

INNOVATIVE RECRUITMENT SYSTEMS IN THE FISHERIES SECTOR

FINAL COMPARATIVE REPORT

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1. Introduction: Setting the Scene

There is much anecdotal information available to suggest that, in spite of a declining fleet, many individual fishing vessel owner/operators and fishing companies around the EU are having difficulty in recruiting and retaining good quality crew. The reasons often cited are low and unpredictable wages; poor career outlook due to declining stocks and fleet; dangerous, hard working conditions; anti-social hours and the poor environmental image suffered by some sectors of the fleet. These are exacerbated by a relatively buoyant economy in recent years offering more attractive employment opportunities ashore. In order for the industry that remains to be economically viable, there is a need to address the recruitment problem and to assist skippers in overcoming crewing difficulties.

In some Member States there have been new initiatives undertaken by one or a combination of government, industry and social partners to try to attract (particularly young) recruits to the capture sector.

The objective of this study is primarily to develop an inventory of innovative recruitment tools in use in the capture fisheries sector in certain Member States of the European Union. The report compares the situation in four EU Member States selected by the European Foundation as countries for study: Denmark, the Netherlands, France and Spain. Separate reports have been prepared on the recruitment situation and measures in use in each of these Member States.

This Comparative Report also aims to draw together the main themes emerging from recruitment measures (or lack of them) in the four study Member States and to assess the challenges faced by the EU capture fisheries sector in terms of recruitment, as well as to assess a variety of programmes and policies which aim to ease recruitment difficulties, and to consider the likely future of recruitment in EU fisheries.

1.1 The Fisheries Sector in the Four Countries

1.1.1 General: EU fisheries

The over-arching common theme to the fisheries sector in all of the study countries and indeed much of the EU is that the majority of commercially targeted stocks are subject to management at the European level through the Common Fisheries Policy of the EU via the Total Allowable Catch (TAC) system.

This system of management has faced many challenges and overall seems to have been unable to halt the decline of most commercially targeted stocks in EU waters. The excessive capacity and increased technical sophistication of the fleet, allied with problems of uncertain science surrounding stock assessment, difficulties with enforcement of regulations aiming to protect stocks, as well as continual juggling of short- and long-term socio-economic needs, have all contributed to this situation. Many of these issues are being addressed, for example through decommissioning and improved stock assessment methods, and there are a few success stories where stocks and fishing levels appear sustainable, notably in some shellfish and pelagic fisheries. However for most important whitefish and flatfish, which have been the traditional mainstay of fisheries in the EU, spawning stock biomass (a key measure of the health of fish stocks) is below half of recent (15 year) historic levels and a small fraction of their virgin state, with several populations in a critical condition. The independent view of a world authority on

marine resource management, Prof. Bill Ballantine (Leigh Marine Laboratory, New Zealand) at a recent conference on Marine Protected Areas, is that EU fisheries managers are in the process of “managing the bits”, and seems an appropriate summary of the state of play for most fisheries in the EU. Although a damning view, it should be noted that this sentiment could be applied to much of the world’s fisheries, not just those in the EU.

1.1.2 Denmark

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

The Danish fleet has three main components:

- Industrial fishing for reduction to fish meal and fish oil (sand eel, Norway pout, sprat, blue whiting) in EU and Norwegian waters (North Sea, Skagerrak/Kattegat and Baltic Sea)
- Pelagic fishing for human consumption (herring and mackerel) in EU and Norwegian waters
- Demersal fishing (whitefish, flatfish, Norway lobster, deep water prawns); these are smaller vessels using different types of gear, generally with short trips (one or a few days) in the North Sea and Skagerrak/Kattegat.

Currently, there are around 3,000 registered fishing vessels in Denmark, with a total tonnage of about 85,000 GT. 80% of the fleet consists of vessels under 24 m, and over half of vessels under 5 GT – predominantly gill netters targeting demersal species. And at the other end of the spectrum are about 150 vessels over 150 GT – the large pelagic trawlers and purse seiners.

Generally, the smaller demersal vessels are owner-operated with crew paid a proportion of the catch revenue, while the large pelagic trawlers generally belong to large companies and the crew and officers are paid salaries.

(Note: fisheries in the Faeroe Islands and Greenland are managed via those territories and are not considered in this report.)

1.1.3 Spain

Spain represents 23% of the total tonnage of the European Community fleet and 15% of the total number of fishing vessels, with a total of number of registered fishing vessels of more than 10,000. The majority of Spanish vessels fish inside the National Fishing Ground (EEZ). However, the very high seafood demand on the Spanish market means that the National Grounds do not have enough fisheries production to supply consumers. It has therefore been necessary to develop deep sea fishing in external waters, near and distant.

Spanish fisheries can therefore be divided into three groups:

- The coastal fleet represents the majority of vessels (96%) but only 41% of tonnage. 80% of this fleet is of artisanal character; i.e. small owner-operated vessels
- The offshore EU fleet (‘pesca de altura’) operates in EU waters (mainly the western Atlantic region, i.e. French, UK, Irish and Portuguese waters) with trips of a few days up to a couple of weeks

- The long-range offshore fleet ('pesca de gran altura') operates by fishing agreements with non-EU countries such as Argentina, Chile, Peru, Namibia, the Falklands, South Africa, Morocco etc.

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

Around 48% of the Spanish fleet (in terms of number of vessels) operates from Galicia, followed by Andalusia, Catalonia and Canary Islands. In tonnage terms, Galicia has more than 40%, followed by the Basque Country with 16% and Andalusia with around 13%.

In Galicia in particular, fishing has developed into a vertically integrated industry (including shipyards), and the major Spanish fishing ports (Vigo, La Coruña, Riveira, Marín and Burela) are all in this area. 92.5% of Galician fishing boats are smaller than 87 GT and make up the coastal fleet. The remaining 7.5% larger than 87 GT are the offshore fleet. These vessels represent 26% of total fishing employment in Galicia. The Galician fishing fleet has 133 vessels fishing in these long distance international fishing grounds (freezer trawlers, seine and deep sea long liners) with trips from 1 month to 7 months, There are 144 vessels fishing in EU grounds (trawlers and long liners) with trips of 10 – 18 days, and 5,000 vessels fishing in the National fishing ground with trips from <1 to 7 days.

1.1.4 France

The French fishing fleet in 2005 consisted of 5,400 registered vessels. 75% of the fleet is made up of vessels of less than 12 m (inshore vessels), 22% of vessels measuring between 12 and 25 m, and the remaining 3% of offshore vessels of length greater than 25 m. The total number of vessels has decreased by 8% since 1999, with the three size classes equally affected by this trend.

The French fishing fleet is more difficult than most to characterise by group, since a great diversity of species and fishing techniques are represented, but vessels can be roughly grouped as follows:

- The coastal fleet makes up by far the majority of French vessels, in terms of vessel numbers. These vessels can mainly be considered as 'artisanal', i.e. owner-operated, with a small number of crew (frequently relatives). 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, of 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 in one- or two-week trips, although a few fish distant grounds, mainly targeting yellowfin tuna in the tropical Atlantic. These vessels generally belong to large companies, the crew and officers are paid salaries (sometimes also a proportion of the catch) and the skipper is generally not the owner.

(Note: Fisheries in the French overseas territories (DOM and PTOM) are not considered in this study.)

1.1.5 Netherlands

The Dutch fleet (excluding mussel dredgers) included ~360 registered vessels (2005). The majority (61%) were small inshore vessels. Key target species include flatfish and shrimp. Most of the flatfish is frozen on shore and exported. 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 (~220 vessels); small owner-operated vessels, mainly beam trawlers, targeting shrimp, cod and flatfish on relatively short trips with a crew of 2-3 men, frequently owners and close relatives.
- Large beam trawlers (~120 vessels); specialised in fishing for plaice and sole in the North Sea. These are relatively large vessels, on average about 38-42 m long, with a crew of 6-7 men, making trips of 4-5 days.
- Pelagic freezer trawlers, mostly over 100 m long, with crew of 35-45 men, fishing for small pelagic species in the EU waters as well as in other parts of the world, with the catch frozen on board and generally exported direct from the vessel.

1.1.6 Comparison

Table 1 shows the number of vessels and volume and value of landings for each of the four countries, with the largest highlighted in each case. Spain dominates in terms of fleet size and value of landings. Denmark has the highest volume of landings but the lowest value, due to the industrial fishery for reduction to fish meal and oil.

Table 1. Fleet and landings for the four countries, 2005.

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

Source: EU and national government statistics.

* Danish government and EU statistics for 2005 give slightly different values (discrepancy of around 6%); Danish govt. figures (which are slightly lower) are given here.

** Latest figures available are 2004

There are similarities in the structure of the fleet across the four countries:

- A broad dominance of small, coastal, owner-operated ‘artisanal’ vessels. These vessels represent ~60% of the Dutch fleet and about 75 - 80% of the other three fleets.
- An offshore fleet, which represents a small percentage of the number of vessels but a much larger percentage of landings. 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 low-value high-volume pelagics, mainly for export in the case of Netherlands and for rendering in the case of Denmark. Vessels are owned by large companies rather than by the skipper.
- A group of intermediate sized vessels, often using bottom trawls or other techniques to fish for high value demersal species such as whitefish, flatfish, hake, Norway lobster,

shrimp and scallops, usually in EU waters with trips of a few days to a couple of weeks. This seems to be the portion of the fleet which is being most squeezed by EU regulation and declining stocks. This (roughly delineated) group includes the larger Dutch beam trawlers, the larger Danish demersal vessels, some of the French offshore fleet and the Spanish 'pesca de altura' fleet.

1.2 Economic Importance of Fisheries

1.2.1 Denmark

Fisheries production (live weight) contributed €184 million to gross value-added in 2004 contributing overall about 0.5% to Danish GDP, with ~0.15% of this coming from capture fisheries. The majority of Danish fisheries products (in terms of both weight and value) is exported, with an export value of €2.06 billion, forming around 3% of total Danish exports (WTO figures 2006). Denmark is one of the few countries in the EU to have a positive balance of trade in fisheries products, unlike the other three countries in the study. About two thirds of employment in the sector is in processing rather than capture fisheries, but again unlike the other three countries the processing sector depends largely on Danish production, so could arguably be included in the economic contribution of capture fisheries. Thus the fisheries sector has some value to the Danish economy although it is not a major economic player.

1.2.2 Spain

Fisheries production (live weight) contributed around €800 million to gross value-added in 2004 contributing overall about 0.2% to Spanish GDP, with 0.16% coming from capture fisheries; similar to Denmark. Around €2,800 million worth of production were exported in 2005, forming about 1.1% of Spanish exports (WTO figures 2006). The Spanish domestic market for seafood is very strong, and Spanish production cannot meet the full market need, with €4 500 million of seafood products imported in 2005.

1.2.3 France

Fisheries production (live weight) contributed an estimated¹ €450-500 million to gross value-added in 2004 (excluding aquaculture). Overall, the sector contributed ~0.2% to French GDP, again in line with employment, but with a significant percentage coming from processing imports rather than French capture fisheries. The contribution of capture fisheries was probably around 0.07%, i.e. significantly smaller than Denmark and Spain. France exported €1,200 million of seafood products in 2003, forming about 0.35% of French exports (WTO figures 2006). About €3,250 million of fisheries products were imported; this trade balance reflecting raw material which is imported, processed and re-exported as much as it does French production.

1.2.4 Netherlands

Marine fishing is a very small sector within the Dutch economy, with a contribution to gross value-added of €164 million, and to GDP of about 0.1% (2004). However, this takes into account

¹ No official estimate of this figure appears to be available, but for the other three countries, contribution to gross value added was approximately 45-50% of the value of landings, so we used this ratio to estimate the contribution of the French fisheries sector.

the processing sector, which depends as much on imported raw materials as Dutch domestic production. Processing and marketing accounts for ~80% of all employment in the sector, with capture fisheries only accounting for about 15%. The contribution of capture fisheries to national GDP is thus small relative to the other three countries in the study; around 0.02%. The Netherlands exported €1,400 million of seafood products in 2003, forming about 0.58% of Dutch exports (WTO figures 2006).

1.2.5 Comparison

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 France, and even less important in the Netherlands. The only country with a positive trade balance for seafood products is Denmark, which exports a significant amount of its production. Spain has to import very large quantities of seafood to supply the very strong national market and high per capita consumption rate of seafood. In France and in the Netherlands, the economic contribution of the sector derives 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 country.

Table 2. The relative economic contribution of fisheries in each country (contribution of sector to GDP), 2004.

	Denmark	Spain	France	Netherlands
Contribution of the total sector	0.5 %	0.2 %	0.2 %	0.1 %
Contribution of capture fisheries alone	0.15 %*	0.16 %	0.07 %	0.02 %

*This figure is estimated by assuming that the economic contribution of each component of the sector (capture fisheries, processing, aquaculture) is in line with the employment in each sector. 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).

1.3 Employment in Fisheries

1.3.1 Denmark

Danish employment in the fisheries sector as a whole is estimated to be around 14,000, with around 3,500 of these employed in capture fisheries (i.e. working onboard fishing vessels; EU and Danish government estimates, 2004), i.e. around 25%. Most of the remaining 75% of the fisheries workforce are employed in the processing sector.

Employment in capture fisheries represents ~0.15% of the total Danish workforce, and employment in the sector as a whole ~0.5% (in line with its contribution to the economy). This is well above the EU average of 0.3%, and roughly similar to Spain². Nonetheless, strong

² EU countries which exceed Denmark and Spain in terms of fisheries dependence are Greece, Ireland, Latvia, Malta and Portugal.

dependency on the fisheries sector (>1%) at regional level in Denmark is restricted to a few specific areas in Northern and Western Jutland and the Island of Bornholm in the Baltic³.

No explicit individual income statistics for fishermen are available, but anecdotal information suggests that incomes in the fishery are higher than comparable sectors requiring skilled or semi-skilled labour (agriculture, construction etc.).

1.3.2 Spain

Spanish employment in the fisheries sector as a whole is estimated to be around 74,000, with around 44,000 of these employed in capture fisheries (Spanish government estimates, 2005), i.e. around 60% of the total for the sector. Of the remaining employees, around 22,000 work in processing (28%) and 13,000 in aquaculture (16%, mainly on mussel farms).

Employment in capture fisheries represents ~0.24% of the total Spanish workforce, and employment in the sector as a whole ~0.4%. This is again above the EU average of 0.3%.

Strong dependency on fisheries (>1%) at regional level is found in several areas, most notably Galicia, which, at 4.1%, has one of the highest dependency levels in the EU. A significant proportion of Spanish fisheries employment is concentrated in Galicia, including 17,500 fishermen (40% of the total) and 45,500 people working in the sector as a whole (60% of the total). Other areas with significant fisheries dependency levels include parts of Andalucía, with ~7,000 fishermen (16% of the total) and parts of the Basque Country, with ~2,000 fishermen (4.5% of the total).

Spanish fishermen are generally paid via a share of the catch, meaning that average wages have been declining in recent years along with the value of catches. This, combined with recent strong growth in the Spanish economy as a whole, including in average salaries, means that fishermen's income have been declining both in real and comparative terms in recent years, and fishing is not regarded as a particularly well-paid job.

1.3.3 France

French employment in the fisheries sector as a whole is estimated to be around 50,000, with around 20,000 of these employed in capture fisheries (French government and EU estimates, 2005), i.e. around 31% of the total for the sector. Broadly similar numbers work in processing (18,000) and aquaculture (12,000), making the French aquaculture sector one of the largest in the EU, along with Spain.

Employment in capture fisheries represents ~0.08% of the total French workforce, and employment in the sector as a whole ~0.2%. This is below the EU average of 0.3%, since, although the French fisheries sector is large by EU standards, France is a large country with a large total workforce.

The most important area in terms of fishing dependence is Brittany, with 40% of the French fleet, second is the Mediterranean with 19%. Strong fisheries sector dependence (>1%) is nevertheless confined to some areas of Brittany (parts of Finistère and Morbihan) and Charente-Maritime (the area around La Rochelle).

³ Note that the calculation of fisheries dependency includes employment across the whole sector, including aquaculture and processing, not just capture fisheries.

Wages for fishing crew remain higher than the French national average, at around €30-35,000 (gross) per year. For a non-qualified deck hand, the salary (€20-25,000) is higher than for most other non-qualified jobs (compare for example to minimum legal wage of €15,000 per year).

1.3.4 Netherlands

Dutch employment in the fisheries sector as a whole is estimated to be around 9,000, with around 2,200 of these employed in capture fisheries (Dutch government and EU estimates, 2005), i.e. around 24%. The majority of the remainder work in processing (~6,000).

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

Generally, employment on board fishing vessels is only important in a few small communities such as Urk in Flevoland which is the home port of much of the beam trawler fleet, but even at regional level, fisheries dependency rates are not high.

Salaries on Dutch fishing vessels compare favourably with average salaries. The average gross salary in the Netherlands in 2005 amounted to about €35,000 / year while annual earnings in the beam trawl fleet averaged €45,000 and in the freezer trawler fleet around €60,000

1.3.5 Comparison

Table 3 compares employment rates and fisheries dependency across the four countries. Highest absolute employment levels are in France and Spain, both of which are large countries with a large total workforce. Strongest fisheries dependency is in Spain and Denmark, although in both cases confined to limited areas. Dependence is lower in France and very low in the Netherlands where the sector employs less than 10,000 people, mainly in processing. Wages for crewmen are in general fairly high, particularly when compared to similar semi-skilled manual jobs, but are less advantageous in Spain than in the other countries, and are on the whole declining in relative terms.

Table 3. Comparison of employment data in the four countries, 2005

	Denmark*	Spain	France	Netherlands
Jobs in fisheries sector (% national total)	14 000 (0.5%)	74 000 (0.4%)	50 000 (0.2%)	9 000 (0.1%)
Jobs on board fishing vessels (% national total)	3 500 (0.13%)	44 000 (0.24%)	20 000 (0.08%)	2 200 (0.03%)
Fisheries sector dependence	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	Good	Good, particularly in freezer trawler fleet; declining in beam trawl fleet

Source: EU and national statistics *2004

1.4 Outlook for Fisheries

1.4.1 General Outlook for EU Fisheries

In general, EU fisheries have been in decline for some years, due to chronic over-capacity in the fleet and declining stocks. In the last couple of years, management efforts have been strengthened to try and allow some recovery of key stocks, particularly North Sea cod, which was formerly a staple species of many European fishing fleets. This has entailed a major reduction in the TACs; 45% for North Sea and Skagerrak cod, for example. This applies not only to cod itself but also for fisheries where cod is a significant by-catch species, notably haddock. This has affected demersal fishing vessels in all four countries to some extent, but particularly those bordering the North Sea (the Netherlands, Denmark). In addition many pelagic stocks in EU waters have declined in recent years, including both industrial (reduction) species such as Norway pout and species for human consumption such as North Sea and Baltic herring, for which the TAC has also been severely reduced. TACs are likely to continue to decline for most stocks under management. There has also been an increase in supplementary regulations, including the regulation of number of days at sea (from 2003), and a tightening of gear selectivity (larger mesh size, for example in the beam trawl fishery). These more radical management measures are expected to continue as well, with measures such as implementation of closed areas coming under serious discussion. The EU has also attempted to tackle fleet over-capacity, with grants available for vessel decommissioning since the 1980s.

1.4.2 Denmark

The industrial fisheries for reduction fluctuated around a mean production about 1.4 million tonnes in the mid 1990s, decreasing to about 1.1 million tonnes in 2002. Anecdotal information suggests that it is continuing to decrease. Fisheries for human consumption have also decreased gradually from around 0.5 million tonnes in the early 1990s to a little under 0.4 million tonnes in

more recent years, with the demersal fleet strongly affected by reductions in TACs. 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 industrial landings (for reduction) has fluctuated without trend over the last 10 or 15 years, and the value of landings for human consumption has steadily increased, reflecting a strong increase in prices which in turn reflects the decline in stocks. Overall, the mean annual increase in the value of landings over the last decade or so (1993-2003) is around 7%; well above the Danish inflation rate (currently 1.3%). This increase in real terms has, however, been offset by large increases in costs, including large rises in the price of fuel in 2001 and again in 2005-6, as well as increases in costs of labour for maintenance, repairs and refits.

Overall, the future prognosis for Danish fisheries, as well as the mood within the industry, is gloomy. Rising prices are not expected to offset declines in catches indefinitely, and the sector is rather dependent on stocks and waters where catches have been declining steadily. The effects have been felt most strongly by the smaller demersal vessels, which target cod. In particular, gill netters (about 450 vessels) have seen their earnings decline 30-40% over the last few years. The outlook for the demersal fleet is considered to be bleak; despite efforts at rationalisation, the fleet is still too big for the resource.

The latest management measure, which represents something of a departure for Danish fisheries, is the transferable vessel quota (1 January 2007). This measure allows vessel quotas to be transferred or pooled, with the aim of concentrating the 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 fishermen remaining in the fishery.

1.4.3 Spain

Around 4,300 vessels were lost from the Spanish fleet between 1997 and 2005; a reduction of about 24% in vessel numbers and about 11% in tonnage (i.e. a disproportionate loss of smaller vessels). Over the same period, landings declined 37% by volume and 23% by value (more in real terms because Spanish inflation rates have been high relative to the other countries in the study). Employment declined 36%. Thus reduction in employment has kept pace with reduction in catches, but reduction in the tonnage of vessels has happened more slowly, suggesting increasing over-capacity and reduced average income per vessel.

The Spanish fleet has been affected by the reduction in TACs to protect specific stocks such as North Sea cod, as described above, although to a lesser extent than the Danish fleet since it is more diversified. It has also been affected by a general trend for non-EU Member States to reject or renegotiate third country fishing agreements which allow EU vessels into 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 for 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.

1.4.4 France

In France, landings have declined around 2% per year since 1997. The number of fishermen declined 4-6% a year in the early 1990s, more recently the rate has been 1-2% per year. Thus in the long term, fishing vessels have become more efficient in terms of landings per crewman.

There has also been a trend away from very small (part-time) vessels, which presumably have become uneconomic in the face of declining catches and quota and increasing fuel prices, and very large vessels, affected likewise by increasing fuel prices and limited distant water opportunities, towards medium-sized vessels engaged in coastal fishing. These vessels are quite diversified and flexible in terms of the species that they target and the gears that they use, and have therefore been less affected than other medium-sized demersal fleets by the severe cuts in cod and haddock TACs. (This is probably because the French market, like the Spanish market, is open to a wider range of species than the northern European markets, which 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 landings and are high in value.

As in Denmark, the value of landings, both absolute and in real terms, is still generally increasing, although there was a drop in 2004 and 2005 which is expected to continue under the existing CFP management regime.

1.4.5 Netherlands

The beam trawl fleet reached its maximum size of 611 vessels and 3,039 crewmen in 1987, and its size has been decreasing since then; it is now roughly half this size. Employment in this fleet has declined by ~35%, and particularly strongly among the larger vessels. Landings have declined 14% since 1995; this represents a decline of 35% in real terms. Incomes have improved or remained static on the smaller vessels, but declined ~13% on the larger vessels. Declining stocks and increased EU management measures, as described above, have been a big challenge for this fleet, which fishes in EU waters (mainly the North Sea), and increases in fuel prices have also hit it hard. The outlook for this fleet is certainly uncertain at best, and Dutch fishermen in this fleet are pessimistic about the future.

Conversely, for the pelagic freezer trawler fleet, landings have increased since mid 1990s in both volume and value. The number of vessels in this fleet peaked at 18 in 2000 and have since fallen back to 15 (compared with 12 in 1995). The outlook for this fleet is probably better than for most other fleets in this study, although increases in the price of fuel have been a major problem, as has the weakness of the US dollar relative to the euro, which has hit competitiveness in the export market. The possibility of renegotiation of third party fishing agreements with the EU also remains a significant potential concern for the future, as described for Spain-Morocco above.

1.4.6 Comparison

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

- There is a general trend for decline in landings, vessel numbers and employment 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, perhaps, as increased consumer buying power and fish consumption. However, in real terms (taking inflation into account) landings have declined in value in Spain and the Netherlands, and are starting a possible downward trend in France, although in Denmark they remain stable.
- There have been particularly severe problems for fleets which depend on stocks in the North Sea and Baltic area. The collapse in cod stocks, and associated strengthening of the

EU management regime (reduction in cod TAC as well as haddock TAC due to cod by-catch), as well as increasingly severe management of stocks of flatfish such as plaice, has hit the Danish demersal and Dutch beam trawl fleets hard.

- 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 are the smaller vessels are doing slightly better than the larger ones, perhaps because they are cheaper to run, and perhaps also because they can operate in waters subject to Dutch national control rather than CFP regulations.
- Large industrial or factory type vessels have also generally suffered from declines in catches, although not as drastically as smaller demersal vessels. In Denmark, target industrial species are not in such a serious state of decline as species fished for human consumption (although there have been declines, e.g. in Norway pout). In the Netherlands, the freezer-trawler companies in some cases have access to fishing opportunities in distant (non-EU) waters and so have scope for flexibility.

In summary, the outlook for the EU fishing fleet is generally not particularly healthy. The major challenge is to reduce the capacity of the fleet and the volume of landings to the level where stocks are able to recover and the fishery can be put on a more sustainable footing. Although there are occasional success stories mentioned above, further TAC and effort reduction appears to be needed in the North Sea in particular to try to allow stocks to recover. The offsetting of landings declines with higher prices seems unlikely to continue unchecked as consumers will eventually reject over-priced fish in favour of farmed fish or other protein sources. The costs of fishing operations are also likely to continue to rise: fuel costs are (as of early 2007) past their recent peak but there is a significant possibility that cost of this key input will rise again in the medium term. Repair and refit costs also appear set to increase in real terms as labour shortages in this sector push labour elements of this input cost up. “Technology creep” i.e. increasing efficiency of the vessels through technological innovation in electronics, gear design etc, which are independent of the basic measures of capacity (vessel size and power) used to control effort, have contributed significantly to fishing vessel profitability over the last 20 years or so. However there seems to be less room for further improvement from technological gain in the medium-long term. Therefore problems with recruitment in crew in many sub-sectors is likely to persist for a number of years but should eventually diminish once the further reduced fleets are in more stable earnings positions.

1.5 Institutional Structure and Social Partners

1.5.1 General Regime

In all four countries (and throughout the EU), the management regime depends on the type of fishery, and in particular from the distance from shore at which it operates. Small vessels operating within the 12 mile zone come under national control. Vessels operating in EU waters outside 12 miles from their national coast come under the EU Common Fisheries Policy (CFP) management regime. As well as TAC's, distributed to each Member State as quota, the CFP sets, for example, structural measures and technical regulations (e.g. gear and time restrictions). However the distribution of quota between fleets and vessels – the specifics of implementation – is a matter for each national government. Large vessels fishing outside EU waters may fish if

fishing in the EEZ of a non-EU country, in which case they are governed by EU third-party fishing agreements as well as the national legislation of that country, or they may fish on the high seas (outside 200 miles) in which there may be management regulations set by Regional Fisheries Management Organisations such as NAFO (North Atlantic Fisheries Organisation) in the North Atlantic or CCAMLR (Convention for the Conservation of Antarctic Marine Living Resources) in the Southern Ocean.

1.5.2 Social Partners at EU Level: The Sectoral Social Dialogue Committee

The European Commission 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, which has been singled out ever since the Treaty of Rome as a sector with particularly strong competencies at the EU, rather than the national, level (hence the Common Fisheries Policy). Before submitting proposals to amend fisheries policy and legislation, the Commission is thus obliged to consult social partners in fisheries.

The mechanism for this dialogue is the Sectoral Social Dialogue Committee for the fisheries sector, which was formally established in 1999, although a joint committee has existed in one form or another since 1974. Representatives of both employers and workers participate in the committee, and to this extent it is broadly analogous to the dialogue which exists at national level in all four countries in this study (and indeed most EU countries) between the government and the fisheries sector (see below). Employers are represented by the *Europêche* (the Association of National Organisations of Fishing Enterprises in the EU), which represents shipowners, and Cogecca (the General Committee for Agricultural Cooperation in the EU), which represents cooperatives. Workers are represented by the European Transport Workers' Federation (ETF).

The main issues addressed to date by this social dialogue structure include vocational training, hygiene and food handling, health and safety and environmental and management issues. There is also ongoing discussion on the continued, (much-needed) reform of the Common Fisheries Policy. They have also taken action to protect the rights of non-EU nationals working on board EU fishing vessels, which is significant from the point of view of recruitment, and may become more so in the future.

1.5.3 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 fishermen and the industry via a Regulatory Committee.

The Danish Fishermen's Association is the main organisation for all Danish fishermen, including both owner-operators and employees. It also acts as the nationwide umbrella organization for 65 local organisations. The Danish Fishermen's Association is represented on the Regulatory Committee and is a key member of The Fisheries Circle (see below). Most of the local organisations are geographical, but the Pelagisk Fiskeriforening brings together pelagic fishermen (for human consumption) from across Denmark.

The labour union movement plays a central role in labour-related issues in Denmark, unlike in many other EU states where it has become marginalised. The Union 3F is the largest trade union for skilled and especially non-skilled workers, and this includes employed fishermen. The union runs an independent unemployment fund. 3F is also represented on the management board of The Fisheries Circle (see below).

The Fisheries Circle (TFC) was established in 1997 with the aim of promoting the fishing industry to Danish schoolchildren. Their various initiatives are discussed further below. TFC brings together a network of organisations from across the sector, including local government in fishing-dependent areas, the Danish Fishermen's Association, 3F, fishing and processing companies and educational institutions. The Fisheries Circle is financed 50 % by the Financial Instrument for Fisheries Guidance (EU; now the Fisheries Foundation) and 50 % by the Ministry.

1.5.4 Spain

At international level, Spanish fisheries are regulated by the state (the Ministry of Agriculture, Fisheries and Food; MAPA), which controls dealings with the EU, regulates high seas fisheries and distributes TACs and EU structural support between the regions. The Autonomous Regions (CCAA) regulate coastal fisheries under these national and international rules. Social provision for fishermen comes under the Labour and Social Affairs Ministry (see below).

Fishermen are mainly organised in Fishermen's Associations, called 'Cofradías', but the largest long-distance vessels have their own system of professional organisations and owner associations. Overall, Cofradías cover 83% of fishing employment in Spain, with 229 Cofradías covering the whole Spanish coastline and islands. Cofradías have a democratic structure and represent both vessel owners and crew. A small charge on catch sales supports the administrative costs of the Cofradía, with any surplus used to improve infrastructure or repaid to members. Cofradías can establish management rules in their area, including control of time at sea, regulation of fishing gears in specific areas, institution of closed areas or closed periods etc. Cofradías are organised into a national association.

There is also a whole slew of national organisations which represent the interests of fishermen and vessel owners to some extent, including two labour unions, national associations for ship-owners and a variety of producer organisations for different groups, including cod fishermen, freezer vessels, cephalopod fishermen etc.

1.5.5 France

Fisheries management and regulation (implementation of the CFP) comes under the responsibility of the Ministry of Agriculture and Fisheries, and the administration of fishermen is covered by the Ministry of Equipment and Transport. This Ministry includes two important technical directorates as far as employment is concerned; i) the Directorate of Maritime Affairs (Direction des Affaires Maritimes, DAM), which is in charge of training, rules governing working conditions and health and safety on board, and ii) 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 pensions. DAM runs the network of maritime education centres around France (see below). The Ministry of Equipment and Transport also has an important role in setting standards for training and certification. Another important player in the training framework is the Ministry for Social Affairs, which sets minimum standards for employment (e.g. the 36-hour working week, protection of under-18s) and implements the policy for continuous training of workers. Its overall mandate is to promote equal opportunities for all citizens. The role of this Ministry has been strengthened over the last presidency, and it is this Ministry which is in charge of implementing the various training reforms which form the basis of the response to the recruitment challenge in the fishing industry (see below).

The institutional representation of fishermen is enshrined in French law. The system is pyramidal or hierarchical. At the lowest level are Local Fisheries Committees spread along the coastline (39 in all, made up of two in the Northeast (Pas de Calais), 9 in Normandy (upper and lower), 11 in

Brittany, 10 down the Atlantic coast and 7 on Mediterranean coast). Each Local Fisheries Committee is under a Regional Fisheries Committee (one per administrative NUTS II region, based in the regional capitals). The Regional Fisheries Committee are in turn under a National Fisheries Committee based in Paris.

By law, the Fisheries Committee must be consulted by government about any measure or action affecting the sector (including training). On the ground, the Local and Regional Fisheries Committees deal with the local administrations while the National Fisheries Committees 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 (the *caisse chômage-intempérie* – see below).

It is compulsory for every person working in the fishing industry to be member of the National Fisheries Committee. Every 5 years, the Government organises elections at Local Fisheries Committees level. These elected members then nominate their representatives to the Regional and National Committees. The number of seats in these Committees is balanced so that there is equal representation for employees and business owners.

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

In addition to this institutional representation, there are number of unions and professional associations in the fishing industry. This includes labour unions and producer organisations (around 20 in France, structured into two national associations, one based in Paris with nationwide membership and one based in Quimper with mainly Breton membership). These two groups of organisations are also represented on the Fisheries Committees.

1.5.6 Netherlands

In terms of fisheries, public policy is the responsibility primarily of two ministries. The Ministry of Agriculture, Nature Management and Food Safety (MLNV) is responsible for the implementation of the Common Fisheries Policy, 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. 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 standards from an educational point of view.

There are three professional organisations which represent the interests of the fishing industry (specifically capture fisheries):

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

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

The Dutch Fish Board (Productschap Vis, DFB) is an umbrella organization, bringing together all the professional organisations in the fisheries sector: including marine and inland fishing, aquaculture, fish processing, wholesale and retail trade, etc. to promote the general interests of the

sectors as a whole. Within the DFB, various committees have been set up to address different topics of interest, including education and training.

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

1.5.7 Comparison

In all four countries, the institutional structure is fairly similar. Fisheries management and education is generally controlled at national level (working within the structure of the CFP), although in Spain it is sometimes devolved to regional level. However, in all four countries there is strong dialogue between the government and the industry as regards policy for management, regulation, education, safety etc. In France, this consultation is enshrined in legislation, and formalised via 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 and employees, business owners, processors, producer organisations etc. These links are covered by, for example, the Danish Fishermen's Association, the Dutch Fish Board, the Spanish National Association of Cofradías and the French National Fisheries Committee. In France, labour unions are also included in this structure. The fishermen's organisations at local level also include both fishermen and business owners.

Thus the structure exists in each country to establish industry-wide recruitment and educational initiatives at either the national or regional level. In Denmark, The Fisheries Circle has been established for precisely this purpose, and brings together fishermen's organisations, labour unions and educational institutes, with funding from government – an ideal structure for this kind of project. In the other countries, the network is not so well defined or (a key point) so well funded, but the Spanish Cofradía system, the Dutch Fish Board and the Fisheries Committees all bring together different parts of the industry to address concerns such as recruitment and education.

1.6 Wider Economic and Political Context

1.6.1 Denmark

Denmark has historically low unemployment rates of around 4% at present, comparing very favourably with the average for the euro-zone of ~8%. This means that most sectors are faced with labour shortages and recruitment problems, since when unemployment is this low, the pool of available labour often does not map well on to the requirements of employers, particularly in a small country (in population terms) such as Denmark.

In 2006, the 'Welfare Agreement' was passed, with the aim of increasing the labour supply through higher retirement age, adult education and special focus on first and second generation immigrants, who are still faced with a high unemployment rate. The labour shortage has also attracted foreign workers and companies, mostly from Poland, although not as yet much into the fishing industry.

More generally, Danish labour market policy is of a broadly 'free market' type, and aims 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 labour at short notice. To offset the social consequences of this policy, there is a comprehensive unemployment benefit system, conditional on membership of an unemployment fund, usually run by the labour unions. The fisheries sector to some extent suffers from this policy since it is somewhat different from the rest of the labour market. First of all it is seasonal in nature, and this seasonality is increasing due to fisheries regulations (quota shortages, limits to days at sea). Secondly, it is difficult to establish the number of hours worked when at sea as the basis for the allocation of unemployment benefits. Fishermen who are employees are entitled to some limited unemployment benefit when temporarily unemployed (due to lack of quota, weather etc.) but owner-operator fishermen are not entitled to any benefits since this is regarded as normal conditions for the job.

Politically, the fisheries sector wields significant influence in Denmark. It is economically relatively important (compared to most EU member states), particularly in certain areas. It also is regarded as culturally important by most Danes, who have a seagoing heritage stretching back to the Vikings and regard themselves very much as a maritime nation.

1.6.2 Spain

The Spanish economy has grown dramatically over the last two or three decades, with an associated increase in incomes and living standards for most Spaniards. At present, the labour market is in roughly an average situation for the euro-zone, with unemployment standing at around 8%, although it is significantly higher for the young (12%) and for women (11%) according to Spanish government figures (2006).

The social security system in Spain is run centrally by the national government (Labour and Social Affairs Ministry; Ministerio de Trabajo y Asuntos Sociales MTAS), rather than via labour unions as in Denmark. MTAS contains within it a legally distinct organisation called the Marine Social Institute (Instituto Social de la Marina, 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) 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 (compared to most EU member states), and is highly significant in a few areas, particularly in Galicia. This is important because government in Spain is highly devolved in the Autonomous Regions (areas considered culturally distinct); this includes Galicia. The Galician fishing industry is thus able to have a significant say in economic decisions taken largely at regional level.

1.6.3 France

The French labour market is based, at a policy level, less around the need for companies to have flexibility and more around the need to maintain security for individual workers (the French 'social model'). This means that the labour market is rather inflexible; it is expensive for companies to hire workers (because of high social payments) and both difficult and expensive to make workers redundant. This policy has been blamed, in part, for the rather high unemployment level in France (around 9%, compared to euro-zone average of ~8%, and higher among the young), since it acts as a disincentive to the expansion of businesses, although undoubtedly other

factors are also involved. As well as playing a role in maintaining relatively high unemployment, this policy does not work well in providing the economic benefits associated with high unemployment that might be seen if the labour market were more flexible; i.e. that it would be easy and cheap for companies (including fishing enterprises) to hire labour.

The government is now focused on trying to reform the labour market to make it a little more flexible. Results so far have been mixed (as witness the unpopularity of the proposed 'First Employment Contract' for young people, which made it easier for them to be fired but was rejected after widespread student protests). However, there have been reforms in the structure of vocational training with the aim of improving funding and making access easier throughout life; 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 actually particularly good. Due to the inherently seasonal and unpredictable nature of their work, fishermen are not eligible for state unemployment insurance. However, there is a social fund for the fishing industry, run by the Fisheries Committee, which protects fishermen specifically against unemployment related to bad weather (the bad-weather unemployment fund or *caisse chômage-intempérie*). 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 in the period used to calculate the amount of pension entitlement; only time spent at sea was included. This has now been reviewed, with new regulatory texts stating precisely what onshore activities can be taken into consideration.

From a political perspective, the fisheries sector is regarded as important because of its role in the economy of some coastal areas, particularly Brittany (which has both industrial and artisanal fleets), but also the Mediterranean coast (mainly artisanal); these are areas where there is little alternative employment. Perhaps more importantly, fisheries is regarded as important in the character of these coastal areas from the point of view of tourism; the economic activity which dominates many areas of France, particularly around the coast. The tourism industry in French coastal areas alone generates a turnover of more than 20,000 million euros, and France receives more foreign visitors than any other country.

1.6.4 Netherlands

The Dutch labour market, like the Danish, is very tight with a low unemployment rate of around 4% (the two countries jointly were lowest 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 ease of hiring and firing, with social problems eased by an efficient benefits system.

Crewmen (and officers) working on board the pelagic freezer trawlers are employees, and are thus paid salaries (sometimes with some additional incentives from the catch share), and are entitled to unemployment benefits. However, most crewmen working on board beam trawlers are self-employed. This means that they are not automatically entitled to unemployment benefits, but may voluntarily contribute to an insurance plan which will cover them in the case of loss of work through disability.

Unlike in many European countries, the sector does not have a political profile higher than would be expected from its limited economic importance. This is because i) there is not as strong a fishing tradition in the Netherlands as in, say, Scandinavia or Spain, ii) fisheries dependent areas (such as there are) are not particularly socially deprived by EU standards – in any case there is not a strong political tradition in the Netherlands of supporting industries perceived to be in decline,

iii) fisheries is not seen as contributing to more economically important sectors such as tourism, as in parts of France and iv) beam trawling in particular has been strongly portrayed in the Dutch media as environmentally damaging; the green movement is influential in the Netherlands relative to many EU countries.

1.6.5 Comparison

Labour market policy and employment: At a very broad brush level, we can divide the four countries into two groups; a 'northern European' group (Denmark, Netherlands) with a more free market, business-oriented approach and a 'southern' European group (France, Spain) with a more socially protective approach. In Denmark and the Netherlands it is generally easier for companies to hire and fire, and also somewhat easier to move between sectors. This should ease recruitment problems, but at present does not because unemployment rates are low in these two countries. In Spain and particularly in France, hiring and firing employees is more difficult and expensive, but unemployment is higher, particularly among the young, giving a wider pool from which to recruit. Overall, the labour market in Denmark and the Netherlands means that recruitment problems in the fishing industry (and related sectors) are highly likely at present, which in Spain and France, the explanation for such problems probably lies elsewhere.

Unemployment and pension provision: There are no strong differences in unemployment provision for fishermen between the four countries, except in details. 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' (e.g. as regards work on shore). These problems can also occur when attempting to assess the number of years worked for state pension provision. Fishermen who are self-employed generally are not entitled to benefits, with the exception of the poor weather fund in France, and 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.

Political importance of sector: Obviously this assessment is somewhat subjective, but fisheries issues seem to have more political significance in Spain and Denmark relative to France and the Netherlands; this is in line with the economic and cultural importance of the sector in each country. In all countries except the Netherlands (where there are no highly fisheries dependent regions) it is seen as important to support the industry in areas where there are few other opportunities. 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.

1.7 Comparative SWOT Analysis

The information presented above 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. Comparative SWOT analysis for capture fisheries in each country.

	Denmark	Spain	France	Netherlands
Strengths	<p>Strong institutional structure</p> <p>Cultural importance: economic support from govt.</p> <p>Strong national voice</p> <p>High wages</p> <p>Labour market flexibility</p> <p>Modern high tech. fleet</p>	<p>Diversified fleet</p> <p>Strong national market</p> <p>High quality of many products</p> <p>Strong political voice particularly at regional level (Galicia)</p>	<p>Diversified fleet</p> <p>Strong national market</p> <p>Strong national voice: legal requirement for consultation</p> <p>Relatively high wages</p>	<p>Pelagic fleet able to take advantage of global opportunities</p> <p>Relatively high wages, although declining in beam trawl fleet</p> <p>Labour market flexibility</p> <p>Good conditions onboard</p>
Weaknesses	<p>Dependence on declining stocks</p> <p>Severe CFP regulation</p> <p>Environmental image poor</p>	<p>Dependence on declining stocks</p> <p>Over-capacity</p> <p>Fleet aging and in poor condition; increased maintenance costs</p> <p>Poor conditions onboard</p> <p>Declining incomes</p>	<p>Dependence on declining stocks</p> <p>Over-capacity</p> <p>Inflexible labour market and training structure</p>	<p>Dependence on declining stocks</p> <p>Beam trawl fleet aging</p> <p>Over-capacity in beam trawl fleet</p> <p>Limited political clout of sector</p>
Opportunities	<p>Increasing prices for some species</p> <p>Competitive with other EU fleets</p> <p>Transferable quotas should increase efficiency</p>	<p>New third country fishing agreements</p> <p>Increased international mobility for employees</p>	<p>Improvements in funding and flexibility of training</p>	<p>New third country fishing agreements</p> <p>Increased international mobility for employees</p>
Threats	<p>Failure of stocks to recover; increasingly severe regulation (e.g. possible implementation of closed areas)</p> <p>Further increases in fuel prices</p> <p>More environmental regulation e.g. of industrial fisheries in relation to seabirds</p>	<p>Failure of stocks to recover; increasingly severe regulation (e.g. possible implementation of closed areas)</p> <p>Further increases in fuel prices</p> <p>Renegotiation of existing 3rd country fishing agreements</p>	<p>Failure of stocks to recover; increasingly severe regulation (e.g. possible implementation of closed areas)</p> <p>Further increases in fuel prices</p> <p>Non-EU regulation e.g. of tuna</p>	<p>Failure of stocks to recover; increasingly severe regulation (e.g. possible implementation of closed areas)</p> <p>Further increases in fuel</p> <p>Renegotiation of existing 3rd country fishing agreements</p> <p>Exchange rates impacting exports</p>

2. Recruitment Challenge

2.1 Denmark

As described above, one of the most important general aims of Danish labour market policy is to make it easy for workers to move from sectors of decline (such as fisheries) to growth industries (for example the pharmaceutical, biochemical and the wind power industries) – 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 multiple reasons for fishermen leaving the sector (aside from decommissioning of fishing vessels). Age and health-related problems tied to the hard physical work are important factors, as are uncertainties about the future due to declining resources and fishing opportunities. Perhaps the most important reason, however, is simply that it is rather easy for fishermen to leave the sector and find alternative employment. There is thus a lack of skilled labour in Danish fisheries, as well as an aging workforce. It is worth noting that since decommissioning of Danish vessels continues, the total requirement for crew is continually decreasing, although not (at present) at a rate which will ease crew shortages in the near future.

2.2 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 lack of manpower is generally not significant. Often, fishing activity is combined with a complementary activity ashore, and temporary manpower may rotate from one vessel to another according to the season.

Conversely, the larger, offshore vessels (pesca de altura and gran altura) need significant numbers of crew, with particular training requirements. These vessels are facing significant 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 faster than larger ones, this component of the fleet is declining more slowly than overall picture suggests). Recruitment problems are particularly acute in the deep sea fleet (gran altura; trips from 15 days to 6 months). Employment on these larger fishing vessels is becoming unpopular for reasons which seem quite intuitive: the job is hard work, with difficult conditions and often dangerous and long trips cause problems with family life. The conditions exist across all the fleets examined, but are particularly acute in Spain where the vessels are (on average) older and less technologically advanced than in the other three countries.

This perception (reality) of fisheries as a tough job then combines with declining wages (due to overcapacity and declining stocks), improvements in the Spanish social security system and economic development to give young people from fishing communities other options than fisheries. Generally, there is little encouragement from fishing parents for their children to go into fisheries. As well as this limited flow of young people into fisheries, there is also a flow away from fisheries, since fishermen, particularly those with qualifications (e.g. engineers) are finding it relatively easy to find well paid jobs ashore. The most chronic shortage of manpower is for skilled jobs such as Chief Engineer.

2.3 France

Again, the recruitment problem in French fisheries is less serious for small vessels, but acute for medium and larger vessels, particularly those making longer trips. The problem has become quite serious for many fishing companies, who have been lobbying government for some years to take action. In many cases, boats have been stuck in port because they lacked the minimum crew imposed by the legislation. The reasons behind this recruitment problem have been investigated by a National ad-hoc committee involving the private and public sectors. The findings of this committee point up the similar barriers to recruitment as elsewhere: i) a hard and difficult job, which is difficult to combine with family life; ii) insecurity, particularly as regards unemployment benefit and pension rights; and iii) isolation of the fisheries training system from other training systems making it difficult to enter or leave the profession.

In parallel, the image of the fisheries sector has deteriorated: overexploitation of stocks, difficulties in building new boats, security at sea, stagnation of quality of life, increase of international competition through imports and lack of young recruits are the elements that contribute to the current poor image of the job. This negative image dissuades young trainees from considering a career in fishing.

2.4 Netherlands

The recruitment challenge in the Netherlands is rather different in the two fleets (beam trawl vs. freezer trawl). We therefore consider these separately.

2.4.1 Beam trawl fleet

Despite the very substantial decrease in the size of the fleet, many vessels have been facing crew shortage problems in recent years. According to the Dutch Fish Board, the following factors seem to play an important role:

- 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 publicity regarding negative environmental effects and depletion of fish stocks.
- The income difference with other occupations on shore has become smaller, although incomes are still high relative to the national average, particularly for this type of job. By 2005 the nominal earnings per crewman were 12% lower than in 2001 (about 18% lower in real terms).
- Mobility has increased, allowing people from traditional fishing communities to commute to work somewhere else.
- The general 'mood' among fishermen and vessel owners is pessimistic due to continuing deterioration of economic performance, decreasing quota and, 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 is decreasing in size and is likely to continue to decrease. This is because it is likely that the TACs for sole and plaice will be reduced annually by 10-15% to allow stocks to recover, and there is already overcapacity in the fleet. By 2009 many of the larger vessels are expected to have withdrawn; these are the ones which depend most on hired crews.

Thus the recruitment problem in this fleet may be solved purely through this mechanism, unlike in, for example, Denmark, where the rate of loss of fishermen is greater than the rate of loss of vessels from the fleet.

2.4.2 Pelagic freezer trawler fleet

The freezer trawler fleet is presently operated by three companies and the entire crew is hired (i.e. unlike the beam trawlers, no-one working on board is an owner). There are around 15 vessels (2005 figures, see above) with a mean crew requirement of around 40, meaning that a total crew pool of around 600 people is needed for this fleet.

No precise figures are available on the composition of crew, which in any case probably alters from trip to trip. However, anecdotal information, from discussions with two vessel owners, suggests that a significant percentage of the deckhands are foreigners from a variety of countries, both inside and outside the EU (e.g. Russia).

The economic outlook of freezer trawlers seems better than for beam trawlers, for various reasons. Earnings on board are very good relative to the Dutch national average, and the nature of the work is more suitable for hiring foreign crews almost worldwide. Therefore, recruitment difficulties for crew arise for this fleet for broadly different reasons than for the beam trawl fleet; while the general perception of fishing as a difficult and unpleasant job remains, there is no issue of declining wages, and less pessimism about the future of the industry. However, balanced against that is the problem of hiring crew for the longer trips made by these vessels, which makes family life difficult. 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.

2.5 General Reasons for the Recruitment Challenge

The fisheries sector in all four countries faces a challenge as regards recruitment of 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. However, these vessels in general do not have major problems with recruitment (although they may have some). Rather, the largest difficulties are faced by the larger vessels, for two reasons: i) they require more crew and cannot rely on close family, and ii) they make longer trips, which is much more unpopular as a job choice, being inconvenient and difficult to combine with family life.

An interesting outcome of this study is that, contrary to expectations at the start of the study, 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, particularly for the largest vessels with the longest trips: these vessels are precisely the ones with the greatest recruitment difficulties. For example, the large Danish and Dutch pelagic vessels offer excellent salaries to crewmen (up to €60,000 / year) but still have significant recruitment problems. However, declining wages are certainly an issue in many fleets, and are an issue across the board in Spain.

Aside from these general observations, the reasons for the recruitment challenge in the fisheries sector vary somewhat from country to country. Broadly, in Denmark and the Netherlands, low unemployment, a flexible labour market and a good vocational training system means that young people have many employment options, even in areas which are highly fisheries dependent. In France, conversely, the inflexibility of the labour market and (relatively) high unemployment also acts as a hindrance to recruitment. Until recently it was difficult to break into fisheries unless

specific training options were chosen directly at secondary school level, and problems with pension entitlement and unemployment benefit means that fisheries is seen as an insecure employment option which is not attractive under difficult employment conditions. In Spain, the reasons for recruitment difficulties seem to be more straightforward; incomes in the sector have been declining, and in the less modern Spanish fleet, working on board is regarded as difficult, dangerous, unpleasant and hard. Parents are steering their children away from the sector. These factors also apply in the other countries, although perhaps to a lesser extent. Essentially fisheries does not have a good image as an employer, particularly in a climate when other opportunities are available, even if at lower wages.

3. Recruitment Measures

In each case, full details of the fisheries education system and all recruitment measures are given in the individual country reports. The situation is presented in summary form here so as to aid comparison between the selected Member States.

3.1 Summary of Recruitment Measures in Each Country

The innovative recruitment measures discussed in each country report are summarised in Table 5, which sets out the perceived problem they are tackling and the general objective of the initiatives, and summarises their activities, innovative aspects, successes and failures. This format facilitates cross-comparison of the measures in each of the four countries.

Table 5. Innovative recruitment measures identified in each country

	Denmark	Spain	France	Netherlands
Perceived problem addressed by measures	Poor public image of sector as employer; lack of knowledge about work in sector	Need to find new source of recruits	Lack of access to training; lack of flexibility for fisheries workers	Poor public image of sector as employer; lack of knowledge about work in sector
General objective of measures	To inform the public about fisheries and promote employment opportunities in the sector	i) To bring new recruits into the sector, either from Spain or abroad; ii) To provide employment for unemployed / poorly educated	To provide greater access to fisheries training throughout life, and greater flexibility in entering and leaving the sector	To inform the public about the maritime sector generally and promote employment opportunities (note: fisheries only a small component)
Nature of measures	Creation of educational materials, media campaigns	Training programmes, financial and administrative support for immigrants	Changes to the fisheries training system: recognition of qualifications, financial support for training	Creation of educational materials

Examples of innovative measures	i) Minna & Gunnar media campaign; ii) Educational materials from TFC: Holiday in Havneby, Fish on the Job, Good Guys and Great Girls; iii) Blue Certificate: well funded fisheries education with guaranteed apprenticeship	i) Embarcate: fisheries training project for the unemployed; ii) Sepya project: providing training and promotion for the long distance fleet; iii) Cofradía de Cambados projects bringing in immigrant workers	i) Creation of the Certificat d'Instruction Nautique; ii) funding of continuing training through FAF Pêche; iii) Recognition of alternative qualifications via the Valorisation des Acquis et de l'Expérience; iv) employment of young people through the Contrat de Professionnalisation	NB: fisheries only a small component i) Educational materials by Nederland Maritiem Land (NML): Water, men and work, Work@water, Sparkling education; ii) introduction of 'competence profiles' – more hands-on fisheries training
Organisations involved	TFC – coordinator of cross-sectoral network of organisations including government, industry and labour unions	i) CETMAR: public foundation plus large cross-sectoral network of organisations; ii) and iii) industry (ii: Vessel Owners Cooperative of Vigo, iii: individual Cofradía)	Adaptation of national training reforms to the fisheries sector by national government and Fisheries Committees (which include industry and employee representatives)	NML – network of organisations from across maritime sector; fisheries representative Dutch Fish Board
Innovative aspects of measures	Use of media and technology in sophisticated way; educational materials perceived as objective not promotional; education system well funded, emphasis on IT, guarantee of apprenticeship via Danish Fishermen's Association	Providing training and support tailored for needs of particular part of the sector; identify new sources of recruits	First steps towards fostering increased mobility and flexibility in fisheries labour market; recognition of need to provide training and access to fisheries employment throughout life rather than just when young	No particularly innovative components of these projects as far as the fisheries sector is concerned

Successes of measures	Increase in enrolment in fisheries education although direct link with projects cannot be made	Project produced new recruits who started to work onboard fishing vessels	Too early to say	Impossible to say: likely that effect on fisheries recruitment at best limited
Failures of measures	Difficult to compete in media with negative image of fisheries portrayed by environmental problems, overfishing, decommissioning etc.	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	See above	See above

3.2 Denmark

3.2.1 Fisheries Education

The cornerstone of Danish fisheries education is the Blue Certificate, which provides basic training in fisheries and is a stepping stone for further education within the industry. The Blue Certificate confers the right to sail as skipper of fishing vessels of up to 9 metres in length, or up to 15 metres if combined with certificates in ship and engine maintenance, radio operation and first aid. The Blue Certificate is obtained via a mixture of training at a technical college and practical experience as a fisherman, generally over 2 years. An apprenticeship place is guaranteed by the Danish Fishermen's Association.

After the Blue Certificate, there are two further stages: i) skills can be maintained and increased via various short courses, offered at different sites around Denmark, and ii) 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 Danish fisheries training is that it is highly subsidised by the state. Training is generally free, with the exception of the short courses which have a small participation fee (although benefits are available). Indeed, students following training for the Blue Certificate receive a grant, plus free accommodation, plus are paid as a crewmember during their apprenticeship periods on board, and thus have a significantly higher income than most students in further or higher education.

Another important point about the Danish system is that the path of progression from deckhand through to skipper is clear and obvious, and that the training required to progress is available to all at any point in their career, assuming they have sufficient experience to move on to the next stage.

3.2.2 Recruitment Measures: Marketing the Sector

Alongside this excellent education system has been strong marketing, mainly through The Fisheries Circle (TFC). Marketing has been both indirect (creating factual educational materials without links to the industry, such as Holiday in Havneby etc.) and direct (public awareness campaigns such as the Minna & Gunnar Campaign). They have succeeded in raising the sales of fish to Danish consumers and have paved the way for strengthening the recruitment effort. The effort has been successful because it targets students several times during their educational career, thus maintaining awareness, but it is not strongly commercial, and thus is perceived as trustworthy and useful by teachers. It is also fun, humorous, imaginative (using, for example, a variety of different media) and (last but not least) 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 simply does not permit us to make such direct connections. However, anecdotally, it seems as if the various recruitment initiatives (discussed in detail in the Danish country report) have been relatively successful in more or less maintaining the supply of manpower to the sector in the face of a strong labour market and many alternative job opportunities.

3.2.3 Related Projects: Making Fisheries a Better Employer

It is worth mentioning here projects such as Project Hanstholm which, while not directly related to fisheries recruitment, aim to make work on board a genuinely more attractive experience. Project Hanstholm was a three month project which aimed to reduce accidents and burnout in the fisheries industry and 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.

3.3 Spain

3.3.1 Fisheries Education

In Spain there are around 45 Fishing Schools around the coast that provide a formal education in the fisheries sector, from basic training through to more specialised advanced training (even up to higher level degree courses). Basic training takes 60 – 300 hours depending on the school and the options studied, and students can then progress (after a period of experience) to qualify as a coastal or offshore skipper or engineer. Courses are available online as well as on site in many cases, and are usually free of charge although not subsidised to the same extent as in Denmark (where grants, accommodation and transport costs are often provided as well as fees).

3.3.2 Recruitment Measures: Identifying New Sources of Recruits

Spanish recruitment initiatives generally aim to provide opportunities (training, paperwork, initial financial support) to recruit individuals into the sector from three main areas: i) immigrants, ii) long-term unemployed and unqualified and iii) women (note 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. Generally, the initiatives are striking for the number of different organisations involved, including (local or regional) government, fishermen's organisations, unions, educational institutes, research organisations etc.

These initiatives have been relatively successful in the short term, particularly with immigrants, although less so with 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 their initial success would suggest.

The initiatives have been focused to a very large extent in Galicia, the area in which around half of the Spanish fleet is based. It is obvious that there should be more concern about recruitment (and other sectoral problems) in this area than in others, but it is not immediately clear why this is the only area where such projects have been developed and implemented at any significant scale. It may well be a question of 'critical mass'; only in Galicia is there an environment where a broad spectrum of different organisations come together to focus on problems faced by the fishing industry. Having said that, initiatives exist in other areas (e.g. Andalucía, the Canary Islands) which provide alternative training for those working in fisheries who wish to move sideways into related industries such as maritime tourism. Perhaps only in Galicia is there sufficient optimism about the fishing industry that there are active efforts to recruit new crew.

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

3.4 France

3.4.1 Fisheries Education

The Directorate of Maritime Affairs runs a network of 12 professional maritime schools spread along the French coastline, a further four professional schools for the merchant navy, and the European Training Centre in Concarneau (Brittany). Both the Ministry of Agriculture and Fisheries and the Ministry of Equipment and Transport fund the maritime schools (staff costs and subsidies for equipment). Traditional French training in fisheries starts in these professional schools at secondary level (from 16 years old). The initial training course is free, 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 practical experience (time at sea) and periods of training ashore at the maritime schools.

This structure, as it was, led to a number of barriers to participation in the sectors, which have been identified as follows:

- It was difficult, if not impossible, for somebody with another degree to enter into 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.
- Lack of recognition of certificates between fisheries and related sectors means that as well as difficulties entering the profession, it was difficult to leave and find other employment using the same qualifications. This provided a further disincentive for entry into the sector.
- While higher training courses are free or subsidised, no salary is available during these training periods; this made participation difficult for fishermen with family commitments.

3.4.2 Recruitment Initiatives: Tackling Barriers to Participation

Recruitment measures taken by the fisheries sector in France have been of a different type to those in Denmark and Spain, There have not been well-defined projects or educational initiatives

designed to tackle the problem with specific target groups. However, there have been broader changes on a national level which have had the effect of allowing the fisheries sector to try and tackle the recruitment problem. These national measures, aimed at tackling unemployment have two key components: i) the right to training over an entire professional career, and ii) the promotion of mobility between sectors, on the grounds that some sectors were oversubscribed while others (such as fisheries) were facing manpower shortages.

The major challenge faced by the fishing industry was to adapt these general national measures to the specific requirements and challenges of the fishing 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 various structures which tackle the various barriers, identified above, to participating in fisheries education at initial and higher levels. These initiatives have included 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 (legally established at national level in 2004-5), and their success cannot be evaluated yet. However, it is certain that these kind of reforms are moving the sector in the right direction, towards greater labour market flexibility and increased life long training opportunities, and should broaden the pool of potential recruits for the sector significantly.

3.5 Netherlands

3.5.1 Fisheries Education

Fisheries education and training is presently provided at six colleges in the Netherlands, all but one of which are large vocational institutes covering a wide range of topics for students of secondary school age. Over recent years approximately 50-70 students have graduated per year with fisheries training, and about one third of the initial intake drop out (a high rate). As for the other countries, progress beyond this initial stage requires time at sea and periods of additional training. Courses are subsidised but no salary is paid.

3.5.2 Recruitment Measures: Not a National Priority

In the past 10 years there have been no specific initiatives in the Netherlands to promote fisheries education, except the flyer published by the Dutch Fish Board on fisheries education, which is distributed by DFB at various public occasions. The Foundation 'Netherlands Maritime Land' (NML) has taken several initiatives to promote education in maritime areas generally, however, these are not specific to fisheries, nor is fisheries an important component; the emphasis is strongly on maritime transport and ports. However, the Dutch Fish Board participates actively within NML and all the NML packages contain sections on fisheries. The programmes mainly started in 2004, and it is therefore still too early for its impact on fisheries recruitment to be assessed.

3.6 Comparison

3.6.1 Fisheries Education

The structure of fisheries education is similar in all four countries (unsurprisingly since there are EU regulations as regards minimum training for those working at sea, for health and safety reasons). Initial training is generally undertaken at secondary school level, in vocational colleges, is free and lasts around 2 years, full time, including periods of work experience or apprenticeship on board. This leads to a certificate which permits the trainee to work as a deckhand or (in the case of Denmark) as a skipper on a small coastal vessel. Further progress (to officer and skipper on larger vessels) requires minimum periods of experience plus further training. This further training is frequently also free, or subsidised, but generally no salary is provided, although costs (transport, accommodation) are covered in Denmark and are starting to be in France. In Spain, some technical training may be done via online courses, and 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 in Denmark).

3.6.2 Recruitment Measures

As discussed above, the recruitment problem in fisheries has slightly different root causes in each country, and the different types of measures which have identified above reflect these differences.

In Denmark and Netherlands, with a strong labour market and many attractive employment opportunities available to the young, there are two key challenges:

- i) The fisheries sector needs to appear attractive as a career option, not only financially but also in terms of job security, career development etc.
- ii) A career in fisheries needs to be easy to access, i.e. education and training need to be accessible and low cost.

The Danish sector has largely succeeded in these two elements, via a combination of a highly developed and subsidised fisheries education sector, a strong marketing campaign run by TFC and real investment in improving quality of life onboard. The Dutch sector, by contrast, has not been as successful in promoting the sector, largely because the level of subsidy available to the sector is lower; a reflection of its generally 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 fisheries 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 marketed better. In practice this would involve the modernisation of much of the fleet, but obviously this requires very significant financial investment by vessel-owners which is not proving possible in a period of economic difficulty for the industry.

The alternative option, taken up by the Spanish recruitment initiatives reviewed, is offer training and resources to people who are prepared to work on board, despite the difficult conditions. This means those who have few other options, hence the focus of Spanish initiatives on excluded groups such as long term unemployed, uneducated women and immigrants. These initiatives have been successful in the short-term, particularly as regards immigrants 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 usually leave the sector, and most last only one year or even less.

Recruitment initiatives in France have been occurring in a rather 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 the barriers to movement of people both into and out of the sector, so that fisheries employment is both more accessible and more flexible (and thus secure) as a career option. These initiatives are new and it is not possible to judge their success as yet.

3.7 Key Cross-Cutting Issues

In this section of the report, we address some of the key trans-national issues identified above in more detail. These are the issues that determine nature of the recruitment challenge and the success and failure of recruitment initiatives in the four countries. They are not presented according to any pre-conceived order of importance; clearly their relative importance is different in different situations.

3.7.1 Wages

In many fleets, wages are declining as landings diminish and costs rise, and this is certainly a factor in the recruitment problem in many cases, particularly in Spain, and particularly for smaller vessels. However, wages are not the sole driver for the recruitment problem in fisheries, or perhaps even the most important. Wages for crewmen on board the larger fishing vessels, particularly in the long-distance fleets, are often high, particularly when compared with employment of similar status and educational requirements. Nonetheless, these larger vessels still have difficulties, sometimes acute, in recruiting and retaining crew.

3.7.2 Financing for initiatives

The common factor that more than anything has determined the success (or partial success) of measures in Denmark and Spain has been the availability of significant financial resources to the sector in these two countries. This includes public sector funds, which in Spain have come above all from EU structural funds, while in Denmark they have come more from the national purse. It also includes resources from the industry itself which in both countries has been prepared to put money into initiatives to source and train new recruits and to promote the sector generally.

This greater availability of financial resources to the sector for recruitment to fishing, compared with France and the Netherlands, maps perfectly to the economic contribution of the sector (see Table 2), and thus to a large extent with its political profile. In addition, in both Denmark and Spain the political profile is strengthened for socio-cultural reasons. Note that the availability of EU funding to the Spanish sector is likely to have a limited life span due to the development of the Spanish economy and the eastwards expansion of EU membership.

3.7.3 Status of the Fleet

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

It is noticeable that the Spanish projects, while successful in the short term, fails to attract recruits long term, with most leaving after a year or less. This shows that it is pointless (in the long term) to invest funds in providing training, resources and support to bring recruits into the sector if work on board is genuinely unattractive. Thus perhaps the best investment that can be made to solve the recruitment problem in fisheries is actually an investment in modernising vessels,

introducing technology and IT onboard, developing high standards of health and safety, good food and living conditions etc. This has probably been a key factor in the success of fisheries education 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 very expensive, and is very difficult to achieve in some fleets in the current economic climate. This is particularly the case in the fleets which come under the CFP management regime, where TACs and quotas have been in decline, particularly for key species such as cod, haddock, plaice and herring. This generally means the medium sized vessels, which are among those with significant recruitment difficulties.

Thus although recruitment drives are important, if conditions on board are difficult, uncomfortable and dangerous, education and marketing are unlikely to improve recruitment into the fisheries sector in the long run, despite relatively good wages.

3.7.4 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 itself a network organisation, with participation from all the social players in the sector (local and national government, fishermen's organisations, labour unions, 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 (e.g. Embarcate, SEPYA; see Spanish national report for a full description and list of organisations involved). This has also played an important role in their success. However, the Spanish sector for the main part lacks a central organisation to manage and coordinate these networks, and reports some project management difficulties as a result.

In France, likewise, strong trans-sectoral networks exist, albeit with a more hierarchical structure. The role of the Fisheries Committees, particularly their legally mandated consultation with government on national fisheries policy, has probably played a strong role in developing the training reforms in the sector. In the Netherlands, by contrast, and despite the existence of the Dutch Fish Board, the sector is perhaps 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 them 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.

3.7.5 Access to Training

All EU member states have compulsory training requirements for work on board a fishing boat – all the countries surveyed had training structures in place. However training is easier to access in some cases than in others. There are three key issues here: i) access to training at all points in the career; ii) funding for training and living expenses during training and iii) logistics of fitting training around periods at sea.

Denmark, as ever, leads the way, with a very well funded and organised system, where fees are generally paid and living grants are available. Indeed, students undergoing fisheries education have higher incomes than most students due to payment during their apprenticeship. This high standard of living during training has formed a key component of the marketing campaign to

encourage recruitment into sector. Until recently, France has been at the other end of the spectrum, with limited funding for training (at least after the initial school-level period), problems accessing training later in life due to lack of salary, difficulties in fitting training periods around time at sea, failure to accrue state pension rights during time spent ashore on training etc. This all meant that significant investment was required for individual to enter fisheries from another career, or to enhance their qualifications once in the sector. However, this is all now changing.

3.7.6 Immigrant Labour

In Spain and Netherlands, the focus of attempts to tackle the recruitment problem in fisheries has been to a significant extent on the recruitment of immigrant labour. In Spain there has been direct investment by the industry to facilitate the employment of immigrants. In the Netherlands, the industry has been lobbying for the employment of immigrants in the sector to be made easier; this revolves particularly around the recognition of qualifications, particularly for officers. In France and Denmark, however, there has not been much emphasis on attracting foreign workers into the sector; it is interesting to ask why this difference should exist. As far as we can tell from this study, key issues seem to include the following:

- Is a ready pool of experienced immigrants available? In Spain, Latin America is a natural source, since there is a common language and (to some extent) 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 (thus) administrative problems to contend with.
- Administrative difficulties: In Spain the industry has provided support for gaining work permits etc. This should be easier with immigrants from new Member States of EU although restrictions still apply in many countries. Administrative difficulties are likely to be particularly acute in France where it can be 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 certainly as a problem anywhere that there is a significant pool of migrant labour in fisheries, particularly for officers. EU level ratification of the International Maritime Organisation standard for fisheries (STCW-F) would be helpful.

3.7.7 Transferability of Qualifications

An issue that applies to immigrant labour, but also more generally, is the transferability of qualifications. This is important in fleets which are quite international in their crew recruitment (e.g. many of the large, long-distance vessels) as discussed above. However, it also applies to movement between fisheries and other sectors at national level. For example, in France a significant barrier to recruitment has been the lack of ability to use a fisheries qualification to work 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 somewhat less rigidly defined by sector, (e.g. mobility between different maritime sectors is easier) but increasing mobility still further would be beneficial.

3.7.8 Marketing

Attempts to market the sector to potential recruits (mainly but not only schoolchildren) have been made in all four countries, albeit with somewhat different levels of determination and investment. They range from basic (attendance at recruitment fairs; France and the Netherlands) to

sophisticated (TFC in Denmark and Embarcate and other projects in Spain; NML in the Netherlands would be another example although not aimed at fisheries). It is very hard to evaluate the success of these kinds of marketing campaigns, since it is difficult to make a direct connection between, say, a stand at a recruitment fair and a crewman on a trawler three years later. However, there do seem to be a number of strategies which may contribute to their success:

- Direct marketing (e.g. 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 materials, if provided, should be perceived by teachers and education professionals as objective information not propaganda about the sector; i.e. their role is to inform, and (more subtly) present the sector in a generally positive light, rather than to recruit directly (this of course makes their impact very hard to evaluate);
- Imaginative, humorous campaigns using different media and with clever slogans (such as the Danish M&G campaign) are successful but are not cheap to produce.

3.7.9 Green Issues

Capture fisheries has increasingly, in perception and probably in reality, been in conflict with environmental issues. This arises in various ways: i) declining stocks, lack of sustainability of fisheries, concerns about 'fishing down the food web'; ii) the impact of bottom trawling on the environment in terms of habitat destruction ('clear felling in the sea'); iii) conflicts between pelagic fisheries and seabirds (e.g. breeding failure of many seabirds in 2006 blamed on sand eel captures by the industrial fishery), iv) the perceived failure of enforcement of environmental and management regulations in fisheries; and v) ethical issues with developing country fishing agreements in terms of local environmental damage, conflict with local livelihoods etc.

The political and media profile of green issues, particularly related to the sea, has been growing exponentially in Europe in recent years, and as a consequence, fisheries has an increasingly negative press. This is particularly true in the Netherlands, where the green lobby is strong and is not counteracted by any particular 'cultural' affinity with the fishing industry or any strong lobby from fisheries-dependent areas. Undoubtedly, these issues are real, and are (or should be) of significant concern to the industry. In particular, the industry urgently needs to address the issue of over-capacity in many fleets, and generally in the EU as a whole, which is vital from both an economic and an environmental point of view. If this problem is tackled, recruitment needs should decline in future years, and may even decline enough to meet supply without any further significant recruitment initiatives.

4. Conclusions

4.1 Short-term vs. Long-term Solutions

The solution for the recruitment challenge in EU fisheries may be different for the short term and the long term. In the short term, the pragmatic solution in many cases seems to be to facilitate the use of immigrant labour. This requires some financial and administrative support in many cases (as was provided in the case of the Spanish Cofradía de Cambados study), but is likely to be a cost effective solution. It is, however rather unsustainable in the long term, for two reasons: i) individual immigrants themselves often do not work in the sector for long (at least in the Spanish experience); and ii) as the economies of the new Member States develops with an injection of EU

Structural Funds, an important pool of immigrant labour is likely to dry up since people will be less interested in this type of employment and less likely to need to work overseas.

In the long term, therefore, a sustainable solution to this problem needs to address the fundamental issues which make the sector a relatively unattractive employer. 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, particularly in countries which have a strong economy and low unemployment. Some problems are inherent and cannot be overcome (e.g. periods away from home). Others require significant investment, for example in fleet modernisation; however the fleets that most require modernisation are those which are doing least well economically and therefore have fewest resources available for investment. Others can, and are being tackled; for example facilitating access to unemployment benefit and pension rights for fishermen to make the work more financially secure.

The long-term outlook of declining stocks and overcapacity in the sector is likely to mean that the majority of EU fishing fleets will continue to decline. Recovery in the long-term is likely to be contingent on the imposition of stringent management measures now, to allow stocks to rebuild – this means that in the short to medium term the outlook would be worse. In either case, recruitment needs are likely to continue to diminish. In this sense, the recruitment problem can be regarded as an opportunity because it means that restructuring and decommissioning have a lower impact in terms of unemployment.

4.2 Issues for Transferability to Other Member States

The four countries selected provide, between them, 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, and thus good lessons for those aiming to set up similar recruitment initiatives in these countries generally. The model that works best will depend on the key issues listed in the previous section (the general structural condition of the fleet and its most important resources, nature of labour market and training system, finance available for investment in recruitment programmes and the sector more generally, the nature of the pool of potential recruitment available, the development of cross-sectoral networks for project identification, development, management and financing).

The transferability of these examples to the new Member States of the EU is less clear at present, although it is likely that significant investment of structural funds and economic development will make them more relevant in the future. In any case, it is not clear that the fishing industries in the new Member States (which are significant e.g. in Poland and Latvia) face recruitment difficulties so much as problems of investment, modernisation and resource depletion. They 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 into other maritime employment; this is only speculation however.

Our study has highlighted the importance of having a flexible labour market and (particularly) a flexible training system, both for encouraging recruitment into the sector and for ensuring that those already working in the sector can progress (and thus are less likely to leave). This is also likely to apply at international level, and it is likely that a flexible labour market and training system for fisheries at EU level and beyond will benefit the sector in the long term. At the same time, it is appropriate that fisheries has rather a stringent training structure, with strong training requirements, since it is an occupation which can be difficult and dangerous. Thus a key element of this international labour market flexibility is likely to be an internationally recognised and

adopted system of training and qualifications for fishermen, both at deckhand level but particularly at officer level. This seems to be provided by the International Maritime Organisation's STCW-F structure, and it would certainly seem to be desirable that this be adopted and ratified at EU level.

4.3 Employment Flow into vs. out of Fisheries

It is striking, in comparing Sections 2 and 3 of the report, that for all the reported success of some recruitment initiatives we describe, there is a basic mismatch between the recruitment challenge faced by the industry in the EU, and the initiatives designed to tackle it in each country surveyed for this study.

Broadly, recruitment problems in a given sector can stem from two different issues: i) not enough new people entering the sector and ii) too many people leaving the sector. The recruitment initiatives analysed above (Section 3) generally aim to tackle the first problem by promoting the sector and encouraging and supporting people (generally young people but also others) in entering the sector. However, the assessment of the recruitment challenge (Section 2) suggests that it stems largely from the second factor; fishermen are leaving the sector. Thus the initiatives are on a fundamental level failing to match the basic problem. A long-term solution requires that stakeholders address the reasons as to why working fishermen are moving to other sectors, rather than simply focussing efforts to bring new people in, only to see them leave again.

Obviously, if this were easy, it would be already being done. The reasons why fishermen are leaving the sector are rooted in the deep structural problems with the sector as a whole and are unlikely to be addressed by projects such as marketing of the profession or improvements in training, useful though they are. The European fisheries sector is in a deep malaise which stems from the fact that too many vessels are chasing too few fish in an ecologically unsustainable way. Aside from the obvious environmental and ethical problems with this situation, it leaves most vessels in the fleet in an economically parlous situation, with little money available for investment and modernisation, and little interest by financial organisations in providing loans for investment to a sector so obviously in a bad economic situation. Until this basic underlying problem is addressed, recruitment difficulties with the sector are not likely to go away.