

International Co-operation in Oil Spill Response in European Waters

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Introduction

It is often observed after large oil spills that there is pressure to review and change the oil spill prevention and emergency response system. In recent years this was true following the SEA EMPRESS (1996) which resulted in a reorganisation of responsibilities in the UK, the ERIKA (1999) which resulted in new IMO rules on tanker standards and the BALTIC CARRIER (2001) which resulted in a HELCOM review of response techniques. It is also true of the PRESTIGE (2002) which has focused much attention in Europe on the availability of response resources for at sea containment and recovery.

The purpose of the following paper is to aid in the evaluation of response preparedness and available means in Europe. This is done by reviewing the different types of public and private organisations responsible for at-sea response, by providing the latest numbers of specialised and non-specialised oil-spill response vessels available to competent national authorities in Europe and by discussing the key role played by regional and sub-regional mutual-aid agreements.

The main conclusions that can be drawn from this review are the following:

- Although all 14 European countries considered here have clearly identified national competent authorities for at-sea oil spills, the organisations involved differ in infrastructure, historical background and legal remit.
- Though the nature of the government agencies involved in oil spill response at sea vary from one country to the next, only two have expectations that the shipowner should become involved in the response other than to compensate costs. In these two countries the competent national authorities, nonetheless, have their own resources, including oil spill response (OSR) vessels, to deal with spills should the need arise.
- Not all of the national competent authorities have dedicated, offshore oil spill response vessels at their immediate disposal. All 14 countries are, however, members of one or more bi- or multi-lateral agreements which, in the more active cases, facilitate the

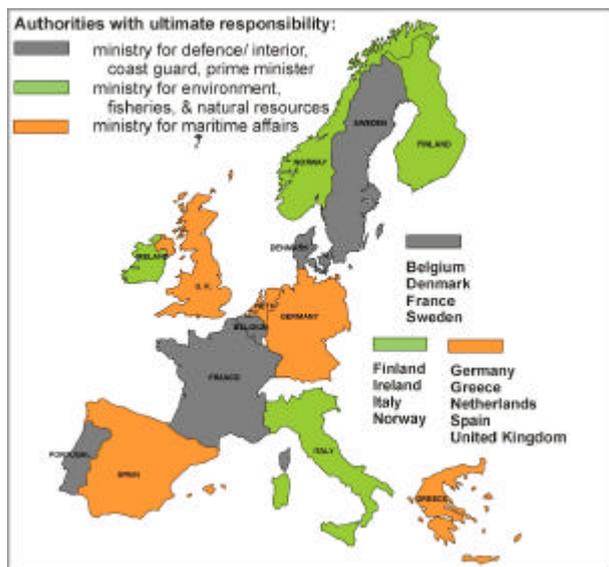
international sharing of vessels by exercising together and carrying out regular discussions of technical, administrative and financial matters.

- There are different approaches regarding the ownership, maintenance and provision of response vessels across the nations evaluated and
- Given the drive towards improving response capabilities following the recent large European spills which resulted in large shoreline contamination (specifically the ERIKA and PRESTIGE incidents) and given the large number of vessels that are already available in Europe, a clear step forward should be to promote international mutual assistance through more intense preparatory arrangements, especially organisational arrangements for combining resources into a single co-ordinated and collaborative response.

Lead Authority

All of the countries considered have a clearly-identified national competent authority which carries the ultimate responsibility for addressing marine oil spills. Map 1 below groups the 14 countries into three broad categories depending on the type of government department named as competent authority. The approach followed by Belgium, Denmark, France, and Sweden is to place the authority more or less with the ministry responsible for defence or internal security (e.g. navy, coastguard, interior or even prime minister). In Germany, Greece, the Netherlands, Spain and the United Kingdom, on the other hand, the competent national authority is a ministry associated with maritime affairs (e.g. transport, navigation, merchant marine). Finally, we see that in Finland, Ireland, Italy and Norway the competent authority is a ministry for the environment, fisheries or natural resources. Table 1 lists in more detail the competent national authorities.

Is there a reason for these differences and does it matter? In one sense the fact that different countries assign different types of ministries to the oil pollution task can be “explained” by just calling it a historical artefact of national politics. Germany, for instance has, across the board, a strong federalist system of politics that gives its Federal States above-average state power in all sorts of matters. The fact that this is also true for oil pollution response has little to do with the optimal organisation of such



Map 1: Authorities with ultimate responsibility for at-sea response in Europe

response. Therefore, it is perhaps more helpful to step back and answer the question why governments are involved in the first place. After all, since all of these countries are strong followers of the “polluter pays principle”, should it not follow, then, that the polluter should be responsible to address the problems arising from the spillage of “his” oil?

Table 1: Principal authorities in Europe for oil spill response at sea

Country	Government authorities with ultimate responsibility	Government authorities/ parties with operational responsibility
Belgium	Ministry of the Interior/ Civil Protection	Provincial Governor of West Flanders*
Denmark	Ministry of Defence	Royal Danish Navy
Finland	Ministry of Environment	Finnish Environment Institute* , Navy, Maritime Administration, FCG
France	Prime Minister/ General Secretariat of the Sea	Maritime Prefects for Channel/ North Sea, Atlantic and Mediterranean
Germany	Ministry of Transport/ Federal Board of Waterways and Navigation (WSV) Coastal states of Bremen, Hamburg, Niedersachsen, Mecklenburg-Vorpommern and Schleswig-Holstein	Central Command for Maritime Emergencies (CCME)
Greece	Ministry of Mercantile Marine/ Hellenic Coast Guard (HCG)/ Marine Environmental Protection Division (MEPD)	Hellenic Coast Guard EPE (private contractors sometimes instructed by HCG)
Ireland	Department of Communications, Marine and Natural Resources	Irish Coast Guard*
Italy	Ministry of Environment/ Dept. of Sea Defence, Dept. of Civil Protection	Castalia Ecolmar (private contractors for MoE)
Netherlands	Ministry of Transport, Public Works & Water Management/ Directorate-General Water Management (RWS)	Coast Guard, (joint venture of departments for: Transport & Water Management, Defence, Justice, Finance, Agriculture, Nature Management & Fisheries, and Home Affairs)
Norway	Ministry of Fisheries/ Norwegian Coastal Administration (NCA)	NCA and NOFO (Norwegian Clean Seas Association For Operating Companies)
Portugal	Navy/ Marine Pollution Response Department	Navy
Spain	Directorate General of the Merchant Navy (DGMM)/ SASEMAR	SASEMAR*
Sweden	Swedish Coast Guard	Swedish Coast Guard
United Kingdom	Maritime and Coastguard Agency's (MCA)/ Counter Pollution and Response (CPR) branch	MCA*

* does not own, charter or operate dedicated oil spill response vessels

Among other reasons, governments become involved in oil spills because it is in the best interest of their citizens for them to do so. While shipping and oil companies are becoming more environmentally aware than ever before, decades of experience have shown that no one can match the efficiency and dedication of “local” responders. Responders working in their home waters know the dangers, the sensitivities and the short cuts. Their equipment is located closer and is best suited to the local waters. Most importantly, local responders know each other and have practiced co-ordination of different tasks through years of joint training and

exercise. Given the global nature of shipping, then, the proven way for a government to ensure that response to accidental pollution is efficient, even when arising from ships that are just passing by their coasts, is to provide the service itself, or to have its own contractors in place to do the task (e.g. as in Italy) and then seek compensation from the polluter to pay for the response costs. In line with this approach, all of the 14 evaluated countries are signatories to the current international oil spill compensation conventions, namely the 1992 Civil Liability Convention and the 1992 Fund Convention.

However, because oil spills are so rare, none of the 14 countries have found it efficient to have an independent oil spill response department with fully-manned teams of dedicated staff and large, solely-dedicated oil spill response vessels. Instead, the most common and successful approach is to assign the oil spill preparation and response task to one or more already-existing government departments that has complementary resources, tasks or know-how. Sweden, for example, has a strong coastguard presence in its waters and so it is natural that the oil spill response task is assigned to it. Many of its spill response vessels are outfitted with state-of-the-art sweeping arms systems, yet also serve as fully functional coastguard patrol vessels. Denmark, on the other hand, has no coastguard *per se*, but rather a strong navy, so it is the navy that carries out the task. Its vessels are dedicated primarily to oil spill preparedness, but are also partially used as platforms for other work, such as water quality sampling. In Spain, the oil spill response task at sea is assigned to SASEMAR (under the Directorate General of the Merchant Navy) which is responsible for search and rescue and has an impressive network of watch towers and fleets of SAR vessels and helicopters. Similar explanations exist for most of the other countries as well.

Two countries in the group that differ slightly in approach are Norway and Greece. Like all other countries in the analysis, these two have clearly-identified national competent authorities who have the remit and resources to respond to spills in their waters (the Norwegian Coastal Administration in Norway and the Hellenic Coast Guard in Greece). Unlike the other countries, however, there exists in Norway and Greece an expectation that industry (be it ship owner in Greece or oil company in Norway) also should play a key role in response. In the case of Norway this situation arises from the fact that the offshore petroleum industry is strong – the country is one of the world’s primary offshore oil producers – and is expected to look after itself in all matters related to safety and the environment. It does this through an oil company response co-operative (Norwegian Clean Seas Association for Operating Companies, NOFO), that is funded by all 14 oil companies operating in the Norwegian sector of the North Sea oil fields. In Greece, on the other hand, it is the shipping industry that has a strong local presence. Since ships held by Greek owners far exceed all others in Greek waters, it is no surprise that most oil spill incidents arising from shipping in Greek waters are from Greek-owned vessels. For this reason, the authorities and local owners have, over the years, found it

most efficient to let response be organised by the local owners. For the remaining cases involving passing vessels, the Hellenic Coast Guard in Greece and the Norwegian Coastal Administration in Norway remain ready to respond with their own resources.

Another way to look at the leadership models used in Europe for at-sea response is to summarise by the degree of centralisation at the operational, rather than the political level. In other words, is there one response organisation that is mobilised for incidents throughout the entire country, is a more regional (i.e. decentralised) approach taken or, finally, is the oil spill response task shared jointly with industry?



Map 2: Operational Organisation in Europe

Map 2 summarises the results. Denmark, Finland, Ireland, Netherlands, Portugal, Spain, Sweden and the United Kingdom have operational units for at-sea response which are organised on a national level. The navy in Denmark and Portugal, the coastguard in Ireland, UK, Sweden, Finland, SASEMAR in Spain and RWS in Netherlands are all national organisations. Belgium, France and Germany, on the other hand, tend more towards a decentralised approach. In France the three maritime prefectures, though all under one national umbrella, have a great deal of autonomy. In Germany the five coastal

states have a relatively large role to play, though these have come together with the Federal Board of Waterways and Navigation (WSV) in a co-ordinating center, the Central Command for Maritime Emergencies (CCME). In Belgium it is the Provincial Governor of the single coastal state that has operational command during incidents. Finally, in Greece, Italy and Norway preparedness and response is to a larger degree jointly shared between private and public sectors, albeit in different ways in each of the three countries.

Vessels

Among the 14 evaluated countries there are six where the competent national authority (or one of its departments) owns and operates specialised oil spill response vessels. These countries include Denmark, Germany, Greece, Netherlands, Norway and Sweden. In Finland the competent authority supplies the oil spill equipment but relies entirely on vessels from other government departments. In France and Italy, on the other hand, the competent authority relies on charter agreements with private companies who provide the oil spill

response vessels. Countries where the competent authority does not have specialised oil spill response vessels at their immediate disposal include Belgium, Ireland, Portugal, Spain and the United Kingdom. In these countries any at sea resources would have to be non-specialised vessels (e.g. navy, ETV & SAR vessels, vessels of opportunity) or vessels from other countries. Map 3 below offers a visual representation of this point.

For the sake of convenience in comparison, one can look at three basic (though arbitrary) size classes of response vessels, those 20-40m in length, those from 40m to 80m and those greater than 80m. Table 2 and Map 4 below offer a ‘snapshot’ of the vessels currently available in Europe, including the vessels described above that are more or less under the direct control of the competent national authorities as well as oil spill response vessels from the private sector. The vessels considered here are either primarily dedicated to oil spill response or have this as a secondary role in addition to their primary role (e.g. dredgers, emergency towing vessels, research vessels). For the sake of clarity, the analysis differentiates between vessels which carry oil spill response equipment on board all the time (i.e. “specialised response vessels”) and those which do not.



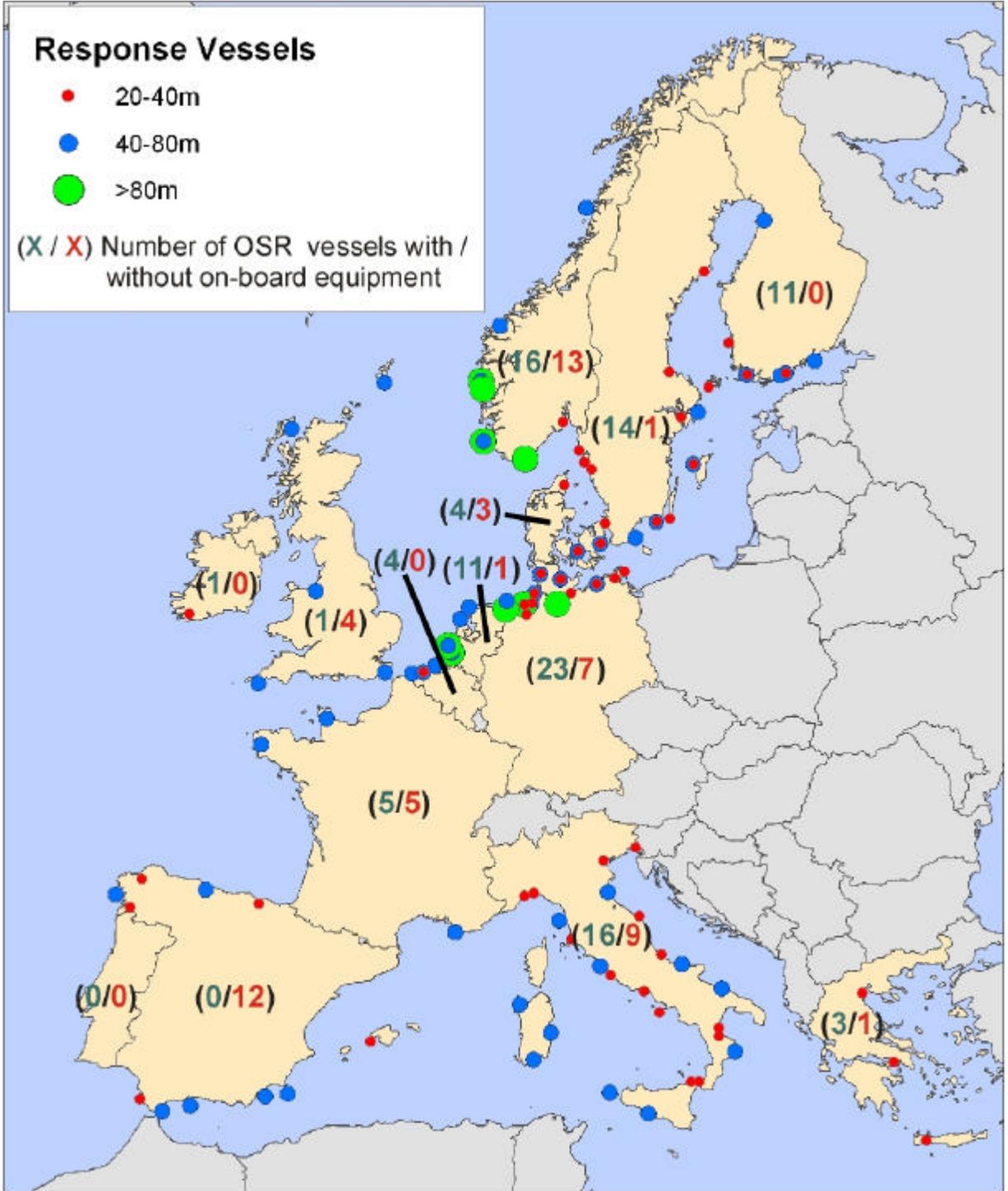
Map 3: Ownership models for OSR vessels available to national authorities in Europe

Table 2: Number of OSR vessels available

Country	Specialised response vessels				Non-specialised response vessels (no response equipment on board)				Total
	20-40m	40-80m	>80m	subtotal	20-40m	40-80m	>80m	subtotal	
Belgium	0	0	0	0	2	2	0	4	4
Denmark	2	2	0	4	3	0	0	3	7
Finland	6	5	0	11	0	0	0	0	11
France	0	5	0	5	0	5	0	5	10
Germany	11	10	2	23	6	0	1	7	30
Greece	3	0	0	3	1	0	0	1	4
Ireland	1	0	0	1	0	0	0	0	1
Italy	10	6	0	16	4	5	0	9	25
Netherlands	0	7	4	11	0	1	0	1	12
Norway	4	10	2	16	0	6	7	13	29
Portugal	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	6	6	0	12	12
Sweden	10	4	0	14	0	1	0	1	15
UK	0	1	0	1	0	4	0	4	5
Total	47	50	8	105	22	30	8	60	165

Navy, coastguard or other vessels which may very well be mobilised during an oil spill but which are not pre-assigned to such are not included. Likewise, other vessels of opportunity (e.g. supply vessels) are not included unless pre-contracted for spill response.

Map 4 enhances the information in Table 2 by showing the home base locations for the three basic size classes of response vessels included in this paper.



Map 4: OSR vessel location, sizes and numbers in 14 European countries

It should be noted that while the overall number of vessels available for oil spill response does not fluctuate much in the short or medium term, the individual vessels used do change as they are replaced or shifted from one location to another. This is particularly true for the smaller vessels, especially those less than 20m in length. There is also a tendency for smaller vessels to be under-reported in countries that have a number of larger vessels. For this reason they are not included in the analysis here.

The key characteristics of the European OSR vessel fleet are the following:

- (1) The 16 largest response vessels (>80m LOA) are all stationed around the North Sea. Of these, nine are in Norway, four are in the Netherlands and three are in Germany. The Norwegian vessels are all offshore supply vessels arranged through NOFO and either carry on-board oil spill response equipment (2 vessels) or are ready to divert to their home base and pick-up pre-packaged oil spill response equipment (7 vessels). Four of the seven vessels in this size category held by Germany and the Netherlands are dredging vessels adapted to oil spill response, one is an emergency towing vessel and the remaining two are multi-purpose response vessels. In general it seems true that the large size of these vessels is due more to the nature of their other roles than the need for such size during oil spill response. However, given the location of these vessels in the North Sea, the size may offer some advantage when riding out harsh weather, albeit between actual periods of containment and recovery activity.
- (2) Nearly half of the OSR vessel fleet considered here falls in the 40-80m category. These 80 vessels can be found in 11 of the 14 countries considered (i.e. in all but Greece, Ireland and Portugal). The greatest numbers of these vessels are found in Norway (16), Italy (11), Germany (10) and France (10). They include 16 supply vessels (mostly in France and Italy, but also the Netherlands), 14 emergency towing vessels or ETVs (in France, Netherlands, Spain, UK) and 50 multi-purpose vessels of different types. In this vessel size category, on-board oil spill response equipment is carried by 78% of the analysed multi-purpose vessels, by 56% of the supply vessels and by only 14% of the ETVs. The low figure for ETVs is understandable given their predominant role in preventing rather than recovering oil spills and the fact that they typically have limited storage space on deck that would interfere with towing operations.
- (3) The analysis includes 69 vessels in the 20-40m category. OSR vessels of this size can be found in 10 of the 14 countries (i.e. in all but Belgium, France, Netherlands and Portugal). The greatest numbers of these vessels are found in Germany (12), Sweden (10) and Italy (9). The vessel group includes 13 ETVs, five storage barges

and two supply vessels. All but five of the remaining 49 multi-purpose vessels carry oil spill response equipment on board.

International Co-operation

The picture that begins to emerge from this analysis is: (1) that there are a number of European countries that have extensive fleets of response vessels at their disposal (especially Finland, Germany, Italy, Netherlands, Norway, and Sweden), (2) that there are a couple of countries (i.e. Denmark and France) with an intermediate number of vessels and (3) that approximately half the countries have very few OSR vessels at the disposal of the national competent authorities - Belgium, Ireland, Portugal, Spain, and the UK each have one or no OSR vessels available with oil spill response equipment on board.

A more accurate picture of the situation in Europe is gained, however, by also taking into consideration the fact that all of the evaluated countries are bound closely together by a series of mutual-aid agreements for oil spill response. At the multi-lateral level these include:

- Helsinki Convention (Denmark, Finland, Germany, Norway and Sweden plus Russia, Poland, Estonia, Latvia and Lithuania)
- Bonn Agreement (Belgium, Denmark, France, Germany, Netherlands, Norway, Sweden and United Kingdom plus the European Community)
- Barcelona Convention (France, Greece, Italy and Spain plus the 12 other Mediterranean states and the European Community)
- Copenhagen Agreement (Denmark, Finland, Norway and Sweden plus Iceland)
- Lisbon Agreement¹ (France, Spain and Portugal plus Morocco).

In addition to this, 13 of the 14 considered countries are members of the European Union (all but Norway) and 12 have signed the OPRC convention (all but Portugal and Belgium). There are also numerous bi- and tri-lateral agreements between these countries and other European countries not included in this paper. There are, for example agreements between France and the UK in reference to the English Channel, between Finland and Russia in reference to the Gulf of Finland and many other agreements involving nearly all the considered countries.

The strength of these agreements can be partially observed by looking at the number of vessels that can potentially be pooled within each group. Table 3 groups the data introduced in Table 2 to show the minimum number of vessels available for oil spill response within

¹ Not yet in force

the member states to each agreement. It is the minimum number because it does not take into account vessels belonging to countries not included in this paper (e.g. Russia for HELCOM).

Table 3: OSR vessels available in countries

Country	Specialised response vessels				Non-specialised response vessels				Total
	20-40m	40-80m	>80m	subtotal	20-40m	40-80m	>80m	subtotal	
BARCELONA	13	11	0	24	11	16	0	27	51
BONN	27	39	8	74	11	19	8	38	112
COPENHAGEN	22	21	2	45	3	7	7	17	62
HELCOM	33	31	4	68	9	7	8	24	92
LISBON	0	5	0	5	6	11	0	17	22
OPRC	47	50	8	105	20	28	8	56	161

The results of Table 3 are reassuring – all the member states, for example, to the Barcelona Convention (51 vessels), Bonn Agreement (112 vessels), Copenhagen Agreement (62 vessels), and HELCOM (92 vessels) have relatively easy access to a broad fleet of response vessels of all size categories.

The true significance of mutual aid arrangements such as these is not the total number of vessels made available, but rather the way they enable preparation for co-operative response. Past experience, even in such recent cases as the ERIKA and PRESTIGE has repeatedly shown that it is not enough to simply mobilise all available resources to begin a successful international response. The discussion in the first sections of this paper should make it clear that there is a diversity in approach taken by European states to setting up their response systems and that this diversity reflects to some degree deeply-rooted characteristics of each state. In some states, for example, oil spill response is run by the military, in other states by environmental agencies and in still other countries by commercial firms. Therefore, in order to promote efficient international co-operation it is necessary for the competent national authorities (and their domestic response partners) to join together in ‘peace time’ and practice working together. International exercises help response teams learn to communicate (remember, there are some 13 principle languages spoken in the 14 countries considered!), test equipment compatibility and mutually understand the capabilities and limits of each other’s resources. By holding these exercises, meetings and workshops at regional and sub-regional levels, the likelihood is increased that teams that in the end will work with each other in the case of an incident also get to know each other in quieter times beforehand.

The results of the analysis of Table 3 do not apply equally to all of the countries included in this paper. The group of states involved in the yet-to-be-implemented Lisbon Agreement, for example, appear relatively weak with 22 vessels, only five of which carry oil spill response equipment on board. France and Spain are, of course, both members of the Barcelona Agreement and France is also a member of the Bonn Agreement. Portugal, on the other hand

has no other regional or sub-regional alliances to fall back upon. Ireland is in a similar situation as it is only an observer in one of the five multi-lateral agreements listed (i.e. Bonn Agreement). In terms of bi-lateral agreements it does have a draft agreement with the UK (another country with few vessels of its own).

Explanations could be made for the situation of these two countries or that of any other country in the group and arguments made to justify why changes might be needed. In any case, however, the path towards successful oil spill response in large incidents in European waters must include a commitment to support international co-operation of national response structures.

Conclusions

The paper shows that there are a significant number of oil spill response vessels in European waters. Each country has a different density and selection of response vessels on standby for oil spill response, but overall the coverage is impressive, especially when the mutual assistance agreements are taken into consideration.

When viewed from a national perspective, the authorities of several countries (i.e. Ireland, Greece, Portugal and the UK) have no dedicated, large oil spill response vessels in their control. Other vessels, such as ETVs or navy vessels would be available, but would require greater lead times to be outfitted with the correct spill response equipment.

However, given the close proximity of many of these countries to neighbours who do have vessels, the fact that there are a number of regional resource-sharing arrangements in place (e.g. Bonn Agreement, HELCOM), and the fact that not all countries have the same sea conditions, there is merit to the argument that not all countries must have their own fleets of large response vessels. Instead, the best path towards efficient at-sea response in European waters is to promote strong regional and sub-regional co-operation, especially through international exercises and continual discussion of logistical, administrative, financial and other matters.

In any offshore response to a major spill any one country will need to call on the assistance of others through one of the mutual-aid groupings. It has already been noted that there are three broad directions in approach take to the assignment of response task for at sea operations: military, civilian and commercial. In each of these categories the organisations concerned have different structures for command & control procedures. More importantly, there are quite different motivating forces at play in these diverse organisations. If we take this into account it is quite clear how difficult it would be to combine these resource efficiently in a single international at sea response operation without first developing mechanisms for regular practical exercise and discussion.