6.8	1	4	49	10		1	2	9	47	1	4	2	3				13		2	44
		2	56	1988	3	50	8.1		32	18	6	23	2	5	18		7	1	12	1	3	16	2		4		18
		NL41 - NOORD - BRABANT	1	2	1987	2	21	7.9		2			1			1							1				
NL Total			313	1985	3	50	7.1	14	90	181	28	106	3	37	54	76	16	21	40	5	37	38	42		16	10	125
PL	PL42 –	1	76	1987	3	26	8.2	35	9	26	6	4		1	69	2			61		3		3				9

				Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)								Sec DCR codes (no. vessels)							
MS	NUTS2	Seg. nr.	Nr. vessels	Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un-known
	ZACHODNIO POMORS	2	82	1991	9	68	10.0	1	81			75		7					2		14	4	55		6		1
		3	90	1982	4	34	7.9	28		32	30	90									4	8	78				
	PL62 - WARMINSKO - MAZUR	1	24	1992	4	67	8.2		1	23					24				24								
		2	29	2001	2	25	6.4			25	4	29											29				
	PL63 - POMORSKIE	1	159	1982	3	27	7.1	96		63		159										1	59	85			14
		2	54	1982	5	48	7.9	22	5	22	5				30	24			49		1		4				
		3	76	1986	8	50	9.2	15	29	1	31	74					2		1			7	65				3
PL Total		590	1988	5	43	8.1	197	125	192	76	431			8	123	28		137		23	107	290		6		27	
PT	PT11 - NORTE	1	225	2000	4	39	7.7	11	121	92	1	194	2		3	16	6	4	157	2		33	14		4	4	11
		2	221	1984	2	23	6.3	210	2	8	1	101	2	10	28	66		14	28	6	11	72	47	1		9	47
		3	283	1984	1	20	6.4	283				283							283								
		4	316	1975	1	8	5.7	228			88	316							15		1	2	13				285
		5	224	1999	1	14	5.3		106	118		224												1			223
	PT15 - ALGARVE	1	946	1994	3	38	6.9	141	12	783	10	563	37	4	195	141	6		289	6		298	251		5		97
		2	748	1972	1	6	4.8	742			6	375			68	305			64			33	105	1			545
	PT16 - CENTRO	1	698	1983	1	9	6.5	698				542	58		27	71			297	131	41	75	130	18	1	1	4
		2	489	1991	3	28	6.9	81	35	254	119	333	4	34	42	74	1	1	147	43	1	88	80	2	2		126
		3	673	1966	1	3	5.0	673				354	1	47	56	215			7				17				649
	PT17 - LISBOA	1	220	1977	0	3	3.5	220									220						87				133
		2	97	1967	7	58	9.9	89	4	4		65	4	1	8	18		1	12	6		16	25		1		37
		3	200	1991	1	26	5.8	105	1	94		6	9	23	59	96		7	29		2	21	103	2		1	42
		4	254	1982	2	24	6.5	235	19			252				2			86	9	1	75	79			4	
		5	225	2002	2	32	6.3			225		225							114			71	27			13	
		6	586	1972	1	4	5.3	576			10	586															586
	PT18 - ALENTEJO	1	122	1987	3	37	7.1	80		41	1	76	1		19	26			28			30	49		1		14
		2	68	1970	1	5	4.4	68								68											68
	PT20 - AÇORES	1	309	2000	4	54	7.8	122	31	155	1	3			2	304			3			59	113	43	2		89
		2	428	1973	2	31	7.0	388	3	35	2	22			406								425				3
	PT30 - MADEIRA	1	316	1962	1	2	4.1				316					316							24				292
		2	89	1984	4	37	6.6	74	1	8	6				5	84						3	25				61
PT Total			7,737	1983	2	23	6.2	5024	335	1817	561	4520	118	119	918	2022	13	27	1559	203	57	876	1614	68	16	32	3312
RO	RO11 - NORD -	1	1	2006	1	6	5.7			1		1											1				

				Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)							Sec DCR codes (no. vessels)								
MS	NUTS2	Seg. nr.	Nr. vessels	Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un-known
	VEST																										
	RO22 - SUD - EST	1	290	1995	1	4	6.8	288		2		283		5		2			56				226				8
		2	161	1992	2	14	7.6	5	4	152		158		1	1	1			14		6	1	105				35
	RO32 - BUCURESTI - ILF	1	1	2002	1	3	5.0			1						1			1								
			453	1999	1	7	6.2	293	4	156		442		6	1	4			71		6	1	332				43
	SE11 - STOCKHOLM	1	17	1964	10	80	10.2	9	7	1		15			1	1			7			5	5				
		2	16	1983	2	68	6.6	1		15		6			10				12			3					1
	SE12 – ÖSTRA MELLANSVERIGE	1	38	1970	6	59	9.1	14	7	16	1	37		1					26		1	9	1				1
		2	19	1981	3	70	7.2	4	1	14					19				5			13					1
	SE21 – SMÅLAND MED ÖAR.	1	82	1969	7	57	9.0	47	3	32		77		2	1	2			53		2	6	17				4
		2	33	1975	2	33	6.9	18		15					33				13			15					5
	SE22 – SYD SVERIGE	1	172	1980	7	65	8.8	40	11	121		167		2	1	1	1		76		1	8	67				20
		2	81	1976	3	27	6.8	25	1	55					60	20	1		54			15	3				9
	SE23 – VÄST SVERIGE	1	100	1985	5	95	8.8	18		82		59		13		28			47		2	36	14				1
		2	77	1987	3	61	7.2		1	76					77				27	2	4		17		2		25
		3	46	1993	9	175	9.9		20	26		6			37	2	1		14			32					
		4	37	1982	15	170	11.0	11	7	19			1	35		1			3		19	2	4				9
		5	76	1965	3	33	7.5	76							74		2		12		3	40	8		1		12
		6	135	1987	3	62	7.3			135					135						3	135					
	SE31 – NORRA MELLAN SVERIGE	1	46	1985	2	53	6.9	4		42		34		1	11				33		1	10	1				1
	SE32 - MELLERSTANORRL	1	33	1983	3	65	7.5	1	3	28	1	18		2	12		1		26		1	5					1
	SE33 – ÖVRE NORRLAND	1	24	1986	10	187	11.0	2	10	12		1		23					14		2	4			1		3
		2	67	1985	1	37	6.3			67					67				47			14					6
		3	41	1982	3	75	7.6	12		29		35			6				28			13					
SE Total			1,140	1980	5	78	8.2	282	71	785	2	455	1	79	544	55	6		497	2	36	365	137		4		99
SI	SI02 – ZAHODNA SLOVENI	1	13	1977	8	179	11.0	6	3	3	1			11			2		9						1		3
		2	82	1984	2	35	5.8			78	4	82							78			1			1		2
		3	69	1968	2	21	6.1	69				69							67								2
SI			164	1976	4	78	7.6	75	3	81	5	151		11			2		154			1			2		7

				Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)							Sec DCR codes (no. vessels)								
MS	NUTS2	Seg. nr.	Nr. vessels	Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un-known
Total																											
UK	UKC1 - TEESVALLEY&D	1	36	1991	9	108	9.3	6	9	20	1	5	2	13	10	4	1	1	1		1	1					33
		2	48	1976	4	37	7.6	48				11			35	2			3								45
		3	45	1992	3	45	7.1	4		39	2				45				7		1	9					28
	UKC2 - NORTHUMBERLAND	1	60	1992	3	74	7.2			59	1	8		3	48	1						1					59
		2	45	1993	9	106	9.9	9	16	19	1	3	3	20	19				10		4	5	2				24
		3	58	1973	5	47	9.0	58				11		9	36		1	1			1						57
	UKD1 - CUMBRIA	1	19	1992	10	91	9.5	3	15		1	1	4	8	2				4		2		1				16
		2	46	1987	3	44	7.0			43	3	11		14	18				3	1							45
	UKD2 - CHESHIRE	1	26	1988	3	40	7.1	3		23		7		6	5				8				1				25
	UKD3 - GREATER MANCHES	1	2	1997	15	150	10.7			2					2												2
	UKD4 - LANCASHIRE	1	35	1992	4	90	8.3		12		23		2	31	1				1		1						34
		2	52	1985	2	40	6.7	9		42	1	9	1	24	10				8								52
	UKD5 - MERSEYSIDE	1	12	1986	5	50	7.5	1	1	10		2		4	3	1			2	1							11
	UKE1 – EAST RIDING & N	1	34	1992	1	39	6.2		1	32	1	4		1	23	6				2							32
		2	26	1989	6	102	9.4	9	7	9	1	2	1	4	18				1		1	6					18
	UKE2 – NORTH YORKSHIRE	1	30	1991	6	75	8.5	12	3	15			1	2	26	1				1			4				25
	UKF3 – LINCOLNSHIRE	1	5	1989	2	34	6.7	1		4				2	3								1				4
		2	16	1994	12	108	10.6		16										16		1	1					14
	UKH1 – EAST ANGLIA	1	83	1991	2	31	6.0			83		34			39	8			2								83
		2	52	1992	6	116	8.8		1	49	2	14		1	31	6				16			5	11			20
		3	37	1989	8	86	9.1	1	16	20			1	19	1				16	1		2					34
		4	41	1969	3	32	7.2	37			4	12		9	7	4			9	2			2	2			35
	UKH3 - ESSEX	1	60	1988	4	58	7.2			60		25	1	11	20	2			1	9		5	3	4			39
		2	25	1979	9	84	9.5	5	19		1	4	4	14	2				1	3	2	1					19
	UKI2 - OUTERLONDON	1	18	1982	9	84	10.0	5	10	2	1		2	7			2	7				1					17
		2	15	1990	2	44	7.0	1	1	13		8		2	4	1				3			1				11
	UKJ2 - SURREY,EAST&	1	57	1997	10	121	9.7		23	31	3	14	12	8	22				1	19	2	2	6				28
		2	31	1990	3	68	7.0			31			1	16		12			2						1		30
		3	33	1974	5	40	7.7	33				13	1	2	16	1					1	1	5				26

MS	NUTS2	Seg. nr.	Nr. vessels	Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)								Sec DCR codes (no. vessels)							
				Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un- known
	UKJ3 – HAMPSHIRE & ISL	4	76	1990	2	33	6.4			75	1	1			75					1		24					51
		5	31	1990	2	34	6.2			31		16	1		9	5			28				3				
		6	78	1989	2	34	5.9			77	1	78															78
	UKJ4 - KENT	1	86	1993	3	65	7.1			86		20	9		45	12			8		1	9	1				67
		2	82	1981	7	86	8.5	31	19	28	4	7	31	15	23	2		4	2	8		2	3				67
		1	41	1992	5	93	8.4		1	40		36	4	1					6	2	1	1	1				30
	UKK1 - GLOUCESTERSHIRE	2	40	1990	4	61	7.6			39	1		2	4	30	4			6			3					31
		3	19	1973	6	59	8.6	13	5		1	5		9	2	1		2		1							18
		1	1	1996	2	55	6.6			1					1												1
	UKK2 - DORSET&SOMERS	1	51	1978	2	42	7.0	47	2		2	17	5	1	19	7	1	1	1			3	1				46
		2	58	1989	6	112	8.7	10	6	41	1	1	4	20	32	1			12		1		1				44
		3	58	1994	2	54	6.4	3		54	1		32		7	19				12		7					39
	UKK3 – CORNWALL AND IS	4	81	1989	2	32	5.9			81		30			51												81
		1	137	1990	2	25	5.7			137						137											137
		2	158	1992	2	46	6.5			153	5	15			53	90			97		7	36	17		1		
	UKK4 - DEVON	3	142	1989	2	28	5.9		2	140		50	3	10	79						1						141
		4	96	1988	12	144	10.2	27	10	57	2	8	12	22	53	1			5	3		5	3				80
		5	106	1974	4	35	7.1	95			11	29	1	2	35	39			16		4	9	4				73
	UKL1 – WEST WALES & TH	1	42	1992	16	140	10.5	2	30	8	2		18	18		1	1	4	2	1	1	2	2				34
		2	74	1971	5	45	7.8	74				8	1	15	39	10	1		1			5	2				66
		3	86	1996	3	85	7.1			46	40	12	3			70		1									86
	UKL2 – EAST WALES	4	119	1992	4	75	7.5		6	86	27		8		111					5	1				1		112
		5	93	1990	2	46	6.1				93			93													93
		6	82	1986	2	36	6.0			82		35		46			1										82
	UKM2 – EASTERN SCOTL AND	7	77	1993	4	68	7.2	2		70	5	6			38	33			37		1	26	13				
		1	185	1991	1	35	5.6	10		175		97		18		66		4	18		3		1				163
		2	124	1986	6	89	8.6	32	32	41	19	9	6	23	74	4		8	3	1							120
	UKM3 S-W SCOTLAND	3	170	1993	2	41	6.3	1		169					170				5	2		15	1				147
		1	14	1990	4	56	7.9	2	3	8	1	6	2	2	3			1	1	2							11
		1	44	1984	13	118	10.3	14	17	13			4	40							1		1				42
	UKM2 – EASTERN SCOTL AND	2	52	1978	4	43	7.8	40	7		5			1	48	3			1			3	1				47
		3	164	1992	3	45	6.9			164		5			153	5		1	2	1		3					158
		1	69	1990	2	41	6.7	9	4	54	2	8	1	5	54	1						1					68

MS	NUTS2	Seg. nr.	Nr. vessels	Average value / cluster				Hull material (no. vessels)				Main DCR codes (no. vessels)								Sec DCR codes (no. vessels)							
				Con. Year	GT	kW	Loa	Wood	Metal	Fibre	Unkn.	Drift and fixed nets	Dredge	Demersal trawl and seine	Pots and traps	Hook and line	Pelagic trawl and seine	Beam trawl	Drift and fixed nets	Dredge	Demersal trawl / seine	Pots and traps	Hook and line	Pas. gears var.	Pelagic trawl / seine	Beam trawl	Un- known
	UKM5 – NORTH EAST SCOTLAND	2	16	1993	10	109	9.8	4	12				2	13	1												16
		1	41	1993	2	26	6.2			41		5	1			34		1									41
		2	39	1998	5	99	8.6		7	26	6		1		29	9						1					38
		3	39	1986	11	86	9.5	17	11	9	2	10		27	1			1	1		1	1					36
		4	32	1973	2	30	7.1	31		1					21	11			2								30
	UKM6 – HIGHLANDS AND ISLANDS	5	101	1991	2	24	6.3			101					101				1								100
		1	190	1974	3	26	6.9	190							173	17											190
		2	103	1977	11	83	10.1	103					11	27	65				2								101
		3	67	1990	4	61	7.5		39		28	3	3	1	57	3											67
		4	423	1990	2	35	6.5			423					423												423
		5	72	1989	3	55	7.0	5		67		23	13	14	4	18			3			8					61
		6	55	1989	15	123	10.6		29	26			18	37													55
		7	171	1993	8	147	9.8			171					171				1		1		1				168
	UKN0 – NORTHERN IRELAND	1	60	1987	10	101	9.7	10	20	29	1	3	21	31	3			2	1	5	3						51
		2	177	1990	3	48	7.2	32	5	136	4	6			166	5			1				1				175
UK Total			5,369	1988	5	66	7.8	1049	417	3592	311	747	253	725	2865	657	8	114	342	54	48	215	76		3		4631
Total			69,522	1985	4	48	7.4	37964	2504	26808	2246	38544	1314	2499	8940	15996	2021	208	31727	831	743	5039	14926	91	403	127	15635

Source: CFR 30.6.2010 and SPSS TwoStep Cluster Analysis

**Table 53: Summary of characteristics of the EU wide clusters**

			Average value				Hull material				Main gears							Secondary gears							
	No. reg. seg *	No. vessels	C. year	GT	kW	Leng th	Wood	Metal	Fibre	Unkn. .	DFN	DRB	DTS	FPO	HOK	PTS	TBB	DFN	DRB	DTS	FPO	HOK	PGP	PTS	TBB
DFN																									
3.1-6.0																									
- Wood	10	5,056	1973	1	8	5.4	4922	15	0	119	5042	3	0	0	11	0	0	2876	10	2	20	986	3	0	0
- Metal	1	65	1977	1	6	4.7	0	65	0	0	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- Fibre	23	5,212	1988	1	19	5.5	44	93	5064	11	5026	13	14	39	114	5	1	2610	0	1	651	944	0	1	0
- Unkn.	1	111	1999	1	14	5.7	0	11	16	84	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- Mixed	5	1,012	1990	1	13	5.4	369	148	403	92	1005	0	0	0	2	5	0	425	0	77	13	88	1	0	0
6.1-9.0																									
- Wood	50	12,548	1979	2	20	6.8	12167	153	62	166	11683	133	47	198	385	93	9	6490	220	100	496	3572	18	11	71
- Metal	1	67	1983	2	19	7.6	16	51	0	0	67	0	0	0	0	0	0	0	0	0	28	38	0	0	0
- Fibre	38	5,408	1991	3	39	7.0	160	96	5111	41	5146	20	32	100	83	14	13	2617	20	162	346	1692	0	7	19
- Unkn.	1	47	1996	3	72	7.9	0	2	12	33	34	0	0	0	12	1	0	16	0	0	0	4	0	0	1
- Mixed	11	1,957	1989	3	27	7.1	660	227	906	164	1683	7	42	101	110	9	5	324	63	10	485	629	2	8	4
9.1-12.0																									
- Wood	4	766	1989	6	47	9.9	607	45	99	15	699	4	1	8	32	21	1	632	6	0	16	25	0	1	0
- Metal	2	102	1989	8	66	10.0	1	98	3	0	93	0	7	1	1	0	0	7	0	15	10	63	0	6	0
- Fibre	8	479	1991	7	103	9.9	25	33	418	3	429	11	7	22	8	2	0	397	0	1	9	38	0	5	0
- Mixed	11	687	1986	6	67	9.4	232	161	260	34	633	0	8	23	16	7	0	419	0	16	67	130	0	3	0
DRB																									
6.1-9.0																									
- Wood	1	111	1977	3	19	7.3	109	1	0	1	0	104	0	0	7	0	0	24	0	1	25	0	3	0	0
- Fibre	1	43	1985	1	51	6.5	0	0	43	0	0	30	0	0	12	1	0	1	0	0	1	1	0	0	0
9.1-12.0																									
- Wood	1	28	1987	8	103	11.4	21	6	0	1	0	24	2	0	1	1	0	6	0	18	0	1	0	0	0
- Mixed	1	46	1979	13	116	11.4	24	16	6	0	2	33	10	0	0	1	0	10	22	7	0	1	0	0	0
DTS																									
6.1-9.0																									
- Unkn.	2	128	1990	3	58	6.7	0	12	0	116	0	2	124	1	0	0	1	0	1	0	0	0	0	0	0
9.1-12.0																									
- Wood	3	222	1981	10	107	10.5	187	3	27	5	1	22	189	0	0	4	6	66	43	15	7	26	0	33	8
- Metal	1	16	1993	10	109	9.8	4	12	0	0	0	2	13	1	0	0	0	0	0	0	0	0	0	0	0
- Mixed	8	576	1985	12	122	10.3	244	103	224	5	14	28	467	15	42	8	2	54	202	28	42	14	1	67	1
FPO																									



			Average value				Hull material				Main gears							Secondary gears							
	No. reg. seg *	No. vessels	C. year	GT	kW	Leng th	Wood	Metal	Fibre	Unkn .	DFN	DRB	DTS	FPO	HOK	PTS	TBB	DFN	DRB	DTS	FPO	HOK	PGP	PTS	TBB
6.1-9.0																									
- Wood	8	1,144	1977	2	35	7.0	1060	10	37	37	40	0	4	1041	46	13	0	47	7	3	57	471	1	4	0
- Metal	1	103	2000	4	83	7.9	0	103	0	0	0	0	0	103	0	0	0	103	0	0	0	0	0	0	0
- Fibre	27	4,017	1992	2	63	6.9	173	39	3759	46	39	61	27	3730	142	17	1	698	24	22	314	311	2	15	0
- Mixed	7	885	1986	3	41	7.1	348	101	401	35	46	4	4	824	6	1	0	421	19	4	24	26	0	0	0
9.1-12.0																									
- Fibre	3	274	1996	8	193	9.9	3	8	262	1	7	0	0	258	9	0	0	10	0	1	1	14	0	1	0
- Mixed	2	72	1992	8	148	9.8	9	27	35	1	8	1	4	55	2	1	1	14	1	1	38	0	0	0	0
HOK																									
3.1-6.0																									
- Wood	4	826	1978	1	8	5.2	823	0	3	0	0	2	0	20	804	0	0	435	1	0	3	184	0	0	0
- Fibre	4	537	1994	1	27	5.9	16	6	514	1	0	0	0	0	537	0	0	211	0	0	1	187	0	0	0
- Unkn.	2	365	1967	1	3	4.2	0	2	8	355	3	0	0	0	353	9	0	38	0	2	0	32	0	0	0
6.1-9.0																									
- Wood	21	6,684	1977	2	17	6.5	6520	4	71	89	252	11	7	16	6339	59	0	5665	1	1	556	328	0	2	1
- Fibre	6	649	1991	2	56	7.1	1	8	625	15	7	7	2	16	611	1	5	297	7	0	166	85	0	0	2
- Mixed	8	1,845	1988	3	42	7.4	884	43	606	312	145	3	53	18	1607	18	1	1272	6	1	61	274	43	9	0
9.1-12.0																									
- Wood	3	176	1981	5	52	10.0	164	4	4	4	3	0	6	0	158	9	0	34	0	0	108	0	0	3	0
- Mixed	1	145	1984	6	110	9.5	88	2	54	1	15	0	0	0	104	26	0	8	0	0	4	81	0	47	0
MXD																									
3.1-6.0																									
- Wood	3	1,754	1970	1	9	5.1	1747	1	0	6	874	1	48	124	704	0	3	140	0	1	88	302	1	0	0
- Fibre	10	2,562	1992	1	29	5.7	58	6	2488	10	1232	5	29	478	814	0	4	1333	2	4	104	632	0	2	0
- Mixed	3	265	1988	1	22	5.8	140	5	119	1	40	9	23	86	99	0	8	42	0	4	22	104	2	0	1
6.1-9.0																									
- Wood	17	2,777	1977	3	35	7.6	2533	33	155	56	891	125	250	259	480	745	27	561	22	73	249	1125	1	21	11
- Metal	2	38	1982	2	25	7.2	11	27	0	0	5	0	6	11	7	6	3	3	0	4	7	4	0	7	0
- Fibre	31	3,711	1992	3	54	7.1	236	116	3324	35	1652	223	199	704	844	57	32	1116	48	40	706	811	8	42	1
- Mixed	14	1,739	1985	4	48	7.4	667	289	620	163	451	68	116	402	649	35	18	658	17	25	50	589	0	11	2
9.1-12.0																									
- Wood	16	1,907	1979	6	64	9.8	1702	9	107	89	418	69	521	87	590	222	0	985	28	39	11	478	1	51	3
- Metal	3	86	1988	12	113	10.0	10	64	8	4	5	26	40	4	1	1	9	5	5	2	3	2	0	0	0
- Fibre	4	607	1989	7	111	9.4	56	26	522	3	313	46	22	52	148	16	10	403	8	12	97	48	1	10	2
- Mixed	13	1,104	1985	8	84	9.6	480	199	387	38	301	217	172	143	106	137	28	247	45	42	153	97	3	36	0
PTS																									

			Average value				Hull material				Main gears							Secondary gears							
	No. reg. seg *	No. vessels	C. year	GT	kW	Leng th	Wood	Metal	Fibre	Unkn .	DFN	DRB	DTS	FPO	HOK	PTS	TBB	DFN	DRB	DTS	FPO	HOK	PGP	PTS	TBB
6.1-9.0																									
- Wood	2	372	1976	1	18	6.6	324	1	19	28	64	0	0	0	0	308	0	6	2	7	0	318	0	0	0
- Mixed	1	103	1979	2	29	6.7	55	1	26	21	0	0	0	0	0	103	0	0	0	0	0	103	0	0	0
9.1-12.0																									
- Wood	1	68	1983	4	64	10.1	63	0	0	5	0	0	3	0	0	65	0	0	0	0	0	68	0	0	0
TBB																									
9.1-12.0																									
- Metal	2	20	1991	12	108	10.6	1	19	0	0	0	0	0	0	0	0	20	1	1	2	0	0	0	0	0
										2,24								31,72							
Total	403	69,522					37,964	2,504	26,808	6	38,544	1,314	2,499	8,940	15,996	2,021	208	7	831	743	5,039	14,926	91	403	127

Source: CFR 30.6.2010 and SPSS TwoStep Cluster Analysis

\*The number of primary regional segments from which the EU segment is composed.

**Table 54: Number of regional clusters in EU-wide clusters, based on the three key characteristics**

Gear / length	1. Wood	2. Metal	3. Fibre	4. Unkn.	5. Mixed	Total
<b>Drift and fixed nets</b>	<b>64</b>	<b>4</b>	<b>69</b>	<b>2</b>	<b>27</b>	<b>166</b>
3.1-6.0	10	1	23	1	5	40
6.1-9.0	50	1	38	1	11	101
9.1-12.0	4	2	8		11	25
<b>Dredge</b>	<b>2</b>		<b>1</b>		<b>1</b>	<b>4</b>
6.1-9.0	1		1			2
9.1-12.0	1				1	2
<b>Demersal trawl and seine</b>	<b>3</b>	<b>1</b>		<b>2</b>	<b>8</b>	<b>14</b>
6.1-9.0				2		2
9.1-12.0	3	1			8	12
<b>Pots and traps</b>	<b>8</b>	<b>1</b>	<b>30</b>		<b>9</b>	<b>48</b>
6.1-9.0	8	1	27		7	43
9.1-12.0			3		2	5
<b>Hook and line</b>	<b>28</b>		<b>10</b>	<b>2</b>	<b>9</b>	<b>49</b>
3.1-6.0	4		4	2		10
6.1-9.0	21		6		8	35
9.1-12.0	3				1	4
<b>Mixed gears</b>	<b>36</b>	<b>5</b>	<b>45</b>		<b>29</b>	<b>115</b>
3.1-6.0	3		10		3	16
6.1-9.0	17	2	31		13	63
9.1-12.0	16	3	4		13	36
<b>Pelagic trawl and seine</b>	<b>3</b>				<b>1</b>	<b>4</b>
6.1-9.0	2				1	3
9.1-12.0	1					1
<b>Beam trawl</b>		<b>2</b>				<b>2</b>
9.1-12.0		2				2
<b>Grand Total</b>	<b>144</b>	<b>13</b>	<b>155</b>	<b>6</b>	<b>84</b>	<b>402</b>

Source: CFR 30.6.2010 and SPSS TwoStep Cluster Analysis

Notes:

- 6 major EU clusters (red, >20 regional clusters)) account for 190 regional clusters
- 8 minor EU clusters (blue, 10-20 regional clusters) account for 101 regional clusters

**Table 55: Number of vessels in EU-wide clusters, based on the three key characteristics**

Gear / length	1. Wood	2. Metal	3. Fibre	4. Unkn.	5. Mixed	Total
<b>Drift and fixed nets</b>	<b>18,370</b>	<b>234</b>	<b>11,099</b>	<b>158</b>	<b>3,656</b>	<b>33,517</b>
3.1-6.0	5,056	65	5,212	111	1,012	11,456
6.1-9.0	12,548	67	5,408	47	1,957	20,027
9.1-12.0	766	102	479		687	2,034
<b>Dredge</b>	<b>139</b>		<b>43</b>		<b>46</b>	<b>228</b>
6.1-9.0	111		43			154
9.1-12.0	28				46	74
<b>Demersal trawl and seine</b>	<b>222</b>	<b>16</b>		<b>128</b>	<b>576</b>	<b>942</b>
6.1-9.0				128		128
9.1-12.0	222	16			576	814
<b>Pots and traps</b>	<b>1,144</b>	<b>103</b>	<b>4,291</b>		<b>957</b>	<b>6,495</b>
6.1-9.0	1,144	103	4,017		885	6,149
9.1-12.0			274		72	346
<b>Hook and line</b>	<b>7,686</b>		<b>1,186</b>	<b>365</b>	<b>1,990</b>	<b>11,227</b>
3.1-6.0	826		537	365		1,728
6.1-9.0	6,684		649		1,845	9,178
9.1-12.0	176				145	321
<b>Mixed gears</b>	<b>6,438</b>	<b>124</b>	<b>6,880</b>		<b>3,108</b>	<b>16,550</b>
3.1-6.0	1,754		2,562		265	4,581
6.1-9.0	2,777	38	3,711		1,739	8,265
9.1-12.0	1,907	86	607		1,104	3,704
<b>Pelagic trawl and seine</b>	<b>440</b>				<b>103</b>	<b>543</b>
6.1-9.0	372				103	475
9.1-12.0	68					68
<b>Beam trawl</b>		<b>20</b>				<b>20</b>
9.1-12.0		20				20
<b>Total</b>	<b>34,439</b>	<b>497</b>	<b>23,499</b>	<b>651</b>	<b>10,436</b>	<b>69,522</b>

Source: CFR 30.6.2010 and SPSS TwoStep Cluster Analysis

## Notes:

- There are 5 clusters with more than 5,000 vessels (red, total 34,908 vessels, representing 50.2% of the EU SSF)
- 11 clusters with 1-5,000 vessels (blue, total 20,841 vessels, representing 29.9% of the EU SSF)
- These 16 clusters together represent 80% off SSF fleet.

**Table 56: Specification of NUTS-2 regions by EU cluster**

Gear / Length / Hull Material / NUTS-2	Number
<b>drift and fixed nets</b>	<b>33,517</b>
<b>2. 3.1-6.0</b>	<b>11,456</b>
1. WOOD	5,056
DK03 - SYDDANMARK	51
ES11 - GALICIA	2,423
FR81 - LANGUEDOC - ROUSS	76
GR22 - IONIANISIA	302
GR41 - VOREIOAIGAIO	1,029
ITF1 - ABRUZZO	130
LV00 - LATVIJA	143
PT11 - NORTE	316
PT17 - LISBOA	586
2. METAL	65
LV00 - LATVIJA	65
3. FIBRE	5,212
CY00 - KYPROS/KINRIS	384
DE80 - MECKLENBURG - VOR	242
DEF0 - SCHLESWIG - HOLST	277
DK01 - HOVEDSTADEN	74
DK02 - SJÆLLAND	284
DK03 - SYDDANMARK	245
DK04 - MIDTJYLLAND	348
EE00 - EESTI	335
ES11 - GALICIA	1,436
FI18 - ETELÄ - SUOMI	532
FI20 - ÅLAND	212
GR14 - THESSALIA	151
GR25 - PELOPONNISOS	153
LV00 - LATVIJA	378
RO11 - NORD - VEST	1
SI02 - ZAHODNASLOVENI	82
UKJ2 - SURREY,EAST&	78
4. UNKN.	111
ITF1 - ABRUZZO	111
5. MIXED	1,012
BG33 - SEVEROIZTOCHEN	418
ITE3 - MARCHE	266
LT00 - LIETUVA	104
PT11 - NORTE	224
<b>3. 6.1-9.0</b>	<b>20,027</b>
1. WOOD	12,548
BG34 - YUGOIZTOCHEN	495
CY00 - KYPROS/KINRIS	578
DE80 - MECKLENBURG - VOR	92
DK01 - HOVEDSTADEN	66
DK02 - SJÆLLAND	147
DK04 - MIDTJYLLAND	147
EE00 - EESTI	316
ES12 - PRINCIPADODEA	127
ES51 - CATALUÑA	353
ES52 - COMUNIDADVALEN	191
ES53 - ILASBALEARS	168
ES61 - ANDALUCIA	615
ES62 - REGIÓNDEMURCI	103
FI18 - ETELÄ - SUOMI	400
FI19 - LANSI - SUOMI	187

Gear / Length / Hull Material / NUTS-2	Number
FI20 - ÅLAND	62
FR82 - PROVENCE - ALPES -	241
FR83 - CORSE	84
GR11 - ANATOLIKIMAKED	301
GR12 - KENTRIKIMAKEDO	476
GR14 - THESSALIA	420
GR21 - IPEIROS	353
GR22 - IONIANISIA	475
GR23 - DYTIKIELLADA	386
GR24 - STEREAELLADA	724
GR25 - PELOPONNISOS	623
GR30 - ATTIKI	763
GR42 - NOTIOAIGAIO	533
ITD3 - VENETO	184
ITD5 - EMILIA - ROMAGNA	226
ITE4 - LAZIO	185
ITF3 - CAMPANIA	486
ITF4 - PUGLIA	385
ITF6 - CALABRIA	62
PT11 - NORTE	283
PT16 - CENTRO	698
PT17 - LISBOA	254
RO22 - SUD - EST	290
SI02 - ZAHODNASLOVENI	69
2. METAL	67
DE80 - MECKLENBURG - VOR	67
3. FIBRE	5,408
BG34 - YUGOIZTOCHEN	564
DE80 - MECKLENBURG - VOR	54
DEF0 - SCHLESWIG - HOLST	144
DK01 - HOVEDSTADEN	78
DK02 - SJÆLLAND	158
DK03 - SYDDANMARK	49
DK04 - MIDTJYLLAND	180
DK05 - NORDJYLLAND	230
ES51 - CATALUÑA	150
ES53 - ILASBALEARS	123
ES61 - ANDALUCIA	348
FI19 - LANSI - SUOMI	466
FR61 - AQUITAINE	167
FR81 - LANGUEDOC - ROUSS	293
FR82 - PROVENCE - ALPES -	346
FR83 - CORSE	99
GR11 - ANATOLIKIMAKED	131
GR12 - KENTRIKIMAKEDO	337
GR21 - IPEIROS	94
GR22 - IONIANISIA	173
GR23 - DYTIKIELLADA	110
GR30 - ATTIKI	306
NL32 - NOORD - HOLLAND	69
NL33 - ZUID - HOLLAND	24
PL62 - WARMINSKO - MAZUR	29
PT17 - LISBOA	225
RO22 - SUD - EST	161
SE22 - SYDSVERIGE	172
SE31 - NORRAMELLANSVE	46
SE33 - ÖVRENORRLAND	41

Gear / Length / Hull Material / NUTS-2	Number
UKJ4 - KENT	41
4. UNKN.	47
ITD3 - VENETO	47
5. MIXED	1,957
DK02 - SJÆLLAND	49
FI1A - POHJOIS - SUOMI	189
GR12 - KENTRIKIMAKEDO	128
GR43 - KRITI	338
IE01 - BORDER,MIDLAND	159
ITF2 - MOLISE	32
LV00 - LATVIJA	99
PL42 - ZACHODNIOPOMORS	90
PL63 - POMORSKIE	159
PT11 - NORTE	225
PT16 - CENTRO	489
<b>4. 9.1-12.0</b>	<b>2,034</b>
1. WOOD	766
ES11 - GALICIA	479
ES53 - ILASBALEARS	72
FR93 - GUYANE	118
PT17 - LISBOA	97
2. METAL	102
LT00 - LIETUVA	20
PL42 - ZACHODNIOPOMORS	82
3. FIBRE	479
BE25 - WEST - VLAANDEREN	1
DK01 - HOVEDSTADEN	35
ES21 - PAISVASCO	63
ES52 - COMUNIDADVALEN	143
FI19 - LANSI - SUOMI	77
FI20 - ÅLAND	38
FR30 - NORD - PAS - DE - CAL	63
FR81 - LANGUEDOC - ROUSS	59
5. MIXED	687
BG34 - YUGOIZTOCHEN	120
DE80 - MECKLENBURG - VOR	39
ES12 - PRINCIPADODEA	89
ES13 - CANTABRIA	52
ES62 - REGIÓNDEMURCI	54
FI1A - POHJOIS - SUOMI	68
FR23 - HAUTE - NORMANDIE	52
PL63 - POMORSKIE	76
SE11 - STOCKHOLM	17
SE12 - ÖSTRAMELLANSVE	38
SE21 - SMÅLANDMEDÖAR	82
<b>dredge</b>	<b>228</b>
<b>3. 6.1-9.0</b>	<b>154</b>
1. WOOD	111
IE01 - BORDER,MIDLAND	111
3. FIBRE	43
FR81 - LANGUEDOC - ROUSS	43
<b>4. 9.1-12.0</b>	<b>74</b>
1. WOOD	28
ITF1 - ABRUZZO	28
5. MIXED	46
DK04 - MIDTJYLLAND	46
<b>demersal trawl and seine</b>	<b>942</b>

Gear / Length / Hull Material / NUTS-2	Number
<b>3. 6.1-9.0</b>	<b>128</b>
4. UNKN.	128
UKD4 - LANCASHIRE	35
UKK4 - DEVON	93
<b>4. 9.1-12.0</b>	<b>814</b>
1. WOOD	222
FR23 - HAUTE - NORMANDIE	30
FR25 - BASSE - NORMANDIE	81
ITD5 - EMILIA - ROMAGNA	111
2. METAL	16
UKM3 - SOUTHWESTERNS	16
5. MIXED	576
FR51 - PAYSDELALOIR	164
FR52 - BRETAGNE	200
SE23 - VÄSTSVERIGE	37
SE33 - ÖVRENORRLAND	24
SI02 - ZAHODNASLOVENI	13
UKM2 - EASTERNSCOTLAN	44
UKM5 - NORTHEASTSCOT	39
UKM6 - HIGHLANDSANDI	55
<b>pots and traps</b>	<b>6,495</b>
<b>3. 6.1-9.0</b>	<b>6,149</b>
1. WOOD	1,144
FR91 - GUADELOUPE	101
IE01 - BORDER,MIDLAND	217
PT20 - AÇORES	428
SE23 - VÄSTSVERIGE	76
UKC1 - TEESVALLEY&D	48
UKM2 - EASTERNSCOTLAN	52
UKM5 - NORTHEASTSCOT	32
UKM6 - HIGHLANDSANDI	190
2. METAL	103
FR25 - BASSE - NORMANDIE	103
3. FIBRE	4,017
FI19 - LANSI - SUOMI	117
FR91 - GUADELOUPE	530
FR92 - MARTINIQUE	1,095
GR12 - KENTRIKIMAKEDO	121
IE01 - BORDER,MIDLAND	233
PL62 - WARMINSKO - MAZUR	24
SE12 - ÖSTRAMELLANSVE	19
SE22 - SYDSVERIGE	81
SE23 - VÄSTSVERIGE	212
SE33 - ÖVRENORRLAND	67
UKC1 - TEESVALLEY&D	45
UKC2 - NORTHUMBERLAND	60
UKE1 - EASTRIDING&N	34
UKJ2 - SURREY,EAST&	76
UKJ4 - KENT	40
UKK1 - GLOUCESTERSHIRE	1
UKK4 - DEVON	119
UKL1 - WESTWALES&TH	170
UKM2 - EASTERNSCOTLAN	164
UKM3 - SOUTHWESTERNS	69
UKM5 - NORTHEASTSCOT	140
UKM6 - HIGHLANDSANDI	423
UKN0 - NORTHERNIRELAN	177



Gear / Length / Hull Material / NUTS-2	Number
5. MIXED	885
FI1A - POHJOIS - SUOMI	201
FR52 - BRETAGNE	169
IE02 - SOUTHERNANDEA	309
PL42 - ZACHODNIOPOMORS	76
SE21 - SMÅLANDMEDÖAR	33
UKE2 - NORTHYORKSHIRE	30
UKM6 - HIGHLANDSANDI	67
<b>4. 9.1-12.0</b>	<b>346</b>
3. FIBRE	274
FR91 - GUADELOUPE	101
UKD3 - GREATERMANCHES	2
UKM6 - HIGHLANDSANDI	171
5. MIXED	72
SE23 - VÄSTSVRIGE	46
UKE1 - EASTRIDING&N	26
<b>hook and line</b>	<b>11,227</b>
<b>2. 3.1-6.0</b>	<b>1,728</b>
1. WOOD	826
GR21 - IPEIROS	53
GR41 - VOREIOAIGAIO	485
PT17 - LISBOA	220
PT18 - ALENTEJO	68
3. FIBRE	537
FR94 - RÉUNION	189
GR12 - KENTRIKIMAKEDO1	210
RO32 - BUCUREȚI - ILF	1
UKK3 - CORNWALLANDIS	137
4. UNKN.	365
ITF6 - CALABRIA	49
PT30 - MADEIRA	316
<b>3. 6.1-9.0</b>	<b>9,178</b>
1. WOOD	6,684
ES70 - CANARIAS	544
GR12 - KENTRIKIMAKEDO0	216
GR14 - THESSALIA	152
GR22 - IONIANISIA	306
GR23 - DYTIKIELLADA	177
GR24 - STEREAELLADA	317
GR25 - PELOPONNISOS	516
GR30 - ATTIKI	376
GR42 - NOTIOAIGAIO	670
ITC3 - LIGURIA	149
ITD3 - VENETO	64
ITD4 - FRIULI - VENEZIA	182
ITE4 - LAZIO	236
ITF3 - CAMPANIA	480
ITF4 - PUGLIA	474
ITF6 - CALABRIA	264
ITG1 - SICILIA	900
ITG2 - SARDEGNA	572
PT30 - MADEIRA	89
3. FIBRE	649
ES70 - CANARIAS	166
FR81 - LANGUEDOC - ROUSS	145
FR94 - RÉUNION	67
GR30 - ATTIKI	166

Gear / Length / Hull Material / NUTS-2	Number
NL34 - ZEELAND	64
UKM5 - NORTHEASTSCOT	41
5. MIXED	1,845
GR12 - KENTRIKIMAKEDO	72
GR43 - KRITI	554
ITC3 - LIGURIA	98
ITD5 - EMILIA - ROMAGNA	162
ITE1 - TOSCANA	281
ITG2 - SARDEGNA	283
PT20 - AÇORES	309
UKK4 - DEVON	86
<b>4. 9.1-12.0</b>	<b>321</b>
1. WOOD	176
ES12 - PRINCIPADODEA	25
ES70 - CANARIAS	112
ITF6 - CALABRIA	39
5. MIXED	145
MT00 - MALTA	145
<b>MIXED</b>	<b>16,550</b>
<b>2. 3.1-6.0</b>	<b>4,581</b>
1. WOOD	1,754
MT00 - MALTA	333
PT15 - ALGARVE	748
PT16 - CENTRO	673
3. FIBRE	2,562
FI18 - ETELÄ - SUOMI	482
GR23 - DYTIKIELLADA	127
GR24 - STEREAELLADA	504
GR25 - PELOPONNISOS	213
GR41 - VOREIOAIGAIO	303
MT00 - MALTA	525
UKK2 - DORSET&SOMERS	81
UKK3 - CORNWALLANDIS	142
UKL1 - WESTWALES&TH	185
5. MIXED	265
DE80 - MECKLENBURG - VOR	56
NL12 - FRIESLAND	9
PT17 - LISBOA	200
<b>3. 6.1-9.0</b>	<b>8,265</b>
1. WOOD	2,777
DK05 - NORDJYLLAND	88
EE00 - EESTI	204
FR52 - BRETAGNE	247
GR42 - NOTIOAIGAIO	400
ITD4 - FRIULI - VENEZIA	183
ITF2 - MOLISE	14
ITG1 - SICILIA	690
ITG2 - SARDEGNA	226
PT11 - NORTE	221
PT18 - ALENTEJO	122
UKC2 - NORTHUMBERLAND	58
UKH1 - EASTANGLIA	41
UKJ2 - SURREY,EAST&	33
UKJ4 - KENT	19
UKK2 - DORSET&SOMERS	51
UKK3 - CORNWALLANDIS	106
UKK4 - DEVON	74

Gear / Length / Hull Material / NUTS-2	Number
2. METAL	38
NL32 - NOORD - HOLLAND	36
NL41 - NOORD - BRABANT	2
3. FIBRE	3,711
FR30 - NORD - PAS - DE - CAL	23
FR51 - PAYSDELALOIR	211
FR52 - BRETAGNE	213
FR53 - POITOU - CHARENTE	88
FR91 - GUADELOUPE	202
GR22 - IONIANISIA	106
GR42 - NOTIOAIGAI	424
IE02 - SOUTHERNANDEA	327
NL23 - FLEVOLAND	18
PT15 - ALGARVE	946
SE11 - STOCKHOLM	16
SE23 - VÄSTVERIGE	100
SE32 - MELLERSTANORRL	33
UKD1 - CUMBRIA	46
UKD2 - CHESHIRE	26
UKD4 - LANCASHIRE	52
UKD5 - MERSEYSIDE	12
UKF3 - LINCOLNSHIRE	5
UKH1 - EASTANGLIA	135
UKH3 - ESSEX	60
UKI2 - OUTERLONDON	15
UKJ2 - SURREY,EAST&	62
UKJ3 - HAMPSHIRE&ISL	86
UKK2 - DORSET&SOMERS	116
UKK3 - CORNWALLANDIS	158
UKK4 - DEVON	159
UKM6 - HIGHLANDSANDI	72
5. MIXED	1,739
BG33 - SEVEROIZTOCHEN	499
BG34 - YUGOIZTOCHEN	121
FR25 - BASSE - NORMANDIE	200
GR11 - ANATOLIKIMAKED	279
ITE3 - MARCHE	197
ITF1 - ABRUZZO	78
NL11 - GRONINGEN	5
NL33 - ZUID - HOLLAND	30
NL34 - ZEELAND	56
PL63 - POMORSKIE	54
UKJ3 - HAMPSHIRE&ISL	82
UKL1 - WESTWALES&TH	124
UKL2 - EASTWALES	14
<b>4. 9.1-12.0</b>	<b>3,704</b>
1. WOOD	1,907
ES51 - CATALUÑA	60
ES61 - ANDALUCIA	43
ES63 - CEUTA Y MELILLA	19
FR53 - POITOU - CHARENTE	105
GR12 - KENTRIKIMAKEDO	84
GR21 - IPEIROS	30
GR22 - IONIANISIA	104
GR23 - DYTIKIELLADA	52
GR24 - STEREAELLADA	145
GR25 - PELOPONNISOS	115

Gear / Length / Hull Material / NUTS-2	Number
GR30 - ATTIKI	124
GR41 - VOREIOAIGAIO	202
ITD3 - VENETO	79
ITF4 - PUGLIA	109
ITG1 - SICILIA	533
UKM6 - HIGHLANDSANDI	103
2. METAL	86
UKD1 - CUMBRIA	19
UKH3 - ESSEX	25
UKK4 - DEVON	42
3. FIBRE	607
FI18 - ETELÄ - SUOMI	235
FR30 - NORD - PAS - DE - CAL	41
FR52 - BRETAGNE	192
GR12 - KENTRIKIMAKEDO	139
5. MIXED	1,104
DK03 - SYDDANMARK	43
FR61 - AQUITAINE	73
GR14 - THESSALIA	90
IE01 - BORDER,MIDLAND	102
IE02 - SOUTHERNANDEA	372
ITC3 - LIGURIA	75
UKC1 - TEESVALLEY&D	36
UKC2 - NORTHUMBERLAND	45
UKH1 - EASTANGLIA	37
UKI2 - OUTERLONDON	18
UKJ2 - SURREY,EAST&	57
UKK3 - CORNWALLANDIS	96
UKN0 - NORTHERNIRELAN	60
<b>pelagic trawl and seine</b>	<b>543</b>
<b>3. 6.1-9.0</b>	<b>475</b>
1. WOOD	372
ITE1 - TOSCANA	187
ITF6 - CALABRIA	185
5. MIXED	103
ITC3 - LIGURIA	103
<b>4. 9.1-12.0</b>	<b>68</b>
1. WOOD	68
ITF6 - CALABRIA	68
<b>beam trawl</b>	<b>20</b>
<b>4. 9.1-12.0</b>	<b>20</b>
2. METAL	20
DE93 - LUENEBURG	4
UKF3 - LINCOLNSHIRE	16
<b>GRAND TOTAL</b>	<b>69,522</b>

## ANNEX C – CLASSIFICATION OF SSF VESSELS BASED ON THE CFR

**Table 57: Vessel numbers in the EU based on key characteristics of gear type, length and construction material**

<b>Gear / length</b>	<b>1. Wood</b>	<b>2. Metal</b>	<b>3. Fibre</b>	<b>4. Other</b>	<b>(blank)</b>	<b>Total</b>
<b>Drift and fixed nets</b>	<b>21,217</b>	<b>1,283</b>	<b>15,246</b>	<b>798</b>	<b>411</b>	<b>38,955</b>
0-3.0	37	1	23	13		74
3.1-6.0	8,693	473	7,485	309	218	17,178
6.1-9.0	10,155	438	5,792	402	147	16,934
9.1-12.0	2,332	371	1,946	74	46	4,769
<b>Dredge</b>	<b>634</b>	<b>185</b>	<b>473</b>	<b>22</b>	<b>2</b>	<b>1,316</b>
3.1-6.0	77	1	142	4	1	225
6.1-9.0	252	22	210	8		492
9.1-12.0	305	162	121	10	1	599
<b>Demersal trawl and seine</b>	<b>1,451</b>	<b>237</b>	<b>639</b>	<b>172</b>	<b>2</b>	<b>2,501</b>
0-3.0	1		2			3
3.1-6.0	71	6	115	51		243
6.1-9.0	378	26	187	80	1	672
9.1-12.0	1,001	205	335	41	1	1,583
<b>Pots and traps</b>	<b>2,532</b>	<b>483</b>	<b>5,781</b>	<b>144</b>	<b>6</b>	<b>8,946</b>
0-3.0	4		1	1		6
3.1-6.0	782	66	1,770	36	3	2,657
6.1-9.0	1,234	266	3,248	77	3	4,828
9.1-12.0	512	151	762	30		1,455
<b>Hook and line</b>	<b>10,482</b>	<b>190</b>	<b>4,367</b>	<b>957</b>	<b>98</b>	<b>16,094</b>
0-3.0	22		6	31		59
3.1-6.0	4,301	43	1,957	456	23	6,780
6.1-9.0	4,908	103	1,944	354	64	7,373
9.1-12.0	1,251	44	460	116	11	1,882
<b>Pelagic trawl and seine</b>	<b>1,577</b>	<b>60</b>	<b>237</b>	<b>147</b>	<b>32</b>	<b>2,053</b>
3.1-6.0	334	6	55	24	4	423
6.1-9.0	811	15	111	71	19	1,027
9.1-12.0	432	39	71	52	9	603
<b>Beam trawl</b>	<b>71</b>	<b>66</b>	<b>65</b>	<b>6</b>	<b>14</b>	<b>222</b>
0-3			1			1
3.1-6.0	16		17	2	2	37
6.1-9.0	30	6	35	2	9	82
9.1-12.0	25	60	12	2	3	102



## **ANNEX D – REGIONAL ECONOMIC ROLE OF SSF IN NUTS-2 REGIONS AND IN MEMBER STATE CLUSTERS**

This Annex provides summary tables presenting data on the importance and contribution of small-scale fisheries to both income and employment in each Member State, first for each Member State in its entirety, and then for just the NUTS-2 coastal regions of the Member State. And then a more detailed table is provided showing the income and employment dependency on SSF in each NUTS-2 region.

The economic data refer to the average of 2006-2008 as agreed between the European Parliament and the consultants.

**Table 58: Member States - role of SSF in whole of each MS**

Source	CFR			DCF			Eurostat			Dependence ratios		
Indicator	Number of vessels			GVA	Employment	GVA / empl	GDP	Employment	GDP/empl	Income	Employment	Income / employed
Year / period	2000	2005	2010	2006-8	2006-8	2006-8	2006-7	2006-8				
Dimension				Euro	Number	1,000	mln €	1,000	1,000	%	%	%
BEL	1*	1	1	55,760	2	28	326,571	4,332	75	0.0000%	0.0000%	37%
BGR	2,692*	2,443	2,217	6,985,737	1,330	3	27,069	3,196	8	0.0011%	0.0027%	39%
CYP	706*	824	962	9,844,660	844	12	15,312	362	42	0.0643%	0.2328%	28%
DEU	1,885	1,772	1,369	2,370,620	1,298	2	2,376,650	37,561	63	0.0001%	0.0035%	3%
DNK	3,176	2,619	2,318	24,954,814	473	53	222,886	2,774	80	0.0112%	0.0171%	66%
ESP	13,272	10,415	7,958	74,240,000	11,051	7	1,018,507	19,971	51	0.0073%	0.0553%	13%
EST	877*	866	855	1,942,279	2,770	1	14,428	628	23	0.0135%	0.4407%	3%
FIN	3,544	3,244	3,266	7,206,162	1,532	5	173,334	2,457	71	0.0042%	0.0623%	7%
FRA	6,790	6,799	6,212	344,950,268	9,442	37	1,850,538	25,943	71	0.0129%	0.0231%	56%
GBR	6,294	5,791	5,369	66,986,834	7,214	9	1,994,442	28,485	70	0.0034%	0.0253%	13%
GRC	18,515	17,228	16,138	451,807,150	21,608	21	218,449	4,421	49	0.2068%	0.4888%	42%
IRL	1,261	1,543	1,830	25,685,831	1,632	16	183,255	2,040	90	0.0140%	0.0800%	18%
ITA	12,869	10,317	9,379	237,293,823	13,856	17	1,515,146	22,825	66	0.0157%	0.0607%	26%
LTU	310*	196	124	202,929	292	1	26,278	1,491	18	0.0008%	0.0196%	4%
LVA	812*	746	685	432,310	1,038	0	18,579	1,066	17	0.0023%	0.0973%	2%
MLT	1,426*	1,196	1,003	-787,821	192	-4	5,284	155	34	-0.0149%	0.1236%	-12%
NLD	367	254	316	5,955,682	459	13	554,440	8,322	67	0.0011%	0.0055%	19%
POL	1,060*	791	590	8,078,269	1,361	6	291,546	14,915	20	0.0028%	0.0091%	30%
PRT	9,815	9,123	7,737	109,223,630	11,006	10	159,249	4,846	33	0.0686%	0.2271%	30%
ROM	388*	419	453	222,912	790	0	111,240	8,854	13	0.0002%	0.0089%	2%
SVN	146*	155	165	469,287	77	6	32,812	956	34	0.0014%	0.0080%	18%
SWE	1,680	1,295	1,140	23,876,201	1,225	19	322,299	4,433	73	0.0074%	0.0276%	27%
Total	87,890	78,037	70,087	1,401,997,339	89,491	16	11,458,309	200,034	57	0.0122%	0.0447%	27%

\* estimated assuming that trend 2005-2010 is equal to 2000-2005.



**Table 59: Member States - role of SSF in the NUTS-2 coastal regions of each MS**

Source	CFR			DCF			Eurostat			Dependence ratios		
Indicator	Number of vessels			GVA	Employment	GVA / empl	GDP	Employment	GDP / empl	Income	Employment	Inc./empl.
Year / period	2000	2005	2010	2006-8	2006-8	2006-8	2006-7	2006-8				
Dimension	No	No	No	€	No	1,000	mln €	1,000	1,000	%	%	%
BE25 - WEST-VLAANDEREN	1	1	1	55,760	2	28	33,502	496	67	0.0002%	0.0004%	41%
BG33 - SEVEROIZTOCHEN	1,184	1,042	917	2,889,455	550	5.3	3,031	411	7	0.0953%	0.1338%	71%
BG34 - YUGOIZTOCHEN	1,510	1,401	1,300	4,096,282	780	5.3	3,332	449	7	0.1230%	0.1738%	71%
CY00 - KYPROS/KINRIS	706	824	962	9,844,660	844	12	15,312	362	42	0.0643%	0.2328%	28%
DE80 - MECKLENBURG-VORPOM.	1,034	1,015	773	1,338,560	733	2	33,933	754	45	0.0039%	0.0972%	4%
DE93 - LUENEBURG	5	3	4	6,927	4	2	35,447	750	47	0.0000%	0.0005%	4%
DE94 - WESER-EMS	1						62,272	1,090	57	0.0000%	0.0000%	0%
DEF0 - SCHLESWIG-HOLSTEIN	845	754	592	1,025,133	561	2	70,966	1,288	55	0.0014%	0.0436%	3%
DK01 - HOVEDSTADEN	351	320	253	2,723,714	52	53	83,290	868	96	0.0033%	0.0059%	55%
DK02 - SJÆLLAND	961	775	638	6,868,495	130	53	25,248	405	62	0.0272%	0.0321%	85%
DK03 - SYDDANMARK	557	451	388	4,177,078	79	53	45,287	588	77	0.0092%	0.0135%	68%
DK04 - MIDTJYLLAND	905	704	721	7,762,045	147	53	47,770	633	75	0.0162%	0.0232%	70%
DK05 - NORDJYLLAND	402	369	318	3,423,482	65	53	21,292	285	75	0.0161%	0.0227%	71%
ES11 - GALICIA	7,267	5,830	4,338	40,469,103	6,024	7	52,242	1,172	45	0.0775%	0.5140%	15%
ES12 - PRINC. DE ASTURIAS	399	321	241	2,248,283	335	7	22,151	432	51	0.0102%	0.0774%	13%
ES13 - CANTABRIA	100	56	52	485,107	72	7	12,857	254	51	0.0038%	0.0284%	13%
ES21 - PAIS VASCO	128	76	63	587,726	87	7	62,957	984	64	0.0009%	0.0089%	11%
ES51 - CATALUÑA	1,038	801	563	5,252,214	782	7	190,856	3,449	55	0.0028%	0.0227%	12%
ES52 - COM. VALENCIANA	542	405	334	3,115,878	464	7	99,376	2,187	45	0.0031%	0.0212%	15%
ES53 - ILAS BALEARS	586	435	363	3,386,419	504	7	25,319	501	51	0.0134%	0.1006%	13%
ES61 - ANDALUCIA	1,636	1,242	1,006	9,384,951	1,397	7	140,398	3,143	45	0.0067%	0.0445%	15%
ES62 - REGIÓN DE MURCIA	271	213	157	1,464,649	218	7	26,120	616	42	0.0056%	0.0354%	16%
ES63 - CEUTA Y MELILLA	41	32	19	177,251	26	7	3,003	46	63	0.0059%	0.0565%	11%
ES70 - CANARIAS	1,264	1,004	822	7,668,419	1,141	7	40,568	877	46	0.0189%	0.1301%	15%
EE00 - EESTI	877	866	855	1,942,279	2,770	1	14,428	628	23	0.0135%	0.4407%	3%
FI18 - ETELÄ-SUOMI	1,782	1,680	1,649	3,638,384	773	5	99,054	1,297	76	0.0037%	0.0596%	6%
FI19 - LANSI-SUOMI	969	891	847	1,868,836	397	5	38,871	606	64	0.0048%	0.0656%	7%
FI1A - POHJOIS-SUOMI	469	398	458	1,010,540	215	5	18,079	272	66	0.0056%	0.0789%	7%
FI20 - ÅLAND	324	275	312	688,403	146	5	1,099	14	78	0.0626%	1.0329%	6%
FR23 - HAUTE-NORMANDIE	79	69	82	3,145,084	79	40	47,695	735	65	0.0066%	0.0108%	61%
FR25 - BASSE-NORMANDIE	448	425	384	14,728,197	370	40	34,722	593	59	0.0424%	0.0625%	68%

Source	CFR			DCF			Eurostat			Dependence ratios		
Indicator	Number of vessels			GVA	Employment	GVA / empl	GDP	Employment	GDP / empl	Income	Employment	Inc./empl.
Year / period	2000	2005	2010	2006-8	2006-8	2006-8	2006-7	2006-8				
Dimension	No	No	No	€	No	1,000	mln €	1,000	1,000	%	%	%
FR30 - NORD-PAS-DE-CALAIS	130	132	127	4,871,044	122	40	94,816	1,497	63	0.0051%	0.0082%	63%
FR51 - PAYS DE LA LOIRE	527	442	375	14,383,005	362	40	91,194	1,452	63	0.0158%	0.0249%	63%
FR52 - BRETAGNE	1,173	1,090	1,021	39,160,128	985	40	79,795	1,262	63	0.0491%	0.0780%	63%
FR53 - POITOU-CHARENTES	289	237	193	7,402,453	186	40	42,076	704	60	0.0176%	0.0264%	67%
FR61 - AQUITAINE	291	272	240	9,205,123	231	40	83,216	1,286	65	0.0111%	0.0180%	61%
FR81 - LANGUEDOC-ROUSSIL.	745	681	616	23,626,483	594	40	58,897	927	64	0.0401%	0.0641%	63%
FR82 – PR.-ALPES-CÔTE D'AZUR	586	600	587	22,514,197	566	40	134,030	1,836	73	0.0168%	0.0308%	54%
FR83 - CORSE	204	185	183	7,018,906	176	40	6,778	84	81	0.1036%	0.2103%	49%
FR91 - GUADELOUPE	923	967	934	53,545,000	1,118	47.9	8,201	126	65	<b>0.652%</b>	<b>0.885%</b>	74%
FR92 - MARTINIQUE	1,081	1,301	1,096	30,667,000	1,262	24.3	8,004	125	64	0.3831%	1.0091%	38%
FR93 - GUYANE	55	98	118	8,737,000	515	17.0	2,833	48	59	0.3085%	1.0722%	29%
FR94 - RÉUNION	259	300	256	13,742,000	556	24.7	13,367	234	57	0.1028%	0.2381%	43%
UKC1 - TEES VALLEY & DURHAM	184	185	129	1,609,481	173	9	26,587	510	52	0.0061%	0.0340%	18%
UKC2 – NOR. AND TYNE & WEAR	206	195	163	2,033,685	219	9	38,766	627	62	0.0052%	0.0349%	15%
UKD1 - CUMBRIA	70	72	65	810,979	87	9	12,395	236	53	0.0065%	0.0371%	18%
UKD2 - CHESHIRE	46	36	26	324,391	35	9	34,968	474	74	0.0009%	0.0074%	13%
UKD3 - GREATER MANCHESTER	1	2	2	24,953	3	9	75,918	1,183	64	0.0000%	0.0002%	14%
UKD4 - LANCASHIRE	112	96	87	1,085,464	117	9	37,055	656	56	0.0029%	0.0178%	16%
UKD5 - MERSEYSIDE	14	17	12	149,719	16	9	31,501	555	57	0.0005%	0.0029%	16%
UKE1 – E. RID. & N. LINCOLNSH.	93	89	60	748,596	81	9	23,133	425	54	0.0032%	0.0190%	17%
UKE2 - NORTH YORKSHIRE	53	47	30	374,298	40	9	22,256	377	59	0.0017%	0.0107%	16%
UKF3 - LINCOLNSHIRE	18	21	21	262,008	28	9	15,995	328	49	0.0016%	0.0086%	19%
UKH1 - EAST ANGLIA	334	283	213	2,657,515	286	9	71,271	1,101	65	0.0037%	0.0260%	14%
UKH3 - ESSEX	108	96	85	1,060,511	114	9	46,533	797	58	0.0023%	0.0143%	16%
UKI2 - OUTER LONDON	48	40	33	411,728	44	9	136,193	2,161	63	0.0003%	0.0021%	15%
UKJ2 - SURREY, E.& W. SUSSEX	363	315	306	3,817,838	411	9	90,403	1,264	72	0.0042%	0.0325%	13%
UKJ3 - HAMPSHIRE & I.o. WIGHT	263	204	168	2,096,068	226	9	60,206	899	67	0.0035%	0.0251%	14%
UKJ4 - KENT	147	127	100	1,247,659	134	9	43,253	761	57	0.0029%	0.0177%	16%
UKK1 - GLOUCESTERSHIRE, WILTSHIRE & NORTH SOMERSET	9	3	1	12,477	1	9	81,421	1,137	72	0.0000%	0.0001%	13%
UKK2 - DORSET & SOMERSET	330	293	248	3,094,195	333	9	33,912	563	60	0.0091%	0.0592%	15%
UKK3 – CORNWALL, I. OF SCILLY	724	691	639	7,972,544	859	9	11,152	230	49	0.0715%	0.3739%	19%
UKK4 - DEVON	726	595	573	7,149,088	770	9	28,428	523	54	0.0251%	0.1471%	17%
UKL1 – W. WALES & VALLEYS	414	403	479	5,976,289	644	9	39,303	797	49	0.0152%	0.0807%	19%

Source	CFR			DCF			Eurostat			Dependence ratios		
Indicator	Number of vessels			GVA	Employment	GVA / empl	GDP	Employment	GDP / empl	Income	Employment	Inc./empl.
Year / period	2000	2005	2010	2006-8	2006-8	2006-8	2006-7	2006-8				
Dimension	No	No	No	€	No	1,000	mln €	1,000	1,000	%	%	%
UKL2 - EAST WALES	9	7	14	174,672	19	9	33,509	504	66	0.0005%	0.0037%	14%
UKM2 - EASTERN SCOTLAND	223	224	260	3,243,914	349	9	65,622	950	69	0.0049%	0.0368%	13%
UKM3 - S-W. SCOTLAND	96	92	85	1,060,511	114	9	66,633	1,000	67	0.0016%	0.0114%	14%
UKM5 - NORTH EAST SCOTLAND	193	215	252	3,144,102	339	9	19,112	238	80	0.0165%	0.1424%	12%
UKM6 - HIGHLANDS AND ISLA.	1,314	1,247	1,081	13,487,198	1,453	9	10,810	280	39	0.1248%	0.5190%	24%
UKN0 - NORTHERN IRELAND	196	196	237	2,956,953	318	9	45,781	764	60	0.0065%	0.0417%	15%
GR11 - ANATOLIKI MAK., THRAKI	856	751	711	19,905,495	952	21	7,968	230	35	0.2498%	0.4131%	60%
GR12 - KENTRIKI MAKEDONIA	2,039	1,924	1,783	49,917,719	2,387	21	29,924	750	40	0.1668%	0.3181%	52%
GR14 - THESSALIA	941	870	813	22,761,136	1,089	21	10,724	284	38	0.2123%	0.3836%	55%
GR21 - IPEIROS	669	631	530	14,838,133	710	21	5,129	130	40	0.2893%	0.5470%	53%
GR22 - IONIA NISIA	1,554	1,485	1,466	41,042,836	1,963	21	3,573	87	41	<b>1.149%</b>	<b>2.252%</b>	51%
GR23 - DYTIKI ELLADA	983	909	852	23,852,999	1,141	21	9,377	272	35	0.2544%	0.4198%	61%
GR24 - STEREA ELLADA	2,100	1,926	1,690	47,314,047	2,263	21	10,120	217	47	0.4676%	1.0426%	45%
GR25 - PELOPONNISOS	1,822	1,712	1,620	45,354,293	2,169	21	9,583	242	40	0.4733%	0.8973%	53%
GR30 - ATTIKI	2,023	1,851	1,735	48,573,888	2,323	21	107,403	1,670	64	0.0452%	0.1391%	33%
GR41 - VOREIO AIGAIO	2,310	2,119	2,019	56,524,888	2,703	21	2,892	70	41	<b>1.954%</b>	<b>3.836%</b>	51%
GR42 - NOTIO AIGAIO	2,289	2,147	2,027	56,748,859	2,714	21	6,275	117	54	<b>0.904%</b>	<b>2.323%</b>	39%
GR43 - KRITI	929	903	892	24,972,858	1,194	21	10,712	249	43	0.2331%	0.4796%	49%
IE01 - BORDER, MID. AND WES.	538	749	822	11,537,570	733	16	33,287	521	64	0.0347%	0.1407%	25%
IE02 - SOUTHERN AND EASTERN	723	794	1,008	14,148,261	899	16	149,969	1,519	99	0.0094%	0.0592%	16%
ITC3 - LIGURIA	645	476	432	10,929,836	638	17	42,036	630	67	0.0260%	0.1013%	26%
ITD3 - VENETO	802	511	376	9,513,005	555	17	143,978	2,093	69	0.0066%	0.0265%	25%
ITD4 - FRIULI-VENEZIA GIULIA	505	416	369	9,335,902	545	17	34,933	512	68	0.0267%	0.1065%	25%
ITD5 - EMILIA-ROMAGNA	755	610	504	12,751,475	745	17	133,680	1,907	70	0.0095%	0.0390%	24%
ITE1 - TOSCANA	605	497	490	12,397,268	724	17	101,882	1,523	67	0.0122%	0.0475%	26%
ITE3 - MARCHE	756	551	476	12,043,060	703	17	40,129	639	63	0.0300%	0.1100%	27%
ITE4 - LAZIO	564	446	429	10,853,934	634	17	165,729	2,161	77	0.0065%	0.0293%	22%
ITF1 - ABRUZZO	502	385	354	8,956,393	523	17	27,662	499	55	0.0324%	0.1049%	31%
ITF2 - MOLISE	25	25	46	1,163,825	68	17	6,156	111	56	0.0189%	0.0614%	31%
ITF3 - CAMPANIA	1,302	1,079	985	24,921,038	1,455	17	94,655	1,692	56	0.0263%	0.0860%	31%
ITF4 - PUGLIA	1,363	1,069	991	25,072,841	1,464	17	67,707	1,262	54	0.0370%	0.1160%	32%
ITF6 - CALABRIA	888	743	680	17,204,371	1,005	17	32,798	597	55	0.0525%	0.1682%	31%
ITG1 - SICILIA	2,978	2,382	2,153	54,472,076	3,181	17	82,530	1,474	56	0.0660%	0.2158%	31%
ITG2 - SARDEGNA	1,179	1,127	1,094	27,678,798	1,616	17	32,363	602	54	0.0855%	0.2683%	32%

Source	CFR			DCF			Eurostat			Dependence ratios		
Indicator	Number of vessels			GVA	Employment	GVA / empl	GDP	Employment	GDP / empl	Income	Employment	Inc./empl.
Year / period	2000	2005	2010	2006-8	2006-8	2006-8	2006-7	2006-8				
Dimension	No	No	No	€	No	1,000	mln €	1,000	1,000	%	%	%
LT00 - LIETUVA	310	196	124	202,929	292	1	26,278	1,491	18	0.0008%	0.0196%	4%
LV00 - LATVIJA	812	746	685	432,310	1,038	0	18,579	1,066	17	0.0023%	0.0973%	2%
MT00 - MALTA	1,426	1,196	1,003	-787,821	192	-4	5,284	155	34	-0.0149%	0.1236%	-12%
NL11 - GRONINGEN	16	14	5	94,235	7	13	24,981	283	88	0.0004%	0.0026%	15%
NL12 - FRIESLAND	6	5	9	169,624	13	13	17,636	315	56	0.0010%	0.0042%	23%
NL22 - GELDERLAND	1						57,284	1,006	57	0.0000%	0.0000%	
NL23 - FLEVOLAND	30	17	19	358,095	28	13	10,048	192	52	0.0036%	0.0144%	25%
NL32 - NOORD-HOLLAND	184	112	106	1,997,792	154	13	101,537	1,370	74	0.0020%	0.0112%	17%
NL33 - ZUID-HOLLAND	43	29	54	1,017,743	79	13	120,798	1,750	69	0.0008%	0.0045%	19%
NL34 - ZEELAND	83	75	121	2,280,498	176	13	11,648	184	63	0.0196%	0.0957%	20%
NL41 - NOORD-BRABANT	4	2	2	37,694	3	13	83,051	1,244	67	0.0000%	0.0002%	19%
PL42 - ZACHODNIOPOMORSKIE	534	364	248	3,395,611	572	6	11,702	544	22	0.0290%	0.1052%	28%
PL62 - WARMINSKO-MAZURSKIE	80	65	53	725,675	122	6	8,176	532	15	0.0089%	0.0230%	39%
PL63 - POMORSKIE	453	362	289	3,956,982	667	6	16,596	742	22	0.0238%	0.0899%	27%
PT11 - NORTE	1,622	1,459	1,269	17,721,846	1,227	14	44,749	1,708	26	0.0396%	0.0718%	55%
PT15 - ALGARVE	2,060	1,936	1,694	23,657,059	1,637	14	6,708	194	35	0.3527%	0.8453%	42%
PT16 - CENTRO	2,150	2,055	1,860	25,975,283	1,798	14	30,481	1,121	27	0.0852%	0.1604%	53%
PT17 - LISBOA	1,764	1,608	1,582	22,092,956	1,529	14	58,398	1,277	46	0.0378%	0.1197%	32%
PT18 - ALENTEJO	247	212	190	2,653,389	184	14	10,920	327	33	0.0243%	0.0562%	43%
PT20 - AÇORES	1,526	1,432	737	16,058,261	4,311	4	3,275	106	31	0.4904%	4.0530%	12%
PT30 - MADEIRA	446	421	405	1,064,837	321	3	4,718	113	42	0.0226%	0.2837%	8%
RO11 - NORD-VEST	1	1	1	492	2	0	13,396	1,087	12	0.0000%	0.0002%	2%
RO22 - SUD-EST	386	417	451	221,928	787	0	12,092	1,106	11	0.0018%	0.0711%	3%
RO32 - BUCUREȘTI - ILFOV	1	1	1	492	2	0	25,335	1,019	25	0.0000%	0.0002%	1%
SI02 - ZAHODNA SLOVENIJA	146	155	165	469,287	77	6	18,263	451	40	0.0026%	0.0170%	15%
SE11 - STOCKHOLM	51	43	33	691,153	35	19	91,504	995	92	0.0008%	0.0036%	21%
SE12 - ÖSTRA MELLANSVERIGE	83	78	57	1,193,810	61	19	46,554	718	65	0.0026%	0.0085%	30%
SE21 - SMÅLAND MED ÖARNA	224	158	115	2,408,564	124	19	25,246	397	64	0.0095%	0.0311%	31%
SE22 - SYDSVERIGE	442	325	253	5,298,841	272	19	42,126	631	67	0.0126%	0.0431%	29%
SE23 - VÄSTSVRIGE	615	471	471	9,864,641	506	19	62,646	895	70	0.0157%	0.0565%	28%
SE31 - NORRA MELLANSVERIGE	63	51	46	963,426	49	19	25,498	381	67	0.0038%	0.0130%	29%
SE32 - MELLERSTA NORRLAND	42	40	33	691,153	35	19	11,690	173	67	0.0059%	0.0204%	29%
SE33 - ÖVRE NORRLAND	160	129	132	2,764,613	142	19	17,035	242	71	0.0162%	0.0587%	28%
Total	87,890	78,037	70,087	1,288,612,266	84,798	15	17,159,989	300,998	57	0.0075%	0.0282%	27%

## ANNEX E – LARGE-SCALE AND SMALL-SCALE FLEET STRUCTURE BY NUTS-2 REGION AND MS

Table 60: large-scale and small-scale fleet structure by NUTS-2 region and MS

	LSF			SSF			Total		
	Number vessels	GT	kW	Number vessels	GT	kW	Number vessels	GT	kW
<b>BEL</b>	<b>89</b>	<b>15,813</b>	<b>51,694</b>	<b>1</b>	<b>21</b>	<b>221</b>	<b>90</b>	<b>15,834</b>	<b>51,915</b>
BE23-OOST-VLAANDEREN	2	101	421				2	101	421
BE25-WEST-VLAANDEREN	87	15,712	51,273	1	21	221	88	15,733	51,494
<b>BGR</b>	<b>106</b>	<b>4,209</b>	<b>17,846</b>	<b>2,217</b>	<b>3,738</b>	<b>45,627</b>	<b>2,323</b>	<b>7,947</b>	<b>63,472</b>
BG33-SEVEROIZTOCHEN	76	2,104	11,248	917	1,408	13,747	993	3,512	24,994
BG34-YUGOIZTOCHEN	30	2,105	6,598	1,300	2,330	31,880	1,330	4,435	38,478
<b>CYP</b>	<b>32</b>	<b>2,034</b>	<b>7,533</b>	<b>962</b>	<b>2,425</b>	<b>36,114</b>	<b>994</b>	<b>4,459</b>	<b>43,647</b>
CY00-KYPROS/KINRIS	32	2,034	7,533	962	2,425	36,114	994	4,459	43,647
<b>DEU</b>	<b>363</b>	<b>64,375</b>	<b>128,091</b>	<b>1,369</b>	<b>3,507</b>	<b>32,546</b>	<b>1,732</b>	<b>67,882</b>	<b>160,637</b>
DE50-BREMEN	4	9,867	9,888				4	9,867	9,888
DE60-HAMBURG	5	732	1,637				5	732	1,637
DE80-MECKLENBURG-VORPOMMERN	35	22,044	24,736	773	2,042	17,917	808	24,086	42,653
DE93-LUENEBURG	39	12,025	21,356	4	44	435	43	12,069	21,791
DE94-WESER-EMS	108	7,226	27,053				108	7,226	27,053
DEF0-SCHLESWIG-HOLSTEIN	172	12,481	43,421	592	1,421	14,194	764	13,902	57,615
<b>DNK</b>	<b>506</b>	<b>62,740</b>	<b>179,154</b>	<b>2,318</b>	<b>6,868</b>	<b>71,350</b>	<b>2,824</b>	<b>69,608</b>	<b>250,504</b>
DK01-HOVEDSTADEN	53	5,322	17,434	253	1,066	10,016	306	6,388	27,450
DK02-SJÆLLAND	39	1,803	7,772	638	1,636	16,220	677	3,439	23,992
DK03-SYDDANMARK	73	9,262	24,856	388	1,085	10,451	461	10,347	35,307
DK04-MIDTJYLLAND	216	26,757	70,200	721	2,088	23,053	937	28,844	93,253
DK05-NORDJYLLAND	125	19,596	58,892	318	994	11,610	443	20,590	70,502
<b>ESP</b>	<b>3,040</b>	<b>412,714</b>	<b>802,062</b>	<b>7,958</b>	<b>16,796</b>	<b>157,400</b>	<b>10,998</b>	<b>429,510</b>	<b>959,463</b>
ES11-GALICIA	825	176,321	262,981	4,338	6,610	60,733	5,163	182,931	323,714
ES12-PRINCIPADO DE ASTURIAS	87	7,069	13,852	241	927	8,313	328	7,996	22,165
ES13-CANTABRIA	112	9,800	22,014	52	254	2,055	164	10,054	24,069
ES21-PAIS VASCO	198	84,298	139,450	63	265	2,123	261	84,562	141,574
ES51-CATALUÑA	457	22,808	93,388	563	1,661	16,326	1,020	24,469	109,714
ES52-COMUNIDAD VALENCIANA	362	20,722	66,277	334	1,225	12,116	696	21,947	78,393
ES53-ILAS BALEARS	59	3,014	10,332	363	856	12,056	422	3,870	22,388
ES61-ANDALUCIA	722	47,753	124,661	1,006	2,742	22,051	1,728	50,495	146,712
ES62-REGIÓN DE MURCIA	60	3,036	8,993	157	349	3,888	217	3,385	12,880

	LSF			SSF			Total		
	Number vessels	GT	kW	Number vessels	GT	kW	Number vessels	GT	kW
ES63-CEUTA Y MELILLA	22	12,611	16,054	19	95	914	41	12,706	16,968
ES70-CANARIAS	136	25,282	44,060	822	1,815	16,826	958	27,096	60,886
<b>EST</b>	<b>78</b>	<b>12,984</b>	<b>26,520</b>	<b>855</b>	<b>1,584</b>	<b>13,494</b>	<b>933</b>	<b>14,568</b>	<b>40,014</b>
EE00-EESTI	78	12,984	26,520	855	1,584	13,494	933	14,568	40,014
<b>FIN</b>	<b>90</b>	<b>8,416</b>	<b>33,436</b>	<b>3,266</b>	<b>8,009</b>	<b>140,102</b>	<b>3,356</b>	<b>16,426</b>	<b>173,538</b>
FI18-ETELÄ-SUOMI	47	4,729	18,494	1,649	3,866	68,504	1,696	8,595	86,998
FI19-LANSI-SUOMI	14	1,982	7,096	847	2,242	40,697	861	4,224	47,792
FI1A-POHJOIS-SUOMI	25	1,199	6,559	458	1,168	18,783	483	2,367	25,342
FI20-ÅLAND	4	506	1,288	312	734	12,118	316	1,240	13,405
<b>FRA</b>	<b>1,033</b>	<b>149,986</b>	<b>421,511</b>	<b>6,212</b>	<b>25,558</b>	<b>570,948</b>	<b>7,245</b>	<b>175,544</b>	<b>992,459</b>
FR23-HAUTE-NORMANDIE	55	10,463	24,206	82	787	11,361	137	11,251	35,567
FR25-BASSE-NORMANDIE	108	6,962	31,500	384	2,451	37,539	492	9,412	69,039
FR3-NORD-PAS-DE-CALAIS	74	14,367	38,258	127	1,344	17,425	201	15,710	55,683
FR51-PAYS DE LA LOIRE	85	8,018	28,858	375	2,633	35,999	460	10,651	64,857
FR52-BRETAGNE	346	68,456	170,083	1,021	6,961	94,074	1,367	75,417	264,157
FR53-POITOU-CHARENTES	48	3,280	13,694	193	1,344	16,766	241	4,623	30,460
FR61-AQUITAINE	78	12,611	33,898	240	826	19,163	318	13,436	53,061
FR81-LANGUEDOC-ROUSSILLON	108	12,856	40,410	616	1,140	35,981	724	13,996	76,391
FR82-PROVENCE-ALPES-CÔTE D'AZUR	39	2,899	11,137	587	1,789	39,189	626	4,688	50,326
FR83-CORSE	11	352	1,850	183	654	17,676	194	1,006	19,526
FR91-GUADELOUPE	1	112	331	934	2,724	134,859	935	2,836	135,190
FR92-MARTINIQUE	8	460	2,642	1,096	1,823	87,053	1,104	2,283	89,695
FR93-GUYANE	43	4,352	13,118	118	524	6,093	161	4,877	19,211
FR94-RÉUNION	29	4,800	11,526	256	558	17,770	285	5,358	29,296
<b>GBR</b>	<b>1,061</b>	<b>185,825</b>	<b>510,029</b>	<b>5,369</b>	<b>22,929</b>	<b>320,030</b>	<b>6,430</b>	<b>208,755</b>	<b>830,059</b>
UKC1-TEES VALLEY & DURHAM	21	1,789	5,780	129	645	7,732	150	2,434	13,512
UKC2-NORTHUMBERLAND AND TYNE & WEAR	15	814	3,243	163	896	11,951	178	1,710	15,194
UKD1-CUMBRIA	5	226	854	65	328	3,735	70	554	4,589
UKD2-CHESHIRE				26	89	1,028	26	89	1,028
UKD3-GREATER MANCHESTER	2	90	438	2	31	299	4	121	737
UKD4-LANCASHIRE	20	4,828	11,968	49	170	1,866	69	4,998	13,834
UKD4-MAN	24	838	4,718	38	53	3,371	62	891	8,089
UKD5-MERSEYSIDE	2	46	432	12	62	603	14	109	1,035
UKE1-EAST RIDING & NORTH LINCOLNSHIRE	44	20,299	35,355	60	212	3,972	104	20,511	39,327
UKE2-NORTH YORKSHIRE	8	704	2,179	30	188	2,241	38	892	4,420
UKF3-LINCOLNSHIRE	8	189	1,320	21	199	1,898	29	388	3,218

	LSF			SSF			Total		
	Number vessels	GT	kW	Number vessels	GT	kW	Number vessels	GT	kW
UKH1-EAST ANGLIA	32	2,752	10,656	213	904	13,063	245	3,656	23,719
UKH3-ESSEX	5	129	805	85	430	5,556	90	558	6,361
UKI2-OUTER LONDON	16	374	3,120	33	193	2,169	49	567	5,289
UKJ2-SURREY, EAST & WEST SUSSEX	14	405	2,586	306	1,190	16,489	320	1,595	19,075
UKJ3-HAMPSHIRE & ISLE OF WIGHT	6	636	2,672	168	773	12,687	174	1,408	15,359
UKJ4-KENT	4	81	375	100	498	7,386	104	579	7,762
UKK1-GLOUCESTERSHIRE, WILT. & N. SOMER.				1	2	55	1	2	55
UKK2-DORSET & SOMERSET	2	53	323	248	742	14,382	250	795	14,705
UKK3-CORNWALL AND ISLES OF SCILLY	57	6,793	21,911	639	2,385	32,178	696	9,178	54,089
UKK4-DEVON	75	9,849	28,717	358	1,706	22,468	433	11,555	51,185
UKK4-GUERNSEY	4	160	863	185	551	12,106	189	711	12,969
UKK4-JERSEY	13	698	4,144	30	193	3,469	43	891	7,613
UKL1-WEST WALES & THE VALLEYS	15	3,755	6,989	479	1,322	24,586	494	5,078	31,575
UKL2-EAST WALES				14	62	779	14	62	779
UKM2-EASTERN SCOTLAND	50	3,377	11,556	260	1,240	14,794	310	4,617	26,349
UKM3-SOUTH WESTERN SCOTLAND	53	6,520	20,000	85	323	4,594	138	6,843	24,594
UKM5-NORTH EAST SCOTLAND	226	66,716	180,267	252	951	11,694	478	67,667	191,961
UKM6-HIGHLANDS AND ISLANDS	220	42,106	110,464	1,081	5,375	68,292	1,301	47,480	178,756
UKN0-NORTHERN IRELAND	120	11,598	38,294	237	1,218	14,586	357	12,816	52,880
<b>GRC</b>	<b>1,034</b>	<b>54,983</b>	<b>194,458</b>	<b>16,138</b>	<b>33,012</b>	<b>311,672</b>	<b>17,172</b>	<b>87,995</b>	<b>506,130</b>
GR11-ANATOLIKI MAKEDONIA, THRAKI	91	5,354	20,675	711	1,504	16,702	802	6,858	37,376
GR12-KENTRIKI MAKEDONIA	167	12,682	39,589	1,783	3,545	52,165	1,950	16,227	91,754
GR14-THESSALIA	52	2,226	9,317	813	1,561	14,557	865	3,787	23,874
GR21-IPEIROS	7	251	997	530	777	7,137	537	1,028	8,134
GR22-IONIA NISIA	41	1,408	6,796	1,466	2,731	25,476	1,507	4,139	32,273
GR23-DYTIKI ELLADA	40	1,792	8,730	852	1,385	13,947	892	3,177	22,677
GR24-STEREA ELLADA	115	5,594	21,974	1,690	3,274	32,868	1,805	8,868	54,843
GR25-PELOPONNISOS	59	1,952	9,014	1,620	3,319	26,554	1,679	5,271	35,568
GR30-ATTIKI	163	13,578	38,719	1,735	4,249	36,390	1,898	17,827	75,110
GR41-VOREIO AIGAIO	48	2,621	8,687	2,019	3,332	29,960	2,067	5,953	38,647
GR42-NOTIO AIGAIO	195	5,423	22,410	2,027	5,306	40,465	2,222	10,729	62,875
GR43-KRITI	56	2,101	7,550	892	2,029	15,450	948	4,130	23,000
<b>IRL</b>	<b>315</b>	<b>63,114</b>	<b>138,787</b>	<b>1,830</b>	<b>6,324</b>	<b>56,661</b>	<b>2,145</b>	<b>69,437</b>	<b>195,448</b>
IE01-BORDER, MIDLANDS AND WESTERN	129	33,034	63,445	822	2,602	22,240	951	35,636	85,686
IE02-SOUTHERN AND EASTERN	186	30,080	75,341	1,008	3,722	34,421	1,194	33,802	109,763
<b>ITA</b>	<b>4,197</b>	<b>171,905</b>	<b>845,145</b>	<b>9,379</b>	<b>19,846</b>	<b>286,626</b>	<b>13,576</b>	<b>191,751</b>	<b>1,131,77</b>



	LSF			SSF			Total		
	Number vessels	GT	kW	Number vessels	GT	kW	Number vessels	GT	kW
									<b>1</b>
ITC3-Liguria	109	2,930	19,906	432	833	15,060	541	3,763	34,966
ITD3-Veneto	384	11,713	69,393	376	998	15,772	760	12,711	85,165
ITD4-Friuli-Venezia Giulia	82	1,376	13,168	369	750	15,198	451	2,126	28,366
ITD5-Emilia-Romagna	258	8,098	49,483	504	1,315	26,705	762	9,413	76,188
ITE1-Toscana	137	4,605	26,126	490	1,130	17,083	627	5,735	43,209
ITE3-Marche	412	18,232	79,960	476	938	16,683	888	19,170	96,643
ITE4-Lazio	181	7,111	42,423	429	1,030	15,875	610	8,141	58,298
ITF1-Abruzzo	206	10,268	41,313	354	608	8,700	560	10,876	50,013
ITF2-Molise	38	2,204	8,683	46	94	1,175	84	2,298	9,858
ITF3-Campania	208	11,236	52,699	985	2,101	30,372	1,193	13,337	83,071
ITF4-Puglia	713	21,837	129,279	991	2,230	25,002	1,704	24,067	154,281
ITF6-Calabria	219	5,150	35,102	680	1,194	13,266	899	6,344	48,369
ITG1-Sicilia	999	57,428	225,886	2,153	4,276	51,068	3,152	61,704	276,954
ITG2-Sardegna	251	9,717	51,724	1,094	2,348	34,667	1,345	12,065	86,391
<b>LTU</b>	<b>46</b>	<b>45,720</b>	<b>51,549</b>	<b>124</b>	<b>243</b>	<b>2,855</b>	<b>170</b>	<b>45,964</b>	<b>54,404</b>
LT00-LIETUVA	46	45,720	51,549	124	243	2,855	170	45,964	54,404
<b>LVA</b>	<b>106</b>	<b>40,008</b>	<b>56,152</b>	<b>685</b>	<b>991</b>	<b>5,806</b>	<b>791</b>	<b>41,000</b>	<b>61,958</b>
LV00-LATVIJA	106	40,008	56,152	685	991	5,806	791	41,000	61,958
<b>MLT</b>	<b>94</b>	<b>9,522</b>	<b>30,152</b>	<b>1,003</b>	<b>2,414</b>	<b>55,710</b>	<b>1,097</b>	<b>11,935</b>	<b>85,862</b>
MT00-MALTA	94	9,522	30,152	1,003	2,414	55,710	1,097	11,935	85,862
<b>NLD</b>	<b>529</b>	<b>143,092</b>	<b>318,981</b>	<b>316</b>	<b>854</b>	<b>19,046</b>	<b>845</b>	<b>143,946</b>	<b>338,027</b>
NL11-GRONINGEN	53	2,559	9,804	5	31	258	58	2,590	10,062
NL12-FRIESLAND	68	5,056	16,937	9	12	159	77	5,068	17,096
NL23-FLEVOLAND	67	16,708	53,325	19	62	870	86	16,770	54,195
NL32-NOORD-HOLLAND	114	15,122	46,023	106	264	3,451	220	15,386	49,474
NL33-ZUID-HOLLAND	41	68,777	84,622	54	175	3,356	95	68,952	87,978
NL34-ZEELAND	182	34,550	106,867	121	306	10,911	303	34,856	117,778
NL41-NOORD-BRABANT	4	320	1,403	2	4	41	6	324	1,444
<b>POL</b>	<b>202</b>	<b>33,880</b>	<b>62,828</b>	<b>590</b>	<b>2,872</b>	<b>23,652</b>	<b>792</b>	<b>36,752</b>	<b>86,480</b>
PL42-ZACHODNIOPOMORSKIE	69	4,023	13,914	248	1,377	10,636	317	5,400	24,550
PL62-WARMINSKO-MAZURSKIE				53	134	2,334	53	134	2,334
PL63-POMORSKIE	133	29,857	48,914	289	1,361	10,681	422	31,218	59,595
<b>PRT</b>	<b>789</b>	<b>89,258</b>	<b>221,522</b>	<b>7,737</b>	<b>12,752</b>	<b>152,883</b>	<b>8,526</b>	<b>102,010</b>	<b>374,405</b>
PT11-NORTE	196	19,175	55,676	1,269	2,073	24,795	1,465	21,249	80,471
PT15-ALGARVE	159	10,624	31,933	1,694	2,972	40,719	1,853	13,595	72,652



	LSF			SSF			Total		
	Number vessels	GT	kW	Number vessels	GT	kW	Number vessels	GT	kW
PT16-CENTRO	151	37,898	68,012	1,860	2,296	21,782	2,011	40,194	89,794
PT17-LISBOA	96	7,702	21,008	1,582	2,316	26,879	1,678	10,019	47,887
PT18-ALENTEJO	30	1,957	7,096	190	393	4,858	220	2,350	11,954
PT20-AÇORES	108	8,321	24,818	737	2,196	29,829	845	10,518	54,647
PT30-MADEIRA	49	3,580	12,979	405	505	4,020	454	4,085	17,000
<b>ROM</b>	<b>15</b>	<b>1,300</b>	<b>4,117</b>	<b>453</b>	<b>511</b>	<b>3,319</b>	<b>468</b>	<b>1,811</b>	<b>7,436</b>
RO11-NORD-VEST				1	1	6	1	1	6
RO22-SUD-EST	15	1,300	4,117	451	510	3,310	466	1,810	7,427
RO32-BUCUREȘTI - ILFOV				1	1	3	1	1	3
<b>SVN</b>	<b>20</b>	<b>610</b>	<b>4,302</b>	<b>165</b>	<b>394</b>	<b>6,651</b>	<b>185</b>	<b>1,004</b>	<b>10,953</b>
SI02-ZAHODNA SLOVENIJA	20	610	4,302	165	394	6,651	185	1,004	10,953
<b>SWE</b>	<b>224</b>	<b>30,310</b>	<b>105,837</b>	<b>1,140</b>	<b>5,306</b>	<b>79,314</b>	<b>1,364</b>	<b>35,616</b>	<b>185,151</b>
SE11-STOCKHOLM	2	42	375	33	188	2,440	35	230	2,815
SE12-ÖSTRA MELLANSVERIGE	4	647	1,910	57	298	3,588	61	945	5,498
SE21-SMÅLAND MED ÖARNA	15	1,292	4,313	115	622	5,807	130	1,914	10,120
SE22-SYDSVERIGE	32	2,645	9,147	253	1,345	13,413	285	3,990	22,560
SE23-VÄSTSVERIGE	155	24,990	86,093	471	2,244	39,413	626	27,234	125,505
SE31-NORRA MELLANSVERIGE	4	467	1,410	46	112	2,424	50	579	3,834
SE32-MELLERSTA NORRLAND				33	94	2,157	33	94	2,157
SE33-ÖVRE NORRLAND	12	227	2,589	132	404	10,072	144	632	12,661
<b>Total</b>	<b>13,969</b>	<b>1,602,799</b>	<b>4,211,706</b>	<b>70,087</b>	<b>176,954</b>	<b>2,392,026</b>	<b>84,056</b>	<b>1,779,754</b>	<b>6,603,732</b>



## ANNEX F – SSF VESSEL NUMBERS BY GEAR TYPE AND MS

Table 61: SSF by Member State and DCR gear group

	Active						Passive				Total
	Dredge	Demersal trawl and seine	Hook and line	Pelagic trawl and seine	Beam trawl	Total	Pots and traps	Hook and line	Drift and fixed nets	Total	
BEL									1	1	1
BGR		8		1		9	50	249	1,909	2,208	2,217
CYP			1			1	2	57	902	961	962
DEU		12			28	40	40	3	1,282	1,325	1,365
DNK	54	93		1		148	2	41	2,127	2,170	2,318
ESP		28		58		86		929	6,943	7,872	7,958
EST		65		92		157	95	17	586	698	855
FIN		3		23		26	836	36	2,368	3,240	3,266
FRA	259	509	323	113	16	1,220	2,205	740	2,047	4,992	6,212
GBR	253	725		8	114	1,100	2,865	657	747	4,269	5,369
GRC	50	365	32	4		451	337	5,503	9,845	15,685	16,138
IRL	436	13		116	1	566	771	34	459	1,264	1,830
ITA	142	419		1,573	12	2,146		4,701	2,524	7,225	9,371
LTU							1	3	120	124	124
LVA				1		1			684	684	685
MLT		1	92	26	3	122	100	489	300	889	1,011
NLD	3	37		16	21	77	54	77	108	239	316
POL		8				8	123	28	431	582	590
PRT	118	119	11	13	27	288	918	2,011	4,520	7,449	7,737
ROM		6				6	1	4	444	449	455
SVN		11		2		13			152	152	165
SWE	1	79	16	6		102	546	40	456	1,042	1,144
Total	1,316	2,501	475	2,053	222	6,567	8,946	15,619	38,955	63,520	70,087

Source: CFR, 30.6.2010

Table 62. SSF trends in vessel numbers by Member State

Year	2000	2005	2010
BEL	<i>1</i>	1	1
BGR	<i>2,694</i>	2,443	2,217
CYP	<i>706</i>	824	962
DEU	1,885	1,772	1,369
DNK	3,176	2,619	2,318
ESP	13,272	10,415	7,958
EST	<i>877</i>	866	855
FIN	3,544	3,244	3,266
FRA	6,790	6,799	6,212
GBR	6,294	5,791	5,369
GRC	18,515	17,228	16,138
IRL	1,261	1,543	1,830
ITA	12,869	10,317	9,379
LTU	<i>310</i>	196	124
LVA	<i>812</i>	746	685
MLT	<i>1,426</i>	1,196	1,003
NLD	367	254	316
POL	<i>1,067</i>	791	590
PRT	9,815	9,123	7,737
ROM	<i>388</i>	419	453
SVN	<i>146</i>	155	165
SWE	1,680	1,295	1,140
<b>Total EU</b>	<b>87,894</b>	<b>78,037</b>	<b>70,087</b>

Source: CFR, 1.1.2000, 1.1.2005 and 30.6.2010. Notes: red italic figures extrapolated from 2005



## ANNEX G - ECONOMIC DEPENDENCE – DATA AND ESTIMATIONS

This annex deals with the following topics:

1. Review of available data and required estimations
2. Inclusion of data Spain
3. Inclusion of data on French Overseas Territories
4. Inclusion of data on Bulgaria

### Available data and required estimation

Socio-economic role of SSF has been estimated with the DCF/DCR data on the basis of an average of the years 2006-8. Taking multi-annual average is justified on the basis of the following arguments:

1. Multi-annual average reduces the effect of short term fluctuation, e.g. high fuel prices in 2008.
2. DCF data is not complete for all segments and all years. Missing data has been estimated, as indicated in the following table and average was subsequently calculated.

The analysis focuses on three indicators gross value added (comparable to gross domestic product or GNP), nominal employment (i.e. number of persons employed) and employment in full-time equivalents (based on national definitions, as homogenized definitions do not yet exist). In general the following assumptions have been made:

- Missing data is equal to results in available year;
- $FTE = 0.9 * \text{employment}$  (which will mostly lead to overestimation of FTE); and
- $\text{Employment} = FTE / 0.9$  (which will often lead to underestimation of employment).

Details on data availability by Member State are presented in Table 63.

### Inclusion of data on Spain

Spain has not submitted any data on small-scale fishing under DCF. Therefore 2008 data was obtained from the publication 'Encuesta económica de pesca marítima – 2008' of the Ministerio de Medio Ambiente y Medio Rural y Marino. The Ministry has also published reports in 2004-7. However, the fleet classification in those reports is very different from the 2008 report. In particular it does not distinguish any gears for the small-scale vessels. Therefore using 2004-7 data was not possible.

The 2008 data was processed as follows:

Costs definitions were transposed to DCR definitions as:

- Variable costs: Cebo, sal, hielo; Aprvisionamientos; Aparejos; Gastos protuarios;
- Repair and maintenance: Reparacion y mantenimiento;
- Fuel costs: Combustible y lubricante;
- Fixed costs: Otros servicios; Otros gastos de buque;
- Crew costs: Gastos de personal directos; and
- Deprecialtion: Amortizacion buque.

Costs not related to fishing were not included, namely:

- Gastos Indirectos: Gastos de personal (RI-07), Amortizaciones (RI\_08); Otros gastos (RI\_06); and
- Income from subsidies is not accounted for as it is also not included for the other MS.

One correction was introduced; on p.37 it is stated that 626 vessels of the segments 1CPMP1 would employ a total of 35,310 persons, which would be equal to 327 FTE. The total employment was put at 3,531.

The publication distinguishes five regions: Northern Atlantic – national waters and non-national waters, Mediterranean, Other areas – national waters, non-national waters. Fleet segments classified under different regions were aggregated into one national SSF segment.

Similarly to DCF, different length classes are distinguished 0-6 and 6-12m for the Mediterranean and 0-10m and 10-12m for all other areas. These length classes were aggregated to the total 0-12m small-scale fleet.

### **Inclusion of data on French Overseas Territories (DOM)**

Economic data on DOM are not collected under DCF. Therefore estimations were made on the basis of data provided in the report by AND Int and E&Y, *Aspects structurels de la politique commune de la pêche dans les RUP*, 2006. The report does not distinguish between SSF and LSF, but presents only aggregate data. The data refers probably to 2003-4, as report dates from 2006.

Estimate of employment and income of SSF is made as follows:

1. Total employment and value of landings drawn from the report.
2. SSF and LSF of 2010 is defined using CFR.
3. Employment in LSF is estimated assuming average crew of 4 men on board 12-24m vessels, 8 men on 24-40m vessels and 20 men on >40m vessels.
4. SSF employment is set equal to the total employment from the report minus the LSF employment.
5. To allocate value of landings to LSF and SSF it is assumed that LSF earns 3 times more than SSF per man. This assumption is consistent with EU averages from DCF. Having determined employment in LSF and SSF it is possible to split the value of landings between these two groups.
6. GVA is assumed 66% of volume of landings, which is also consistent with EU averages.

### **Inclusion of data on Bulgaria**

The economic data on Bulgaria for 2008 were seriously incomplete, while no data are available for the preceding years. The 2008 data contained only some indications on costs, but no earnings, for about 25% of the registered fleet. Only the following information could be drawn from DCF regarding 2008:

- Total value of landings: 10.6 mln euro; and
- Total employment: 1,802 persons.

Estimation of employment and income of SSF was made similarly to the French DOM:

- Composition of the BGR by length class (DCR) was obtained from CFR;
- Employment in LSF is estimated assuming average crew of 4 men on board 12-24m vessels, 8 men on 24-40m vessels;
- SSF employment is set equal to the total employment from DCF minus the LSF employment. This produced an average crew per vessel of 0.6 men<sup>21</sup>;

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<sup>21</sup> Various other Member State report a number of vessels which is larger than the number of employed (e.g. Finland and Malta in 2008).

- To allocate value of landings to LSF and SSF it is assumed that LSF earns 3 times more than SSF per man. This assumption is consistent with EU averages from DCF. Having determined employment in LSF and SSF it is possible to split the value of landings between these two groups; and
- GVA is assumed 66% of volume of landings, which is also consistent with EU averages.

**Table 63: Availability and estimations of earnings, costs and employment data in DCF/DCR***(minor<sup>22</sup> estimations are not mentioned)*

MS	Costs and earnings 2006	Costs and earnings 2007	Costs and earnings 2008	Employment	FTE	Other comments
AZO	=2007	Available	=2007	Available	= 0.9 * employ.	
BEL	No SSF	No SSF	No costs data. GVA assumed 60% of income	Available	Available	
BLG	=2008	=2008	Available – only costs Assumed: Revenue=costs.	Ass.: 10000 euro income/employed	= 0.9 * employ.	
CYP	Available	Available	Available	Available	Available	PGP 2008 integrated with PG 2006-7
DEU	Available	Available	Available	Available	Available	beam trawl 2006-7: costs assumed proportionate to change in income.
DNK	Available	Available	Available	= FTE / 0.9	Available	
ESP	=2008	=2008	Available	2006=2007=2008	2006=2007=2008	Data not from DCF
EST	Available	Available	Available	Available	= 0.9 * employ.	
FIN	Available	Available	Available	Available	Available	PG 2008 and PGP 2006-7 integrated
FRA	Available	Available	Available	= FTE / 0.9 for 2006	= 0.9 * empl for 2008	No data on DOM
GBR	Available, except drift and fixed nets, MGP and pelagic trawl and seine = 2007	Available	Available	Available	Available	
GRC	Available	=2006	=2006	Available 2006 2007 /2008= 2006	FTE 2006 = 0.9 * empl 2007 = 2008 = 2006	
IRL	Available	Available	=2007	Available	= 0.9 * employ.	
ITA	Available	Available	Available	Available	Available	hook and line 2008 = 2007
LTU	Available	Available	Available	Available	FTE 2006 = 0.9 * empl	
LVA	Available	Available	Available	= FTE / 0.9	Available	PG 2008 and PGP 2006-7 integrated
MAD	Available	Available	Available	Available	Available	PMP 2008 and PGP 2006-7 integrated
MLT	Available, except MGO = 2008	Available, except MGO = 2009	Available, except pelagic trawl and seine=2007	Available	= 0.9 * empl	

<sup>22</sup> In relation to national total.



NLD	Available except demersal trawl and seine = 2007, PG = 2008	Available except PG = 2008	Available	Available	Available	
PRT	Available	Available	Available	Available	= 0.9 * empl for 2006-7	
ROM	=2008	=2008	Available	Available for 2008	Available for 2008	
SVN	= 2007	Available	Available	Available	Available	
SWE	Available	Available	Available	Available	Available	



## ANNEX H - LINKING GEAR DEFINITIONS IN CFR AND DCF

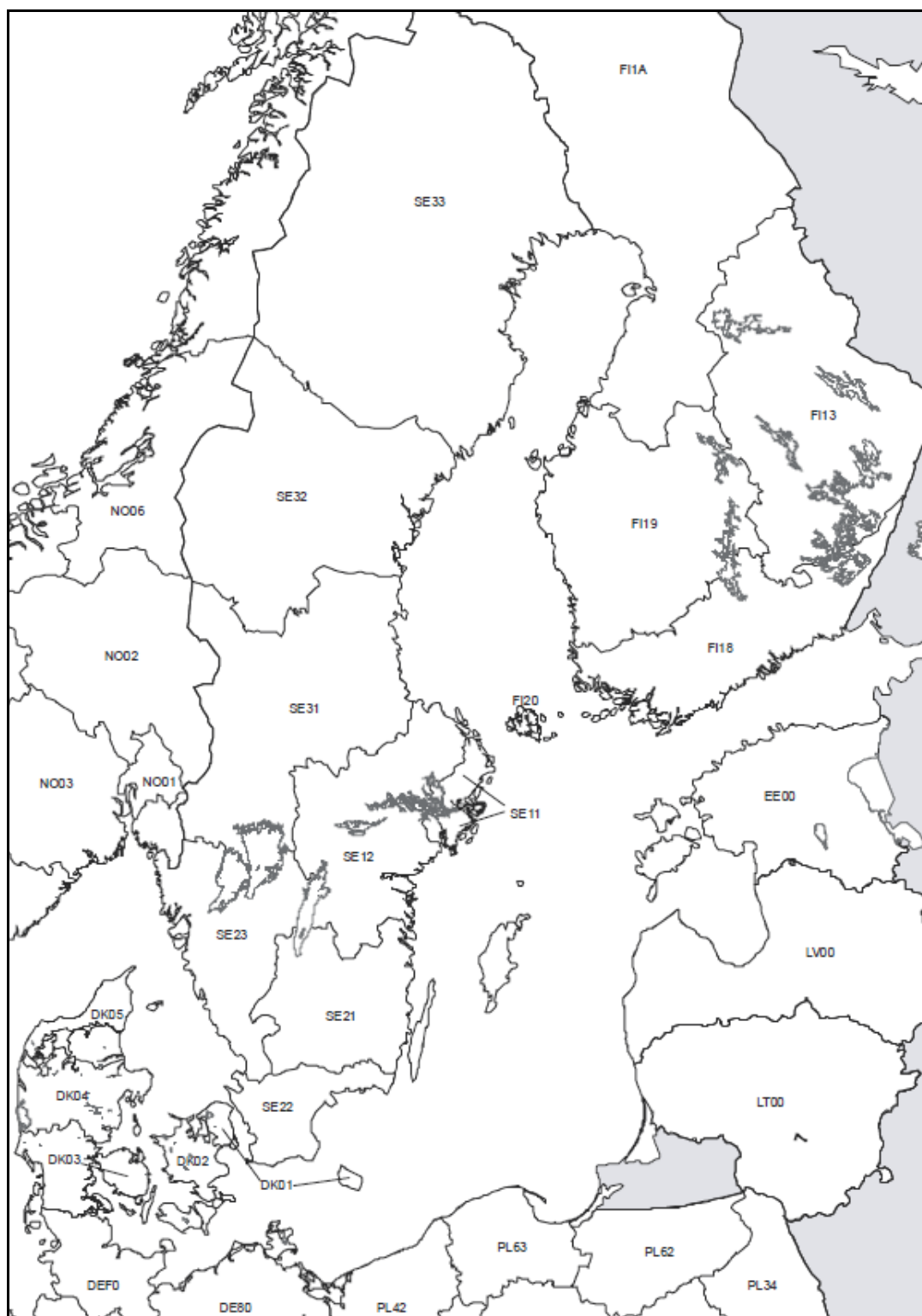
CFR classification			Passive (P) or active gear (A)	DCR classification
Gear group	Gear name	Code		Gear name (code)
Surrounding nets	Purse seines	PS	A	Pelagic trawl and seine (PTS)
	Lampara nets	LA	A	Pelagic trawl and seine (PTS)
Seines	Beach seines	SB	A	Demersal trawl and seine (DTS)
	Danish seines	SDN	A	Demersal trawl and seine (DTS)
	Scottish seines	SSC	A	Demersal trawl and seine (DTS)
	Pair seines	SPR	A	Demersal trawl and seine (DTS)
Trawls	Beam trawl	TBB	A	Beam trawl (TBB)
	Bottom otter trawl	OTB	A	Demersal trawl and seine (DTS)
	Bottom pair trawls	PTB	A	Demersal trawl and seine (DTS)
	Mid-water otter trawls	OTM	A	Pelagic trawl and seine (PTS)
	Pelagic pair trawls	PTM	A	Pelagic trawl and seine (PTS)
	Otter twin trawls	OTT	A	Demersal trawl and seine (DTS)
Dredges	Boat dredges	DRB	A	Dredge (DRB)
	Hand dredges used on board a vessel	DRH	A	Dredge (DRB)
	Mechanised dredges incl. suction dredges	HMD	A	Dredge (DRB)
Lift nets	Boat operated lift nets	LNB	P	Drift and fixed nets (DFN)
	Shore operated stationary lift nets	LNS	P	Drift and fixed nets (DFN)
Gill nets and entangling nets	Set (anchored) gillnets	GNS	P	Drift and fixed nets (DFN)
	Driftnet	GND	P	Drift and fixed nets (DFN)
	Encircling gillnets	GNC	P	Drift and fixed nets (DFN)
	Trammel nets	GTR	P	Drift and fixed nets (DFN)
	Combined trammel and gillnets	GTN	P	Drift and fixed nets (DFN)
Traps	Pots (traps)	FPO	P	Pots and traps (FPO)
Hooks and lines	Hand lines and pole lines (hand operated)	LHP	P	Hooks and lines (HOK)
	Hand lines and pole lines (mechanised)	LHM	P	Hooks and lines (HOK)
	Set longlines	LLS	P	Hooks and lines (HOK)
	Longlines (drifting)	LLD	P	Hooks and lines (HOK)
	Troll lines	LTL	A	
Gear unknown		NK	Z-O	Unknown
No gear		NO	Z-O	

\*PG and PGP have been renamed to drift and fixed nets



## Annex I - NUTS-2 - maps and codes

Map 25: NUTS-2 Sweden, Finland, Estonia, Latvia, Lithuania, Poland, Germany and Denmark



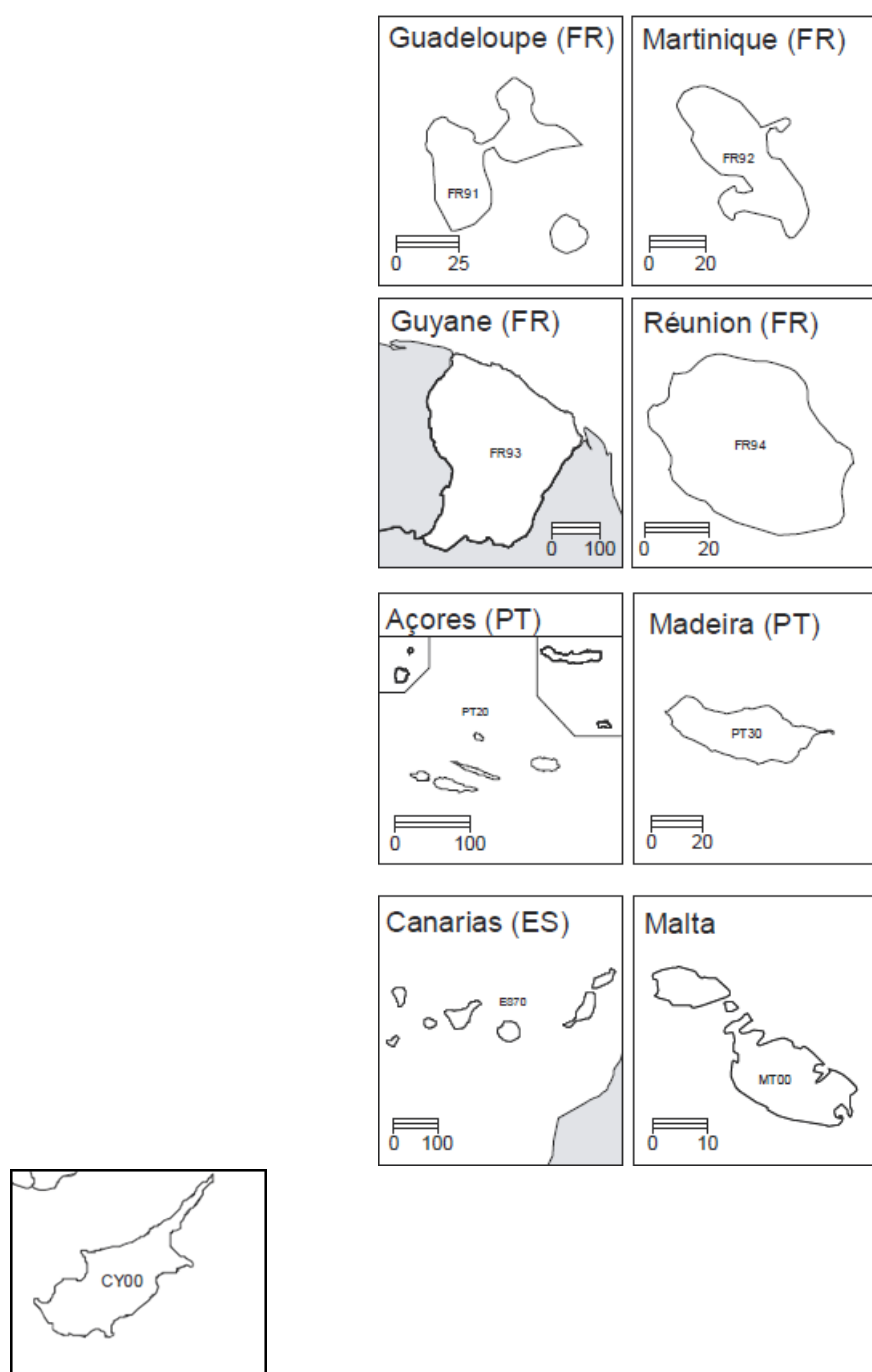
Source: Eurostat-Gisco, 2009

[illegible]

**Map 28: NUTS-2 Italy, Greece, Bulgaria and Romania**



**Map 29: NUTS-2 Cyprus, Azores, Madeira, Canary Islands and French overseas territories**





## Annex J – SSF - Gross Value Added per by Member State and DCF gear

Country / segment	Value of landings (euro)	Gross Value Added (GVA, euro)	Employment	FTE	GVA / employed (euro)	GVA / FTE (euro)
<b>AZO</b>	<b>25,948,030</b>	<b>16,058,261</b>	<b>4,311</b>	<b>3,880</b>	<b>3,725</b>	<b>4,139</b>
PMP	25,948,030	16,058,261	4,311	3,880	3,725	4,139
<b>BEL</b>	<b>92,934</b>	<b>55,760</b>	<b>2</b>	<b>2</b>	<b>27,880</b>	<b>27,880</b>
DTS	92,934	55,760	2	2	27,880	27,880
<b>BGR</b>	<b>878,458</b>	<b>291,664</b>	<b>88</b>	<b>79</b>	<b>3,320</b>	<b>3,689</b>
PMP	878,458	291,664	88	79	3,320	3,689
<b>CYP</b>	<b>14,864,348</b>	<b>9,844,660</b>	<b>844</b>	<b>722</b>	<b>11,669</b>	<b>13,642</b>
PG	14,864,348	9,844,660	844	722	11,669	13,642
<b>DEU</b>	<b>11,182,419</b>	<b>2,370,620</b>	<b>1,298</b>	<b>687</b>	<b>1,827</b>	<b>3,452</b>
DTS	1,100,906	427,097	20	13	21,717	32,032
PG	9,534,346	2,260,678	1,256	663	1,800	3,408
TBB	547,168	-317,155	22	10	-14,416	-31,716
<b>DNK</b>	<b>42,183,942</b>	<b>24,954,814</b>	<b>473</b>	<b>426</b>	<b>52,741</b>	<b>58,601</b>
DRB	6,322,252	4,865,773	39	35	125,025	138,916
DTS	1,437,550	809,683	17	15	47,207	52,452
PGP	27,981,316	16,007,304	349	314	45,838	50,931
PMP	6,442,824	3,272,054	68	61	48,213	53,570
<b>ESP</b>	<b>116,535,000</b>	<b>74,240,000</b>	<b>11,051</b>	<b>5,176</b>	<b>6,718</b>	<b>14,344</b>
DFN	1,159,000	735,000	67	58	10,970	12,712
DTS	2,191,000	952,000	52	53	18,308	18,000
HOK	2,356,000	1,464,000	131	78	11,176	18,728
PMP	108,417,000	69,563,000	10,661	4,878	6,525	14,261
PTS	2,412,000	1,526,000	140	109	10,900	14,033
<b>EST</b>	<b>3,374,312</b>	<b>1,942,279</b>	<b>2,770</b>	<b>2,493</b>	<b>701</b>	<b>779</b>
PG	3,374,312	1,942,279	2,770	2,493	701	779
<b>FIN</b>	<b>11,480,928</b>	<b>7,206,162</b>	<b>1,532</b>	<b>59</b>	<b>4,705</b>	<b>121,452</b>
PGP	11,480,928	7,206,162	1,532	59	4,705	121,452
<b>FRA</b>	<b>374,423,070</b>	<b>238,259,268</b>	<b>5,991</b>	<b>5,392</b>	<b>39,772</b>	<b>44,192</b>
DFN	112,870,772	71,680,023	1,983	1,785	36,146	40,162
DRB	24,701,822	14,792,015	404	364	36,573	40,637
DTS	53,313,109	30,265,340	646	582	46,836	52,040
FPO	55,366,053	36,995,986	737	663	50,206	55,784
HOK	40,385,659	25,924,035	559	503	46,414	51,571
MGO	18,378,475	12,240,848	315	283	38,881	43,201
MGP	11,404,616	6,744,718	148	133	45,587	50,652
PGO	12,763,588	10,162,189	442	397	23,011	25,568
PGP	16,204,733	10,938,914	306	275	35,748	39,720
PMP	27,044,402	17,150,733	414	373	41,427	46,030
PTS	1,989,840	1,364,468	37	33	36,878	40,975
<b>GBR</b>	<b>165,181,019</b>	<b>66,986,834</b>	<b>7,214</b>	<b>3,228</b>	<b>9,285</b>	<b>20,751</b>
DFN	18,398,583	2,789,258	1,076	302	2,592	9,251
DRB	9,246,507	3,419,559	277	111	12,367	30,736
DTS	39,293,819	13,010,806	1,851	1,205	7,028	10,793
FPO	88,491,320	47,087,354	3,076	1,376	15,308	34,211
HOK	3,756,837	708,069	682	138	1,039	5,147
MGP	606,978	282,122	20	10	13,816	28,642
PGP	1,626,483	927,002	3	4	278,100	252,819
PMP	809,646	375,223	87	33	4,313	11,481
PTS	867,107	53,222	14	10	3,802	5,322
TBB	2,083,740	-1,665,781	128	40	-12,992	-41,889
<b>GRC</b>	<b>600,748,609</b>	<b>451,807,150</b>	<b>21,608</b>	<b>19,447</b>	<b>20,909</b>	<b>23,232</b>
HOK	42,693,647	29,044,041	1,328	1,196	21,864	24,293

PG	545,671,838	413,971,716	19,583	17,625	21,139	23,488
PMP	12,383,124	8,791,392	697	627	12,621	14,024
<b>IRL</b>	<b>39,658,868</b>	<b>25,685,831</b>	<b>1,632</b>	<b>1,530</b>	<b>15,739</b>	<b>16,791</b>
PMP	62,768,799	37,668,422	1,700	1,530	22,162	24,625
<b>ITA</b>	<b>338,893,818</b>	<b>237,293,823</b>	<b>13,856</b>	<b>11,074</b>	<b>17,125</b>	<b>21,428</b>
DTS	11,219,188	5,756,745	225	200	25,612	28,777
HOK	3,304,288	2,258,692	89	83	25,302	27,187
PGP	324,370,342	229,278,387	13,542	10,791	16,930	21,247
<b>LTU</b>	<b>331,264</b>	<b>202,929</b>	<b>292</b>	<b>195</b>	<b>695</b>	<b>1,039</b>
DFN	331,264	202,929	292	195	695	1,039
<b>LVA</b>	<b>704,252</b>	<b>432,310</b>	<b>1,038</b>	<b>934</b>	<b>417</b>	<b>463</b>
PG	704,252	432,310	1,038	934	417	463
<b>MAD</b>	<b>1,436,484</b>	<b>1,064,837</b>	<b>321</b>	<b>321</b>	<b>3,317</b>	<b>3,317</b>
HOK	1,268,064	907,917	153	153	5,934	5,934
PGP	168,420	156,920	168	168	934	934
<b>MAL</b>	<b>6,307,233</b>	<b>-787,821</b>	<b>192</b>	<b>173</b>	<b>-4,106</b>	<b>-4,562</b>
DFN	222,809	27,970	4	4	6,464	7,183
FPO	166,124	-1,953	11	10	-180	-200
HOK	3,319,803	-297,300	95	86	-3,118	-3,464
MGO	344,944	627	3	3	219	244
PGP	1,872,449	-244,048	50	45	-4,838	-5,375
PMP	141,089	-76,796	12	11	-6,217	-6,907
PTS	238,513	-196,244	16	14	-12,524	-13,915
TBB	1,503	-77				
<b>NLD</b>	<b>11,841,360</b>	<b>5,955,682</b>	<b>459</b>	<b>213</b>	<b>12,963</b>	<b>27,963</b>
DTS	106,551	53,555	16	14	3,440	3,822
PG	8,690,721	5,882,892	345	110	17,052	53,481
PGO	3,044,088	19,235	99	89	195	216
POL	11,322,257	8,078,269	1,361	988	5,936	8,176
PG	11,322,257	8,078,269	1,361	988	5,936	8,176
<b>PRT</b>	<b>120,067,846</b>	<b>92,100,532</b>	<b>6,374</b>	<b>5,969</b>	<b>14,449</b>	<b>15,429</b>
DFN	7,871,594	6,139,690	463	434	13,261	14,163
DRB	2,497,588	1,545,700	377	368	4,100	4,204
FPO	4,653,494	3,602,912	144	135	25,078	26,715
HOK	8,136,933	6,297,738	605	560	10,409	11,248
PGP	77,099,176	60,145,527	3,722	3,477	16,161	17,299
PMP	11,422,996	9,019,786	558	524	16,174	17,220
PTS	8,386,064	5,349,180	506	473	10,565	11,318
<b>ROM</b>	<b>304,453</b>	<b>222,912</b>	<b>790</b>	<b>570</b>	<b>282</b>	<b>391</b>
PG	285,075	233,897	248	175	943	1,337
PMP	19,378	-10,985	542	395	-20	-28
<b>SVN</b>	<b>748,044</b>	<b>469,287</b>	<b>77</b>	<b>76</b>	<b>6,121</b>	<b>6,190</b>
DFN	333,888	175,332	59	58	2,972	3,040
DTS	186,473	82,409	10	12	7,975	6,867
FPO	98,102	97,178	2	3	48,589	31,014
PGP	37,507	28,703	2	1	17,222	22,902
PMP	3,048	2,179	1	0	1,635	22,546
PTS	89,026	83,485	2	2	35,779	50,091
<b>SWE</b>	<b>35,880,248</b>	<b>23,876,201</b>	<b>1,225</b>	<b>663</b>	<b>19,496</b>	<b>36,012</b>
DTS	17,562,964	15,334,837	91	59	169,134	259,912
PG	18,317,284	8,541,364	1,134	604	7,532	14,141
<b>Total</b>	<b>1,945,944,162</b>	<b>1,294,603,562</b>	<b>84,832</b>	<b>64,295</b>	<b>15,261</b>	<b>20,135</b>

Notes: average of 2006 to 2008 data where available. Figures in red/italics are estimated.

## NOTES





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ISBN 978-92-823-3502-4