Innovative recruitment strategies in the fisheries sector

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Introduction

There is much anecdotal evidence exists to suggest that fishing vessel owners and operators, as well as fishing companies in the EU, encounter difficulties in recruiting and retaining good quality crew. Among the reasons often cited are:

- low and unpredictable wages;
- poor career outlook due to declining fish stocks and fleet;
- dangerous and harsh working conditions;
- antisocial working hours;
- poor environmental image of the sector.

These reasons are exacerbated by a relatively buoyant economy in recent years which offers more attractive employment opportunities ashore. In order for the industry to remain economically viable, there is a need to address the recruitment problem.

In some EU Member States, the government on its own or in cooperation with industry representatives and the social partners have launched new initiatives aimed at attracting new recruits, in particular young recruits, to the capture fisheries subsector.

This study provides a detailed account of innovative recruitment strategies used in the capture fisheries sector in certain EU Member States. The report is based on research commissioned by the European Foundation for the Improvement of Living and Working Conditions into the fisheries sector and concentrates on the situation in four EU Member States:

Denmark, France, the Netherlands and Spain. Four country reports have been prepared which outline the employment situation and measures to encourage recruitment in each of these Member States.

This comparative report also aims to draw together the main themes emerging from the current recruitment measures, or the pitfalls of these, in the four countries surveyed. Furthermore, it assesses the challenges faced by the EU capture fisheries sector in terms of recruitment, as well as a variety of programmes and policies that aim to ease recruitment difficulties. Finally, the report looks at the most likely scenario for the future of recruitment in EU fisheries.

Overview of the fisheries sector

Structure of fisheries sector

EU fisheries

In all of the study countries, and indeed in much of the EU, the majority of commercially targeted stocks are managed at the European level through the Common Fisheries Policy (CFP) of the EU using the Total Allowable Catch (TAC) system.

This system of fish stock management has faced many challenges and seems to have been unable to halt the decline of most commercially targeted fish stocks in European waters. The following aspects have all contributed to this situation: excessive capacity and increased technical sophistication of the fleet; problems assessing fish stock; difficulties enforcing regulations aimed at protecting stocks; and an ongoing juggling of short and long-term socioeconomic needs. However, many of these issues are being addressed through decommissioning and improved stock assessment methods for example. There are, of course, the success stories where fish stocks and fishing levels appear sustainable, notably in some shellfish and pelagic (open sea fish) fisheries. However, for whitefish and flatfish, spawning stock biomass – a key indicator for the health of fish stocks – has fallen to an all time low, in fact half of what it was 15 years ago. And it is also unarguably the case that several species are in a critical condition. Both the whitefish and flatfish have been the traditional mainstay of fisheries in the EU. According to Bill Ballantine of Leigh Marine Laboratory in New Zealand, a world authority on marine resource management, EU fisheries managers are in the process of 'managing the bits'. This seems an appropriate summary of the state of play for most fisheries in the EU. It should be noted, however, that this statement could be applied to much of the world's fisheries, not just to those in the EU.

Denmark

In terms of volume, Denmark has the highest landings of any EU country, although the majority of the catch is low-value pelagic species for industrial purposes.

The Danish fleet mainly covers the following three types of fishing:

- industrial fishing for the production of fish meal and fish oil in European and Norwegian waters this includes the catch of sand eel, Norway pout, sprat and blue whiting in the North Sea, Skagerrak-Kattegat area and the Baltic Sea;
- pelagic fishing, such as herring and mackerel, for human consumption in European and Norwegian waters;
- demersal (deep water) fishing, including whitefish, flatfish, Norway lobster and deep water prawns, for which smaller vessels are used with different types of equipment; these vessels generally go on short trips for one or a few days to the North Sea and the Skagerrak-Kattegat area.

About 3,000 fishing vessels are currently registered in Denmark, with a total tonnage of about 85,000 gross tonnage (GT). Some 80% of the fleet consists of vessels measuring less than 24 metres, and over half of the vessels have a capacity below five GT; these vessels are predominantly gill netters targeting demersal (deep water or seabed) species. At the other end of the spectrum are about 150 vessels with over 150 GT – the large pelagic trawlers and purse seiners.

In general, the smaller demersal vessels are owner-operated with a crew paid a share of the catch revenue, while the bigger pelagic trawlers belong to large companies where the crew and officers are paid employees.

It is worthwhile noting that fisheries in the Faeroe Islands and Greenland are managed through these territories, but are not considered in the analysis of this report.

France

The French fishing fleet in 2005 consisted of 5,400 registered vessels. Some 75% of the fleet is made up of so-called inshore vessels that are less than 12 metres long, 22% of the vessels measure between 12 and 25 metres, and the remaining 3% of vessels are offshore vessels longer than 25 metres. Since 1999, the total number of vessels has decreased by 8%, all of the three size classes have been equally affected by this trend.

Since the French fishing fleet catches a great diversity of species by using various fishing techniques, it is more difficult to categorise the fleet. Nevertheless, the fleet can roughly be divided into the following groups:

- a coastal fleet which makes up by far the majority of French vessels in terms of vessel numbers and which is mainly owner-operated, with a small number of crew who are often family members. This fleet is most active in Brittany and the Mediterranean. The most important species in terms of value for this fleet are sole, monkfish, hake and scallops;
- the offshore fleet, which comprises about 160 vessels, is based mostly in the three largest French fishing ports Boulogne in the eastern Channel, and Lorient and Concarneau in Brittany. These vessels usually fish in northern European waters making one or two-week trips, although a few of these vessels fish in distant grounds, mainly targeting yellow fin tuna in the tropical Atlantic. These vessels generally belong to large companies which employ the crew and the officers; therefore the skipper is usually not the owner. In some cases, the employees are also paid a share of the catch in addition to their salaries.

It should be noted that this analysis does not include fisheries in the French overseas territories (*Départements d'outre-mer*, DOM, and *Pays et territories d'outre-mer*, PTOM).

Netherlands

In 2005, the Dutch fleet included about 360 registered vessels excluding mussel dredgers. The majority of the fleet (61%) were small inshore vessels, mainly targeting flatfish and shrimp. Most of the flatfish is frozen on shore and exported, while shrimp is usually exported for peeling to Morocco and subsequently re-imported for the local market.

The fleet can be categorised as follows:

- the coastal fleet comprises about 220 vessels which are small owner-operated vessels; these are mainly beam trawlers, fishing shrimp, cod and flatfish on relatively short trips, equipped with a two to three-person crew who are often the owners of the vessel and close relatives;
- approximately 120 large beam trawlers specialise in fishing plaice and sole in the North Sea; these are relatively large vessels which are, on average, about 38–42 metres long and which have a crew of six to seven persons; they generally make four to five-day trips;
- large pelagic freezer trawlers, most of these are over 100 metres long and operate with a crew of 35 to 45 people; they fish small pelagic species in European waters as well as in other parts of the world; in general, the catch is frozen on board and exported direct from the vessel.

Spain

The Spanish fishing fleet comprises more than 10,000 registered vessels; it represents 23% of the total tonnage of the EU fleet and 15% of the total number of fishing vessels in the EU. The majority of these vessels fish within the national Exclusive Economic Zone (EEZ). However, the high seafood demand in the Spanish market means that the capture of

fish in the national grounds is insufficient to supply consumer demands. Therefore, the Spanish fishing fleet had to develop deep sea fishing in near and distant waters outside the EEZ. Overall, it can be divided into three groups, namely:

- the coastal fleet which represents the majority of vessels (96%) but only 41% of the total tonnage; some 80% of this fleet is of artisanal character, that is, small owner-operated vessels;
- the offshore EU fleet (*pesca de altura*) which operates in European waters, mainly in the western Atlantic region in British, French, Irish and Portuguese waters; these vessels go on trips lasting a few days up to a couple of weeks;
- the long-range offshore fleet (*pesca de gran altura*) operates under fishing agreements with non-European countries and territories, such as Argentina, Chile, the Falklands, Morocco, Namibia, Peru and South Africa.

All three fleets target a wide range of species for human consumption.

In terms of the number of vessels, about 48% of the Spanish fleet operates from Galicia, followed by Andalusia, Catalonia and the Canary Islands. When considering tonnage, Galicia represents more than 40% of Spain's total tonnage, followed by the Basque region which accounts for 16% and Andalusia which accounts for approximately 13%.

In Galicia in particular, fishing has developed into a vertically integrated industry, also comprising the shipyards of the region. The major Spanish fishing ports, such as Vigo, La Coruña, Riveira, Marin and Burela, are all in this region. Some 92.5% of Galician fishing boats are smaller than 87 GT and make up the coastal fleet; the remaining 7.5% of fishing vessels are larger than 87 GT and represent the offshore fleet. The latter account for 26% of total employment in the fishing industry in Galicia. The Galician fishing fleet comprises the following number of vessels: 133 vessels, such as freezer trawlers, seine and deep sea long liners, fish in international fishing grounds and remain offshore from one month to seven months; 144 vessels, such as trawlers and long liners, fish in EU grounds with trips of between 10 to 18 days; and 5,000 vessels fish in the EEZ with trips ranging from less than a day up to as much as seven days.

Comparative view

Table 1 shows the number of vessels as well as the volume and value of landings for each of the four countries surveyed. Spain dominates in terms of the fleet size and value of landings. Denmark has the highest volume of landings but shows the lowest value of catch, due to its target market.

Table 1: Fleet and landings, by country, 2005

	Denmark*	Spain	France**	Netherlands
Number of registered vessels	3,274	13,691	5,400	421
Landings by volume (tonnes of live weight)	854,000	758,000	586,000	547,000
Landings by value (€ million)	351	1,620	1,050	378

^{*} The Danish government and EU statistics for 2005 give slightly different values, showing a discrepancy of around 6%; this table shows Danish government figures which are slightly lower than those provided by EU statistics.

Source: EU and national government statistics

Certain similarities emerge in terms of the fleet structure in the four countries surveyed.

■ Small, coastal, owner-operated vessels of artisanal character make up the majority of the fleet in the four countries: they represent about 60% of the Dutch fleet and between 75% and 80% of the fleets in Denmark, France and Spain.

^{**} For France, the latest figures available are from 2004.

- The offshore fleet only accounts for a small proportion of the number of registered vessels in each of the four countries, but represents a much larger percentage in terms of catch volume. In France and Spain, this fleet targets a variety of relatively high value species for human consumption, while in the Netherlands and Denmark it generally targets high-volume pelagics of low value; these are mainly caught for export in the case of the Netherlands and for rendering in the case of Denmark. Offshore fleet vessels are owned by large companies rather than by the skipper.
- The group of intermediate-sized vessels often uses bottom trawls or other techniques to fish high value demersal species, such as whitefish, flatfish, hake, Norway lobster, shrimp and scallops. They usually fish in European waters with trips lasting from a few days up to a couple of weeks. This part of the fishing fleet appears to be the one most under pressure due to declining stocks and restrictions by EU regulation. This group also includes the larger Dutch beam trawlers, the larger Danish demersal vessels, some of the French and Spanish (pesca de altura) offshore fleet.

Economic importance of fisheries

Denmark

In 2004, fisheries production in live weight contributed €184 million to gross value added (GVA) and accounted for about 0.5% of the Danish gross domestic product (GDP), of which approximately 0.15% come from capture fisheries. The majority of Danish fisheries products in terms of both weight and value is exported, representing an export value of €2.06 billion. According to the World Trade Organisation (WTO) 2006 figures, this accounts for approximately 3% of total Danish exports. Denmark is one of the few countries in the EU to show a positive trade balance in fisheries products, while France, the Netherlands and Spain do not. About two thirds of the sector's employment in Denmark is in processing rather than capture fisheries. The processing sector depends largely on Danish catch, so it could arguably be included in the economic contribution of capture fisheries. Therefore, the fisheries sector has some value to the Danish economy although it is not a major economic player.

France

In France, fisheries production in live weight, excluding aquaculture, contributed an estimated ¹ €450-500 million to GVA in 2004. Overall, the sector represents about 0.2% of French GDP, with a significant contribution coming from processing imports rather than French capture fisheries. This is also in line with the employment structure in the French fisheries sector. Capture fisheries contributed probably about 0.07% to GDP, which means that its share is significantly smaller compared with that in Denmark and Spain. According to WTO 2006 figures, France exported seafood products worth €1.2 billion in 2003, which represents about 0.35% of the country's exports. On the other hand, about €3.25 billion of fisheries products were imported. This trade balance reflects raw material that is imported, processed and re-exported as much as it reflects French production.

Netherlands

Marine fishing is a very small sector within the Dutch economy, with a contribution to GVA of €164 million and to GDP of about 0.1% in 2004. These figures, however, take into account the processing sector, which depends as much on imported raw materials as on Dutch domestic production. The processing and marketing of fish products accounts for about 80% of employment in the sector, while capture fisheries only represents about 15% of the sector's employment. The contribution of capture fisheries to national GDP of around 0.02% is thus small when compared with the other three countries in this study. The Netherlands exported €1.4 billion of seafood products in 2003, which represents about 0.58% of total Dutch exports (WTO, 2006).

No official estimate of this figure appears to be available for France. Since contribution to GVA was between 45% and 50% of the value of landings in the other three countries surveyed, this ratio was used to estimate GVA contribution of the French fisheries sector.

Spain

In Spain, fisheries production in live weight contributed around \in 800 million to GVA in 2004; overall, this represents about 0.2% of Spanish GDP, with 0.16% coming from capture fisheries. The share of capture fisheries of total GDP is similar in Spain and Denmark. About \in 2.8 billion worth of Spanish fisheries products were exported in 2005, accounting for about 1.1% of total Spanish exports (WTO, 2006). The Spanish domestic market for seafood is very strong and Spanish production is unable to meet the market demand. This is evident when looking at seafood products worth \in 4.5 billion having been imported in 2005.

Comparative view

The fisheries sector is not a major player in the overall economy of any of the four countries being studied, although it is more important in Denmark and Spain than in France or in the Netherlands. The only country with a positive trade balance for seafood products is Denmark, which exports a significant proportion of its production. Spain has to import very large quantities of seafood to satisfy the very strong demand in the national market; the country shows one of the highest per capita consumption rate of seafood among the countries surveyed. In France and in the Netherlands, the economic contribution of the sector comes more from processing than from capture fisheries, with relatively large volumes of seafood imported. Table 2 shows the relative contribution of the sector to the economies of each of the four countries.

Table 2: GDP contribution of fisheries sector, by country, 2004 (%)

	Denmark	Spain	France	Netherlands
Contribution of sector as a whole	0.5	0.2	0.2	0.1
Contribution of capture fisheries	0.15*	0.16	0.07	0.02

Note: * This figure is estimated by assuming that the economic contribution of each component of the sector – capture fisheries, fish processing and aquaculture – corresponds to the employment level in each of the three subsectors. This assumption appears to hold for the sector as a whole (i.e. its total economic contribution is in line with its contribution to total employment).

Source: WTO. 2006

Employment structure

Denmark

According to EU and Danish government estimates in 2004, about 14,000 people are employed in the fisheries sector as a whole. Around 3,500 of these people work in capture fisheries which means they work on board fishing vessels. This represents about 25% of the sector's employment. Most of the remaining 75% of the fisheries workforce are employed in the processing sector.

Employment in capture fisheries represents roughly 0.15% of the total Danish workforce, while employment in the sector as a whole is 0.5% of the total working population; the latter figure corresponds to the sector's contribution to the national economy. This figure is well above the EU average of employment in fisheries which currently stands at 0.3% of total employment in the EU, and it is also similar to the employment rate in Spain. Nonetheless, strong dependency on the fisheries sector with a regional dependency rate of over 1% is restricted to a few specific areas in Denmark, namely to Northern and Western Jutland and the Island of Bornholm in the Baltic Sea.

The only EU Member States which exceed Denmark and Spain in terms of dependency on fisheries are Greece, Ireland, Latvia, Malta and Portugal.

Note that the calculation of fisheries dependency includes employment across the whole sector, including aquaculture and fish processing, not just capture fisheries.

No individual income statistics for fishermen are available, but anecdotal evidence suggests that incomes in the fisheries sector are higher than in comparable sectors requiring skilled or semi-skilled labour, such as agriculture or construction.

France

In France, employment in the fisheries sector as a whole is estimated to be 50,000 people and 20,000 of these workers are employed in capture fisheries, according to 2005 estimates of the French government and the EU. Workers in capture fisheries represent 31% of the sector's total employment. Some 18,000 people work in fish processing and 12,000 people in aquaculture, which makes the French aquaculture sector one of the largest in the EU, along with that of Spain.

Employment in capture fisheries represents roughly 0.08% of the total French workforce, while employment in the sector as a whole is 0.2% of the total working population. The share of fisheries employment in France as a percentage of total employment is below the EU average of 0.3%. This is due to the fact that, although the French fisheries sector is considerable by EU standards, France is a big country with a large total workforce.

The most important region in terms of fishing dependency is Brittany where 40% of the French fishing fleet is located. This is then followed by the Mediterranean which has 19% of the fishing fleet. A high fisheries sector dependency with over 1% is confined to some areas of Brittany, namely in parts of Finistère and Morbihan, and parts of the Charente-Maritime region, specifically in the area around La Rochelle.

Wages for fishing crew remain higher than the French national average wage, which stands at a gross wage of €30,000-35,000 a year. For a non-qualified worker on deck, the wage is between €20,000 and €25,000, higher than it is for most other non-qualified jobs in the French economy, for example, when compared with the minimum statutory wage of €15,000 a year.

Netherlands

In 2005, the Dutch government and the EU estimated employment in the fisheries sector as a whole at about 9,000 people, some 2,200 of these worked in capture fisheries and represent around 24% of the sector's total employment. Some 6,000 workers were employed in fish processing.

Employment in capture fisheries represents 0.03% of the total Dutch workforce, while employment in the sector as a whole is 0.1% of the total working population. This is well below the EU average and is clearly the lowest level of the four countries covered in this report, both in terms of absolute numbers and as a proportion of the workforce.

Overall, employment on board fishing vessels is only important in a few small communities such as Urk in Flevoland, which is the home port of many vessels of the beam trawl fleet. However, fisheries dependency rates are not high at regional level.

The wages paid on Dutch fishing vessels compare favourably with the national average gross wage: in 2005, average earnings in the Netherlands amounted to about ϵ 35,000 a year while annual earnings in the beam trawl fleet averaged ϵ 45,000 and in the freezer trawl fleet ϵ 60,000.

Spain

According to Spanish government estimates in 2005, employment in the fisheries sector as a whole stands at around 74,000 people. About 44,000 of these people work in capture fisheries which represents approximately 60% of the sector's total workforce. It is estimated that around 22,000 people work in fish processing (28%) and 13,000 people in aquaculture (16%), mainly on mussel farms.

Employment in capture fisheries represents roughly 0.24% of the total Spanish workforce, while employment in the sector as a whole is 0.4% of the total working population. This is also above the EU average of 0.3% employment in fisheries.

Strong dependency on fisheries with a regional dependency rate exceeding 1% is found in several areas, most notably in Galicia where it is 4.1%, making it one of the highest dependency levels in the EU. A significant proportion of Spanish fisheries employment is concentrated in Galicia; this includes 17,500 fishermen, who represent 40% of employment in the Galician fishing industry, and 45,500 people working in the sector as a whole. This means that 60% of the sector's employment is concentrated in this region. Other Spanish regions with high fisheries dependency levels include parts of Andalucia with 7,000 people working in fishing, meaning that 16% of the sector's total employment is in this region. Spread across the Basque region, there are 2,000 persons working in fishing, thus 4.5% of the sector's total employment is based here.

In general, Spanish fishermen are paid on the basis of a share of the catch, meaning that average wages have been declining in recent years along with the value of catches. This, combined with the recent strong growth rate in the Spanish economy, including the increase in average wages, means that the income of fishermen has been declining both in real and comparative terms. Fishing is not regarded as a particularly well-paid job for this reason, and is therefore a less attractive employment option.

Comparative view

Table 3 compares employment rates and fisheries dependency across the four countries. France and Spain show the highest employment levels in terms of numbers of workers in the sector – both countries are among the bigger economies of the EU and have a large workforce. The strongest dependency on fisheries is in Spain and Denmark, although in both cases confined to limited areas. The fisheries dependency rate is lower in France and very low in the Netherlands where the sector employs less than 10,000 people, who mainly work in fish processing. Overall, wages for crew members are relatively high, in particular when compared to similar semi-skilled manual jobs in other sectors. Nevertheless, wages in the sector are less advantageous in Spain than in the other three countries and are, on the whole, declining in relative terms.

Table 3: Employment data, by country, 2005

	Denmark*	Spain	France	Netherlands
Jobs in fisheries sector (% of national total workforce)	14,000 (0.5%)	74,000 (0.4%)	50,000 (0.2%)	9,000 (0.1%)
Jobs on board of fishing vessels (% of national total workforce)	3,500 (0.13%)	44,000 (0.24%)	20,000 (0.08%)	2,200 (0.03%)
Fisheries sector dependency level	High in a few areas	Very high in Galicia; high in a few other areas	High in a few limited areas	Low
Crew wages	Good	Moderate; declining on smaller vessels, better on larger vessels	Good	Good, particularly in freezer trawl fleet; declining in beam trawl fleet

Note: * Data from 2004. Source: EU and national statistics

Outlook for fisheries

General outlook for EU fisheries

The current situation in the EU fisheries sector, as already mentioned, is one of managing the imbalance between an excessively high fishing capacity and declining fish stocks. The outlook for the short and medium term is not particularly different from the present situation. Much management effort goes into reducing the pressure on dwindling stocks of key species, especially that of North Sea cod, which was formerly a staple species of many European fishing fleets. This has entailed a major reduction in the TAC of cod, for example, by 45% for North Sea and Skagerrak cod. The quota does not merely apply to cod fisheries but also to fisheries where cod is a significant by-catch species, most notably that of haddock fisheries. This has affected demersal fishing vessels in all four study countries to some extent, but particularly those in countries bordering the North Sea, namely Denmark and the Netherlands. In addition, several pelagic stocks in European waters have declined in recent years, including species for industrial reduction such as Norway pout and species for human consumption such as North Sea and Baltic herring; for these species, the TAC has also been reduced.

TACs will more than likely continue to be reduced for most fish stocks under CFP management; this will add to the economic pressure on EU fishing fleets in the short and medium term. The increase in regulations, including that of the number of days at sea which was introduced in 2003, seems set to stay at least for the short term. In addition, rules concerning gear selectivity such as a larger mesh size in the beam trawl fishery will be tightened and remain strict in the near future. Regulations stipulating the temporary closure of spawning areas of some key stocks also look likely to remain in place for the foreseeable future.

Regarding a longer term outlook, this will obviously depend on the ability of the management system in place to bring fish stocks back to a level where a higher uptake of capture can be withstood.

Denmark

The industrial fisheries for reduction went from producing about 1.4 million tonnes in the mid 1990s to about 1.1 million tonnes in 2002. Anecdotal evidence suggests that there has been no turnaround of the situation and that further decreases will be seen. Fisheries for human consumption have also shown a downward trend from around 0.5 million tonnes in the early 1990s to just below 0.4 million tonnes in more recent years, with the demersal fleet being strongly affected by reductions in TAC. Employment in fisheries in Denmark has more than halved since the 1980s, and the number of vessels has also decreased by 1,200 since decommissioning grants became available.

In terms of the value of landings, however, the picture is somewhat different. The value of landings for industrial reduction of fish has fluctuated without a clear trend over the past 10 to 15 years. The value of landings for human consumption has steadily increased, although this is due to price increases caused by the decline in stocks. Overall, the mean annual increase in the value of landings between 1993 and 2003 is around 7%. This is well above the Danish inflation rate which currently stands at 1.3%. The increase in real terms, however, has been offset by rising costs, including significant increases in fuel prices in 2001 and in 2005–2006, as well as rising labour costs for the maintenance, repairs and refits of the vessels.

Overall, the future prognosis for Danish fisheries, as well as for the workers' position in the industry, is gloomy. Rising prices are not expected to offset the decline in catches on a long term basis, and the sector depends on fish stocks and waters where, in recent times, catches have been steadily decreasing. The effects have been felt most strongly by the smaller demersal vessels, which target cod. In particular, gill netters which account for about 450 vessels have seen their earnings decline by 30–40% over the last few years. The outlook for the demersal fleet is considered to be bleak; despite efforts to reduce the size of the fleet, it remains too big in relation to the resource.

The latest policy measure is the transferable vessel quota which took effect on 1 January 2007. This measure allows vessel quotas to be transferred or pooled and thus aims to concentrate the catch quota on fewer, more efficient vessels. This measure is likely to contribute to the decline of the sector in terms of vessel numbers, and it is hoped that it will raise incomes for the fishermen remaining in fisheries.

France

In France, landings have declined around 2% a year since 1997. The number of fishermen decreased by 4–6% a year in the early 1990s, more recently the annual rate has been 1–2%. Thus in the long term, fishing vessels have become more efficient in terms of landings per crew member. Additionally, the current trend is not the use of small vessels operating part time or even large vessels, rather it shows that it is medium-sized vessels engaged in coastal fishing. The very small vessels presumably are not an economically viable option in the face of declining catches, quota regulations and increasing fuel prices, while the very large vessels have equally been affected by increasing fuel prices and reduced distant water opportunities. Medium-sized vessels, in turn, are flexible in terms of the species they target and the gears they use; they have therefore been less affected by the severe cuts in cod and haddock TACs than other medium-sized demersal fleets. This could also be due to the fact that the French market, like the Spanish one, is open to a wider range of species than the northern European markets. The latter tend to focus more strongly on a few species of whitefish and flatfish, which are popular with consumers. French and Spanish consumers are also more likely to pay higher prices for high value seafood products than northern Europeans. In particular, invertebrate species such as scallops have maintained their level of landings and have a higher market value.

As in Denmark, the value of landings, both in absolute and real terms, is still increasing, despite a drop in 2004 and 2005. Landings are expected to continue to rise even under the existing CFP management regime.

Netherlands

In 1987, the beam trawl fleet peaked, with 611 vessels and 3,039 crew members in 1987; since then, the fleet size has been decreasing, today standing at half of what it was in the late 1980s. Employment in this fleet has declined by 35%, in particular with regard to the larger vessels. Since 1995, landings have reduced by 14% in volume, which represents a decline of 35% in real terms. Incomes have improved or remained at the same level on the smaller vessels while decreasing by 13% on the larger boats. Declining fish stocks and increased EU management measures, as described above, have been a big challenge for this fleet which fishes in EU waters, mainly in the North Sea. Rising fuel prices have also badly affected the fleet. The outlook for this fleet is uncertain at best and Dutch fishermen in this fleet are pessimistic about their future.

Conversely, for the pelagic freezer trawl fleet, landings have increased in both volume and value since the mid 1990s. The number of vessels in this fleet peaked at 18 boats in 2000 and has reduced to 15 vessels to date, compared with 12 vessels in 1995. The outlook for this fleet seems better than for most of the other fleets looked at in this study. However, rising fuel prices have been a major problem for this fleet, as has the weakness of the US dollar relative to the euro. The latter has impacted on the fleet's competitiveness in the export market. The possibility of renegotiation of third party fishing agreements with non-EU countries also remains a significant potential concern for the future, as described in the case of Spain and Morocco. The fleet also depends, to an extent, on stock access in the Mauritanian EEZ. The recent certification of the North Sea herring fishery under the Marine Stewardship Council (MSC) sustainability standards adds to the positive outlook.

For simplicity, the term 'fishermen' is used throughout to denote workers in the sector, both men and women.

Spain

Between 1997 and 2005, the Spanish fishing fleet reduced by about 4,300 vessels, which represents a reduction of 24% in vessel numbers and of 11% in tonnage. It should be noted that mainly smaller vessels were affected by this reduction. Over the same period, landings declined 37% in volume and 23% in value. In real terms, this decrease was due to the high Spanish inflation rates during this time period. Employment in fisheries also declined by 36% over the same period; the sector's employment level and catches thus declined at the same pace, while the tonnage of vessels decreased at a slower rate. This suggests that overcapacity increased while the average income per vessel decreased.

The Spanish fleet has been affected by the reduction in TACs aimed at protecting specific stocks such as North Sea cod, although to a lesser extent than the Danish fleet since its catch is more diverse. The Spanish fleet has also been hit hard by non-EU Member States rejecting or renegotiating third country fishing agreements which allow EU vessels to enter their waters. For example, the loss of the agreement with Morocco in the late 1990s severely affected the fleet based in the Canary Islands. Overall, the global picture is not good. It shows resource overexploitation and decline, and in this context even a highly diversified fleet will suffer. Again, the general mood among fishermen is pessimistic, with a frequently stated desire that their children do not follow in their footsteps.

Conclusions

From the above assessments, some general conclusions can be drawn.

- A general trend of decline prevails concerning landings, vessel numbers and employment levels across most fleets and countries.
- The rate of decline in the value of landings has been lower than the decline in the volume of landings, due to price increases which reflect the reduction in supply, as well as due to increased consumer purchasing power and fish consumption. However, in real terms, when inflation is taken into account, landings have declined in value in Spain and the Netherlands, and are starting a possible downward trend in France while remaining stable in Denmark.
- Severe problems emerged for fleets which depend on fish stock in the North Sea and Baltic area. In particular, the Danish demersal and Dutch beam trawl fleets have been severely affected by the collapse in cod stocks and the associated strengthening of the EU stock management regime, which stipulated a reduction in cod TAC as well as haddock TAC due to cod by-catch. In addition, the fleet has suffered from increasingly severe management of stocks of flatfish such as plaice.
- The trend in France and Spain is towards the loss of smaller, part time vessels from the fleet. Likewise, the introduction of transferable quotas in Denmark is likely to see a consolidation of the fisheries in bigger, more modern and efficient vessels. Only in the Dutch beam trawl fleet, the smaller vessels are doing slightly better than the larger ones, perhaps because they are cheaper to run.
- Large industrial or factory-type vessels have also suffered from declining catches, although not as significantly as smaller demersal vessels. In Denmark, species targeted for industrial reduction are not in such a serious state of decline as species fished for human consumption. Nevertheless, the stock of some species for industrial reduction, such as Norway pout, has declined. In the Netherlands, some of the freezer trawler companies have access to fishing opportunities in distant non-European waters and so have scope for flexibility.

Overall, the outlook for the EU fishing fleet is not particularly healthy. The major challenge is to reduce the capacity of the fleet and the volume of landings to a level where fish stocks are able to recover and fisheries can be put on a more sustainable footing. Although occasional success stories emerge, further TAC and effort reduction appear to be needed in the North Sea in order to allow the main commercially exploited fish stocks to recover. This has been the objective of managers for certain species for some 20 years, but enforcement problems and technological improvements have gone

against significant stock recovery. Technological improvements have led to an increasing efficiency of the vessels, mainly through innovation in electronics and gear design; the latter are independent on the basic capacity measures of a vessel, such as size and power, which are used to control effort.

It seems unlikely that higher fish prices will offset the decline in the volume of landings in the long term, since consumers will eventually reject overpriced fish in favour of farmed fish or other protein sources. The costs of fishing operations are also likely to continue to rise: in early 2007, fuel costs came down again following their peak in 2006, but the possibility is high that they will rise again in the medium term. Repair and refit costs also look set to increase in real terms due to labour shortages in the ship maintenance sector which, in turn, have led to higher costs for labour. On the other hand, the technological advancements in the face of declining stocks have contributed significantly to fishing vessel profitability over the past 20 years. However, further improvements due to technological advancements look unlikely in the medium and long term.

As already discussed, some activities enjoy a more positive outlook. Some shellfish stocks are providing a good income for vessels moving out of traditional white fishing, but there is a question as to how much pressure such stocks can withstand. The market for fish products is good with prices increasing for most species. Regional Advisory Committees are starting to have an impact on fisheries management decisions taken by the European Commission. These committees comprise members of non-governmental organisations (NGOs), representatives of local government and environmental associations, who put forward local priorities for fisheries management of certain sea areas. An example of such a committee is the North Sea Regional Advisory Council (NSRAC) which organises forums on the sustainable management of fisheries based on an approach to maintain the ecosystem and the precautionary principle. The increase in 'eco labelling' of fish products, whereby certain fisheries meet 'sustainability' standards defined by various accreditation organisations and enabling the consumer to choose 'sustainable' seafood, has the potential to foster stewardship of stocks among fishermen and improve price levels of fish products. The most pertinent example is the North Sea herring fishery which passed the MSC certification in 2006, following an application of the MSC standards by the Dutch Pelagic Freezer-trawlers Association (PFA) since 2002. However, no other major fishery in the EU has so far undergone the certification process. 'Sustainable' sourcing by some prominent supermarket chains could also support the recovery of certain fish stocks.

In all, it can be assumed that recruitment problems of crew members in various fleets are likely to persist for a number of years. These problems should eventually diminish once the further reduced fleets are in a more stable position in terms of earnings and reflect a level of effort that the main target stocks can sustain.

Institutional structure and role of the social partners

General regime

In all four countries surveyed and throughout the EU, the management regime depends on the type of fishery and the distance from shore at which the fishery operates. Small vessels operating within a 12-mile zone fall under national control, although they are still subject to certain EU regulations, for instance, if fishing puts pressure on stocks which are subject to TACs and quota. Vessels operating in European waters outside the 12-mile national coast zone operate under the European CFP management regime. As well as TACs, imposed on each Member State in the form of quota, the CFP determines structural measures and technical regulations such as gear and fishing time restrictions. However, each national government is responsible for implementing the distribution of quota between fleets and vessels. Large vessels fishing outside European waters may fish in the EEZ of a non-European country, in which case they are governed by EU third party fisheries agreements as well as the national legislation of that country. These vessels may also fish on the high seas outside a 200-mile zone, in which case they have to follow management regulations, if indeed there are any, set by regional fisheries management organisations such as the North Atlantic Fisheries Organisation (NAFO) in the North Atlantic or the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) in the Southern Ocean.

European sectoral social dialogue committee

The EC is obliged, under the conditions of the EU Treaty, to promote consultation with, and between, employers and workers in each sector. This is particularly important in the fisheries sector. Since the Treaty of Rome, this sector has been upheld as a sector with particularly strong competencies at EU level, rather than at national level, giving rise to the CFP. Before submitting proposals to amend fisheries policy and legislation, the Commission is thus obliged to consult social partners in fisheries.

Dialogue is conducted through the sectoral social dialogue committee for the fisheries sector, which was formally established in 1999, although a joint committee had existed in one form or another since 1974. Both employers and workers have representatives on the committee, and to this extent it is similar to the dialogue structure which exists at national level, between the government and the fisheries sector in all four countries in this study. Employer representatives come from two organisations: the Association of National Organisations of Fishing Enterprises in the EU, Europêche, which represents shipowners; and the General Committee for Agricultural Cooperation in the EU, Cogeca, which represents cooperatives. Workers are represented by the European Transport Workers' Federation (ETF).

The main issues addressed to date include the following: vocational training; hygiene and food handling; health and safety; environmental matters; and management issues. Discussion is ongoing with regard to the reform of the CFP. Action has also been taken to protect the rights of non-EU nationals working on board EU fishing vessels, which is significant from a recruitment point of view.

Country comparisons

Denmark

Implementation of the CFP is managed at national level in Denmark by the Ministry of Food, Agriculture and Fisheries, who consult with representatives of people working in fishing and industry through a Regulatory Committee.

The Danish Fishermen's Association is the main organisation for all Danish fishermen, including both owner-operators and workers. It also acts as the nationwide umbrella organisation for 65 local organisations. The Danish Fishermen's

Association is represented on the Regulatory Committee and is a key member of The Fisheries Circle (TFC). Most of the sector's organisations are organised from a geographical point of view, but the *Pelagisk Fisheriforening* brings together pelagic fishermen from across Denmark.

The trade union movement plays a key role in labour-related issues in Denmark, quite unlike other EU Member States where it has become marginalised. The 3F union (*Fagligt Fælles Forbund*) is the largest trade union for skilled and non-skilled workers, and this includes employed fishermen. The union runs an independent unemployment fund, and is also represented on the management board of TFC.

TFC was established in 1997 with the aim of promoting the fishing industry to Danish school-age children. TFC brings together a network of organisations from across the sector, including local authorities in fishing-dependent areas, the Danish Fishermen's Association, 3F, fishing and processing companies and educational institutions. TFC receives half of its subsidies from the European Fisheries Fund (EFF), which was previously the Financial Instrument for Fisheries Guidance (FIFG), and the other half from the Ministry of Food, Agriculture and Fisheries.

France

Fisheries management and regulation, in other words the implementation of the CFP, is the responsibility of the Ministry of Agriculture and Fisheries, while labour regulations for fishermen are covered by the Ministry of Equipment and Transport. This ministry includes two important technical directorates as far as employment is concerned: the Directorate of Maritime Affairs (*Direction des Affaires Maritimes*, DAM), which looks after training, rules governing working conditions, and health and safety on board; and the Directorate for Marine Retirees and Invalids (*Direction de l'Établissement National des Invalides de la Marine*, ENIM), which is in charge of the social protection of fishermen, including their pensions. DAM runs a network of maritime education centres across France. The Ministry of Equipment and Transport also plays an important role in setting standards for training and certification. Another important player in the training sphere is the Ministry for Social Affairs, which sets minimum standards for employment such as the 35-hour working week and the protection of under-18s. The Ministry of Social Affairs also implements policies for the continuous vocational training of workers. Its overall mandate is to promote equal opportunities for all citizens. The role of this ministry strengthened over the last presidential term, and it is this ministry that is in charge of implementing the various training reforms which are a response to the recruitment challenge in the fishing industry

The institutional representation of people working in fisheries is enshrined in French law. The system is pyramidal or hierarchical. At the lowest level are the Local Fisheries Committees spread along the coastline, 39 in all, made up of two committees in the northeast in the Pas de Calais département, nine in upper and lower Normandy, 11 in Brittany, 10 down the Atlantic coast and seven on the Mediterranean coast. Each Local Fisheries Committee is under a Regional Fisheries Committee, one per administrative NUTS II region, which have their base in each of the regional capitals. The Regional Fisheries Committees are in turn under a National Fisheries Committee based in the capital city Paris.

By law, the government must consult the National Fisheries Committee about any measure or action affecting the sector, including training. The Local and Regional Fisheries Committees deal with the local administrations while the National Fisheries Committee is consulted by the ministries and the central administrations. As well as representing the fishing industry at all levels of government, the committees distribute economic data and other information about the industry, participate in fisheries research and run a social fund (*Caisse chômage-intempérie*).

For every person working in the fishing industry, it is compulsory to be member of the National Fisheries Committee. Every five years, the government organises elections at Local Fisheries Committee level in order to designate the representatives of the governing boards of these committees. Elected members then nominate representatives for the Board of the Regional and National Committees. The number of seats on the committees' boards is balanced meaning employees and business owners have equal representation.

Funding of the Fisheries Committees comes from a compulsory tax paid by everyone working in the fishing industry, including fishermen, buyers and processors. For fishermen, the tax is a percentage of their salary or income, and for shore industries it is proportional to the number of employees in the business. This source of income provides over 90% of the committees' budget.

In addition to this institutional representation, a number of trade unions and professional organisations exist in the fishing industry, including trade unions and producer organisations. There are about 20 of these in France, structured into two national organisations, one based in Paris with nationwide membership and one based in Quimper with mainly Breton membership. Both of these organisations are represented on the Fisheries Committees.

Netherlands

In terms of fisheries, two ministries are primarily responsible. The Ministry of Agriculture, Nature Management and Food Safety (MLNV) is in charge of the implementation of the Commission's CFP and also runs the agricultural and fisheries schools. The Ministry of Transport and Water Works (MVW) is responsible for maritime activities and coastal management, including health and safety on board vessels. This ministry also sets the standards for nautical education from a safety point of view, although the Ministry of Education is in charge of setting the educational standards.

There are three professional organisations which represent the interests of the fishing industry, in particular those of capture fisheries, namely:

- Federatie van Visserijverenigingen (FV) represents the large beam trawl fleet;
- Nederlandse Vissersbond (NV) represents the beam trawl and shrimp fleet;
- Redersvereninging represents the pelagic freezer trawlers.

FV and NV have local representations at the level of individual ports.

The Dutch Fish Product Board (Productschap Vis, PV) is an umbrella organisation which aims to promote the general interests of the sector as a whole. The PV brings together all the professional organisations in the fisheries sector including, but not limited to, marine and inland fishing, aquaculture, fish processing, wholesale and retail trade. Within PV, various committees have been set up to look after different segments of the sector, including education and training.

Dialogue between national government and these organisations takes place on various levels, so that direct contacts exist among all of the above mentioned institutions. The three professional organisations also participate in various committees at EU level.

Spain

At international level, Spanish fisheries are regulated by the state, through the Ministry of Agriculture, Fisheries and Food (MAPA). The ministry controls dealings with the EU, regulates high seas fisheries, and distributes TACs and EU structural support between the regions. At national level, the autonomous regions, so-called *Comunidades Autónomas* (CCAA), regulate coastal fisheries under national and international rules. Social provision for fishermen comes under the jurisdiction of the Ministry of Labour and Social Affairs (MTAS).

Fishermen are mainly organised in associations, called *Cofradias*, but the larger long-distance vessels have their own system of professional organisations and owner associations. Overall, Cofradias cover 83% of fishing employment in Spain, with 229 associations covering the whole Spanish coastline and islands. These associations have a democratic structure and represent both vessel owners and crew. A small charge on catch sales supports the administrative costs of

a Cofradía. Any surplus is used to improve infrastructure in the sector or is repaid to members. These associations can establish management rules in their own area, including rules concerning time spent at sea, regulation of fishing gears in specific areas, areas or periods closed to fishing. All of the Cofradías are organised in one national association.

In addition, a large number of national organisations exist which represent to some extent the interests of fishermen and vessel owners. These include two trade unions, national associations for shipowners and a variety of producer organisations for different groups, including, but not restricted to, cod fishermen, freezer vessels, and cephalopod fishermen.

Comparative view

The institutional structure is fairly similar in all of the four countries surveyed. Fisheries management and education is generally controlled at national level working within the structure of the CFP, although in Spain it can sometimes be devolved to regional level. However, in all four countries, there is strong dialogue between the government and the industry regarding different policies, for example polices that cover management, regulation, education and safety. In France, this consultation is enshrined in legislation and formalised through the Fisheries Committee system. In Denmark, it is also formalised at national level via the Regulatory Committee. In Spain and the Netherlands, contacts are not formalised so strongly, although they are extensive and in practice probably operate in a similar way.

All four countries also have an institutional structure which allows the different components of the industry to work together, including different fleets, fishermen from different areas, employees, business owners, processors and producer organisations etc. These links are supported by organisations such as the Danish Fishermen's Association, the Dutch Fish Product Board (PV), the Spanish National Association of Cofradías and the French National Fisheries Committee. In France, sector representative trade unions are also included in this structure, and the fishermen's organisations at local level also include both workers and business owners.

In fact, each country has an institutional structure to determine industry-wide recruitment measures and educational initiatives at either national or regional level. In Denmark, TFC has been established for precisely this purpose, and brings together fishermen's organisations, trade unions and educational institutes, and receives funding from government; it is thus an ideal structure for this kind of project. In the other three countries, the network is not so well defined or, and quite importantly, not so well funded, but the Spanish Cofradía system, the PV and the Fisheries Committees all bring together different parts of the industry to address concerns, such as recruitment and education.

Economic and political context

Denmark

At present, the unemployment rate in Denmark stands at an historic low rate of 4%. The average unemployment rate for the eurozone is 8% showing that Denmark compares quite favourably. However, while unemployment remains low, most sectors in the Danish economy face labour shortages and recruitment problems. This is because when the unemployment rate is so low, the pool of available labour often cannot meet the requirements of employers, particularly in a country with such a small population as is the case with Denmark.

In 2006, the government and the social partners concluded the Welfare Agreement. This agreement aims to increase the labour supply by raising the retirement age, by increasing and improving adult education and, in particular, by focusing on first and second generation immigrants, who still have to cope with high unemployment. The current labour shortage has also attracted foreign workers and companies, mostly from Poland, although not so much to the fishing industry.

More generally, Danish labour market policy tends towards the 'free market' type and looks to promote the ability of companies to react to changes in demand for labour. This means that it is easy for Danish companies to lay off workers at short notice. To offset the social consequences of this policy, there is a comprehensive unemployment benefit system, conditional on one being a member of an unemployment fund, usually run by the trade unions. The fisheries sector to some extent suffers from this policy since it is different from the rest of the labour market. First of all, it is seasonal in nature, and this is becoming more pronounced due to fisheries regulations that stipulate fishing quotas and limits to days at sea. Secondly, it is difficult to quantify the number of hours worked at sea, which leads to problems as it is the number of hours worked which forms the basis for the allocation of unemployment benefits. Fishermen who are employees are entitled to some limited unemployment benefit when temporarily unemployed due to circumstances beyond their control, such as the weather or quota restrictions. By contrast, owner-operator fishermen are not entitled to any benefits of this kind given that such circumstances are regarded as normal conditions for the job.

Politically, the fisheries sector wields significant influence in Denmark. It is important economically, this being evident when compared to most of the other EU Member States. Most Danes also consider the fisheries sector as culturally important as they have a seagoing heritage stretching back to the Vikings and regard themselves as a maritime nation.

France

In terms of policy, the French labour market is based less around the need for companies to have flexibility and more around the need to maintain security for individual workers. This follows the French 'social model'. As a result, the labour market is rather inflexible; it is expensive for companies to hire workers because of high social security contributions, and also it is both difficult and expensive to make workers redundant. This policy has been blamed, in part, for the rather high unemployment level in France. It stands at approximately 9%, just above the eurozone average and is higher among young people. The current labour market policy acts as a disincentive to business expansions, although undoubtedly other factors are also involved. As well as being partly responsible for keeping unemployment relatively high, this labour policy does not work well when it comes to providing the economic benefits associated with high unemployment. Benefits that might be seen if the labour market were more flexible; for instance, that it would be easier and more economically viable for companies, including fishing enterprises, to hire labour.

The government currently focuses on trying to reform the labour market to allow for greater flexibility. Results so far have been mixed. For example, the proposed 'first job contract' (*Contrat première embauche*, CPE) which made it easier for young people to be dismissed was met with fierce opposition. Following widespread student protests this proposal was rejected. However, there have been reforms with regard to vocational training, aimed at improving funding for this type of training and also at making access easier. These reforms are discussed below in the context of the fishing industry.

Despite France's strong 'social model', social security provision for fishermen is not particularly good. Due to the inherently seasonal and unpredictable nature of their work, fishermen are not eligible for state unemployment insurance. However, as previously mentioned, there is a social fund for the fishing industry (*Caisse chômage-intempérie*) run by the Fisheries Committee, which protects fishermen specifically from incurring a loss of earnings related to bad weather conditions. In addition, fishermen have in the past had problems in claiming a full allowance under the state pension system. This is because time spent ashore, for example working for the fishing company (e.g. company administrative responsibilities, repairs) was not included when calculating pension entitlements; only time spent at sea was included. This has now been reviewed, with new regulatory texts stating precisely which type of on-shore activities can be taken into consideration.

From a political perspective, the fisheries sector is regarded as being important because of its role in the economy of some coastal areas, particularly in Brittany which has both industrial and artisanal fleets. This is also the case for the Mediterranean coast with its mainly artisanal fleet, in these areas, there is little alternative employment. It is worth noting that fisheries is also considered as an important feature of these coastal areas from the point of view of tourism; tourism represents an economically significant activity in many areas of France, particularly along the coastline. The tourism industry in French coastal areas alone generates a turnover of more than 20 billion euro, and France receives more foreign visitors a year than any other country.

Netherlands

The Dutch labour market, like the Danish one, is very tight with a low unemployment rate of 4% – the two countries jointly had the lowest rate in the EU in 2006. This means that like in Denmark, most sectors are suffering labour shortages and recruitment problems. Labour market policy is also similar to Denmark, being flexible and aimed at easing the hiring and dismissal processes, with social problems softened by an efficient benefits system.

The crew and officers working on board the pelagic freezer trawlers are employees and are thus paid salaries, sometimes receiving additional incentives from the catch share. They are entitled to unemployment benefits. However, most of the crew working on board beam trawlers are self-employed. As a result, they are not automatically entitled to unemployment benefits, but they may voluntarily contribute to an insurance plan which will cover them in the case of loss of work resulting from disability or illness.

The sector does not have a high political profile which is due to several reasons. Firstly, there is not as strong a fishing tradition in the Netherlands as there is in Scandinavia or Spain for example. Secondly, fisheries dependent areas, by EU standards, are not socially deprived. Even if they were, the Netherlands do not have a strong political tradition of supporting industries perceived to be in decline. Thirdly, fisheries is not seen as contributing to more economically important sectors such as tourism, as it does in parts of France. Finally, beam trawling in particular has been strongly portrayed in the Dutch media as being environmentally damaging. The green movement is influential in the Netherlands, perhaps to a greater degree than it is in many other EU countries.

Spain

The Spanish economy has grown dramatically over the last two or three decades, showing an increase in incomes and living standards for most Spaniards. At present, the labour market is roughly average when compared with the eurozone. Unemployment stands at about 8%, although it is significantly higher for young people (12%) and for women (11%) according to Spanish government figures from 2006.

The social security system in Spain is run centrally by the national government through the MTAS, rather than through trade unions as it is done in Denmark. MTAS contains within it a separate legal organisation called the Marine Social Institute (ISM) which manages social security programmes for the fisheries sector, as well as legal issues related to working conditions and training. Fishing crew are integrated into a special regime called the Special Regime for Maritime Workers' Social Security (*Regimen Especial de la Seguridad Social de los Trabajadores del Mar*) which comes under the jurisdiction of ISM. As in Denmark, fishermen who are employees may be entitled to some unemployment benefit if laid off for exceptional periods due to management regulations, but owner-operators are not. Likewise, it is not easy to evaluate working hours on board, meaning that benefits do not necessarily reflect the real loss of income.

Politically, the fisheries sector is relatively influential. It is economically quite important when compared to most EU Member States, and is highly important in a few areas, particularly in Galicia. This is of significance because the Spanish government is highly devolved in the autonomous regions, that is in those areas considered as being culturally distinct, which includes Galicia. The Galician fishing industry has thus quite a say concerning economic decisions which are mainly taken at regional level.

Comparative view

In terms of labour market policy and employment, the four countries can broadly be divided into two groups: a northern European group, including Denmark and the Netherlands, with a more flexible labour market and business-orientated approach, and a southern European group, including France and Spain, with a more socially protective approach. In Denmark and the Netherlands, companies can easier hire and dismiss workers who, in turn, benefit of greater opportunities to move between sectors. In general, this should ease recruitment problems, but at present does not because unemployment rates are low in both of these countries. In Spain and particularly in France, hiring and dismissing employees is more difficult and expensive for companies, but the unemployment level is higher, particularly among young people, giving a wider pool from which to recruit. In fact, the labour market situation in Denmark and the Netherlands leads to recruitment problems in the fishing industry and related sectors. For Spain and France, the explanation for such problems lies elsewhere.

With regard to unemployment and pension provisions, no major differences emerge in unemployment provisions for fishermen between the four countries. Fishermen who are employees generally have no difficulty obtaining rights to unemployment benefits, although the rate at which they are paid can sometime be difficult to assess due to their erratic working hours and definitions of what is considered 'work'. Problems can also occur when assessing the number of years worked in order to determine a state pension provision. On the other hand, fishermen, who are self-employed, are generally not entitled to such benefits, with the exception of the poor weather fund in France and the voluntary disability insurance in the Netherlands. Overall, fishing is not a particularly secure job in any of the four countries examined, and this is not likely to make it popular with young jobseekers.

Looking at the political importance of sector, such an assessment is obviously rather subjective. Fisheries issues seem to have a higher political significance in Spain and Denmark than in France and the Netherlands; this corresponds with the economic and cultural importance of the sector in each of the countries. In all of the countries surveyed except the Netherlands, where no highly fisheries-dependent regions exist, it is seen as important to support the industry in areas where few other employment opportunities exist. In Spain, the strong tradition of eating seafood products gives the industry a higher profile, while in Denmark fishing is seen as a tradition embedded in Danish culture. In France, support for the industry is increased via its role in tourism.

SWOT analysis

The information on the fishing sector in the four countries can be summarised in the form of a comparative SWOT analysis (Table 4), which highlights some of the key strengths, weaknesses and challenges for the industry in each country.

Table 4: SWOT analysis for capture fisheries, by country

	Denmark	Spain	France	Netherlands
Strengths	Strong institutional structure Cultural importance: economic support from government Strong national voice High wages Labour market flexibility Modern, technologically well-equipped fleet	Diversified fleet Strong national market High quality products Strong political voice particularly at regional level, such as in Galicia	Diversified fleet Strong national market Strong national voice: legal requirement for consultation Relatively high wages	Pelagic fleet able to take advantage of global opportunities Relatively high wages, although declining in beam trawl fleet Labour market flexibility Good conditions on board
Weaknesses	Dependence on declining stocks Severe CFP regulation Poor environmental image	Dependence on declining stocks Overcapacity Ageing fleet which is in poor condition; increased maintenance costs Poor working conditions on board Declining incomes	Dependence on declining stocks Overcapacity Inflexible labour market and training structure	Dependence on declining stocks Beam trawl fleet ageing Overcapacity in beam trawl fleet Limited political influence of sector
Opportunities	Increased prices for some species Competitive with other EU fleets Transferable quotas should increase fleet's efficiency	New third country fishing agreements Increased international mobility for employees	Improvements in funding and flexibility of training	New third country fishing agreements Increased international mobility for employees
Threats	Fish stocks failing to recover; increasingly severe regulation, such as implementation of areas closed to fishing Further increases in fuel prices More environmental regulation, such as rules to control the impact of industrial fisheries on seabirds	Fish stocks failing to recover; increasingly severe regulation, such as implementation of areas closed to fishing Further increases in fuel prices Renegotiation of existing third country fishing agreements	Fish stocks failing to recover; increasingly severe regulation, such as implementation of areas closed to fishing Further increases in fuel prices Non-EU regulation, such as that controlling tuna fishing	Fish stocks failing to recover; increasingly severe regulation, such as implementation of areas closed to fishing Further increases in fuel Renegotiation of existing third country fishing agreements Currency exchange rates impacting on exports

Recruitment challenges for the sector

Denmark

As described above, one of the most important general aims of Danish labour market policy is to make it easier for workers to move from sectors of decline, such as fisheries, to growth sectors, such as pharmaceuticals, biochemicals and wind power generation – as opposed to subsidising jobs in fisheries for reasons of social or regional stability. Under the present economic circumstances, the chance of alternative employment for someone leaving fisheries is rather good.

There are many reasons for fishermen to leave the sector, besides the decommissioning of fishing vessels. Among those, age and health-related problems resulting from the hard physical work are important factors, as are uncertainties about the future due to declining resources and fishing opportunities. The most important reason, however, may be related to the fact that workers in fishing can currently leave the sector and quite easily find alternative employment. Thus, Danish fisheries currently experience a lack of skilled labour and are being faced with an aging workforce. It is worth noting that since decommissioning of Danish vessels continues, the demand for crew members is decreasing on a continuous basis, although currently not at a rate which will ease crew shortages in the near future.

France

The situation is similar in France. The recruitment problem in French fisheries is less serious for small vessels, but acute for medium and larger vessels, particularly for those vessels making longer offshore trips. The recruitment problem has become quite serious for many fishing companies, which have been lobbying the French government to take initiatives for some years. In many cases, boats have been stuck in port because they lacked the minimum number of crew members imposed by legislation. A national ad-hoc committee which involved representatives of the private and public sectors has investigated the underlying reasons for this recruitment problem. The committee's findings point out similar recruitment barriers as in the other countries. Firstly, fishing is a hard and difficult job and not easy to combine with family life. Secondly, workers in the sector have to face insecurity, in particular concerning unemployment benefit and pension rights. Thirdly, the fact that training in the fisheries sector is separate from other occupational training systems makes it difficult for workers to enter or leave the profession.

At the same time, the image of employment in the fisheries sector has deteriorated due to the following aspects: overexploitation of stocks; difficulties in building new boats; security at sea; hardly any progress with regard to quality of life; increase of international competition through imports; and lack of young recruits. Such negative elements dissuade young people from considering a career in fishing.

Netherlands

In the Netherlands, the two fleets – the beam trawl and the freezer trawl fleet – face different recruitment challenges and are thus considered separately.

Beam trawl fleet

Despite the substantial decrease in the size of the beam trawl fleet, many vessels have been facing crew shortage problems in recent years. According to the Dutch Fish Product Board (Productschap Vis, PV), the following factors seem to play an important role:

- some 90% of all fishermen come from fishing families; this implies that the labour source is becoming increasingly limited:
- the general perception of fishing in society is not positive, due to negative publicity regarding environmental effects and depletion of fish stocks;

- the income difference with other occupations on shore has decreased, although incomes in the fisheries sector are still high when compared with the national average, particularly for crew members in the beam trawl fleet. Nevertheless, by 2005, the nominal earnings of a crew member were 12% lower than those in 2001, which corresponds to a reduction of about 18% in real terms;
- mobility has increased, allowing people from traditional fishing communities to commute to work somewhere else;
- the mood among fishermen and vessel owners is pessimistic due to the continuing deterioration of economic performance, decreasing quota and, most recently, high fuel prices;
- traditional fishing schools have been integrated into much larger educational centres or marine colleges. Consequently, students are exposed to a wider range of options, within which fishing may not be the most attractive.

The Dutch beam trawl fleet has decreased in size and looks set to continue decreasing. This is because it is likely that there will be a reduction of TACs for sole and plaice by 10–15% a year, in order to allow stocks to recover. Today, the fleet already has an overcapacity. By 2009, many of the larger beam trawl vessels are expected to have withdrawn. These are the vessels which depend mostly on hired crews. Thus, this mechanism may solve the recruitment problem in this fleet, unlike in Denmark for example, where the rate of fisherfolk leaving fisheries is greater than that of vessels being lost from the fleet.

Pelagic freezer trawl fleet

The freezer trawl fleet is currently operated by three companies and all crew members are hired staff; unlike in the beam trawl fleet, no-one working on board is the owner of the vessel. The fleet counted about 15 vessels in 2005, with each of the vessels requiring a minimum of 40 crew members, meaning that a pool of 600 people is needed for this fleet.

No precise figures are available on the composition of crews which, in any case, probably changes from trip to trip. However, according to discussions with two vessel owners, it seems that a significant percentage of the deckhands are foreigners from a variety of countries, both inside and outside the EU (for example, from Russia).

For various reasons the economic outlook of freezer trawlers seems better than that for beam trawlers. Earnings on board are very good in relation to the Dutch national average wage, and the nature of the work allows for the hiring of crew members almost worldwide. Therefore, recruitment difficulties for this fleet's crew arise for other reasons than for the beam trawl fleet. Even if the general perception remains that fishing is a hard and unpleasant job, wages are not declining and workers are less pessimistic with regard to the future of the industry. However, the problem to find crew for the long trips made by these vessels persists. The reason is that these long trips have a negative impact on the work–life balance of crew members. This may be particularly the case for officers, who require extensive training and who, unlike in the beam trawl fleet, do not have an ownership stake in the vessel.

Spain

Vessels in the small-scale fleet are generally run as a family business where the owner is part of the crew, which is mainly composed of relatives. Under these circumstances, the problem of labour shortage is not significant. In a lot of cases, these workers combine their fishing activity with another job ashore, and temporary workers may rotate from one vessel to another depending on the season.

Conversely, the larger, offshore vessels (pesca de altura and gran altura) need significant numbers of crew, with particular training requirements. These vessels face serious recruitment difficulties at present, which are not being alleviated by the decline in the size of the fleet. In fact, since smaller vessels are leaving the fleet at a faster rate than larger vessels, the

latter component of the fleet is declining at a slower pace than the overall picture may suggest. Recruitment problems are particularly acute in the deep sea fleet (gran altura) which goes on trips from 15 days up to six months. Working on these larger fishing vessels is becoming unpopular for quite obvious reasons: the job is hard work, with difficult and often dangerous working conditions. The long trips away from home cause problems with family life. These aspects affect all the fleets examined, but they are particularly acute in Spain where the vessels are, on average, older and less technologically advanced than in the other three countries surveyed.

This perception of fisheries as being a 'tough job', when combined with the sector's declining wages due to overcapacity and declining stocks, means that Spanish fisheries has a battle on its hands with regard to recruitment. The Spanish social security system has to be improved and economic development must be furthered if young people from fishing communities are to be given employment options other than fisheries. In general, parents in the industry do not encourage their children to take up an occupation in the fisheries sector. As well as the reduced number of young people taking up employment in fisheries, there is also a flow of workers leaving the sector. This is related to the fact that fishermen and more particularly those with qualifications, such as engineers, find it easy to get well-paid jobs ashore. Skilled jobs, such as that of chief engineer, are most affected by the labour shortage in the sector.

Reasons for recruitment challenges

The fisheries sector in all four countries faces a challenge when it comes to recruiting crew and officers to work on board. However, problems are not equally distributed across all types of vessels. The fleet in all four countries is made up of a majority of small, inshore vessels, crewed by an owner-skipper and perhaps one or two others, often relatives. In general, these vessels do not encounter major problems with recruitment, although they may have some. Rather, the larger vessels face more difficulties in recruiting crew, for two reasons: firstly, they require more crew members and cannot rely on close family; and secondly, they go on longer trips which make the job choice unpopular, being inconvenient and difficult to combine with family life.

An interesting outcome of this study is that, contrary to initial expectations, evidence suggests that financial reward is not always a major factor in the recruitment challenge faced by fishing vessels. With the possible exception of Spain, wages remain generally above comparable occupations on shore, particularly for the largest vessels with the longest trips. Nevertheless, these vessels are precisely the ones which encounter the greatest recruitment difficulties. For example, the large Danish and Dutch pelagic vessels offer excellent pay to crew members of up to 60,000 euro a year, but they still have significant problems to recruit crew. However, declining wages are certainly an issue in many fleets, and are an issue across the entire sector in Spain.

Besides these general observations, the reasons for the recruitment challenge in the fisheries sector vary from country to country. For instance, in Denmark and the Netherlands, low unemployment, a flexible labour market and a good vocational training system offer young people several employment options, even in areas which are highly fisheries dependent. On the other hand, in France, the inflexibility of the labour market and the relatively high unemployment rate act as a hindrance to recruitment. Until recently, it was difficult to access fisheries employment unless specific training options were chosen at secondary school level. In addition, problems with pension entitlements and unemployment benefits also contributed to the fact that fisheries is seen as an insecure employment option, which is not attractive under unfavourable labour market conditions. In Spain, the reasons for recruitment difficulties in the sector seem to be more straightforward, since incomes have been declining and, in the less modern Spanish fleet, working on board is regarded as difficult, dangerous, unpleasant and hard. Parents are thus steering their children away from the sector. These factors also apply in the other countries, although to a lesser extent. Essentially, fisheries as an employer does not have a good representation, particularly in a labour market climate where other opportunities are available, even if taking such opportunities means accepting a lower wage.

Recruitment measures

Full details of the fisheries occupational training system and all recruitment measures are outlined in the individual country reports. The following section summarises the situation in each country surveyed so as to aid comparison between these Member States.

Overview of recruitment measures

Table 5 summarises the innovative recruitment measures discussed in each country report, by outlining the problems that are tackled and the general objective of the initiatives. The table also sketches the recruitment activities, their innovative aspects, successes and failures. This format facilitates cross-comparison of the measures in each of the four countries.

Table 5: Innovative recruitment measures, by country

	Denmark	Spain	France	Netherlands
Problems addressed by measures	Poor image of the sector as employer; lack of knowledge about work in sector	Finding new pool of recruits	Lack of access to training; lack of flexibility for fisheries workers	Poor image of sector as employer; lack of knowledge about work in sector
Objective of measures	To inform the public about fisheries and promote employment opportunities in the sector	To bring new recruits into the sector, either from Spain or abroad; to provide employment for unemployed people and those with a poor education	To provide greater access to occupational training in fisheries throughout the life course; to offer greater flexibility in entering and leaving the sector	To inform the public about the maritime sector and to promote employment opportunities It should be noted that fisheries is only a small component of maritime sector.
Nature of measures	Creation of educational material, media campaigns	Training programmes, financial and administrative support for migrant workers	Changes to the fisheries training system: recognition of qualifications and financial support for training	Creation of educational material
Examples of innovative measures	a) Minna and Gunnar media campaign; b) Educational material from The Fishery Circle (TFC): Holiday in Havneby, Fish on the Job, Good Guys and Great Girls; c) Blue Certificate: well-funded fisheries occupational training with guaranteed apprenticeship	a) Embarcate: fisheries training project for unemployed people; b) Sepya project: providing training programmes and promotion for the long distance fleet; c) Cofradia de Cambados: projects attracting migrant workers to the sector	a) Creation of the Certificat d'instruction nautique; b) funding of continuing vocational training through the training fund Fonds d'Assurance Formation (FAF) Pêche et Cultures Maritimes; c) Recognition of alternative qualifications (Valorisation des acquis et de l'expérience); d) employment of young people through the vocational training contract (Contrat de professionnalisation)	a) Educational material by Nederland Maritiem Land (NML): Water, men and work, Work@water, Sparkling education; b) introduction of competence profiles - more hands-on fisheries training

Table 5: Innovative recruitment measures, by country (cont'd)

	Denmark	Spain	France	Netherlands
Organisations involved	TFC is the coordinator of a cross-sectoral network of organisations, including representatives of the government, industry and trade unions	a) CETMAR: public foundation offering large cross-sectoral network of organisations; b) industry representatives, notably the Vessel Owner Cooperative of Vigo;	Adaptation of national training reforms to the fisheries sector by the French government and Fisheries Committees which comprise industry and employee representatives	NML - network of organisations from across maritime sector; fisheries representatives of PV
		c) industry representatives of fishermen associations or guilds, so-called <i>Cofradias</i>		
Innovative aspects of measures	Use of media and technology in sophisticated way; educational material perceived as objective not promotional; well-funded occupational education system; emphasis on information technology (IT); guarantee of apprenticeship through the Danish Fishermen's Association	Providing training and support tailored to the needs of subsectors; identify new possible recruits	First steps towards fostering increased mobility and flexibility in fisheries labour market; recognition of the need to provide occupational training and access to employment in fisheries throughout the life course and not just when young	No particularly innovative features in these projects as far as the fisheries sector is concerned
Success of measures	Increase in enrolment in fisheries occupational training, although direct link with the projects cannot be made	Project brought new recruits to the sector, who began working on board fishing vessels	Too early to say	Impossible to say: at best, limited effect on fisheries recruitment
Failures of measures	Difficult for media to compete with the negative image of fisheries, due to environmental problems, overfishing and decommissioning	New employees generally worked in the sector for a year or less before moving on; women who received training did not take up opportunities to work on board	Too early to say	See above

Denmark

Occupational training

The cornerstone of Danish fisheries occupational training is the Blue Certificate, which provides basic training in fisheries and is a stepping stone for further education within the industry. Once awarded the Blue Certificate, a skipper can sail fishing vessels of up to 9 metres in length or up to 15 metres in length, if combined with certificates in ship and engine maintenance, radio operation and first aid. The Blue Certificate is obtained through a mixture of training at a technical college and practical experience on a fishing vessel, generally over a 2-year period. The Danish Fishermen's Association guarantees an apprenticeship place for people starting the Blue Certificate training programme.

Following the Blue Certificate, two further options exist. Firstly, skills can be maintained and increased through a series of short training courses, offered at different sites in Denmark. Secondly, a longer training course leads to a qualification as officer or skipper for larger vessels; this requires significant experience and takes up to a year of further training.

The key element of the occupational training in Danish fisheries is that it is highly subsidised by the state. Training courses are generally free of charge, with the exception of the short training programmes for which a small participation fee is claimed. However, participants also have the option to apply for a grant. Indeed, students following the training programme for the Blue Certificate receive a grant, plus free accommodation, and are paid as a crew member during their apprenticeship periods on board. They thus have a significantly higher income than most students in further or higher education.

Another important point about the Danish training system in fisheries is that the path of progression from deckhand through to skipper is clear and obvious. Moreover, the training required to progress in a career is available to all workers in the sector at any point in their working life, assuming they have sufficient experience behind them.

Marketing the sector

Alongside this occupational training system has been strong marketing of the sector, mainly through The Fisheries Circle (TFC). Marketing has been both indirect, by creating factual educational material without links to the industry, such as Holiday in Havneby, and direct through public awareness campaigns, such as the Minna & Gunnar Campaign. Such marketing measures have succeeded in raising the sales of fish on the Danish market and have paved the way for strengthening the recruitment effort. The indirect marketing effort has been successful because it targets students at different times during their school education; it thus creates awareness without being too commercial, and teachers therefore perceive the educational material as trustworthy and useful. The material is also fun, humorous and imaginative, using, for example, a variety of different media and last but not least, it is free.

It is not possible to point directly towards a single successful recruiting initiative having a clear impact in terms of numbers of individuals recruited into, and staying within, the industry. Existing data do not allow establishing such direct connections. However, anecdotal evidence indicates that the various recruitment initiatives, as discussed in the Danish country report, have been relatively successful in more or less maintaining the supply of labour to the sector in the face of a strong labour market and many alternative job opportunities.

Making fisheries a better workplace

Projects, such as the Hanstholm project, are also worth mentioning here. Even if these projects are not directly related to fisheries recruitment, they aim to make work on board a genuinely more attractive experience. The Hanstholm project was a three-month project which aimed to reduce accidents and burnout in the fisheries industry, and also to improve the working environment. The project helped to create awareness among fishermen concerning this issue, and has thus driven an improvement in facilities and systems on board many vessels.

France

Occupational training

The Directorate of Maritime Affairs runs a network of 12 occupational maritime schools dispersed along the French coastline, four occupational schools for the merchant navy and the European Training Centre in Concarneau in Brittany. Both the Ministry of Agriculture and Fisheries, and the Ministry of Equipment and Transport fund these maritime schools covering all staff costs and providing subsidies for equipment. Traditional French training in fisheries starts in these occupational schools at secondary level, from 16 years old. The initial training course is free of charge, lasts two years and leads to a certificate which allows the trainee to work as a deckhand, and thus accumulate the number of days

at sea necessary to apply for higher positions. Progress from this initial training requires on-the-job experience (time at sea) and periods of training ashore at the maritime schools.

This structure, however, had a number of pitfalls which have been identified as follows:

- it was difficult, if not impossible, for somebody with another degree to enter the fisheries profession because no official training opportunity was open except to those of secondary school age, and certificates from related sectors were not recognised;
- the lack of recognition of certificates between fisheries and related sectors meant that as well as difficulties associated with entering the profession, it was difficult to leave the sector and find other employment using the same qualifications. This represented a further disincentive for people to enter the sector;
- while higher training courses are free or subsidised, no salary is available during these training periods; this made participation difficult for workers with family commitments.

Tackling barriers to participation

Recruitment measures taken by the fisheries sector in France have been of a different type than those in Denmark and Spain. No well-defined projects or educational initiatives have been designed to tackle the problem with specific target groups. However, broader changes at national level have taken place, which have supported the fisheries sector in trying to tackle the recruitment problem. These national measures that aim to deal with unemployment have two key components: the right to training throughout one's entire professional career, and the promotion of mobility between sectors, on the grounds that some sectors were oversubscribed while others, such as fisheries, were facing labour shortages.

The major challenge faced by the fishing industry was to adapt these general national measures to the specific requirements and challenges of the fisheries sector. In this sector of the economy, like most others in France, qualifications and rights of employers and employees are constrained by a tight legal framework, and all qualifications must be officially approved and registered. This left the fisheries sector a limited scope for action. However, the sector is in the process of developing a variety of structures which will hopefully overcome at least some of the various barriers, in particular allowing access to fisheries education at initial and higher levels. These initiatives have included the following: measures to open up and subsidise training courses for non-school age people; the development of a structure to recognise non-fisheries qualifications in the sector; and the development of a training contract between young people and the private sector. All these measures are new having only recently been legally established at national level in 2004–2005, and their success cannot be evaluated yet. However, it is certain that these kinds of reforms are moving the sector in the right direction, towards greater labour market flexibility and increased life—long training opportunities. This should also broaden the pool of potential recruits for the sector significantly.

Netherlands

Occupational training

Fisheries education and occupational training are currently offered at six colleges in the Netherlands, all but one of which are large occupational institutes covering a wide range of topics for students of secondary school age. Over recent years, approximately 50–70 students have graduated a year with an occupational training in fisheries, and about one third of the initial intake drop out which is quite a high rate. As for the other countries, progress beyond this initial training programme requires time at sea and periods of additional training. The training courses are subsidised but no salary is paid to the students.

National policy approach

In the past 10 years, no specific initiatives have been taken in the Netherlands to promote occupational training in fisheries. One exception in this instance is the information pamphlet published by the Dutch Fish Product Board (PV) on fisheries training, which PV distributes at various public occasions. The Netherlands Maritime Land (NML) foundation has taken several initiatives to promote education in the maritime fields; however, none of these are specific to fisheries, nor represents fisheries an important component. NML's initiatives put the emphasis on maritime transport and ports. Nevertheless, PV actively participates within NML and all the NML packages contain sections on fisheries. Most of the programmes started in 2004, it is therefore still too early to assess their impact on fisheries recruitment.

Spain

Occupational training

About 45 schools offering occupational training programmes in fisheries operate around the coast in Spain. These schools provide a formal education in the fisheries sector, ranging from basic training courses and more specialised advanced training programmes right up to higher level degree courses. Basic training courses comprise between 60 and 300 hours, depending on the school and the electives that are chosen. After a period of work experience, students can progress to qualify as a coastal or offshore skipper or engineer. In many cases, training courses are available online as well as on site, and are usually free of charge although not subsidised to the same extent as in Denmark. In the latter country, grants, accommodation and transport costs are often provided as well as fees.

Identifying potential new recruits

Overall, Spanish recruitment initiatives aim to recruit individuals into the sector among three main pools of potential workers: migrant workers, long-term unemployed people as well as unqualified persons, and women. It is worth noting that women have significantly higher unemployment rates than men in Spain. EU funding has been important for several of these initiatives, but fishing organisations are also prepared to invest their own money in solving recruitment problems. The initiatives are striking given the number of different organisations involved. These include local or regional government, fishermen's organisations, trade unions, educational establishments and research organisations.

These initiatives have been relatively successful in the short term, particularly in terms of recruiting migrant workers, but less so with the recruitment of women. However, new recruits do not appear to last long in the sector before seeking alternative employment ashore, so the long-term sustainability of these initiatives has been more disappointing than initial success would have suggested.

The initiatives have been concentrated to a large extent in Galicia, where around half the Spanish fishing fleet is based. It is obvious that, in this area rather than in other areas, concerns over recruitment are more pronounced, as well as other concerns related to sectoral problems. However, it is not clear why this is the only area where such projects have been developed and implemented on such a significant scale. It may well be a question of 'critical mass'; only in Galicia exists an environment where a broad spectrum of different organisations come together to focus on problems faced by the fishing industry. Initiatives do exist in other areas such as in Andalucia and the Canary Islands. Such initiatives provide alternative training for those working in fisheries who wish to move sideways into related industries such as maritime tourism. Perhaps it is due to the optimism about the fishing industry in Galicia that such active efforts persist to recruit new crew.

In addition to these specific initiatives, national and regional government have provided subsidies to improve social and working conditions to make the sector more attractive for current and future workers.

Country-level comparison

Occupational training in fisheries

The structure of occupational training in fisheries is similar in all four countries surveyed. This is to be expected given that EU regulations exist relating to minimum training requirements for those working at sea, due to health and safety reasons. Initial training is generally undertaken at secondary school level in occupational training institutes and is free of charge lasting about two years full-time, including periods of work experience or apprenticeship on board. This leads to a certificate which allows the trainee to work as a deckhand or, in the case of Denmark, as a skipper on a small coastal vessel. Career progress to officer level and skipper on larger vessels requires minimum periods of work experience plus further training. This further training is often also free of charge, or subsidised, but generally no salary is paid to the trainees; however, in Denmark, transport and accommodation costs are covered, and this is starting to be the case in France, too. In Spain, some technical training may be offered through online courses. This is certainly a potentially useful innovation, particularly if combined with an emphasis on IT training during the initial certification period to ensure computer literacy as is evident in Denmark.

Recruitment measures

The recruitment problem in fisheries has slightly different causes in each country, and the different types of measures identified previously in this report reflect these differences.

In Denmark and the Netherlands, both of which have a strong labour market and many attractive employment opportunities available to young people, two key challenges emerge, namely:

- the fisheries sector needs to appear as an attractive career option, not only financially but also in terms of job security and career development;
- a career in fisheries needs to be easy to access, which means that education and occupational training need to be accessible and low cost.

The Danish sector has largely met these two challenges through a combination of a highly developed and subsidised fisheries training system, a strong marketing campaign run by TFC and real investment in improving quality of life on board. The Dutch sector, by contrast, has not been as successful in promoting fisheries, largely because the level of subsidy available to the sector is lower. At the same time, it is a reflection of its smaller size and its lower position in national political priorities.

In Spain, there seems little point in a complicated and expensive marketing campaign to position fishing as an attractive job, when in reality it is not particularly attractive. For fisheries to become an attractive career option requires it to be made more attractive in reality rather than simply marketing it better. In practice, this would involve the modernisation of large parts of the fleet, which obviously would require a significant financial investment by vessel-owners. This, in turn, seems impossible in this period of economic difficulty for the industry.

The alternative option, taken up by those Spanish recruitment initiatives reviewed, is to offer training and resources to people who are prepared to work on board, despite the difficult conditions. This means to target those people who have limited options in the labour market, hence the focus of Spanish initiatives on excluded groups such as long-term unemployed people, women with a low level of education and migrant workers. These initiatives have shown to be successful in the short-term, in particular with regard to migrant workers, who often seize the opportunity of a new life in Spain, even under difficult working conditions. However, if alternative employment opportunities arise, even these individuals tend to leave the sector, and most of these workers last only one year or even less.

Recruitment initiatives in France have been occurring in a different political and economic context to the other three countries. They reflect national attempts to make the labour market, and specifically the training structure, more flexible. The recruitment initiatives at the level of fisheries have endeavoured to lift barriers and allow a movement of people both into and out of the sector, so that fisheries employment is more accessible, more flexible and thus a more secure career option. These initiatives are new and it is not possible to judge their success as yet.

Key cross-cutting issues

This section of the report addresses the key issues identified above in a transnational context. These are the issues that determine the nature of the recruitment challenge, and the success and failure of recruitment initiatives in the four countries. They are not presented according to any preconceived order of importance; clearly, their relative importance varies in different situations.

Wages

In many fleets, wages are declining as landings diminish and costs rise. In many cases, this is certainly a factor impacting on recruitment and the problems encountered, particularly in Spain and for smaller vessels in the four countries surveyed. However, wages are not the sole, or even the most important, factor driving the recruitment problem in fisheries. For instance, wages for crew members on board the larger fishing vessels, particularly in the long-distance fleets, are often high, especially when compared with employment of similar status and educational requirements. Nonetheless, these larger vessels also encounter difficulties, sometimes acute, in recruiting and retaining crew.

Financial resources

The availability of significant financial resources to the sector in Denmark and Spain constitutes the common factor which more than anything has determined the success, or partial success, of recruitment measures in these two countries. Financial resources include public sector funds, which in Spain have mainly come from EU structural funds, while in Denmark these were mostly national subsidies. It also includes resources from the industry itself which in both countries was prepared to subsidise initiatives sourcing and training new recruits, and promoting the sector.

This greater availability of financial resources to the sector for recruitment initiatives, compared with France and the Netherlands, corresponds to the overall economic contribution of the sector (see Table 2), and thus to a large extent the sector's political profile in the country. Additionally, in Denmark and Spain the sector's political profile is strengthened due to the socio-cultural context. It should be noted, however, that the availability of EU funding to the Spanish sector is likely to have a limited life span, due to Spain's economic growth and the eastwards expansion of EU membership.

Status of the fleet

A related, and perhaps even more important, issue is the financial investment available for the sector as a whole, particularly with regard to modernising the fleet. In this case, the distribution of available funds across the four countries is different, with the Spanish fleet being the least well modernised of all four fleets.

It is noticeable that the Spanish recruitment initiatives, while successful in the short term, fail to attract recruits on a long term basis, with most of the new recruits leaving fisheries after a year or less. This shows that, in the long term, it is pointless to fund training programmes, and to invest resources and support to bring recruits into the sector if work on board is genuinely unattractive. Thus, the best investment that can be made to solve the recruitment problem in fisheries is an investment in modernising fishing vessels, such as introducing technology and IT on board, developing high standards of health and safety, and good food and living conditions. This has probably been a key factor in the success of fisheries training in Denmark, since the technology and IT component of the Blue Certificate is heavily promoted by TFC and the Fisheries Schools.

Unfortunately, such investment is costly and difficult to achieve in some fleets in the current economic climate. This is the case of the fleets which come under the CFP management regime, where TACs and quotas have been in decline, in particular for key species such as cod, haddock, plaice and herring. In general, this affects the medium-sized vessels, which are among those encountering significant recruitment difficulties.

Although recruitment drives are important, if conditions on board vessels remain difficult, uncomfortable and dangerous, occupational training as well as marketing are unlikely to improve recruitment into the fisheries sector in the long run. This will continue to be the case despite relatively good wages.

Horizontal networks

A second key element in the apparent success of recruitment initiatives in Denmark is the development of cooperative horizontal networks between a wide variety of social actors within the sector. An excellent example is TFC, which is a network organisation where all the social players in the sector participate, including local and national government, fishermen's organisations, trade unions and fisheries schools. TFC also has a coordinating role in the network, with a dedicated team of staff working on project management and strategy. Some of the Spanish initiatives also involve a large network of organisations such as Embarcate and SEPYA (see Spanish national report for a full description and list of organisations involved). This has significantly contributed to the success of the initiatives. However, the Spanish sector lacks a central organisation to manage and coordinate these networks, and reports some project management difficulties as a result.

Strong transsectoral networks also exist in France, albeit with a more hierarchical structure. The Fisheries Committees have probably played an important role in developing the training reforms in the sector. This is related to their legally mandated consultation with government on national fisheries policy. In the Netherlands, by contrast, and despite the existence of the Dutch Fish Product Board, the sector is a little more disjointed with, for example, separate producer organisations for different fleets, which are also separated geographically. The Dutch fisheries sector might simply be too small for a complex system of networks and coordinating organisations to develop, since funding these would become onerous for the industry. This issue of 'critical mass' might also explain why, in a large country such as Spain, Galicia has developed much more momentum towards tackling the recruitment problem than other fisheries-dependent areas.

Access to training

All EU Member States have compulsory training requirements for work on board a fishing boat and all of the four countries surveyed had occupational training structures in place. However, the access to training is easier in some cases than in others, which depends on three key issues, namely: access to training throughout the entire career; funding for training and living expenses during the training programme; and the logistics of fitting training around periods at sea.

Denmark leads the way, with a very well-funded and organised training system, where fees are generally paid and living grants are available. Indeed, students undergoing fisheries training in Denmark have higher incomes than most other students, due to the fact that they are paid during their apprenticeship. Such a high standard of living during the training period was a key component of the marketing campaign to encourage recruitment into sector. Until recently, France has been at the other end of the spectrum for the following reasons: limited funding for occupational training following the initial schooling of students; problems accessing training programmes at a later stage in life due to the lack of a salary; difficulties in fitting training periods around time at sea; and the failure to accrue state pension rights during time spent ashore on training. As a result, individuals needed significant funding to enter the fisheries sector coming from another career or, once in the sector, they also had to invest to enhance their qualifications. This, however, is currently changing.

Migrant labour

In Spain and Netherlands, the focus of attempts to tackle the recruitment problem in fisheries has been to a great extent on the recruitment of migrant workers. In Spain, the industry has directly invested to facilitate the employment of migrant workers. In the Netherlands, the industry has been lobbying for the employment of migrant workers in the sector to be made easier; this revolves around the recognition of qualifications, in particular for vessel officers. In France and Denmark, however, there has not been much emphasis on attracting foreign workers into the sector; it would be interesting to find out the reasons for such a difference between the countries. Deriving from this study, these are some of the key issues.

- Is a pool of experienced migrant workers available? For Spain, Latin America represents a natural source of labour due to the common language and, to some extent, similar culture. For the other countries, new Member States such as Poland and the Baltic States, as well as Russia and Ukraine, may provide a source of experienced and well-qualified workers, although with more language and administrative problems to contend with.
- Administrative difficulties In Spain the industry has supported the procedures to acquire work permits for these workers. This should be easier with migrant workers from the new EU Member States although restrictions still apply in many of the 'old' EU Member States. Administrative difficulties are likely to be particularly acute in France where it is difficult even for French nationals to change careers, and it is generally complicated and expensive to register and operate as self-employed.
- International recognition of qualifications This is a problem in any fisheries with a significant number of migrant workers among its workforce, in particular with regard to the recognition of officer qualifications. In this respect, EU-level ratification of the international convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F) established by the International Maritime Organization (IMO) would be helpful.

Transferability of qualifications

The transferability of qualifications is a general issue for the fisheries sector, but concerns migrant workers in particular. It plays an important role in fleets which are international in their crew recruitment, for example, many of the large, long-distance vessels. It also applies to the recognition of qualifications between fisheries and other sectors at national level, in order to allow for greater mobility of the workers. For example, in France, a significant barrier to recruitment has been the lack of being able to use a fisheries qualification for work in other related sectors, as well as to gain recognition for other relevant qualifications in the fisheries system. This rigidity of the training system is being addressed in France. The training system in the other countries is less rigidly defined by sector of activity; mobility between different maritime subsectors is therefore easier. Nevertheless, it would be beneficial for fisheries to further increase workers' mobility options.

Marketing

All of the four countries surveyed have made attempts to market the sector to potential recruits, mainly but not only to schoolchildren, albeit with different levels of determination and investment. The marketing campaigns range from basic to sophisticated projects, that is, from attending recruitment fairs as in France and the Netherlands to TFC educational material in Denmark and Embarcate in Spain. The educational material of NML in the Netherlands would be another example of a sophisticated initiative, although it was aimed at the maritime sector in general and not at fisheries in particular. The success of these kinds of marketing campaigns is difficult to assess, as a direct link between a stand at a recruitment fair and a crew member on a trawler several years later cannot be established. Nevertheless, a number of strategies seem to contribute to their success, namely:

direct marketing, such as an individual visiting and talking to a class of students, is more likely to be successful than
a more general approach, such as a website;

- educational material, if provided, should be perceived by teachers and professionals in education as accurate
 information, since their role is to inform and present the fisheries sector in a generally positive light, rather than to
 recruit directly; this aspect makes an impact assessment almost impossible;
- imaginative, humorous campaigns using different media and clever slogans, such as the Danish M&G campaign, are successful, but such campaigns are not cheap to produce.

Environmental issues

Capture fisheries has increasingly been perceived as being in conflict with environmental issues. Such a perception results from different features characterising capture fisheries: declining stocks and the lack of sustainability of fisheries, as well as concerns about 'fishing down the food web'; the impact of bottom trawling on the environment in terms of habitat destruction ('clear felling in the sea'); conflicts between pelagic fisheries and seabirds, for example, the failure of many seabirds to breed in 2006 was linked to sand eel captures by the industrial fishery; the perceived failure of enforcement of environmental and management regulations in fisheries; and ethical issues relating to fishing agreements with developing countries in terms of local environmental damage and being in conflict with local livelihoods.

In recent years, the political and media profile of environmental issues, particularly those related to the sea, has been growing exponentially in Europe. Consequently, the fisheries sector has been receiving increasingly negative press coverage. This is particularly true in the Netherlands, where the environmental lobby groups are strongly represented, and their actions are not counteracted by any particular 'cultural' affinity with the fishing industry or any strong lobby groups from fisheries-dependent areas. Undoubtedly, these issues should be of concern to the industry. In particular, the industry urgently needs to address the issue of overcapacity in many fleets and in the EU as a whole. This is vital for the industry from an economic and an environmental point of view. If this problem is tackled, recruitment needs should decline in the near future and may even decline sufficiently to meet supply without any further significant recruitment initiatives.

Conclusions

Short-term versus long-term solutions

To successfully tackle the recruitment challenge in EU fisheries may require different approaches for the short term and the long term. In the short term, it seems that, in many cases, the pragmatic solution is to facilitate the employment of migrant workers. Despite being a cost-effective solution, it requires financial and administrative support as was provided, for example, in the case of the Spanish Cofradía de Cambados study. In the long term, however, this solution seems to be unsustainable for the following two reasons: firstly, migrant workers often do not stay in the sector for a long period, as is evident in the Spanish experience; and secondly, as the economies of the new Member States continue to develop with the support of EU Structural Funds, an important pool of migrant labour is likely to dry up. Workers in these countries will be less interested in this type of employment and less likely to need to work overseas to make a living.

In the long term, the fisheries sector must find sustainable solutions to the recruitment problem by addressing the fundamental issues which make this employer unattractive. In other words, there is no future in marketing employment in fisheries if the 'product' – a fisheries job – is not an attractive one. Work on board fishing vessels needs to be perceived as a genuinely attractive employment option; this is particularly the case in countries with a strong economy and low unemployment rate. Some problems are inherent to the fishing industry and cannot be overcome, such as periods away from home; others require significant investment, such as fleet modernisation. However, the fleets that most require modernisation are those which are doing the least well from an economic point of view and thus have only few resources available for investment. Further problems can be solved and have been addressed, such as facilitating access to unemployment benefits and pension rights for workers in fisheries. This provides a better financial security to workers in the sector.

The long-term picture of declining fish stocks and overcapacity in the sector is likely to lead to a further decline of the majority of EU fishing fleets. The sector's recovery in the long term depends on the implementation of stringent management measures today, so that fish stocks can rebuild – this means that in the short to medium term the outlook will be worse. In any case, recruitment needs are likely to continue to diminish. In this sense, the recruitment problem can be regarded as an opportunity for the sector since restructuring and decommissioning of the fleet will have a lower impact in terms of employment in the respective areas.

Transferability of recruitment initiatives

The four countries surveyed provide a good overview of the type of structural, economic and political-cultural conditions likely to be found in the fisheries sector in western Europe as a whole. Thus, the recruitment initiatives outlined in this study provide good practice examples for those aiming to set up similar programmes in other EU countries. The model that will work best in another Member State will depend on the key issues determining the sector's functioning in the country, namely: the structural condition of the fleet and its most important resources; the nature of the labour market and the training system; financial resources available to invest in recruitment programmes and the sector more generally; the pool of potential workers available to the sector; and the development of cross-sectoral networks for project identification, development, management and financing.

The transferability of such recruitment initiatives to the new EU Member States is less clear at present, although financial subsidies through structural funds and further economic development may encourage similar recruitment programmes in the future. In any case, recruitment difficulties in the fisheries sector of the new Member States do not seem to be truly related to problems of investment, modernisation and resource depletion. Among the new Member States, Latvia and Poland have the most important fishing industries. On a more speculative note, these countries may, however, start to

face recruitment problems in the future as a consequence of recruitment drives for individuals with fisheries training by the more prosperous Member States or workers choosing other jobs in maritime employment.

This study underlines the importance of a flexible labour market and, in particular, of a flexible training system. Both are essential aspects needed to encourage recruitment in the sector and to ensure that those already working in fisheries can progress in their career and are thus less likely to leave. This also applies to fisheries at international level; therefore, it is likely that a flexible labour market and training system for fisheries at EU level and beyond will benefit the sector as a whole in the long term. At the same time, it is appropriate for the fisheries sector to have stringent training conditions based on high training requirements, since fishing is an occupation which can be difficult and dangerous. A key element of international labour market flexibility is an internationally recognised and adopted system of training and qualifications for people working in fisheries, both at deckhand level and particularly at officer level. This seems to be provided by international convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F) of the International Maritime Organization (IMO). It would certainly be desirable that the EU adopts and ratifies this convention.

Employment inflows and outflows

When comparing the recruitment challenges with the recruitment initiatives, it is striking that for all the reported success of the hiring initiatives highlighted in this report, a basic mismatch emerges between the challenge faced by the industry in the EU and the initiatives designed to tackle recruitment problems in each country surveyed for this study.

In general, recruitment problems in any given sector can stem from two different issues: either not enough new people entering the sector or too many people leaving the sector. The recruitment initiatives analysed above generally aim to tackle the first problem by promoting the fisheries sector, and encouraging and supporting people, in particular young people, seeking employment in the sector. However, the assessment of the recruitment challenges suggests that difficulties to recruit stem largely from the second factor, notably fishermen leaving the sector. Thus, the initiatives are on a fundamental level failing to match the basic problem. A long-term solution to recruitment problems requires that stakeholders address the reasons for which workers in fisheries are moving into other economic sectors, rather than simply focusing their efforts on bringing in new people.

Obviously, if finding a long-term solution were easy, it would already have been done. The reasons for which workers in fishing leave the sector are rooted in the deep structural problems of the sector as a whole. These are unlikely to be addressed by initiatives which, for example, market the profession or improve occupational training, as useful as these initiatives might be. The European fisheries sector is in a deep crisis which is the result of too many vessels fishing too few fish in an ecologically unsustainable way. Besides the obvious environmental and ethical problems with this situation, it leaves most vessels of the fleet in an economically parlous situation. Consequently, little money is available for investment and modernisation of the fleet, while financial organisations show little interest in providing loans for investment to a sector so obviously in a bad economic situation. Until this basic underlying problem is addressed, recruitment difficulties in the sector are not likely to go away.

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