

### D3.4 Response in ports: good practices and main gaps report

### D3.6 Workshop report

WP 3: Study of the response in ports and identification of best practices and main gaps

Action 3.3: Lessons learned and best practices and Action 3.4: Workshop

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# Summary

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The IRA-MAR project for "improving the integrated response to pollution accident at sea and chemical risk in port" is co-funded by the European Union Civil Protection Mechanism and led by SG-Mer (France). The project aims to support Spain, France, Italy, Malta, Morocco, Portugal and Tunisia in improving preparedness for marine pollution events through an integrated approach to response, both at sea, on the shoreline and in ports.

The Work Package 3 of the project is dedicated to the study of the response in ports and identification of best practices and main gaps.

The aims are to investigating in ports to:

- collect information related to response organisation, emergency plans, decision support tools used, Human and material resources mobilised during the intervention (Action 3.1);
- Learn from past accidents that have resulted in accidental water pollution or threat (Action 3.2);
- Identify interesting experiences and good practices in terms of organisation, contingency plans, decision tools, response options, know-how and equipment that could usefully be exchanged between the different ports (Action 3.3);
- Organise an experience sharing and training workshop for port authorities concerned with traffic of hazardous goods (Action 3.4).

Based on the activity 3.1 (Survey in port – Deliverables D3.1 Questionnaire Survey and D3.2 Online questionnaire survey report) and action 3.2 (Study of selection of past accidents – Ref: D3.3 Accidents datasheets), this report (Deliverable D3.4) present good practices, areas of improvement and recommendations in terms of preparedness and response (Action 3.3).

These conclusions have been discussed and approved during the WP3 Workshop (Action 3.4) which was held in Marseille on the 24-25 January 2024 (See programme and attendance sheet in appendice 1).

## **Three main response organisational models have been identified:**

### 1. Internalization

- The response resources are provided by the port authority, which has a response team and a stock of equipment (e.g: Tangier Med)
- The response resources are provided by a shared pool of equipment (e.g: Rotterdam)

### 2. Externalization

- The response resources are provided by another institution through an agreement (e.g: Marseille)
- The response resources are provided by a subcontractor of the port, which is responsible for providing the necessary material and human resources (e.g: Antwerp)

### 3. Mixed

- Combination of the two systems (e.g: Malta)

**The following main strengths and good practices (☺) and weaknesses and points for improvement (☹) have been raised by different ports:**

Organisation and cooperation between stakeholders:

- ☺ *The environmental issues are increasingly taken into account in ports, even if this does not always concern the management of accidental pollution,*
- ☺ *The regulatory framework is well established and the roles of each party in the event of pollution, in particular that of the port authority, are well defined,*
- ☺ *Although there are many of them, stakeholders know each other well (port/local/regional/national authorities, port members, port users, experts, etc.),*
- ☺ *Links have already been established between stakeholders which facilitates communication and cooperation in the event of a pollution incident,*
- ☺ *Everyone knows who does what and their respective limits and constraints, in particular through the organisation of joint exercises,*
  
- ☹ *Few official spill reports are available, most of the information comes from the media and little technical data can be used to provide feedback and learn lessons.*
- ☹ *The regulatory framework and the scope of action is not well known by all the stakeholders and some of them don't know their responsibilities in pollution response,*
- ☹ *The response level approach (Tiers) is not always mastered or formalized, some ports have expressed difficulties in scaling-up the organization of the response and the transfer of the direction of the response operations to the higher levels,*
- ☹ *The handover between the different levels of responsibility and the interfaces between the different emergency plans are not always controlled,*
- ☹ *28% of the ports limit the exercise to port authorities which generates weak points in terms of communication, information exchange and cooperation between the different stakeholders inside and outside the port.*

Response plan:

- ☺ *The port authority has an emergency plan to prevent and combat oil & HNS marine pollution,*
- ☺ *This plan describes, among other things, incident management organisation, alert organisation and response strategies and resources,*
- ☺ *This plan is shared and known to all stakeholders,*
- ☺ *The scale-up of the organisation and the interfaces with other plans are well established (industrial emergency plans, local or regional response plan, national response plan),*
  
- ☹ *Plans are not kept up to date,*
- ☹ *Plans do not deal with HNS*

Equipment:

- ☺ *A stock of well-maintained equipment is available 24/24 from different players, or even pooled between them,*
- ☺ *Equipment is pre-located in high-risk areas,*
- ☺ *The equipment is regularly tested during exercises.*

- ☹ *Equipment is stored too far from the area most likely to be polluted, or in too small quantities, which increases response times, especially for Tier 2 and Tier 3 spills,*
- ☹ *Sometimes the equipment does not belong to the port or to the public authorities, which creates a high level of dependence on subcontractors,*
- ☹ *When they are present, the equipment available is not very diversified, which means that it is not always possible to adapt to the product encountered,*

Human resources:

- ☺ *The port authority has a disaster prevention and response team, available 24 hours a day, 7 days a week, for any reconnaissance, assessment or prevention or response intervention.*
- or
- ☺ *Response is entrusted to a specialist response company available 24 hours a day, with trained personnel and a wide range of anti-pollution equipment AND this sub-contractor is regularly audited,*
  - ☺ *The response teams are motivated and trained regularly, the staff is experienced and know the area very well.*
- ☹ *Lack of staff, especially permanently trained responders,*
  - ☹ *A lack of training or a lack of diversity in the scenarios that the team is preparing to deal with,*
  - ☹ *Subcontractors whose level of preparation is insufficient when they are called upon.*

Information and Expertise:

- ☺ *Port is well supported and has a marine pollution response and technical assistance agreement which covers training, the organization of exercises, the audit of sub-contractors, etc.*
- ☹ *In several countries, ports had not properly identified the sources of information and expertise available to help them to be better prepared.*

Response:

- ☺ *Oil spill response techniques are known and mastered,*
  - ☺ *The port has a pollution response technical assistance agreement which covers remote and on-site response in the event of pollution.*
- ☹ *Policy on the use of dispersants not well established*
  - ☹ *Decision-support systems are not yet widespread enough*
  - ☹ *Products (HNS) are not always well known,*
  - ☹ *Response strategies not always adapted to the product,*
  - ☹ *Difficulties in setting up a complete waste management chain,*
  - ☹ *Difficulties to implement the supply chain linked to the insular nature of certain ports.*

The workshop organised in January 2024 to share the experiences of the ports of Tangier Med, Marseille and Malta and discuss the results of the study led to the adoption of the following final recommendations:

**Recommendations:**

*All ports with dangerous goods transit should be equipped with an information system.*

*Organise Ports incidents reporting and experience sharing, at national and international levels.*

*The regulatory framework needs to be better known and the various actors should have the same interpretation of their respective obligations in the event of pollution.*

*Adopt a holistic approach to strengthen cooperation between all stakeholders. They should be early identified and involved in the response preparedness process of the port authorities: common training, exercises, etc.*

*Prepare response plans with indicative limits for the extent of pollution between the different levels of intervention (Tiers) and formalize the interfaces between the various plans (industry, port, local/regional/national authorities, etc.) and information sharing. Include the “port of refuge” scenario.*

*Better adapt the stock of equipment to the products transiting through each port, particularly chemicals and new fuels.*

*Train and exercise the different teams and actors together, in a variety of scenarios, including chemical pollution, and audit subcontractors to check their competence. These training should mix operational and table top exercises and incident management considering that they have different focus and objective.*

*Reinforce communication with ports on the resources, tools, services and expertise available to assist them in their preparation and in case of spill.*

*Integrate ports more effectively into maritime accident / civil protection projects*

*Establish, or remind ports, in each country, of a policy for the use of dispersants in port areas.*

*The management of the different types of waste that may be generated by pollution should be addressed in emergency plans and tested during exercises.*

*Strengthen response capacity for non-oil spills in the ports, notably for new fuels and HNS: Training / Exercises, Raising awareness of existing tools (DSS, databases, manual...in particular those developed as part of European projects), Contingency planning, Adapted equipment (PPE.....), and strengthen cooperation with civil protection and fire brigade.*

*These recommendations are addressed to the national port authorities and should be translated into an action plan adapted to each context. These recommendations are the result of an overall analysis of the situation in the 85 ports in the 14 countries that took part in the study. For each country, a summary of the responses given by the ports in its territory is available in part 8 of this report.*

**Index**

- 1) Introduction..... 8
- 2) Reminder of the key findings of the survey ..... 10
- 3) General considerations ..... 13
  - 3.1) Goods traffic information..... 13
  - 3.2) Past incidents information ..... 13
- 4) Preparedness..... 14
  - 4.1) Regulatory framework and responsibility of the actors ..... 14
  - 4.2) Tiered preparedness and response organisation..... 14
  - 4.3) Knowledge and collaboration between different stakeholders ..... 15
  - 4.4) Contingency plans ..... 17
  - 4.5) Equipment stockpiles ..... 18
  - 4.6) Human resources ..... 19
  - 4.7) Information and Expertise..... 21
- 5) Response ..... 23
  - 5.1) Pollutants ..... 23
  - 5.2) Response strategies ..... 23
  - 5.3) Waste management..... 24
  - 5.4) Expertise..... 24
- 6) Main organisations adopted in ports to deal with accidental spill. .... 25
  - 6.1) Internalization ..... 25
  - 6.2) Externalization..... 25
  - 6.3) Mixed organization ..... 26
  - 6.4) Role of civil protection and firefighters ..... 26
- 7) Conclusion / Final recommendations..... 27
- 8) National datasheets ..... 29
- 9) Appendices ..... 58
  - Appendice 1: Closing event & Work Package 3 workshop programme and attendance sheet..... 59
  - Appendice 2: Presentation of Tangier Med, Marseille and Malta ports spill response organisation68

## 1) Introduction

The IRA-MAR project for "improving the integrated response to pollution accident at sea and chemical risk in port" is co-funded by the European Union Civil Protection Mechanism of DG-ECHO and led by SG-Mer (France). The project aims to support Spain, France, Italy, Malta, Morocco, Portugal and Tunisia in improving preparedness for marine pollution events through an integrated approach to response, both at sea, on the shoreline and in ports.

The Work Package 3 of the project is dedicated to the study of the response in ports and identification of best practices to be shared as well as main gaps and improvement actions to be developed in potential future projects.

The Activity 3.1 included an online survey (IRAMAR deliverable *D3.1 Online questionnaire survey*) and a number of interviews, which aim was to gather information on preparedness and response to accidental pollution in ports. The main results of this activity are presented in the IRAMAR deliverable *D3.2 Online questionnaire survey report*.

The Activity 3.2 was the study of a selection of past accidents in the port area in order to draw lessons and recommendations. Each of the accidents studied was the subject of a data sheet summarising the information collected by the Cedre documentation center. The accident data sheets have been compiled in the IRAMAR deliverable *D3.3 Accidents datasheets*.

Activities 3.1 and 3.2 were supplemented by exchanges with certain ports (Antwerp-Brugge, Marseille, Rotterdam, Tangier Med) and certain national authorities (France, Malta, Morocco, Spain).

The Activity 3.3 was the identification of interesting experiences and good practices in terms of organisation, contingency plans, decision tools, response options, know-how and equipment that could usefully be exchanged between the different ports and national port authorities.

Finally, the Activity 3.4 was a workshop to share and confirm the results obtained and to approve a number of recommendations (IRAMAR deliverable *D3.5 Closing event & Work Package 3 workshop programme, 24-25 January 2024*)

This report corresponds to the IRAMAR deliverable *D3.4 Good practices report* and *D3.6 Workshop report*. It seemed more appropriate to present in a single report both the results of the study of pollution response in ports and the conclusions of the workshop for the national port authorities of the project's target countries, at the end of which recommendations for the future were adopted. These recommendations are the result of an overall analysis of the situation in the 85 ports in the 14 countries that took part in the study.

This report is also based on Cedre's experience and in particular on the lessons learnt from accidents in port areas or audits in which it has been involved.

This report will start with a reminder of key findings of the survey. Next, two considerations concerning the information available on hazardous materials transiting through ports and on



accidental pollution will be addressed. We will then analyse the results of the study in terms of preparedness through 6 themes: knowledge of the legal framework, organisation of response levels, involvement of stakeholders, contingency plans, equipment stockpiles, preparation of human resources, and access to information and expertise. We will do the same for the response, looking in particular at the capacity of ports to adapt to the pollutant encountered, the response strategies adopted, waste management and access to operational information, response assistance tools and expertise. A chapter will then review the three main ways of organising response resources identified in the study ports, illustrating them with case studies. All of this analysis will be punctuated by point-by-point recommendations.

The report concludes with 12 main recommendations addressed to the national port authorities and should be translated into an action plan adapted to each context. For each country, a summary of the main results is given in the form of factsheets, which can be found in the last part of this report.

The appendices contain information on the workshop organised in Marseille in January 2024 (programme, participants and presentation of the organisation of 3 ports).

## 2) Reminder of the key findings of the survey

The survey was circulated to national port authorities through the secretariats of regional agreements (RAMOGE, Bonn Agreement, REMPEC) as well as DG ECHO network and EMSA.

Overall, 85 responses (77 seaports and 8 inland ports) out of 111 were considered usable. A total of 14 countries answered: Belgium (1), Bulgaria (1), Finland (9), France (16), Germany (1), Italy (2), Malta (2), Monaco (1), Morocco (4), the Netherlands (1), Portugal (1), Spain (5), Tunisia (2) and the United Kingdom (39).

Almost half (48%) of the respondents were harbour masters or their deputies. 15% of responses came from various HSEQ<sup>1</sup> entities, in particular environmental or safety managers. 17% are marine operations managers. The remaining 15% were experts, managers and even pilots.

These ports cover all dangerous goods likely to be transported: bulk products, in solid form (IMSBC<sup>2</sup> code) in 65% of cases or in liquid form (IBC<sup>3</sup> code) in 59% of cases. Refined petroleum and containers (IMDG<sup>4</sup> code) are present in around half the ports (53% and 46% respectively). Other goods are less represented, such as crude oil (in 26% of ports), and gases (IGC<sup>5</sup> code) in 32% of ports.

Only 48% have an information system that enables them to know the nature and quantity of hazardous substances passing through the port.

48% of ports have already had to deal with an oil or chemical spill. The main pollutants cited were:

- Crude oil, Distillate, Diesel oil, IFO and HFO, Lubricate and Hydraulic oil,
- Bilge water,
- Biofuel, Biodiesel, FAME (Fatty Acid Methyl Esters),
- Palm oil,
- Styrene, Ammonia
- and Various IMO classes carried in lorries.

NB : We can add that according to Cedre's database, around one third of spills recorded for the period 1998-2018 occurred in port waters. In the vast majority of cases, these incidents involve oil. The quantities spilled are relatively low, with a median of around 10 m<sup>3</sup> and approximately 15 % of such spills in excess of 100 m<sup>3</sup>.

Overall, 85% of ports have an emergency plan. Just over a third concern both oil and chemical spills (38%), almost half of these concern only oil spills (46 %).

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<sup>1</sup> Health, Safety, Environment, Quality

<sup>2</sup> International Maritime Solid Bulk Cargoes Code

<sup>3</sup> International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

<sup>4</sup> The International Maritime Dangerous Goods

<sup>5</sup> International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk

In three quarters of ports, teams are regularly trained and certified. Among the ports that replied yes, 38% train at least once a year, 23% less than once a year and 39% of ports did not give details of the frequency of certification and training.

The major part (84%) of the ports organise exercises regularly. Among them, 28% of them limit the exercise to port authorities but 70% extend to other port's stakeholder or wider. Small-scale exercises are usually planned on an annual basis, while large-scale exercises are organised every 2 or 3 years. Of the 71 ports that organise exercises, 69 organise practical exercises (equipment deployment), 55 organise table-top exercises and only 46 organise Incident Management exercises.

A large number of responders are likely to work together in the event of a spill, depending on the circumstances and the scale of the incident. In some countries, a specialised organisation is in charge of the response. The survey shows that the people most often in charge of the response are port personnel (64 ports) or port operator / concessionaire (42 cases). Civil protection and private companies contracted by the port intervene in the same proportion, respectively in 33 and 34 ports (38%). The polluter (when known), or its sub-contractor can also be in charge of the response. In some cases, the navy or coastguard are also involved.

Even if the practical arrangements and entities vary from one country to another, pollution response is directed by the port authority within the port perimeter and by a maritime authority (Maritime or Transport Administration, coastguard, etc.) or land authority (municipality, local government representative, civil protection, etc.) as soon as the pollution has left the port water body or reached the coastline outside the port.

Ports use a variety of strategies to coordinate with other stakeholders in the case of incidents. The most common way, in 47 cases, is to use the same contingency plan: the port emergency plan has been distributed to all stakeholders and is binding on all. The regular transmission of information is also often mentioned (46 cases). The various entities can be brought together in the same crisis unit or use liaison officers. Sharing a logbook is a relatively minor procedure. Other tools as applications and social networks have also been sometimes mentioned.

The main response strategy is containment and recovery. The containment is done by using booms and sorbents. The recovery is done by using sorbents, skimmers or vacuum trucks. The dispersion is more rarely used. It is done mechanically by mixing pollutant and water with boats (24 ports) or, in few cases (12 ports), chemically by using dispersant.

Nowadays, the vast majority of ports have equipment available or accessible. Here it's 94% of ports that can provide their own equipment if required. This equipment may belong to several entities, most of whom are port authorities (in 61 ports). A smaller proportion belongs to operators/concessionaires (36 ports) and a minority is available in industrial firms or ports subcontractor (16 and 17 cases respectively). Some ports also mentioned oil industry/port authority joined paid pool of equipment. They may also belong to local fire brigades, specific organisations or coastguards.

The main equipment stored in ports is oil PPE (overalls, boots, masks, helmets, gloves, goggles...) and containment (floating booms), recovery (sorbents, skimmers and pumps) and waste storage

capacities (IBC, tanks), in line with the above-mentioned main response strategy. Only few ports mentioned chemicals PPE or spill kit.

The use of decision support systems and incident management system is not yet widely spread, with only 35% of respondents using them in their ports. Furthermore, more than a quarter (27%) gave no answer to this question.

The systems used can be of different kinds: databases, modelling software, mapping software. They are all used in fairly similar proportions, with 13, 10 and 11 ports using them respectively.

### 3) General considerations

#### 3.1) Goods traffic information

Among the ports surveyed, only 41 ports (48%) have an information system that enables them to know the nature and quantity of hazardous substances passing through the port. This can be done using a variety of software programmes or websites, available on the market or developed specifically for a country or even a port.

Of these 41 ports, only 17 share this information with other stakeholders. Only 10 ports (12%) were willing to share their information as part of the IRAMAR project.

**Recommendation:** *All ports through which dangerous goods transit should be equipped with an information system.*

Such an information system will be compulsory in EU ports from 2025: [Regulation \(EU\) 2019/1239](#) establishing a European Maritime Single Window environment (EMSWe). The main aim of the EMSWe Regulation is to lay down harmonised rules for the provision of the information that is required for port calls, in particular by ensuring that the same data sets can be reported to each Maritime National Single Window in the same way. This Regulation also aims to facilitate the transmission of information between declarants, relevant authorities and the providers of port services in the port of call, and other Member States.

#### 3.2) Past incidents information

41 ports (48%) have already had to deal with an oil or chemical spill. Only 10 ports (12%) were willing to share their pollution report as part of the IRAMAR project. When looking for information on port pollution around the world, we have also been confronted with this difficulty: few official reports are available, most of the information comes from the media and little technical data can be used to provide feedback and learn lessons.

**Recommendation:** *Organise Ports incidents reporting and experience sharing, at national and international levels*

The results of an analysis of vessel accidents in Mediterranean and worldwide port areas developed within the framework of the project ISY PORT (Integrated SYstem for navigation risk mitigation in PORTs) <https://www.isyport.com/>, showed that of the 13846 ship accidents identified in the database, 2799 took place in port area. (Massimiliano Marino et al, New frontiers in the risk assessment of ship collision, in Ocean Engineering, Volume 274, 15 April 2023, Pages 113999). There is no information on any pollution caused, but the high proportion of accidents in port areas underlines the potentially significant contribution of such accidents in terms of feedback.

## 4) Preparedness

### 4.1) Regulatory framework and responsibility of the actors

Ports host many and diverse activities on their land and water spaces and are an important interface between many sectors of activity and stakeholders. As a result, there may be a large body of legislation governing the prevention and management of disasters and their consequences in the harbours administrative perimeter. These texts define the organisational framework within which the various players must work to prevent and combat incident, included accidental pollution.

Such spills vary greatly in origin and type. They can result from incidents caused by:

- vessels: spill during bunkering, engine room bilge water discharge, hydraulic fluid loss, collision, fire, etc.;
- port facilities: fueling station, careening area, pipes, storage facilities, water networks, backfill, etc.;
- activities of port users and operators: sea professionals, pleasure boaters, shipyard, terminal, industrial company, etc.;
- upstream contamination: port outfall, faulty facility, industrial wasteland, etc.;

In this context, the division of the various responsibilities and actions in case between all the actors in case of incident is sometimes complex, even if the general scheme is based first and foremost on the obligation of the polluter, the operator or the port concessionaire to intervene, then, if the scale of the disaster justifies it, the reinforcement of the resources available to the port authority, or even to the local/regional/national authorities.

- ⊗ However, in both exercise and actual pollution situations, it has become apparent that the regulatory framework and the scope of action of certain actors are sometimes poorly known.

**Recommendation:** *The regulatory framework needs to be better known and the various actors should have the same interpretation of their respective obligations in the event of pollution.*

### 4.2) Tiered preparedness and response organisation

In many ports, the first answer is in the hands of the "polluter", e.g. a ship, an industrial site, a terminal operator, etc. If this first level of response is insufficient due to the scale of the pollution or a lack of resources, the port authority takes over and mobilizes the resources at its disposal. If the pollution leaves the perimeter of the port or exceeds its response capacity, the local, regional or national authorities take over.

In other ports, the organisation is sometimes simplified by the fact that the resources available to level 1 (the polluter) and level 2 (the port) are the same, for example a private fire brigade unit at the port (e.g. Tangier) or the same subcontractor (e.g. Antwerp). In this case, regardless of the level of 1

or 2 of pollution, the stakeholders are the same and the organization of the anti-pollution response is facilitated.

- ☹ Some ports have expressed difficulties in scaling-up the organization of the response and the transfer of the direction of the response operations to the higher levels. The handover between the different levels of responsibility and the interfaces between the different emergency plans are not always controlled.

**Recommendation:** A tiered preparedness with Indicative limits for the extent of pollution between the different levels of intervention should be defined in each port, according to its context.

A good way to organize the response is to adapt in the harbour the tiered approach adopted by the oil industry.

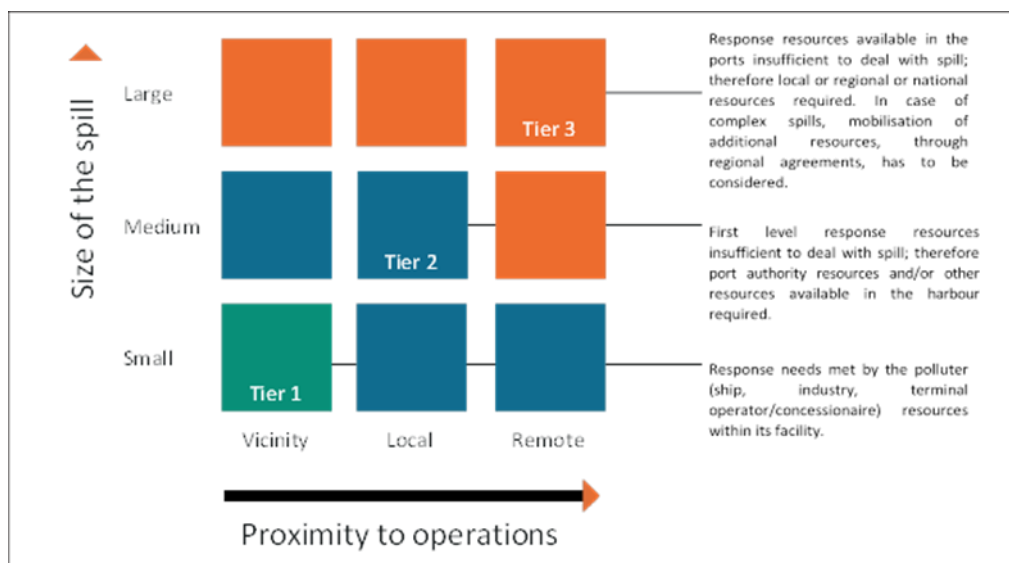


Figure 1: IPIECA tiered preparedness and response adapted to harbour context

#### 4.3) Knowledge and collaboration between different stakeholders

One of the characteristics that emerge from the analysis of past accidents is the great diversity of stakeholders involved in port pollution. The figure below presents the main stakeholders involved in the preparedness process and HNS spill response (WestMoPoCo HNS response manual).

Several comments on this point were noted in the replies to the questionnaire to highlight the fact that:

- ☺ Although there are many of them, stakeholders know each other well (port/local/regional/national authorities, port members, port users, experts, etc.),
- ☺ Links have already been established which facilitates communication and cooperation in the event of a pollution incident and at the end,
- ☺ Everyone knows who does what and their respective limits and constraints,

- ☺ This mutual knowledge is facilitated by the organisation of joint exercises. Among the ports that carry out exercises, 70% extend to other port's stakeholder or even wider to local/regional or national maritime and civil protection authorities.
- ☹ On the other hand, 28% of the ports limit the exercise to port authorities which generates weak points in terms of communication, information exchange and cooperation between the different stakeholders inside and outside the port.

**Recommendation:** A holistic approach should be adopted to strengthen cooperation between all stakeholders. They should be early identified and involved in the response preparedness process of the port authorities.

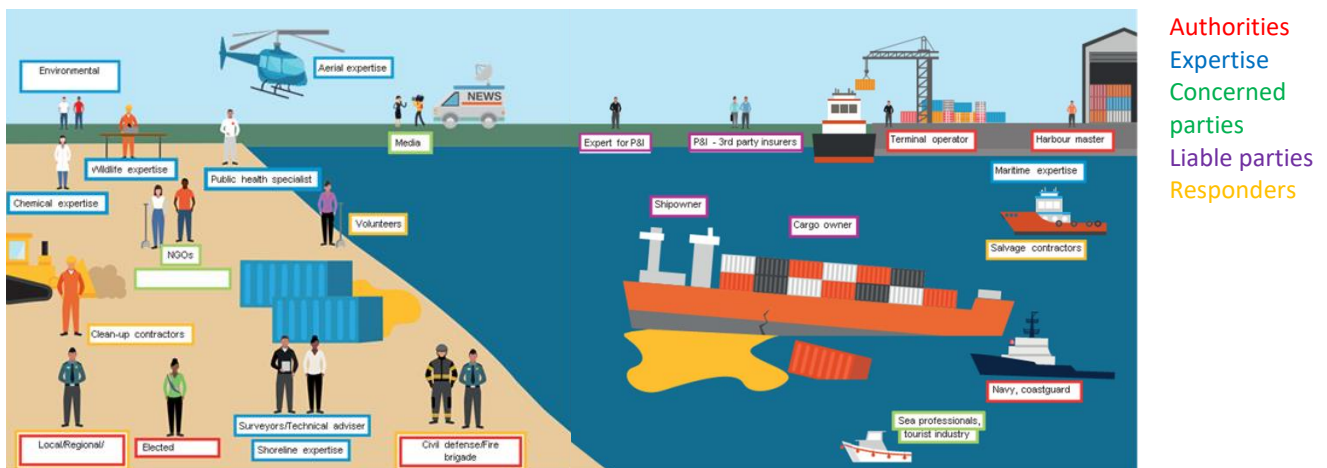


Figure 2: Potential stakeholders in port pollution (source: WestMoPoCo HNS manual)

The good mutual knowledge of all the parties involved in a pollution incident in a port area is an element that was highlighted in many questionnaires, during port visits and also during the workshops organised as part of IRA-MAR in January 2024 in Madrid (WP4) and Marseille (WP3). It seems that this good knowledge is better in ports seeking to develop synergies between the various players to develop joint documents, organise joint training and exercises, share equipment, and so on.

Ports use a variety of strategies to coordinate with other stakeholders in the case of incidents. The most common way, in 47 cases, is to use the same contingency plan: the port emergency plan has been distributed to all stakeholders and is binding on all. The regular transmission of information is also often mentioned (46 cases). The various entities can be brought together in the same crisis unit or use liaison officers. Sharing a logbook is a relatively minor procedure. Other tools as applications and social networks have also been sometimes mentioned. Moreover, social networks and applications such as whatsapp were found to be very useful during the debriefing of exercises carried out in Spanish ports as part of IRA-MAR WP4.



#### 4.4) Contingency plans

87% ports (74 ports) have an emergency plan. Almost half of these concern only oil spills (40 ports, 15 of which have no known HNS traffic but 25 have), just over a third concern both oil and chemical spills (38%, 33 ports). One port mentioned a plan only focused on chemicals but after checking, it seems that hydrocarbons are also included. 3 ports reported that they do not have a plan yet. 7 ports did not answer to this question but it seems that several of them do not have a port-specific pollution control plan.

The best practices highlighted by the ports are as follows:

- ☺ This plan describes, among other things, incident management system and role of stakeholders, alert organisation and response strategies and resources,
- ☺ This plan is shared and known by all stakeholders,
- ☺ The scale-up of the organisation and the interfaces with other plans are well established (industrials or operators emergency plans, local or regional response plan, national response plan).
  
- ☹ The main weak point is, as is often the case with this type of document, the lack of updates,
- ☹ The main gap is the lack of an HNS component in the plan even in ports handling dangerous goods in bulk or in containers.

**Recommendation:** Prepare response plans and formalize the interfaces between the various plans (industry, port, local/regional/national authorities, etc.) and information sharing. Include the “port of refuge” scenario.

In port areas, several types of plans can exist simultaneously: Ship Oil Pollution Emergency Plans (SOPEPs), the port’s own spill contingency plan, those of industrial sites (spill or technological risk plan: SEVESO...), and those of the authorities. They must however be consistent and compatible with each other. Studying probable incident scenarios would undoubtedly help to mitigate the effects and impact of spills. In addition, the port itself can be used as a spill response tool. This is the case for instance when it is chosen as a port of refuge. The organisational and operational implications of such a decision must be laid out in the plan.



Figure 3: Pollution from ships in France, requiring response plans to be activated by the ship, the port and the local authorities

#### 4.5) Equipment stockpiles

Response equipment is available or accessible in 94% of the ports. This equipment may belong to several entities. This equipment is owned by Port authority (61 ports) or its subcontractor (17 ports). Some equipment also belongs to operators/concessionaires (36 ports) or industrial firms (16 ports). Some ports also mentioned oil industry/port authority joined paid pool of equipment.

The main equipment stored in ports is oil PPE (overalls, boots, masks, helmets, gloves, goggles...) and containment (floating booms), recovery (sorbents, skimmers and pumps) and waste storage capacities (IBC, tanks).

Only a dozen ports report having PPE for chemical pollution. A dozen others rely on the fire brigade or an outside subcontractor to intervene in such a situation.

It therefore appears that in many ports, equipment is held by the industrial, operator or concessionaire to deal with Level 1 pollution. In almost all ports, the port authority, or a subcontractor, also has equipment to respond to level 2 pollution.

There are different strategies at this level:

- the port manages its own pollution response stockpile,
- the equipment is owned by a sub-contractor
- the equipment stockpile is pooled between port authority and industrials and operators

Each option has its advantages and disadvantages. In fact, the comments in the questionnaire answers on this point can be diametrically opposed, with one aspect considered positive by one port being considered negative by another, due to the different contexts of each.

Over and above the question of who owns the equipment, there is a consensus on the fact that:

- ☺ A stock of equipment properly maintained, regularly checked and available 24/ is available from different players, or even pooled between them,
- ☺ Equipment is pre-located in high-risk areas,
- ☺ The equipment is regularly tested during exercises.

The main limitations raised in the responses to the questionnaires concerning equipment stockpiles are as follows:

- ☹ Equipment is stored too far from the area most likely to be polluted, or in too small quantities, which increases response times, especially for Tier 2 and Tier 3 spills,
- ☹ Sometimes the equipment does not belong to the port or to the public authorities, which creates a high level of dependence on subcontractors,
- ☹ When they are present, the equipment available is not very diversified, which means that it is not always possible to adapt to the product encountered.

It was this last point that the workshop felt was important to translate into a recommendation:

**Recommendation:** Better adapt the stock of equipment to the products transiting through each port, particularly chemicals.

Spill response equipment is often deployed in an emergency. The position and storage conditions should therefore be defined and adapted to ensure a rapid response and easy deployment, preferably near high-risk sites. Contingency plans should define the locations that will ensure maximum efficiency in case of deployment. To be as close as possible to the spill, the equipment can be positioned on the deck of a ship, a pontoon, barge, dock or jetty, or in a warehouse. Ideally, all the equipment required for the operation should be stored together (in a single container, trailer, cradle etc.). For instance, a skimmer should be stored together with a pump, a power pack, a set of hoses, ropes, tools, etc.



Figure 4: Mohammedia port (Morocco) oil spill response equipment stockpile

#### 4.6) Human resources

This point can also result in different strategies: having an intervention team at the port, or relying on a subcontractor, or even organizing a team shared between different actors. The involvement of other public institutions is also mentioned.

The survey revealed that, in addition to the initial response by the polluter, port staff also intervenes directly in 75% of cases (64 ports). A port sub-contractor intervenes in 40% of cases (34 ports). Civil protection is also mobilized in 40% of ports and navy or coastguard in 22% of cases (19 ports).

It appears that, on the whole, ports organise themselves to train and train their teams on a regular basis. In three quarters of ports, teams are regularly trained and certified. Among the ports that replied yes, 38% train at least once a year, 23% less than once a year and 39% of ports did not give details of the frequency of certification and training.

In addition, the major part (84%) of the ports organise exercises regularly. Among them, 28% of them limit the exercise to port authorities but 70% extend to other port's stakeholder or wider. Small-scale exercises are usually planned on an annual basis, while large-scale exercises are organised every 2 or 3 years. Of the 71 ports that organise exercises, 69 organise practical exercises (equipment deployment), 55 organise table-top exercises and only 46 organise Incident Management exercises.

Regardless of the strategy adopted and entities involved, there is a consensus on the fact that staff must be available 24 hours a day, motivated, fully trained and instructed and should know the area very well.

This requirement is reflected in best practice in ports as follows:

- ☺ The port authority has a disaster prevention and response team, available 24 hours a day, 7 days a week, for any reconnaissance, assessment or prevention or response intervention.
- or
- ☺ Response is entrusted to a specialist response company available 24 hours a day, with trained personnel and a wide range of anti-pollution equipment, AND this sub-contractor is regularly audited.

On the other hand, the main difficulty mentioned in the survey in terms of human resources lies in:

- ☹ A lack of personnel,
- ☹ A lack of training or a lack of diversity in the scenarios that the team is preparing to deal with,
- ☹ Subcontractors whose level of preparation is insufficient when they are called upon.

**Recommendation:** Train and exercise the different teams and actors together, in a variety of scenarios, including chemical pollution, and audit subcontractors to check their competence. These training should mix operational and table top exercises and incident management considering that they have different focus and objective.



Figure 5: Training course and exercise in an oil terminal for industry and regional and national authorities

The IMO has developed a range of training courses to address all aspects of oil and HNS spill planning, response and management. These are known as the OPRC Model Courses.

The IMO courses on oil pollution preparedness and response have been developed for three levels of competency:

- Operational staff (Level 1);
- Supervisors and on-scene commanders (Level 2); and

- Senior management personnel (Level 3).

The IMO courses on HNS pollution preparedness and response have been developed for two levels of competency:

- Operational Level: First responders, Supervisors and On-Scene Commanders
- Manager Level: Administrators and Senior Managers

These courses, when properly linked to a harbour's contingency plan, can be used to train staffs that form the cornerstone for the conduct and management of an effective response to an oil or HNS spill.

#### 4.7) Information and Expertise

This point was not directly addressed in the survey, but discussions with ports and national port authorities revealed that:

- ☹ In several countries, ports had not properly identified the sources of information and expertise available to help them to be better prepared.
- ☺ Whereas other ports are well supported and have a marine pollution response and technical assistance agreement which covers training, the organization of exercises, the audit of sub-contractors, etc.

**Recommendation:** Reinforce communication with ports on the resources, tools and services available to assist them in their preparation.

In recent years, a number of national, European and international projects have focused at least in part on port pollution issues. Unfortunately, the deliverables and tools produced remain unknown not only to ports but also to their national authorities. Among these freely accessible resources are those produced these last 10 years by some UCPM co-funded projects (see following page).

The national port authorities interviewed at the Marseille workshop were not aware of these projects. They were all given the WestMoPoCo HNS response manual.

**A number of UCPM projects, the results of which can help port authorities to prepare better to deal with accidental pollution**

IMAROS (Improving response capacities and understanding the environmental impacts of **new generation low sulphur MARine fuel Oil Spills**):

<https://www.kystverket.no/oljevern-og-miljoberedskap/forskning-og-utvikling/imaros/rapporter-fra-imaros/>

MANIFESTS (MANaging risks and Impacts From **Evaporating and gaseous Substances** To population Safety)

**HNS database, field guide, serious game, COP**, etc.: <https://manifests-project.eu/>

WestMOPoCo (Western Mediterranean Region Marine **Oil & HNS Pollution** Cooperation): Inter-regional **HNS Response Manual** between REMPEC, HELCOM and the OSPAR/Bonn Agreement

[https://www.westmopoco.rempec.org/en/mopoco?set\\_language=en](https://www.westmopoco.rempec.org/en/mopoco?set_language=en)

MARINER (Enhancing **HNS preparedness** through training and exercising):

**Knowledge tool**: <http://knowledgetool.mariner-project.eu/>

**Training package**: <http://mariner-project.eu/results/category/5>

EUROWA (European Module for **Oiled Wildlife** Emergency Response Assistance)

**Manuals and e-learning**: <https://eurowa.eu/resources/>

POSOW & POSOW 2 (Preparedness for **oil-polluted shoreline** area clean-up and **oiled wildlife** interventions)

**Fishermen's support in oil spill response**: <https://www.posow.org/documentation>

HNS-MS (Improving preparedness to face **HNS** pollution of the marine system)

**HNS database**: <https://www.hns-ms.eu/hnsdb>

## 5) Response

### 5.1) Pollutants

In terms of response, it appears that ports are mainly involved in combating pollution caused by hydrocarbons or other floating pollutants such as vegetable oils. Indeed, the main pollutants cited in the survey were:

- Crude oil, Distillate, Diesel oil, IFO and HFO, Lubricate and Hydraulic oil,
- Biofuel, Biodiesel, FAME (Fatty Acid Methyl Esters),
- Bilge water,
- Palm oil,
- Styrene, Ammonia,
- and Various IMO classes carried in lorries.

So, in addition to the various elements of preparedness focused on oil pollution mentioned above, the experience of responders is also mainly developed on this type of pollution. In this context, it is more difficult to adapt the response to other types of pollution, particularly chemical pollution.

This is reflected in a number of responses to the questionnaire, which state:

- ⊗ Products (HNS) are not always well known,
- ⊗ Not always possible to adapt to the product encountered.

**Recommendation:** *Strengthen knowledge on HNS risks and reinforce response capacity for non-oil spills in the ports.*

### 5.2) Response strategies

There are no universally applicable response and intervention techniques in case of spill: each response to tackle a release at sea and mitigate the potential impacts is unique and depends on numerous variables. Varying degrees of response may be required: prevention measures, assessment and monitoring of the spreading of the pollution and/or clean-up actions. As the situation may evolve very quickly, the chosen strategy must be adjusted according to the reality in the field. All response techniques have advantages and disadvantages. A response strategy therefore generally consists of a combination of techniques. An appropriate strategy for a minor scenario may comprise one or two techniques. Scenarios that are more complex may require various combinations of techniques.

That said, in the ports studied, the main response strategy in case of oil spill is containment and recovery (90% of ports). The containment is done by using booms and sorbents. The recovery is done by using sorbents, skimmers or vacuum trucks. The dispersion is more rarely used: it is done mechanically by mixing pollutant and water with boats (24 ports, 28%) or, in few cases (12 ports, 14%, from 6 different countries), chemically by using dispersant.

The only chemical pollution response strategy mentioned was the use of tanks for leaking containers, confirming, here too, the limited knowledge and preparedness to deal with chemical spill.

The main points raised in the answers to the questionnaires are as follows:

- ☺ Oil spill response techniques are known and mastered.
  
- ☹ Response strategies not always adapted to the product,
- ☹ Policy on the use of dispersants not well established.

**Recommendations:** Reinforce response capacity for non-oil spills in the ports and when needed, establish, or remind ports, in each country, of a policy for the use of dispersants in port areas.

### 5.3) Waste management

The topic of waste was not the subject of a specific question in the survey but was the subject of free comments and was mentioned several times in the list of areas for improvement:

- ☹ The implementation of a complete waste management chain is indeed complex to implement in certain countries or in certain island ports. For the latter, it is the entire supply chain that can be difficult to implement, especially in an emergency.

**Recommendation:** The management of the different types of waste that may be generated by pollution should be addressed in emergency plans and tested during exercises.

### 5.4) Expertise

In addition to their comments on the information tools and expertise available in the preparedness phase, the ports also made the following comments on the emergency phase:

- ☺ The port has a pollution response technical assistance agreement which covers remote and on-site response in the event of pollution.
  
- ☹ Decision-support systems are not yet widespread enough.

**Recommendation:** Reinforce communication with ports on the tools and services available to assist them in case of spill (expertise of civil protection or chemical industry)

For example, in Spain, there is an agreement between civil protection and chemical industry to have expertise. A similar agreement exists in Italy with Federchimica.



## 6) Main organisations adopted in ports to deal with accidental spill.

During this study, three main response organisational models have been identified. At the end of the Marseille workshop in January 2024, no model was judged to be better than another. It is the specific context of each port that must dictate the choice of organisation to be put in place and the methods for managing human and material resources. Nevertheless, there was unanimity on the fact that whatever option is chosen, the response team must be responsive, regularly trained and exercised, must rely on well-established intervention procedures in an emergency plan and must have very well-maintained equipment.

### 6.1) Internalization

The response resources are provided by the port authority, which has a response team and its own equipment stockpile.

- For example: Tangier Med Port Authority (TMPA) Safety Brigade  
*The Port of Tangier Med has a Safety Brigade, which provides security, prevention and disaster control services to support ship captains, concessionaires and port operators. This team of 70 safety officers operates on a permanent basis from 2 barracks set up by TMPA in the port area, very close to the terminals and high-risk areas. This team also carries out preventive actions and raises awareness among port operators to comply with safety and environmental protection regulations.*  
This organisation has been discussed during the workshop held in Marseille (See presentation in appendice 2).

The response resources can also be provided by a shared pool of equipment (port authority, industrials...).

- For example: Rotterdam (Schermenpool).  
*Schermenpool Rotterdams Havengebied (SRH) was established in 2001. That's when the Port of Rotterdam Authority, Deltalinqs and the Gezamenlijke Brandweer (Joint Fire Service) signed a partnership agreement. SRH was created from the need for a more effective and uniform oil spill response. Previously, the oil spill response was arranged per terminal. By bringing the management of the booms under the authority of SRH, it became possible to achieve a significant reduction in the number of booms by placing these at strategic locations in the port area. The foundation also purchased the same types of booms so that these can be linked together to contain a spill. This enables a more efficient and effective response to spills.*

### 6.2) Externalization

The response resources are provided by another institution (agreement with civil protection, navy...).

- For example: Marseille (Bataillon des Marins Pompiers de Marseille)  
*The "Bataillon de marins-pompiers de Marseille" (BMPPM) is a unit of the French Navy. It has specialised anti-pollution personnel for the use of appropriate means of*

*containment, recovery, analysis and storage of polluting products in the event of hydrocarbon pollution. The BMPM also has a mobile chemical response unit (CMIC) that can deal with the various risks associated with hazardous materials. The BMPM also has a robotic support unit, which is responsible for using drones to assess the situation, including in the event of pollution. The Port of Marseille has chosen to call on the skills and resources of the BMPM to combat accidental pollution. An agreement has been signed to set out the terms and conditions of this cooperation.*

This organisation has been discussed during the workshop held in Marseille (See presentation in appendice 2) and a practical demonstration has been done by the BMPM during the closing event (see programme in appendice 1). This exercise showed the capacity of this kind of externalised resources and their field of expertise.

The response resources are provided by a subcontractor of the port, which is responsible for providing the necessary material and human resources.

- For example: Antwerp (Brabo Cleaning Company)  
*Brabo Cleaning Company is responsible for combating oil spill in Antwerp port. The specialised units can be deployed quickly to combat pollution on the water. They use booms, skimmers, multi-cats boats and a ship with sweeping arms to contain and recover the oil. They are also in charge to clean the hulls of polluted ships.*

### **6.3) Mixed organization**

Combination of the two systems:

- For example: Malta.

This organisation has been discussed during the workshop held in Marseille (See presentation in appendice 2).

### **6.4) Role of civil protection and firefighters**

Overall, less than 40% of ports responded that they are working with civil protection or the fire brigade. However, the situation is very different from one country to another: 90% in Finland, 56% in France, 40% in Spain, 25% in Morocco, 15% in UK.

It should be noted that the decarbonisation of maritime transport will be achieved in particular through the use of new propulsion energies such as batteries, hydrogen, methanol and ammonia. In the future, pollution will therefore involve less and less hydrocarbons for propulsion and more and more volatile and flammable chemicals. The emergency response will therefore focus more and more on the management of fire and cloud risk and will therefore require the mobilization of more and more firefighters and civil protection, which are in several countries the only actors with real training in chemical risk.

The collaboration between these ports and these entities must therefore be strengthened.

## 7) Conclusion / Final recommendations

This study highlighted that some elements are critical for a successful preparedness and response strategies and activities in harbours. These elements include having an effective incident management system in place along with a robust stakeholder engagement programme, to ensure that relevant authorities and harbours actors are supportive of the planned strategies and tactics should a spill occur. A good understanding by stakeholders of the tiered preparedness and response concept is also key to a successful response.

In addition to the elements mentioned above, an effective spill preparedness programme needs to be put in place to ensure that all response's stakeholders are adequately prepared to respond to potential oil & HNS spill scenarios, including a worst credible case discharge. Preparedness programmes generally include, but are not limited to, a comprehensive contingency plan and a robust training and exercise programme, along with the implementation of the tiered response approach.

Contingency planning is the process of developing a suitable spill response capability in compliance with the local regulatory framework and commensurate with the oil & HNS spill risks of a harbour (facilities and activities). The risk assessment and response planning processes allow the identification of, and adequate planning and provisioning for, spill scenarios of all scales and complexities.

Effective spill preparedness requires personnel who understand, and can perform, a variety of emergency response and incident management functions. The purpose of training is to ensure that these personnel are identified and given appropriate opportunities to learn and maintain relevant knowledge and skills. For most personnel, their role in spill response will be an additional duty to their normal or daily jobs. Some of a person's day-to-day skills may be directly relevant to his/her allocated role during an emergency but the varied challenges posed by a spill response will require an understanding that extends beyond the normal experiences of a person's job. All incident management team personnel will therefore require some level of training and exercise in their team role, in addition to oil spill basics, to enable them to perform safely and effectively in the case of an emergency.

Oil spill exercises encompass the activities through which personnel can develop competence through practice, and test the effectiveness of oil spill contingency plans and procedures for continual improvement. The importance of spill exercises is emphasized by the OPRC and HNS Conventions, whereby it is required that governments shall work with the industries, port authorities and other relevant entities to establish a programme of exercises and training of relevant personnel.

The first priority when responding to an oil or HNS spill is the protection of the health and safety of responders and the public. This component also covers the various response options for assessing and combating spills in harbours, on water and land, as well as dealing with waste management, environmental protection, and other operational issues.

On the basis of the above elements and the results of the study, 12 main recommendations have been formulated for the attention of the national port authorities of the countries targeted by the project. It is up to each national port authority to adapt them to its national context, as some recommendations are already applied in certain countries. For this reason, a summary of the main findings for each country in which at least one port took part in the study is provided in the next section of the report.

#### **Recommendations:**

*All ports with dangerous goods transit should be equipped with an information system.*

*Organise Ports incidents reporting and experience sharing, at national and international levels.*

*The regulatory framework needs to be better known and the various actors should have the same interpretation of their respective obligations in the event of pollution.*

*Adopt a holistic approach to strengthen cooperation between all stakeholders. They should be early identified and involved in the response preparedness process of the port authorities: common training, exercises, etc.*

*Prepare response plans with indicative limits for the extent of pollution between the different levels of intervention (Tiers) and formalize the interfaces between the various plans (industry, port, local/regional/national authorities, etc.) and information sharing. Include the "port of refuge" scenario.*

*Better adapt the stock of equipment to the products transiting through each port, particularly chemicals and new fuels.*

*Train and exercise the different teams and actors together, in a variety of scenarios, including chemical pollution, and audit subcontractors to check their competence. These training should mix operational and table top exercises and incident management considering that they have different focus and objective. Reinforce communication with ports on the resources, tools, services and expertise available to assist them in their preparation and in case of spill.*

*Integrate ports more effectively into maritime accident / civil protection projects*

*Establish, or remind ports, in each country, of a policy for the use of dispersants in port areas.*

*The management of the different types of waste that may be generated by pollution should be addressed in emergency plans and tested during exercises.*

*Strengthen response capacity for non-oil spills in the ports, notably for new fuels and HNS: Training / Exercises, Raising awareness of existing tools (DSS, databases, manual...in particular those developed as part of European projects), Contingency planning, Adapted equipment (PPE.....), and strengthen cooperation with civil protection and fire brigade.*

## **8) National datasheets**

1. Belgium
2. Bulgaria
3. Finland
4. France
5. Germany
6. Italy
7. Malta
8. Monaco
9. Morocco
10. Portugal
11. Spain
12. The Netherlands
13. Tunisia
14. United Kingdom

## POSITION OF THE RESPONDENTS

Only one answer



■ HSQE Manager

### LOCATION OF THE PORTS

Is the port a seaport or an inland port?

Inland port

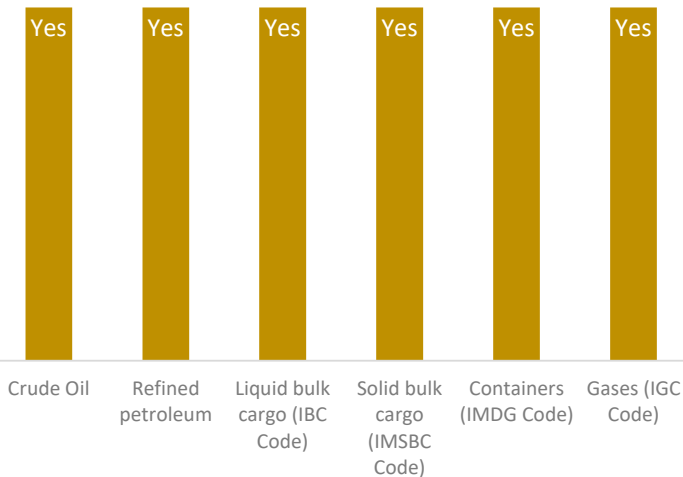


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

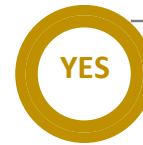
Which of the following goods transit through the your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



The respondent indicated that the information is not shared



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

- Yes
- No
- No response



- mainly involving oil

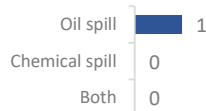
## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

- Yes
- No
- No response



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

- Yes
- No
- No response



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Scale of exercises



Limited to the port authorities

Frequency of exercises



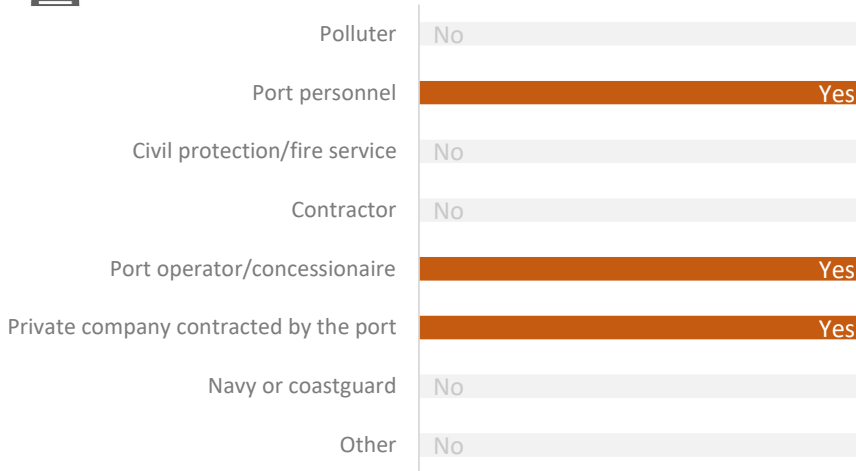
Twice a year

## RESPONSE MANAGEMENT AND COORDINATION



### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS



## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



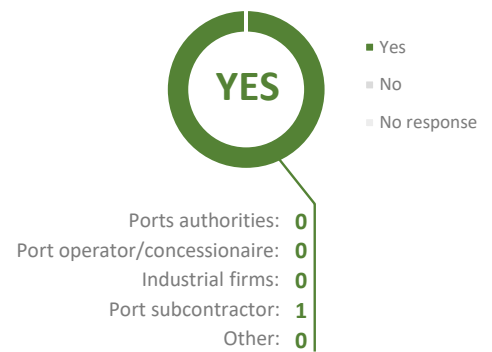
### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



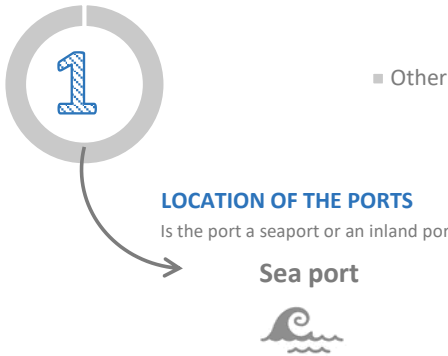
### DECISION SUPPORT SYSTEM

Do you have a decision support system?



## POSITION OF THE RESPONDENTS

Only one answer

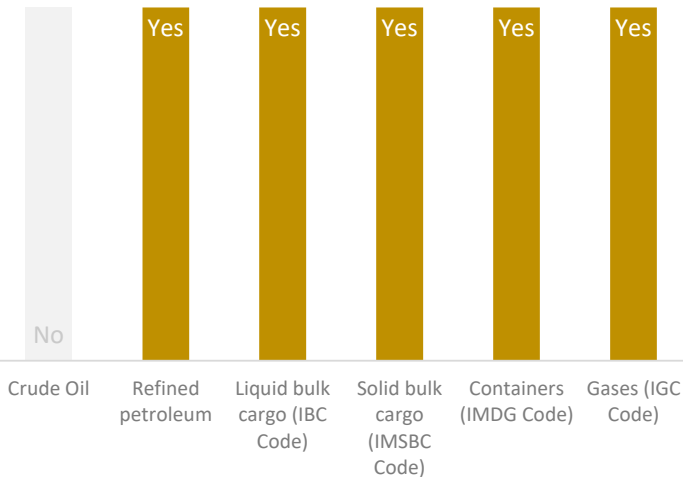


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

Which of the following goods transit through your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



### OIL OR HNS SPILL

Do you ever faced an oil or HNS spill that required response operations within the port?

- Yes
- No
- No response



- involving oil

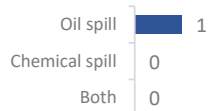
## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

- Yes
- No
- No response



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

- Yes
- No
- No response



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Tabletop  
Practical exercises  
Situation

Scale of exercises



Frequency of exercises



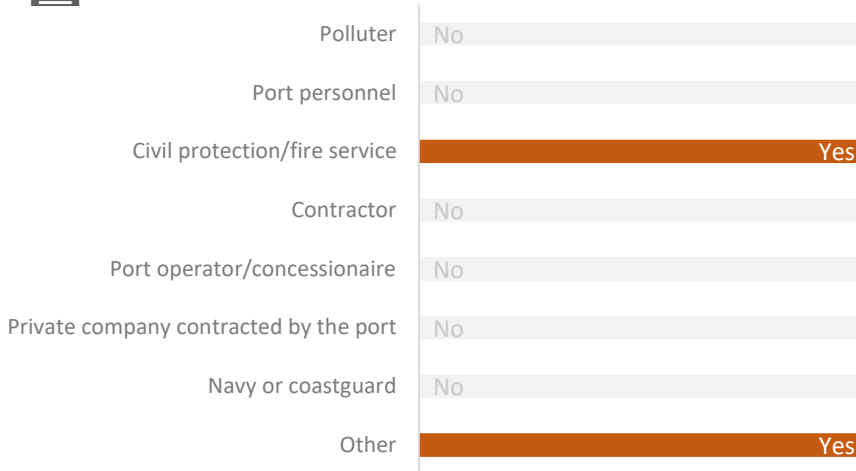


## RESPONSE MANAGEMENT AND COORDINATION



### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS



## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



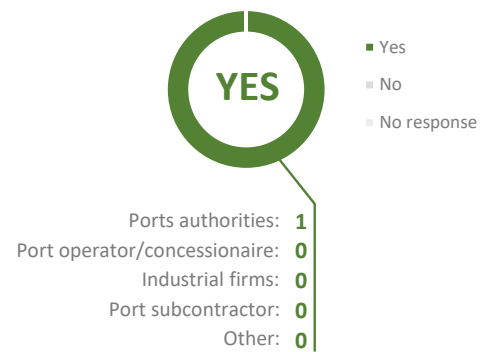
### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



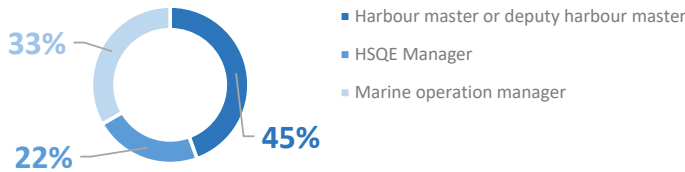
### DECISION SUPPORT SYSTEM

Do you have a decision support system?



## POSITION OF THE RESPONDENTS

Out of 9 answers



### LOCATION OF THE PORTS

Sea ports

Is the port a seaport or an inland port?

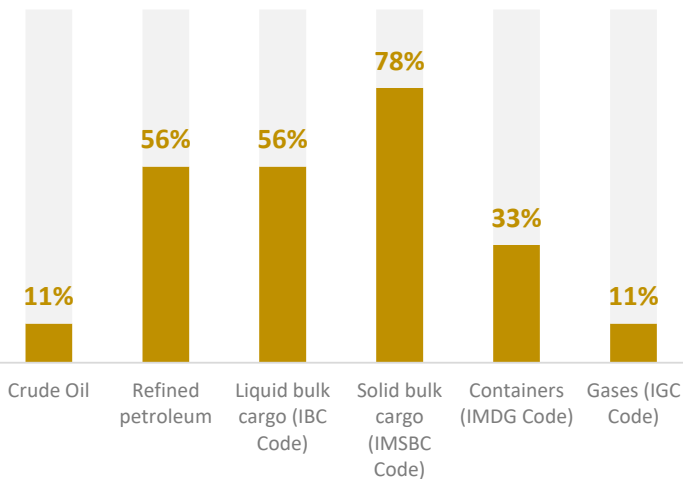


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

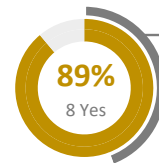
Which of the following goods transit through the your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



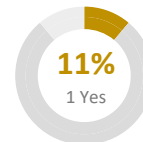
4 out of 9 respondents indicated that the information is shared



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

- Yes
- No
- No response



- 1 out of 1 involving oil  
- 0 out of 1 involving HNS

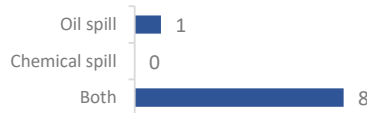
## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

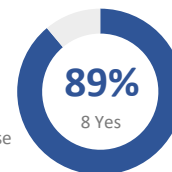
- Yes
- No
- No response



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

- Yes
- No
- No response



- 8 at least once a year



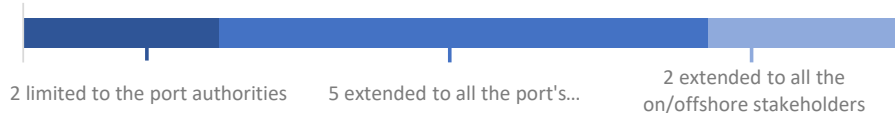
### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Scale of exercises



Frequency of exercises

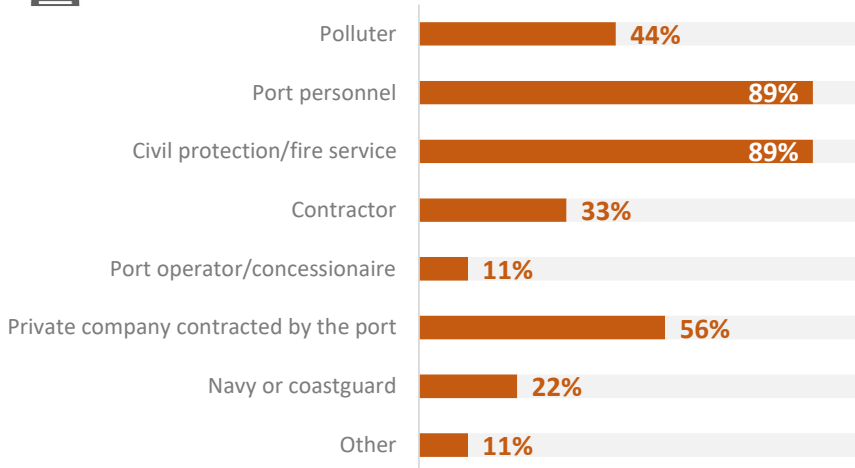


## RESPONSE MANAGEMENT AND COORDINATION



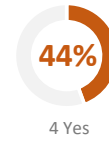
### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?

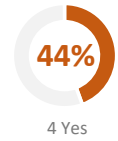


### WAY TO COORDINATE WITH STAKEHOLDERS

Same contingency plan



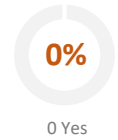
Same incident management center



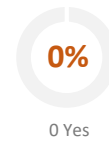
Liaison officers



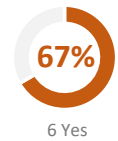
Shared log book



Other



Regular information transmission

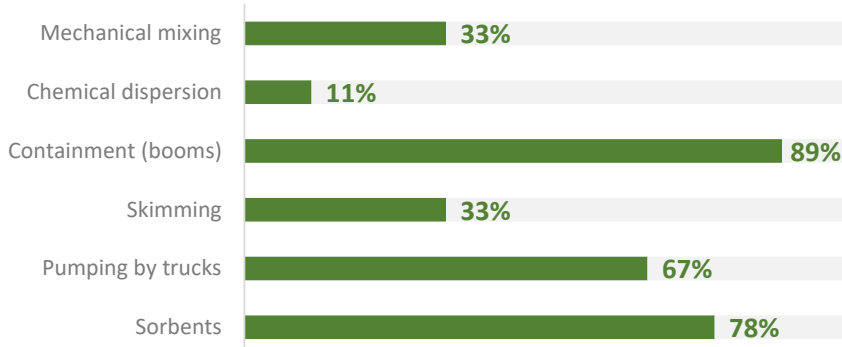


## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



■ Yes  
■ No  
■ No response

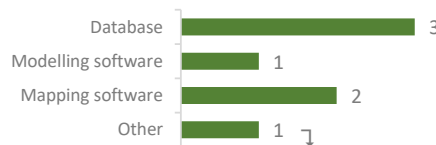
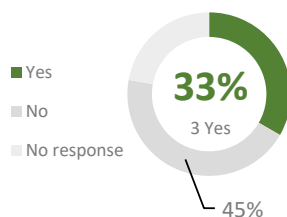
Ports authorities: 7  
Port operator/concessionaire: 0  
Industrial firms: 5  
Port subcontractor: 0  
Other: 3

out of 9 "Yes"



### DECISION SUPPORT SYSTEM

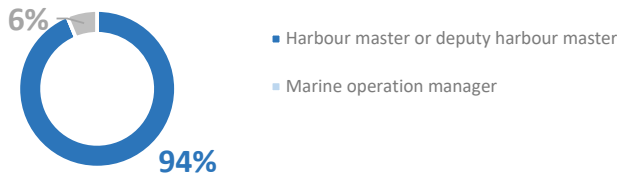
Do you have a decision support system?



Ready dispersion models, weather data, current data..

## POSITION OF THE RESPONDENTS

Out of 16 answers



### LOCATION OF THE PORTS

Is the port a seaport or an inland port?



Inland ports

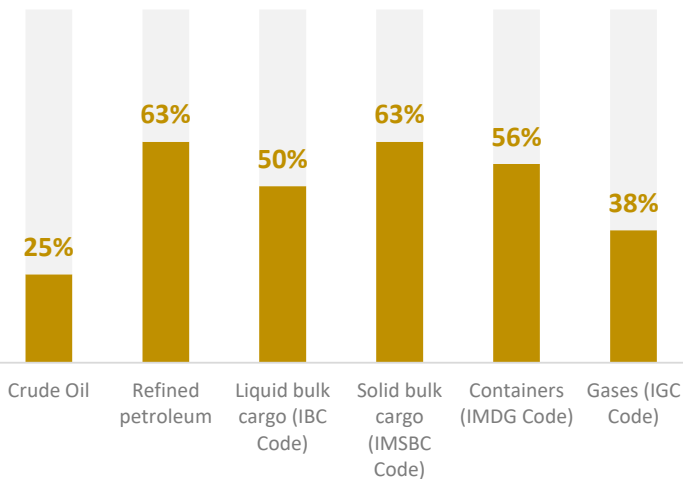


## GOODS TRAFFIC AND INCIDENT



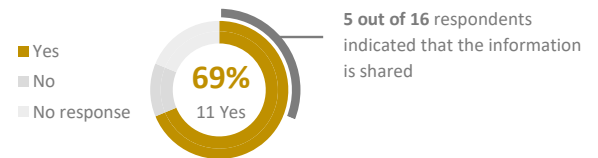
### GOODS TRANSITING THROUGH PORTS

Which of the following goods transit through the your port?



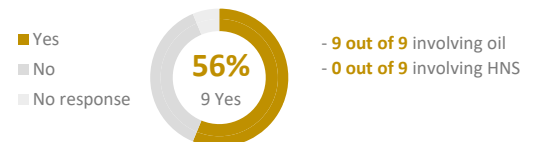
### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

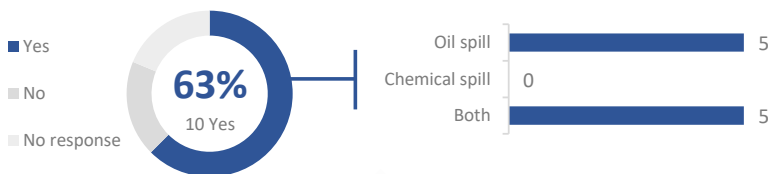


## PREPAREDNESS



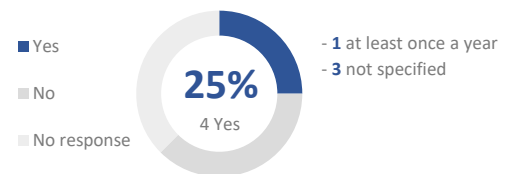
### EMERGENCY PLAN

Do you have an emergency plan?



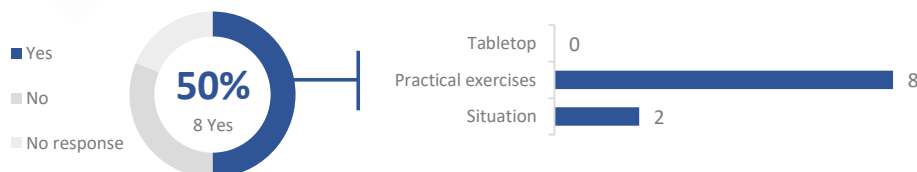
### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?



### EXERCISES

Are exercises regularly organised?



Scale of exercises



Frequency of exercises

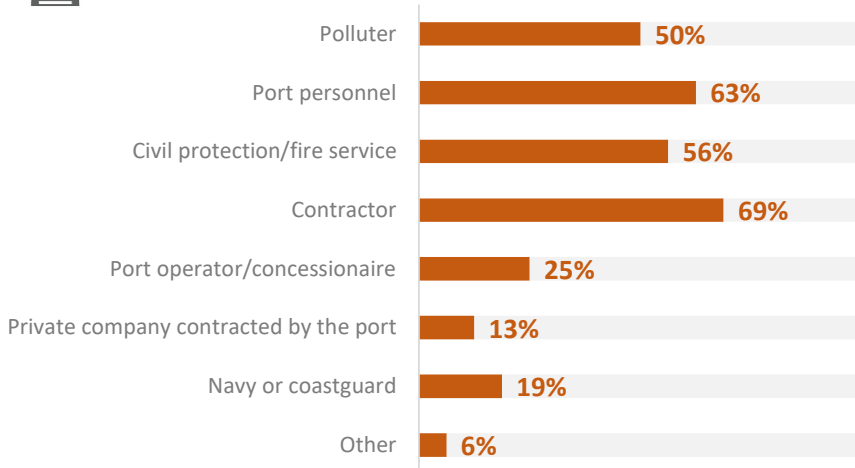


## RESPONSE MANAGEMENT AND COORDINATION



### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS

Same contingency plan



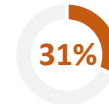
6 Yes

Same incident management center



8 Yes

Liaison officers



5 Yes

Shared log book



3 Yes

Other

Regular information transmission



0 Yes



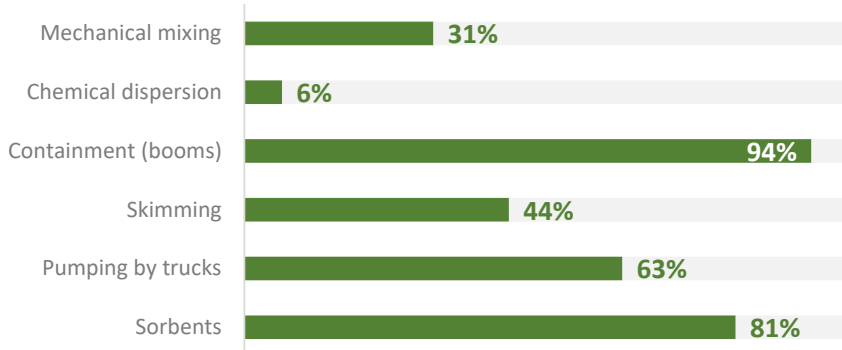
8 Yes

## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



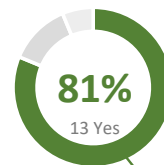
### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



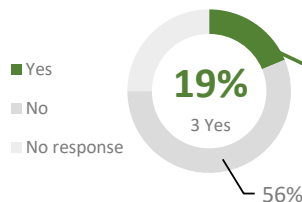
■ Yes  
■ No  
■ No response

Ports authorities: 6  
Port operator/concessionaire: 6  
Industrial firms: 9 out of 13 "Yes"  
Port subcontractor: 1  
Other: 0

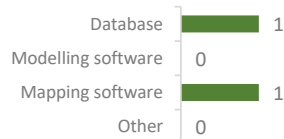


### DECISION SUPPORT SYSTEM

Do you have a decision support system?

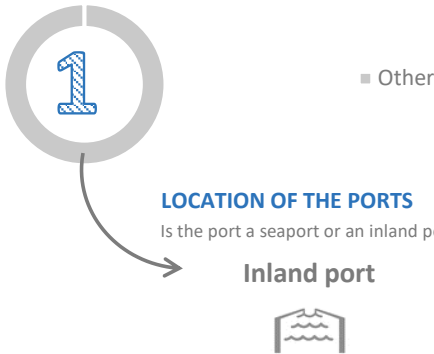


■ Yes  
■ No  
■ No response



## POSITION OF THE RESPONDENTS

Only one answer

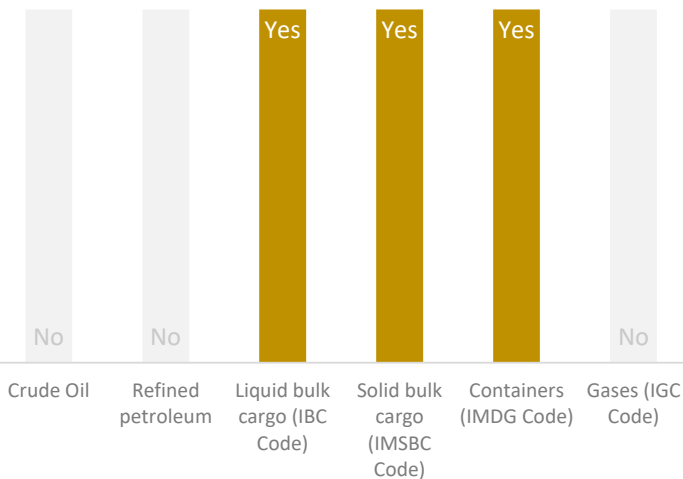


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

Which of the following goods transit through your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



### OIL OR HNS SPILL

Do you ever faced an oil or HNS spill that required response operations within the port?

- Yes
- No
- No response



## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

- Yes
- No
- No response



Oil spill  
Chemical spill  
Both



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Tabletop  
Practical exercises  
Situation

Scale of exercises



Frequency of exercises



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

- Yes
- No
- No response

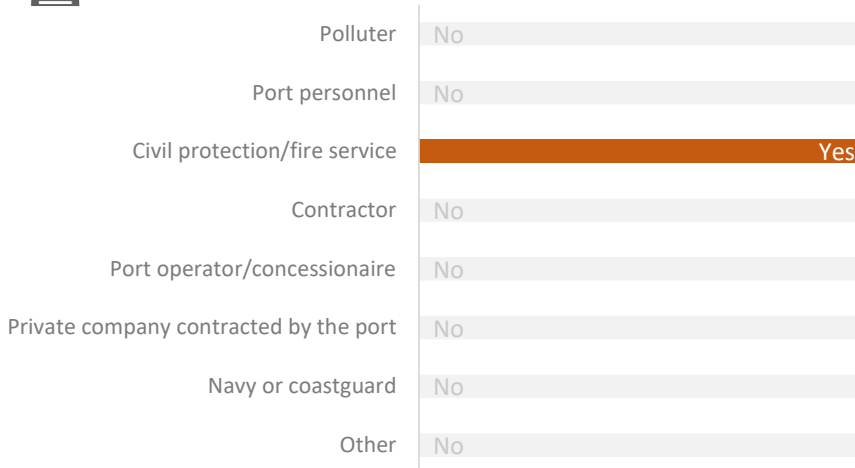


## RESPONSE MANAGEMENT AND COORDINATION



### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS



## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



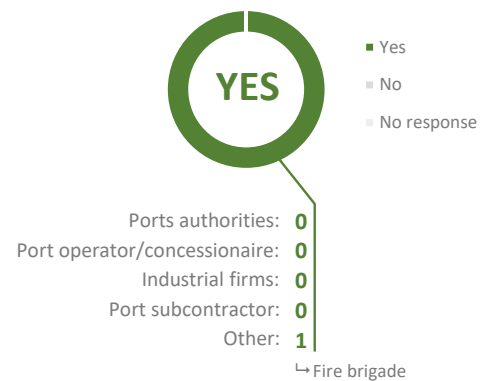
### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



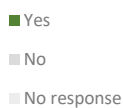
### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



### DECISION SUPPORT SYSTEM

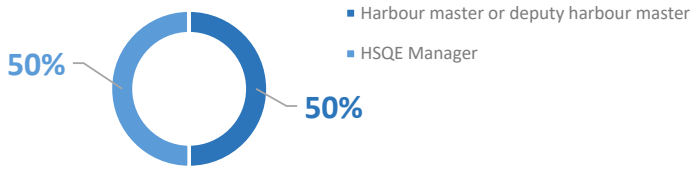
Do you have a decision support system?



Database  
Modelling software  
Mapping software  
Other

## POSITION OF THE RESPONDENTS

Out of 2 answers



### LOCATION OF THE PORTS

Sea ports

Is the port a seaport or an inland port?

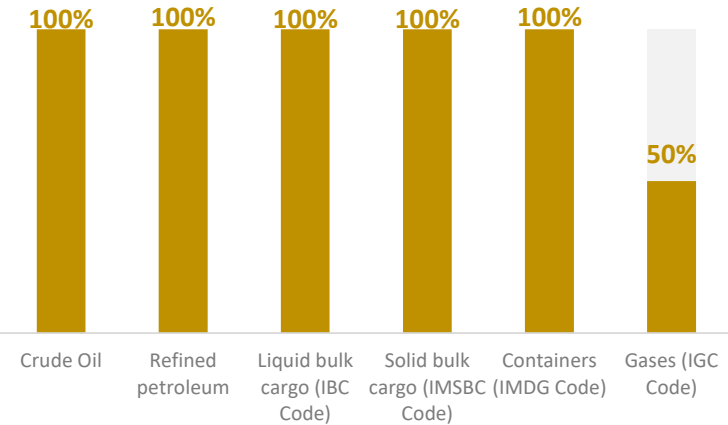


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

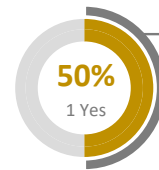
Which of the following goods transit through the your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



1 out of 2 respondents indicated that the information is shared



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

- Yes
- No
- No response



- 1 out of 2 involving oil  
- 0 out of 2 involving HNS (1 unspecified)

## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

- Yes
- No
- No response



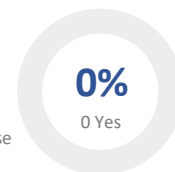
Oil spill  
Chemical spill  
Both



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

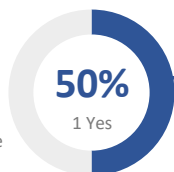
- Yes
- No
- No response



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Tabletop 0  
Practical exercises 0  
Situation 1

Scale of exercises



Frequency of exercises



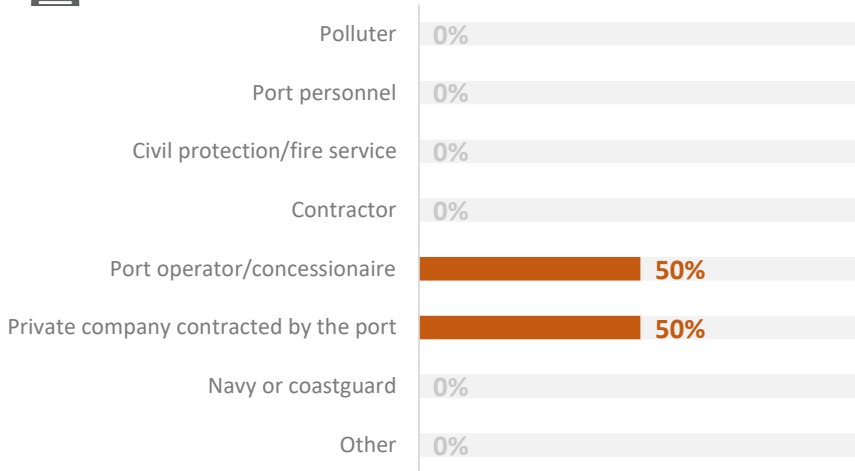


## RESPONSE MANAGEMENT AND COORDINATION

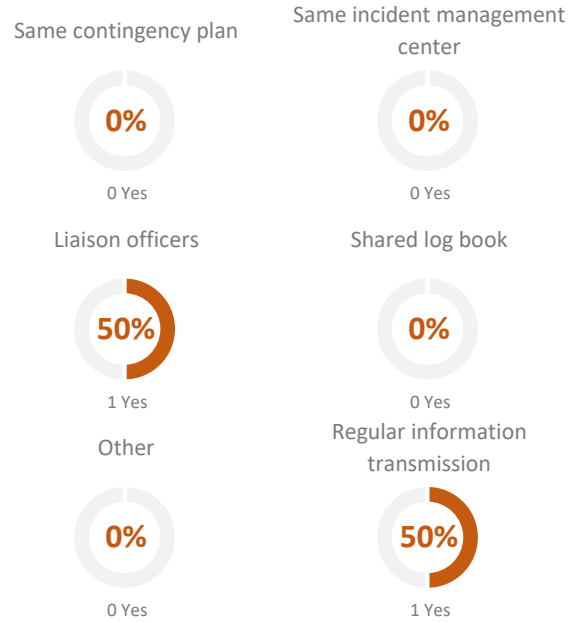


### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS

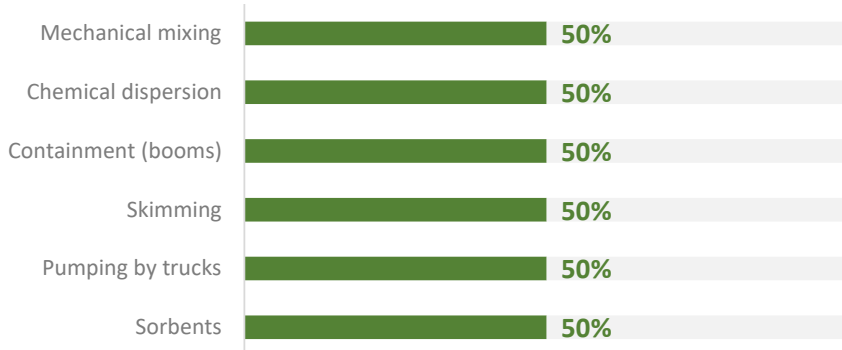


## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



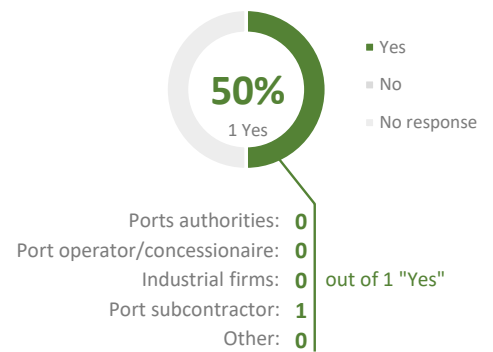
### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



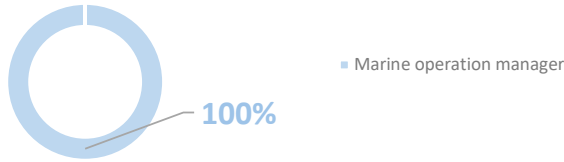
### DECISION SUPPORT SYSTEM

Do you have a decision support system?



## POSITION OF THE RESPONDENTS

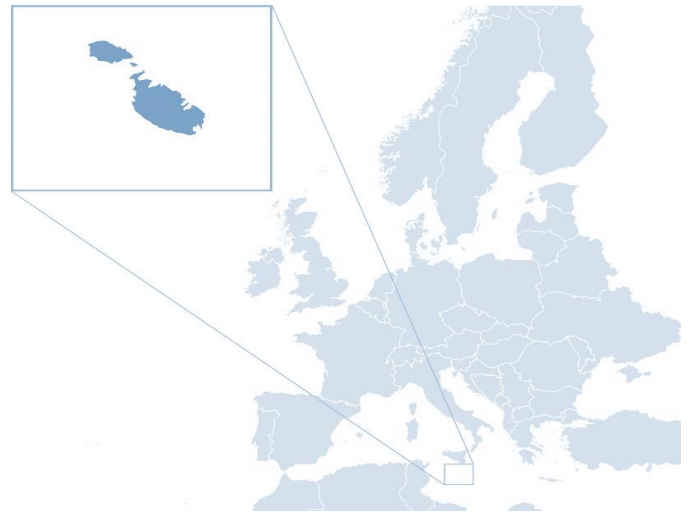
Out of 2 answers



### LOCATION OF THE PORTS

Sea ports

Is the port a seaport or an inland port?

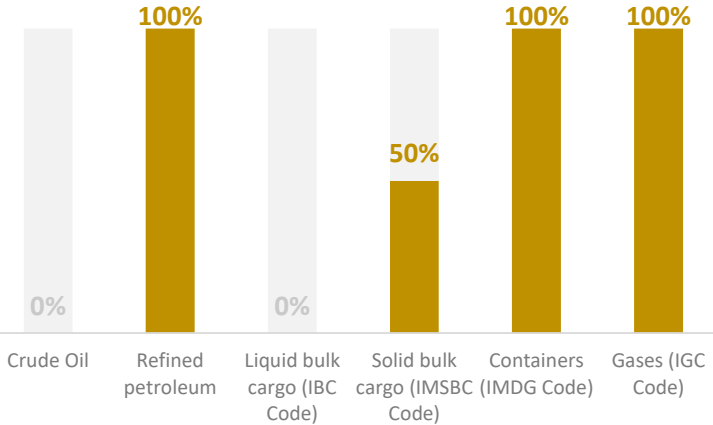


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

Which of the following goods transit through the your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



0 out of 2 respondents indicated that the information is shared



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

- Yes
- No
- No response



- 2 out of 2 involving oil  
- 2 out of 2 involving HNS

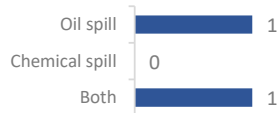
## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

- Yes
- No
- No response



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

- Yes
- No
- No response



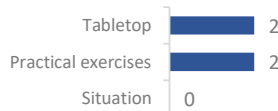
- 1 less than once a year  
- 1 not specified



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Scale of exercises



Frequency of exercises

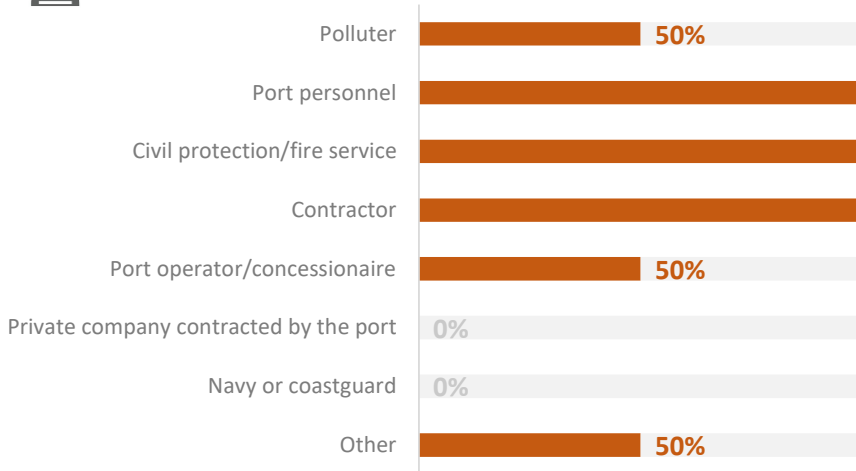


## RESPONSE MANAGEMENT AND COORDINATION



### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS

Same contingency plan



2 Yes

Same incident management center



1 Yes

Liaison officers



2 Yes

Other

Shared log book

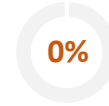


0 Yes

Regular information transmission



1 Yes



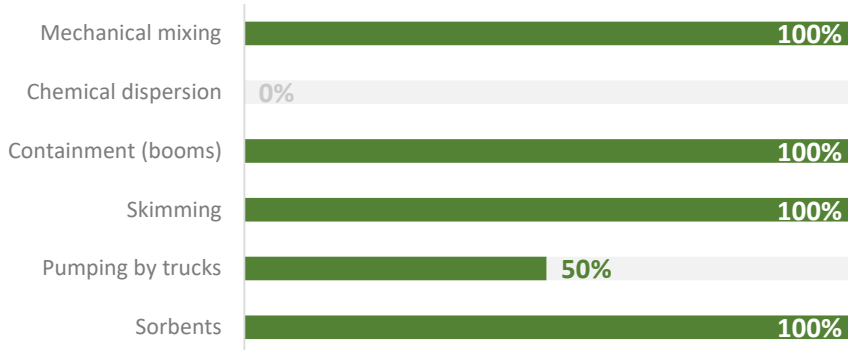
0 Yes

## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



2 Yes

- Yes
- No
- No response

Ports authorities: 2  
Port operator/concessionaire: 0  
Industrial firms: 2  
Port subcontractor: 2  
Other: 0

out of 2 "Yes"



### DECISION SUPPORT SYSTEM

Do you have a decision support system?

- Yes
- No
- No response



100%

2 Yes



## POSITION OF THE RESPONDENTS

Only one answer



### LOCATION OF THE PORTS

Is the port a seaport or an inland port?

Sea port

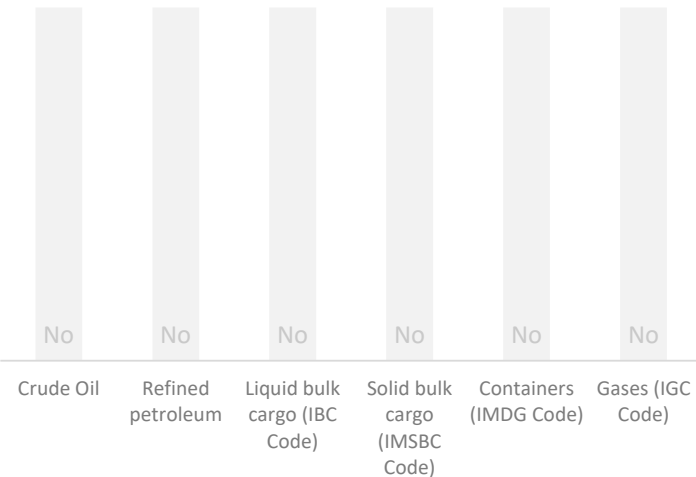


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

Which of the following goods transit through your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

- Yes
- No
- No response



- involving oil

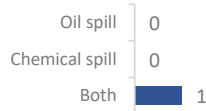
## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

- Yes
- No
- No response



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

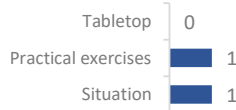
- Yes
- No
- No response



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Scale of exercises



1 extended to all the port's stakeholders

Frequency of exercises



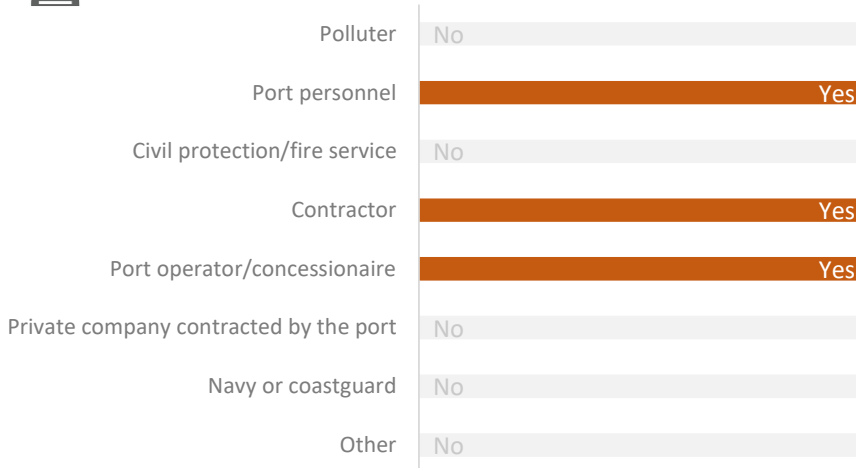
1 once a year

## RESPONSE MANAGEMENT AND COORDINATION



### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS



## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



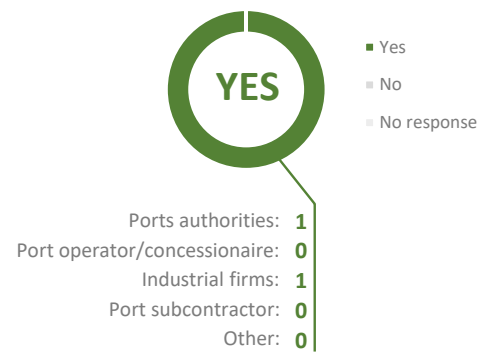
### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



### DECISION SUPPORT SYSTEM

Do you have a decision support system?



## POSITION OF THE RESPONDENTS

Out of 4 answers



### LOCATION OF THE PORTS

Sea ports

Is the port a seaport or an inland port?

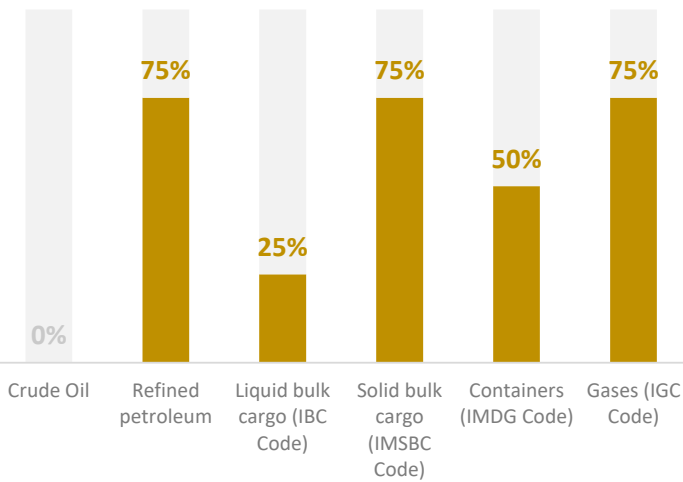


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

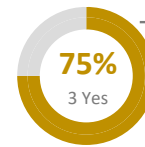
Which of the following goods transit through the your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



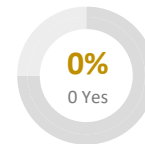
0 out of 4 respondents indicated that the information is shared



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

- Yes
- No
- No response



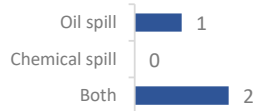
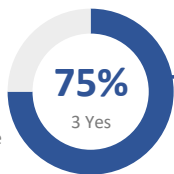
## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

- Yes
- No
- No response



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

- Yes
- No
- No response



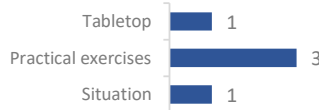
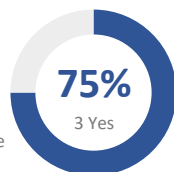
- 4 not specified (frequency)



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Scale of exercises



1 limited to the port authorities | 2 extended to all the port's stakeholders

Frequency of exercises



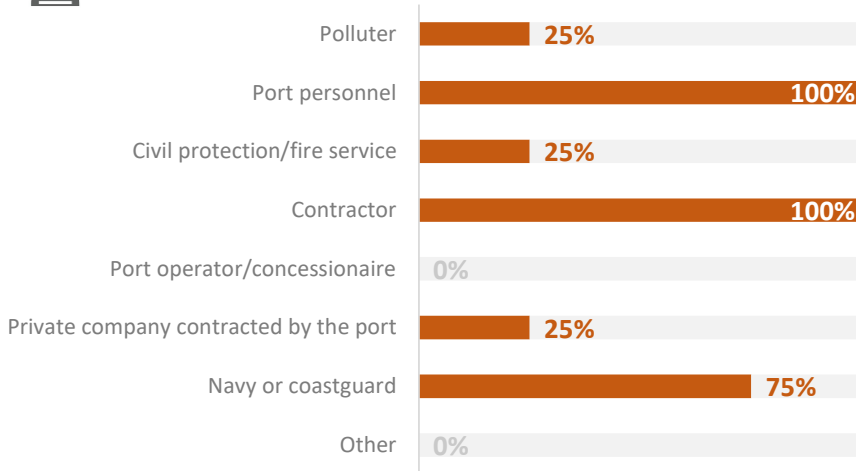
1 twice a year | 3 not specified

## RESPONSE MANAGEMENT AND COORDINATION



### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS

Same contingency plan



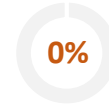
2 Yes

Same incident management center



1 Yes

Liaison officers



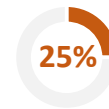
0 Yes

Shared log book



1 Yes

Other



1 Yes

Regular information transmission



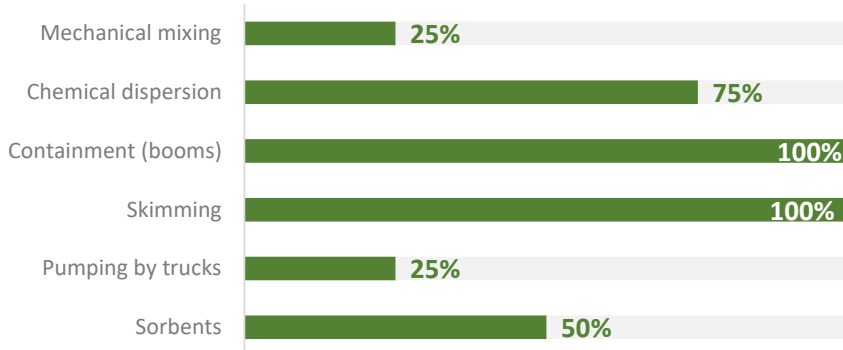
1 Yes

## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



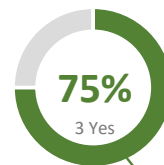
### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



■ Yes  
■ No  
■ No response

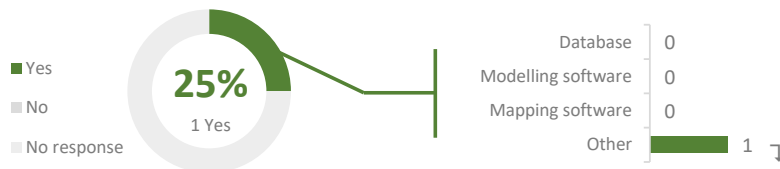
Ports authorities: 3  
Port operator/concessionaire: 0  
Industrial firms: 1  
Port subcontractor: 0  
Other: 0

3 out of 3 "Yes"



### DECISION SUPPORT SYSTEM

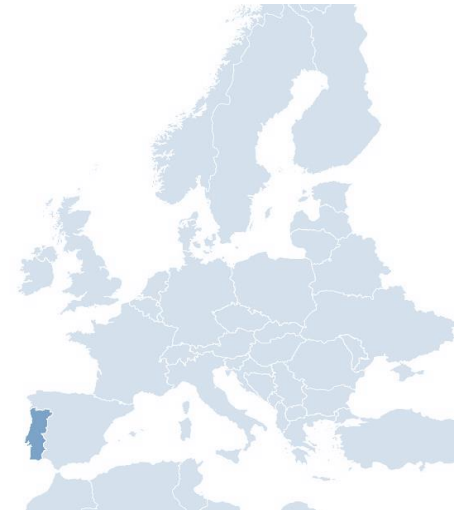
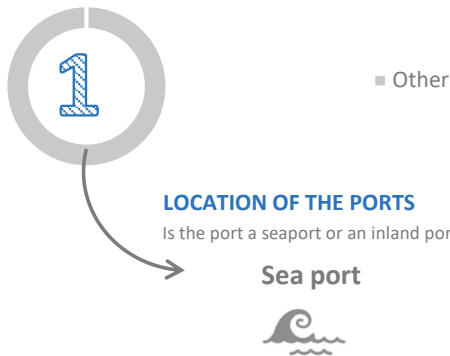
Do you have a decision support system?



Digital application for crisis management

## POSITION OF THE RESPONDENTS

Only one answer

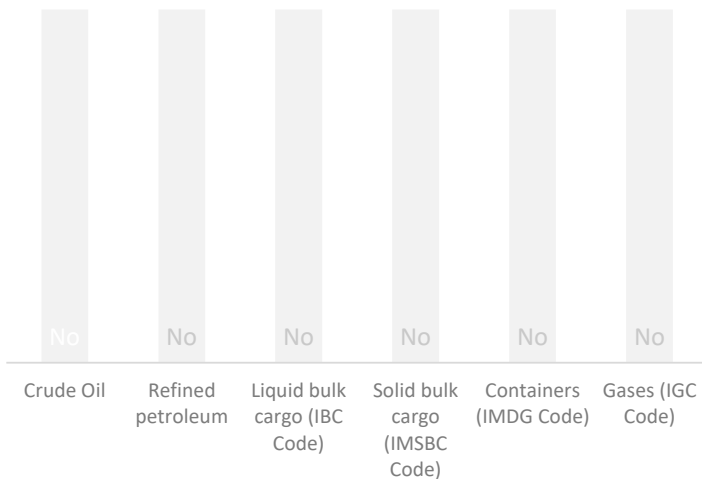


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

Which of the following goods transit through your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



### OIL OR HNS SPILL

Do you ever faced an oil or HNS spill that required response operations within the port?

- Yes
- No
- No response



## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

- Yes
- No
- No response



Oil spill  
Chemical spill  
Both



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

- Yes
- No
- No response



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Tabletop  
Practical exercises  
Situation

Scale of exercises



Frequency of exercises





## RESPONSE MANAGEMENT AND COORDINATION

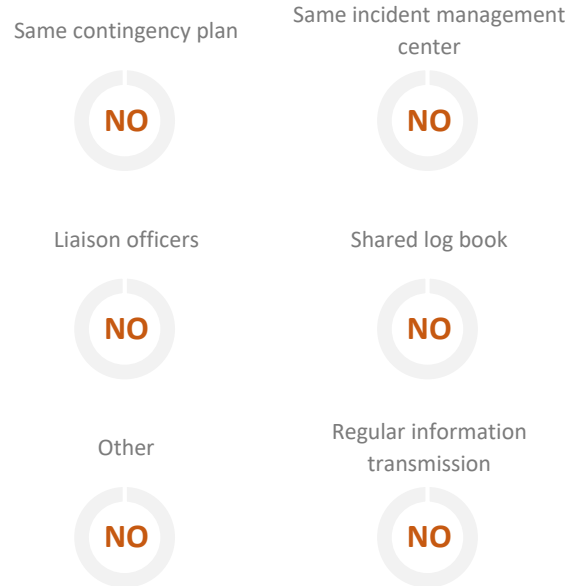


### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?

Polluter	No
Port personnel	No
Civil protection/fire service	No
Contractor	No
Port operator/concessionaire	No
Private company contracted by the port	No
Navy or coastguard	No
Other	No

### WAY TO COORDINATE WITH STAKEHOLDERS



## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



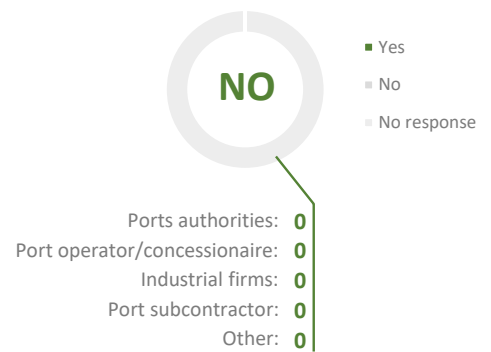
### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?

Mechanical mixing	No
Chemical dispersion	No
Containment (booms)	No
Skimming	No
Pumping by trucks	No
Sorbents	No

### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



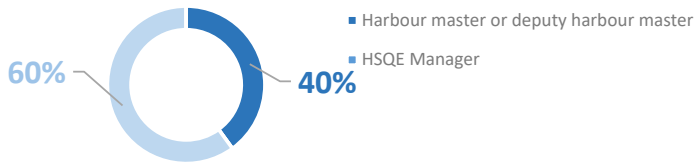
### DECISION SUPPORT SYSTEM

Do you have a decision support system?



## POSITION OF THE RESPONDENTS

Out of 5 answers



### LOCATION OF THE PORTS

Sea ports

Is the port a seaport or an inland port?

Inland ports

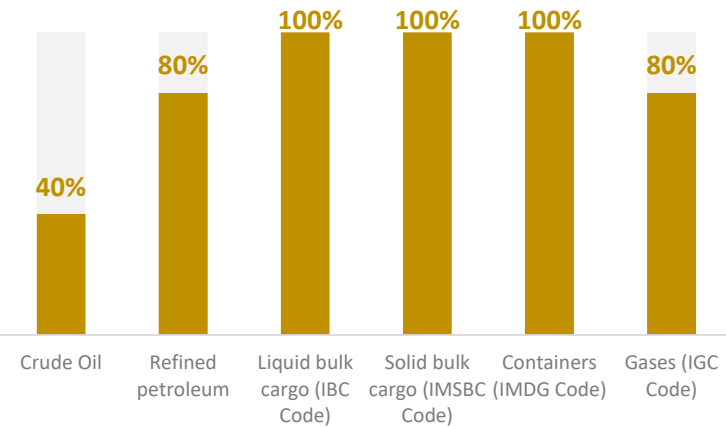


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

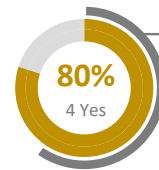
Which of the following goods transit through the your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



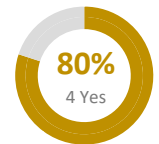
3 out of 5 respondents indicated that the information is shared



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

- Yes
- No
- No response



- 4 out of 4 involving oil  
- 1 out of 4 involving HNS

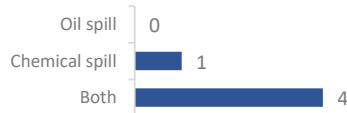
## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

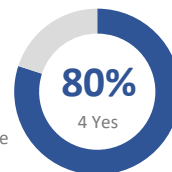
- Yes
- No
- No response



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

- Yes
- No
- No response



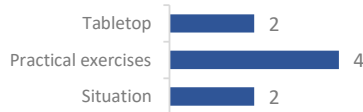
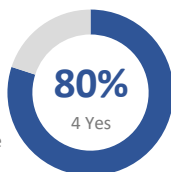
- 4 not specified (frequency)



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Scale of exercises



4 extended to all the port's stakeholders

Frequency of exercises



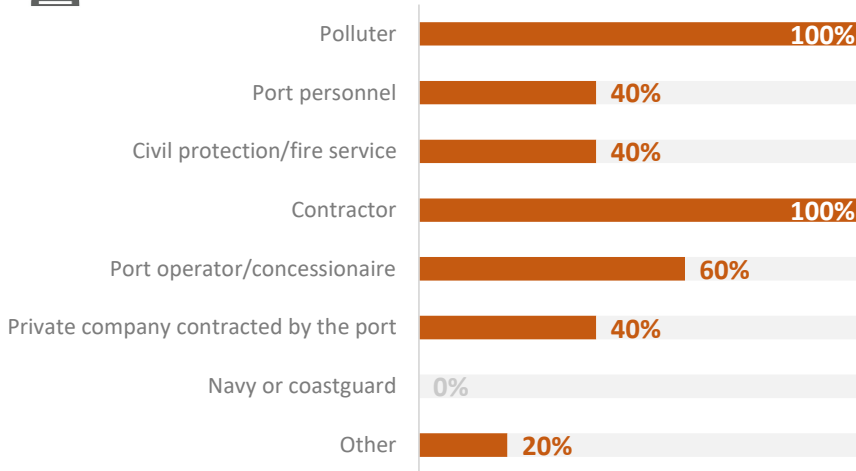
4 not specified

## RESPONSE MANAGEMENT AND COORDINATION



### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS

Same contingency plan



3 Yes

Same incident management center



2 Yes

Liaison officers



3 Yes

Other

Shared log book



0 Yes

Regular information transmission



2 Yes



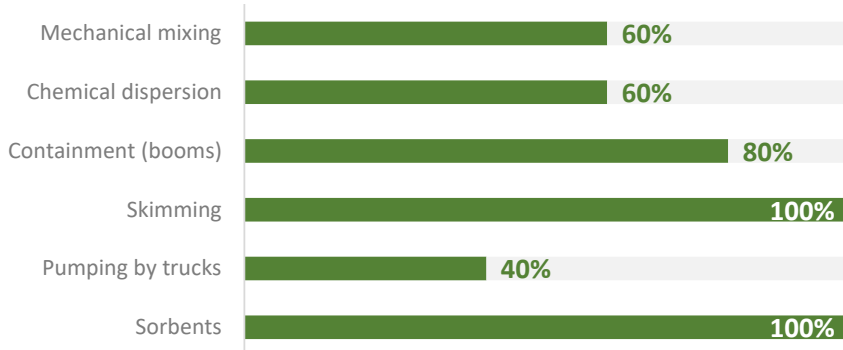
2 Yes

## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



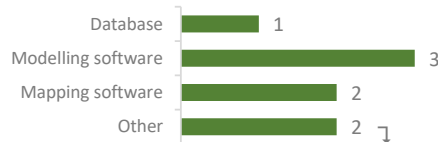
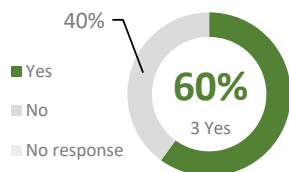
■ Yes  
■ No  
■ No response

Ports authorities: 4  
Port operator/concessionaire: 4  
Industrial firms: 5  
Port subcontractor: 4  
Other: 2  
out of 5 "Yes"



### DECISION SUPPORT SYSTEM

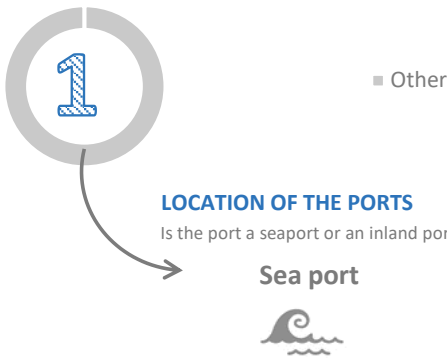
Do you have a decision support system?



- EMSA HAZMAT  
- Oilmap software

## POSITION OF THE RESPONDENTS

Only one answer

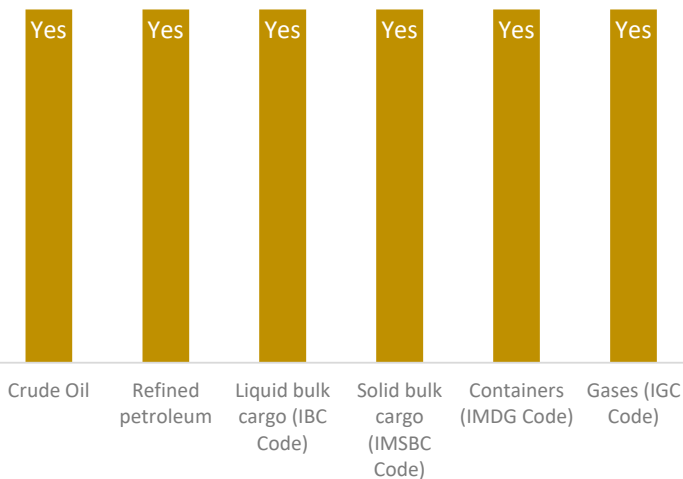


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

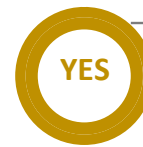
Which of the following goods transit through your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



The respondent indicated that the information is not shared



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

- Yes
- No
- No response



- involving oil and sometimes HNS

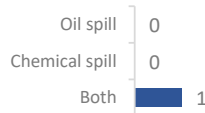
## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

- Yes
- No
- No response



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

- Yes
- No
- No response



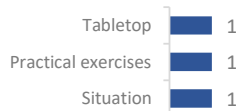
- at least once a year



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Scale of exercises



1 extended to all the port's stakeholders

Frequency of exercises



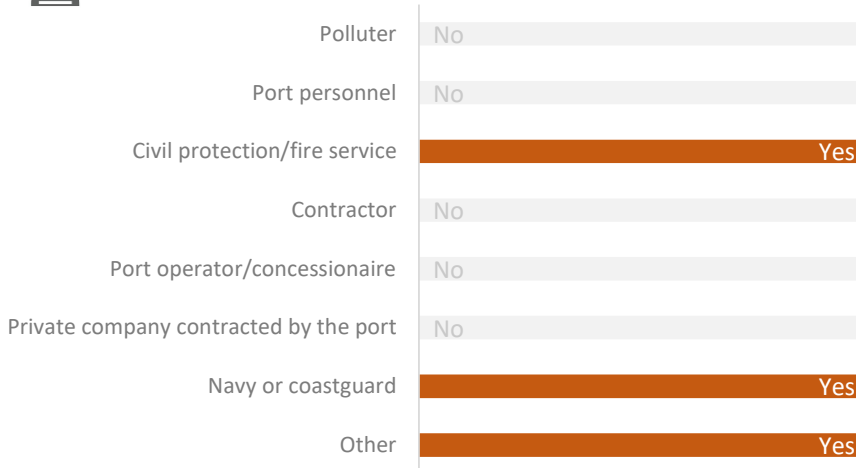
1 four times a year

## RESPONSE MANAGEMENT AND COORDINATION



### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS



## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



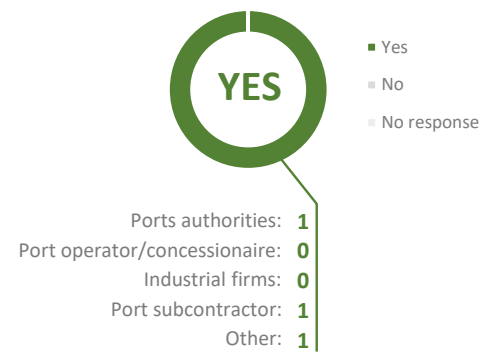
### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



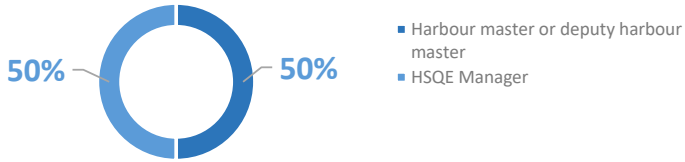
### DECISION SUPPORT SYSTEM

Do you have a decision support system?



## POSITION OF THE RESPONDENTS

Out of 2 answers



### LOCATION OF THE PORTS

Sea ports

Is the port a seaport or an inland port?

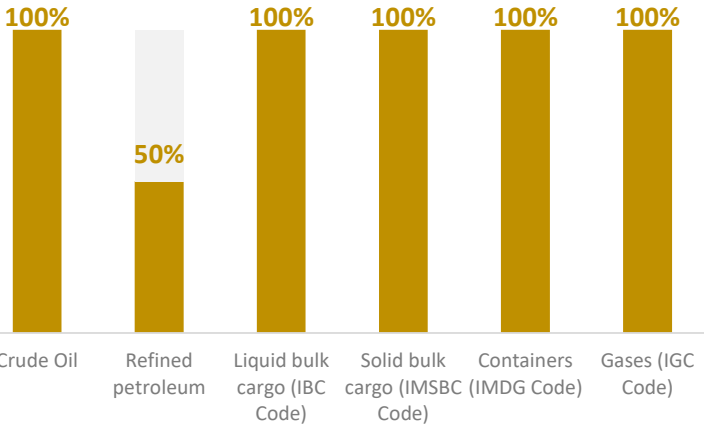


## GOODS TRAFFIC AND INCIDENT



### GOODS TRANSITING THROUGH PORTS

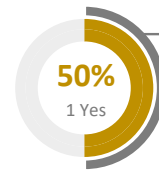
Which of the following goods transit through the your port?



### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?

- Yes
- No
- No response



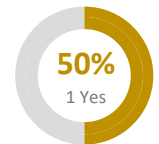
1 out of 2 respondents indicated that the information is shared



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

- Yes
- No
- No response



- 1 involving oil  
- 0 involving HNS

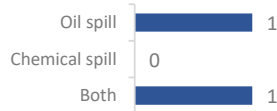
## PREPAREDNESS



### EMERGENCY PLAN

Do you have an emergency plan?

- Yes
- No
- No response



### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

- Yes
- No
- No response



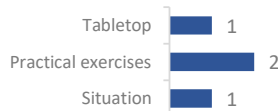
- 2 not specified (frequency)



### EXERCISES

Are exercises regularly organised?

- Yes
- No
- No response



Scale of exercises



Frequency of exercises

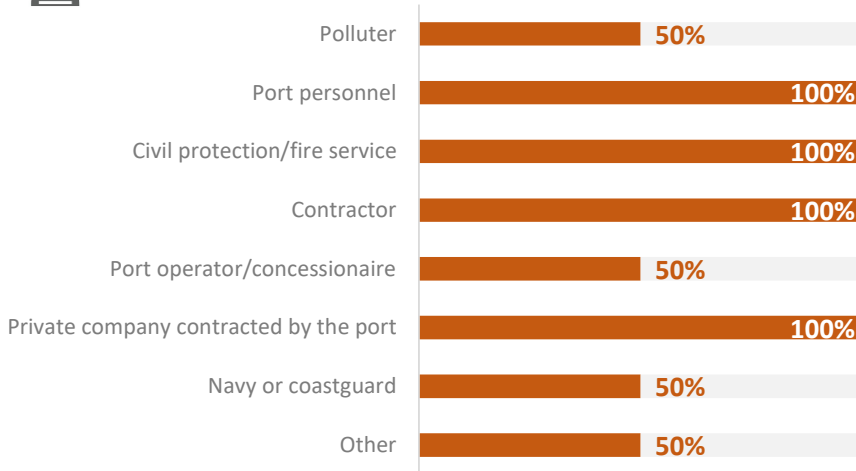


## RESPONSE MANAGEMENT AND COORDINATION

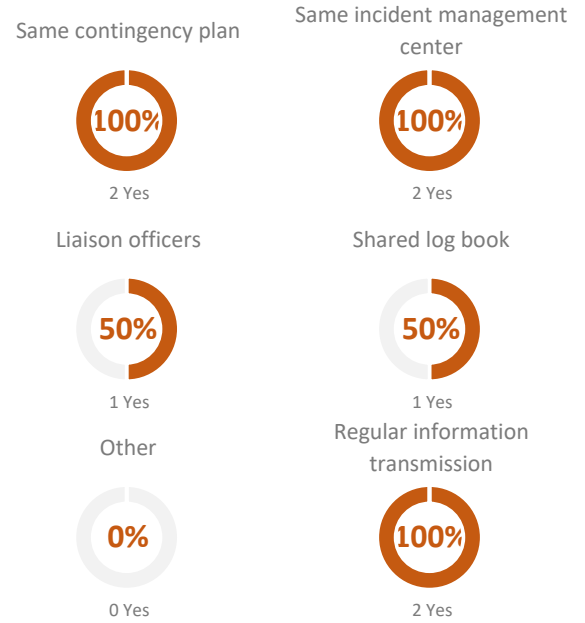


### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS

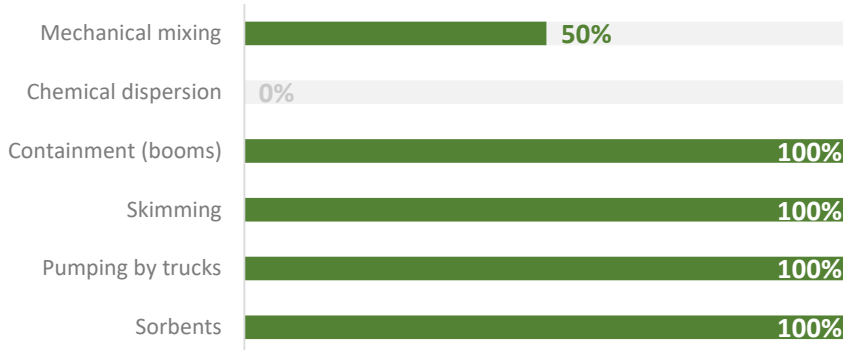


## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



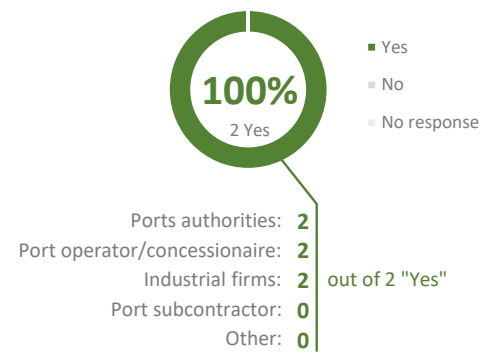
### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



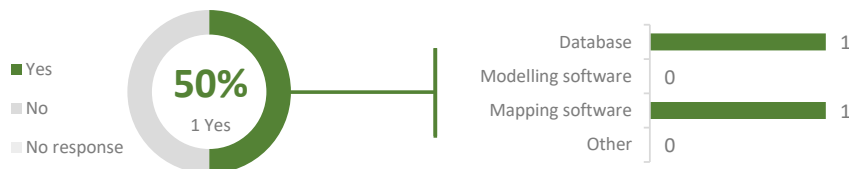
### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



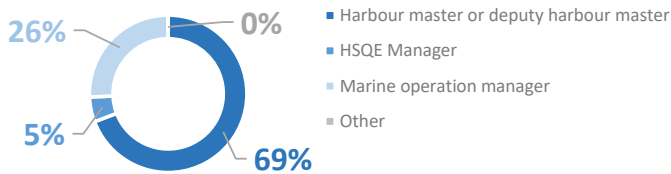
### DECISION SUPPORT SYSTEM

Do you have a decision support system?



## POSITION OF THE RESPONDENTS

Out of 39 answers



### LOCATION OF THE PORTS

Is the port a seaport or an inland port?



Inland ports

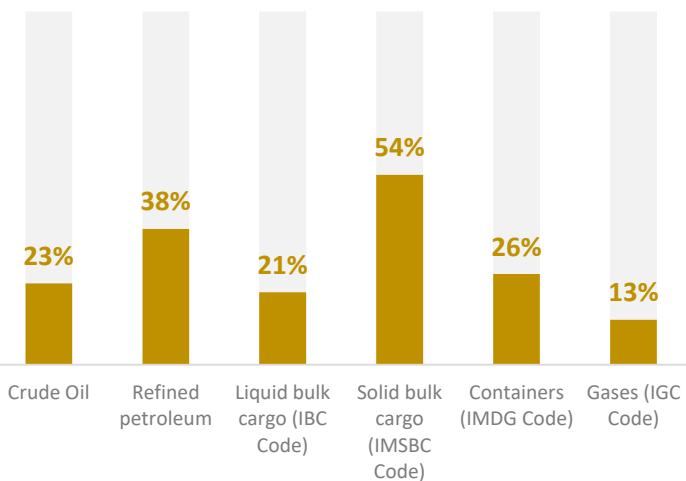


## GOODS TRAFFIC AND INCIDENT



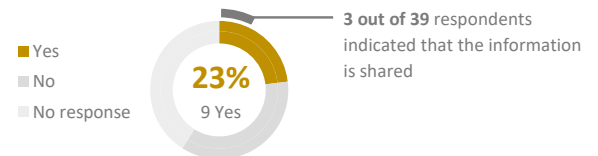
### GOODS TRANSITING THROUGH PORTS

Which of the following goods transit through the your port?



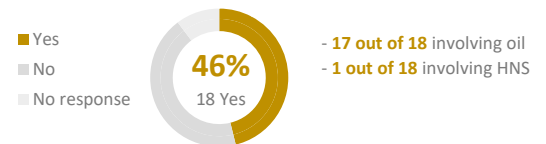
### ACCESS TO INFORMATION

Do you have information system on the nature and quantities of hazardous substances transiting through the port?



### OIL OR HNS SPILL

Do you ever faced an oil of HNS spill that required response operations within the port?

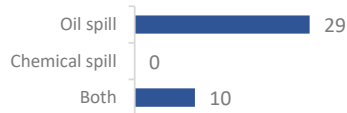
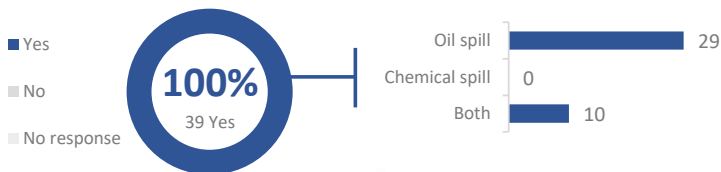


## PREPAREDNESS



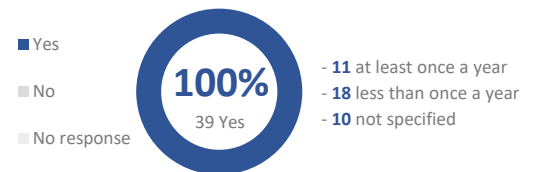
### EMERGENCY PLAN

Do you have an emergency plan?



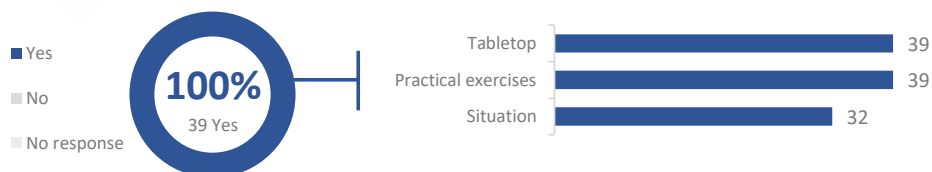
### TRAINING AND CERTIFICATION

Are the response teams regularly trained and how often?

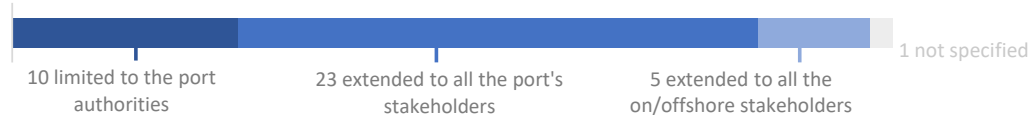


### EXERCISES

Are exercises regularly organised?



Scale of exercises



Frequency of exercises



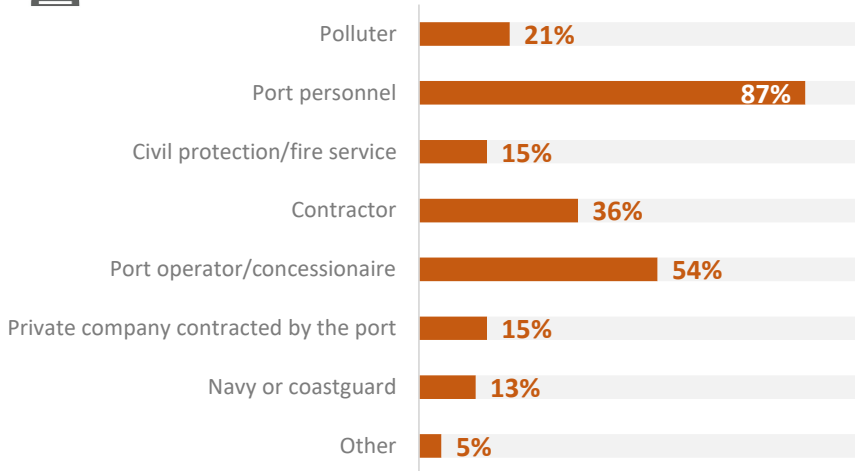


## RESPONSE MANAGEMENT AND COORDINATION



### ENTITIES IN CHARGE OF THE RESPONSE

Who is in charge of the response in the event of a spill?



### WAY TO COORDINATE WITH STAKEHOLDERS

Same contingency plan



26 Yes

Same incident management center



18 Yes

Liaison officers



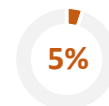
22 Yes

Shared log book



4 Yes

Other



2 Yes

Regular information transmission



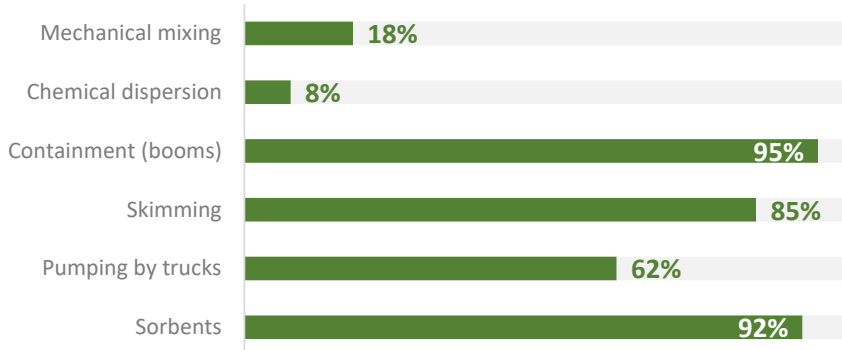
22 Yes

## RESPONSE STRATEGIES, TECHNIQUES AND TOOLS



### RESPONSE STRATEGIES AND TECHNIQUES

Which response techniques may be implemented in the port in case of an oil spill?



### RESPONSE EQUIPMENT AVAILABILITY

Is equipment available?



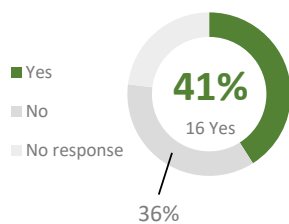
■ Yes  
■ No  
■ No response

Ports authorities: 34  
Port operator/concessionaire: 4  
Industrial firms: 11  
Port subcontractor: 7  
Other: 2  
out of 39 "Yes"



### DECISION SUPPORT SYSTEM

Do you have a decision support system?



■ Yes  
■ No  
■ No response



- Reports of incidents
- Oil Spill Contingency Plan
- Oil Spill plan
- Contracted Tier 2 responder Briggs Environmental has appropriate modelling / mapping software
- Own internal systems

## **9) Appendices**

**Appendice 1: Closing event & Work Package 3 workshop programme and attendance sheet**

**IRA-MAR PROJECT**  
**CLOSING EVENT & WORK PACKAGE 3 WORKSHOP**  
**Marseille**  
**24-25 January 2024**



### 3.1) IRA-MAR closing event – Wednesday 24 January morning

**8:45 - 9 :00 : Welcome coffee**

**9:00 – 12:30 – Presentation of project results**

9:00 – 10:00: Welcoming remarks

9:00 – 9:10: Promoting regional cooperation to prevent and combat pollution

*M. Benoit de Guibert, Deputy SGMer.*

9:10 – 9:20: Presentation of the challenges facing the Mediterranean, ports of refuge

*M. Thierry de la Burgade, Préfecture maritime Méditerranée*

9:20 – 9:30 : Presentation of port issues

*M. Philippe Affre, Grand Port Maritime de Marseille Harbour Master*

9:30 – 10:00: Presentation of the IRA-MAR project

*Mrs Julie Rigaud, SGMer, IRA-MAR project coordinator*

10:00 – 11:00: Presentation of project results by partners - Part 1

Work Package 3 – Spill response in ports

*M. Arnaud Guéna, Cedre*

Work Package 4 - Chemical cloud response capabilities

*M. Pablo Pedrosa, Spanish Ministry of Transport*

11:00 – 11:15 : *Coffee break*

11:15 – 11:30: Presentation of the video of the project

11:30 – 12:30: Presentation of project results by partners – Part 2

Work Package 5 – The use of drones in emergency response

*M. Luigi Alcaro, ISPRA*

Work Package 6 – An integrated and holistic approach in the emergency response

*Mrs Julie Rigaud, SGMer, IRA-MAR project coordinator*

**12:30 – 02:00 pm: Closure of the conference**

**Lunch (buffet)**

### 3.2) Workshop on spill management in ports - Wednesday 24 January afternoon

#### **2:00 – 2:10: Opening of the workshop, presentation of the programme**

*M. Nicolas Chardin, SGMer*

2:10 – 2:40: Restitution of the survey on the response to accidental pollution by oil and chemical products in ports

*M. Arnaud Guéna, Cedre*

2:40 – 4:20: Presentation of the emergency response organisation of the ports of Marseille, Tangier Med and Malta

Tanger Med

*M. Mohammed Amine EL Fatmi, Tanger Med Deputy Harbour Master*

Marseille

*Mrs Florence Perouas, Marseille Harbour Deputy Harbour Master*

Malta : Valletta et Marsaxlokk

*M. Mevric Zammit, Transport Malta*

4:20 - 4:00: Presentation of the video of the Simulex exercise organised in Morocco in the harbour of Mohammedia to illustrate cooperation between harbour authorities and national authorities

*M. Abderrahmane El Hor, Mohammedia Harbour Master*

4:30 – 5:30: Discussion on good practices and main gaps related to spill response in ports

*M. Nicolas Chardin, SGMer*

*M. Arnaud Guéna, Cedre*

5:30 – 6:00: Final recommendations of the IRA-MAR WP3

*M. Arnaud Guéna, Cedre*

#### **6:00 – 6:30: Conclusion: Towards enhanced regional collaboration post-IRA-MAR**

**Instructions for dinner and exercise the next day**

*Mme Julie Rigaud, SGMer, IRA-MAR project coordinator*

**7:30: Dinner offered by the project**

### **3.3) Spill response practical demonstration in the harbour of Marseille - Thursday 25 January**

**8:30 – 8:45: Welcome of participants**

**8:45 – 9:15: Briefing and presentation of the “Bataillon des marins-pompiers de Marseille » equipment**

**9:15-11:15: Exercise**

- Aerial spill survey by drone
- Pollutant sampling by drone
- Characterization of the pollutant in a mobile laboratory
- Deployment of a floating boom
- Set-up of the worksite
- Implementation of a recovery chain: skimmer, pump and storage capacities
- Equipment recovery
- Presentation of Emergency Vehicles

**11:30 – 12:00: Conclusion of the exercise**

**Closure of the IRA-MAR event**


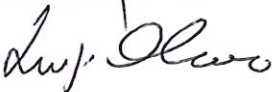



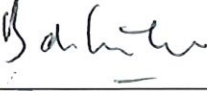
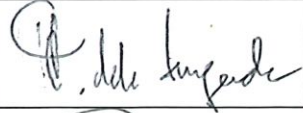
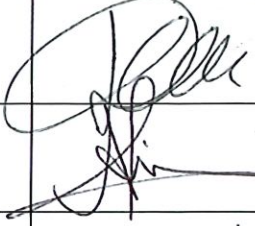



**12:00 – 1:30: Lunch (sandwiches)**



**IRAMAR - CLOSING EVENT**

DATE : 24 January 2024

Marseille

SURNAME	FIRST NAME	ORGANISATION	COUNTRY	Signature 24 January
AFFRE	Philippe	GPMM	France	
ALCARO	Luigi	ISPRA	Italy	
<del>CHAMPION</del>	Florent	RAMOGE	France	<del>_____</del>
CHARDIN	Nicolas	SGMer	France	
CHARMAT	Yacine	BMPM	France	
CIRILLO	Frédéric	BMPM	France	
DE GASQUET	Olivier	DGITM	France	
DE GUIBERT	Benoît	SGMer	France	
DE LA BURGADE	Thierry	Mediterranean Maritime Prefecture	France	
DEMANUELE	John	Transport Malta	Malta	
EL FATMI	Mohammed Amine	TANGER MED Port Authority	Morocco	
EL HOR	Abderrahmane	ANP / Mohammedia	Morocco	
<del>ELLENA</del>	Arnaud	BMPM	France	<del>_____</del>
ERSCHEID	Antoine	Mediterranean Maritime Prefecture	France	





**IRA-MAR**  
IMPROVING THE INTEGRATED RESPONSE  
TO POLLUTION ACCIDENT AT SEA  
AND CHEMICAL RISK IN PORT

## ATTENDANCE SHEET



Co-funded by  
the European Union

SURNAME	FIRST NAME	ORGANISATION	COUNTRY	Signature 24 January
FINTONI	Lionel	SOLTEN	France	
FONTAINE	Xavier	BMPM	France	
<del>FRICANO</del>	Clara	RAMOGE	France	<del>Signature</del>
GESE	Javier	Puertos del estado	Spain	
GIRAUD	William	Cedre	France	
GUÉNA	Arnaud	Cedre	France	
GUILLEMETTE	Christophe	BMPM	France	
<del>HOSPITAL</del>	Mathieu	BMPM	France	<del>Signature</del>
KHEDIRA	Samir	ANPE	Tunisia	
LELIEVRE	Loïc	DGAMPA	France	
LONDRES	Annaïg	Cedre	France	
MASCARO	Emilie	SOLTEN	France	
MATHIEU	Lionel	BMPM	France	
<del>MENDOZA</del>	Pilar	Puertos del estado	Spain	<del>Signature</del>
NEMORIN	Antoine	BMPM	France	



**ATTENDANCE SHEET**



SURNAME	FIRST NAME	ORGANISATION	COUNTRY	Signature 24 January
NIJKAMP	Hugo	Sea Alarm	Belgium	-
PEDROSA	Pablo	DGMM	Spain	
PEROUAS	Florence	GPMM	France	
PILOLO	Ange	GPMM	France	
PITOR	Pascal	SDIS29	France	
RIGAUD - MARECHAL	Julie	SGMer	France	
ROUSSEAU	Stephane	DIRM	France	
SAXENA	Anita	SOLTEN	France	
SHANAHAN	Edel	Sea Alarm	Belgium	-
SOFIA JERONIMO	Joana	DGPM	Portugal	
VILLA	Patrice	BMPPM	France	
ZAMMIT	Mevric	Transport Malta	Malta	
ZOUBAIR	Naoual	MTEDD	Morocco	
<del>Khedhri</del>	<del>Samir</del>	<del>ANPE</del>	<del>Tunisia</del>	<del></del>
<del>Seve</del>	<del>Julien</del>	<del>BMPPM</del>		



**Appendice 2: Presentation of Tangier Med, Marseille and Malta ports spill response organisation**

# TANGER MED



**MOROCCO**

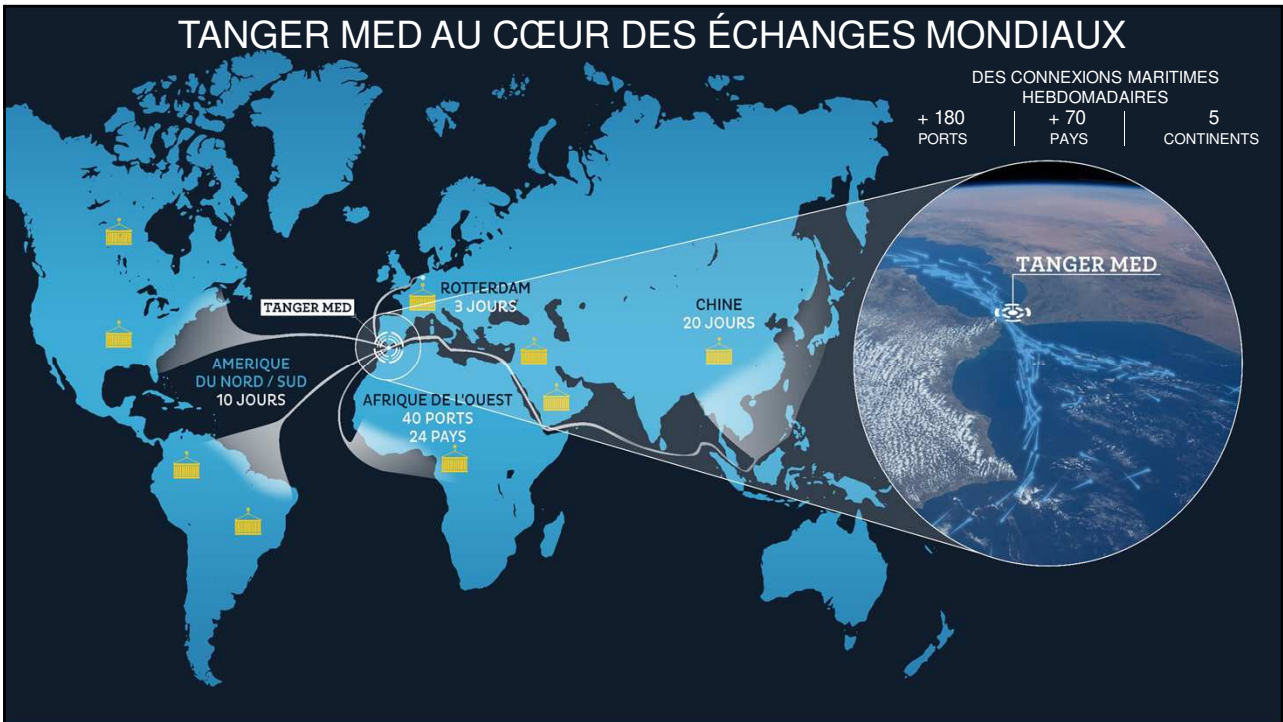
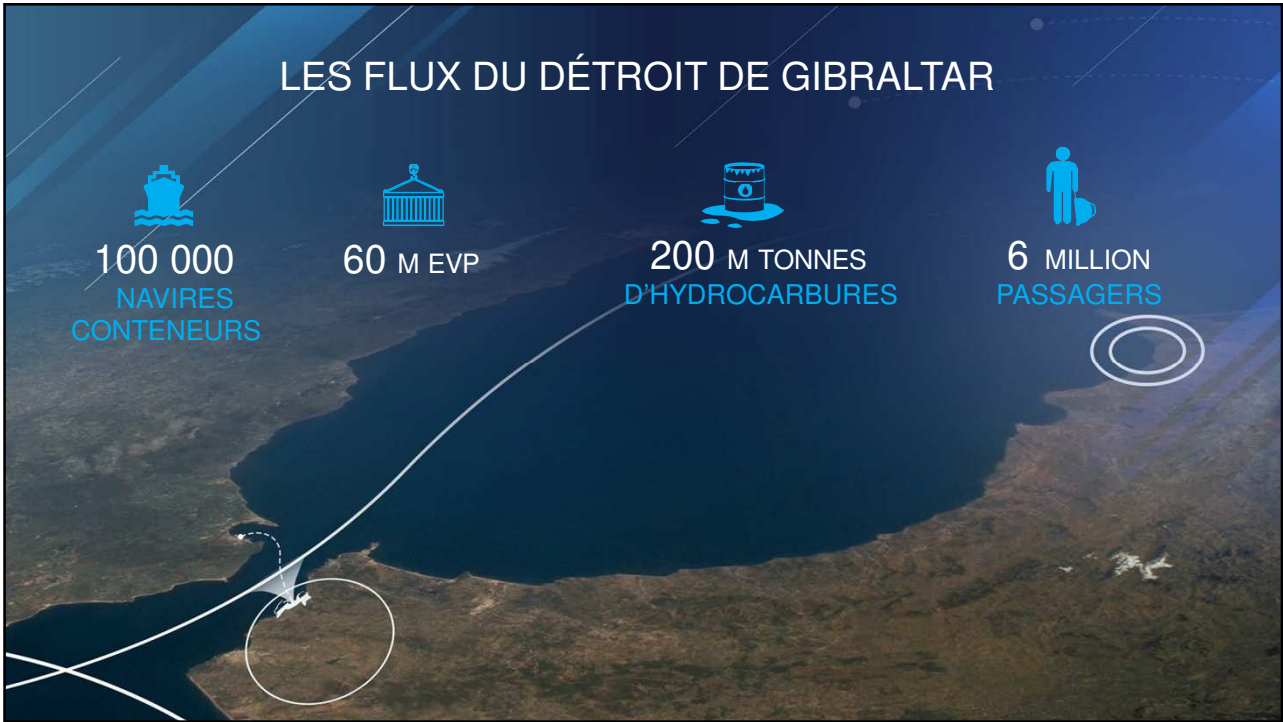
**EUROPE**

## DÉTROIT DE GIBRALTAR

TANGER MED POSSÈDE UNE LOCALISATION STRATÉGIQUE. IL EST SITUÉ SUR LE DÉTROIT DE GIBRALTAR À LA CROISÉE DES ROUTES MARITIMES MAJEURES EST/OUEST ET NORD/SUD.

UN POINT DE PASSAGE DE 20% DU COMMERCE MONDIAL

UN PONT DE JONCTION ENTRE DEUX CONTINENTS SÉPARÉS D'UNE DISTANCE DE 14 KM: L'EUROPE ET L'AFRIQUE



# A WORLD CLASS PORT COMPLEX



## CLASSEMENT DU COMPLEXE PORTUAIRE TANGER MED

**1<sup>ER</sup>**

PORT EN  
AFRIQUE

- 6<sup>ème</sup> Année Consécutive -

**1<sup>ER</sup>**

PORT EN  
MÉDITERRANÉE

- 3<sup>ème</sup> Année Consécutive -

**22<sup>ème</sup>/500**

PORTS  
DANS LE MONDE

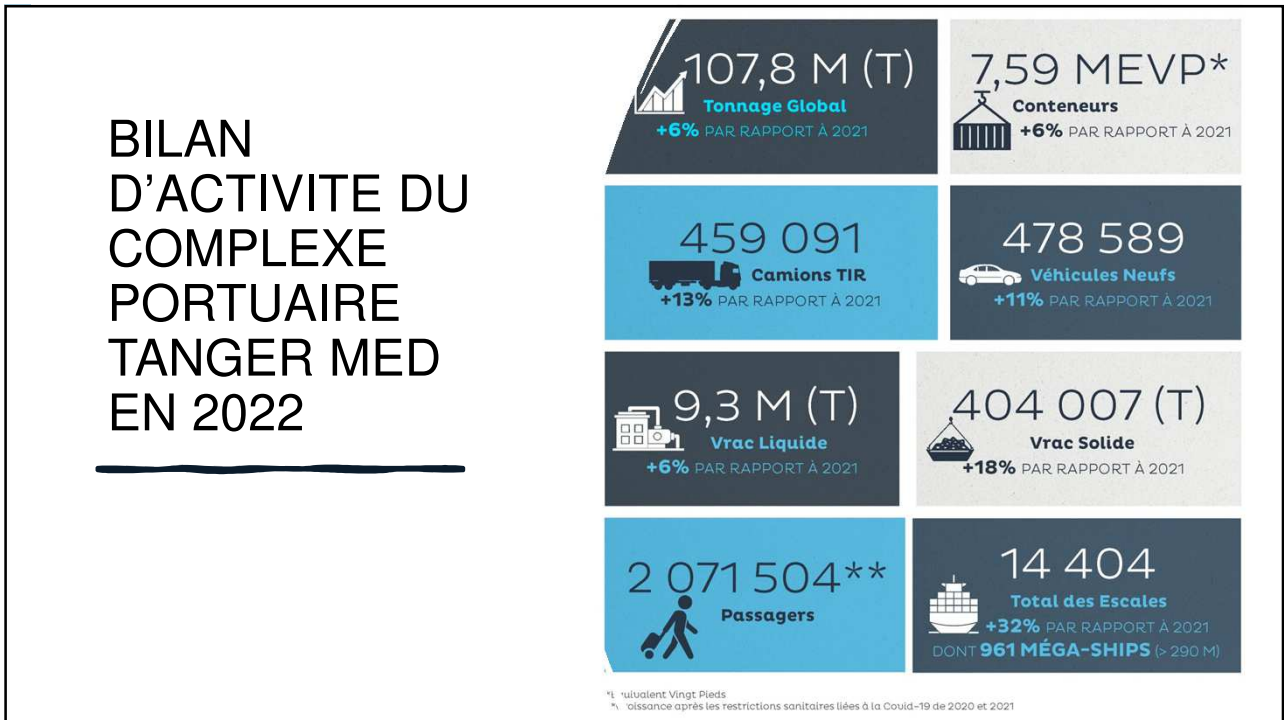
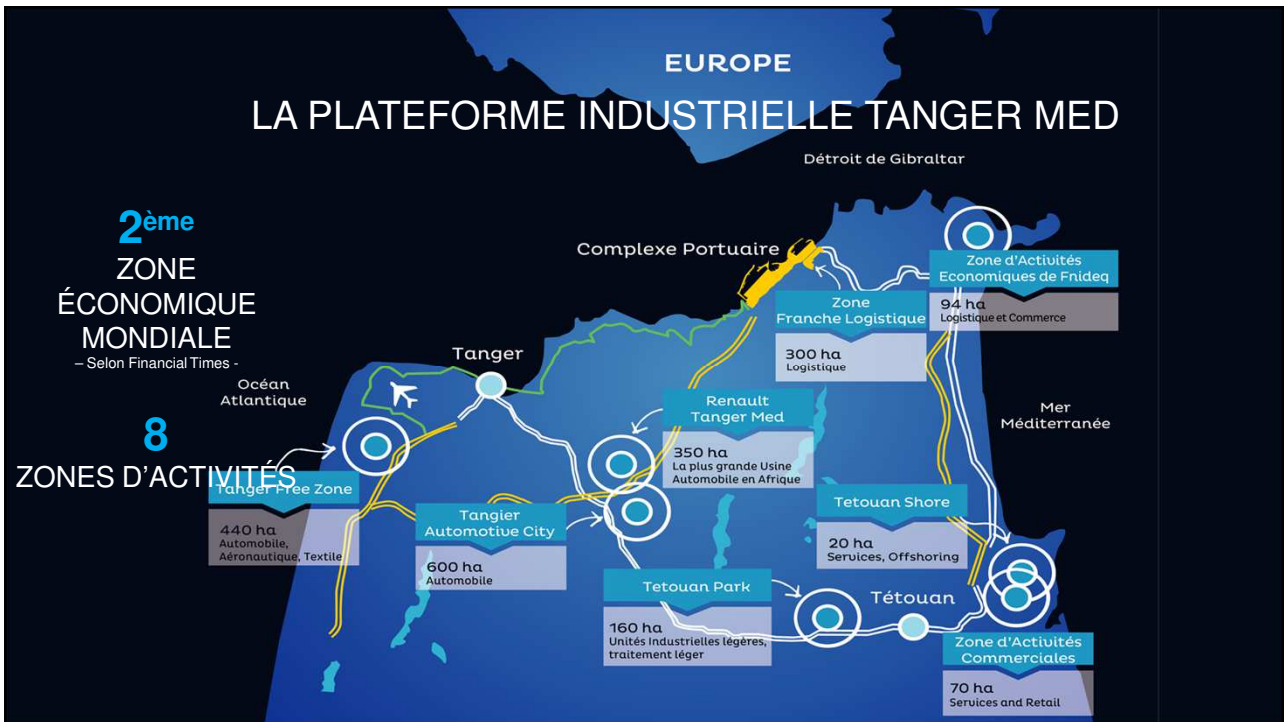
- Classement Alphaliner -

**4<sup>ème</sup>**

MONDIAL EN  
TERMES  
D'EFFICACITE

- Banque Mondiale et S&P -







## PLATEFORME DE GESTION DES MARCHANDISES DANGEREUSES

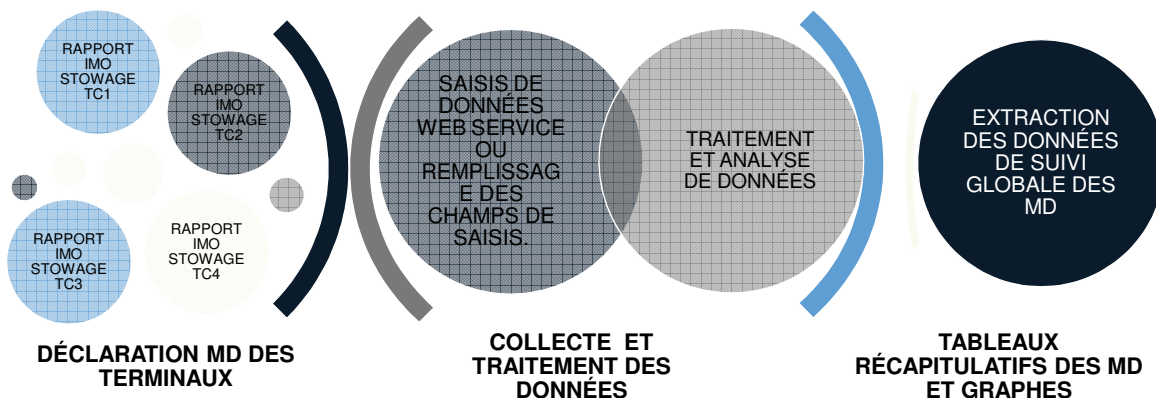
Dans le cadre de la sécurité du complexe portuaire, le port Tanger Med a pu contrôler et exploiter les données concernant le passage des matières dangereuses par le PTM à travers la digitalisation de la plateforme de gestion des MD

OBJECTIF

- Gestion et traçabilité des marchandises dangereuses au PTM
- Etablir une déclaration dématérialisée des marchandises dangereuses
- Vérifier la conformité aux exigences réglementaires
- Accompagner l'ensemble de la chaîne logistique portuaire pour la gestion des dangers liés aux MD
- Faciliter la réception des données d'exploitation des opérateurs de terminaux
- Extraction des statistiques des matières dangereuses
- Emission des alarmes/notifications automatiques pour des quantités et classe MD précis,
- Contrôle des distances de sécurité et le respect de la limite des quantités stockées et les règles de ségrégation.

TANGER MED

## PLATEFORME DE GESTION DES MARCHANDISES DANGEREUSES



TANGER MED

## PLATEFORME DE GESTION DES MARCHANDISES DANGEREUSES

### GROUPEMENT DE MATIÈRES DANGEREUSES

Le groupement de matière dangereuse pourra être fait par des groupements ONU comme le cas du Nitrate d'Ammonium (1942,2067,2426,3375,2071)

A la base de ce groupement, des règles de stockage sont créées à la base de :

- Quantités max stockées concernant ce groupement
- Règles de ségrégation

**Le système est capable de visualiser sur une carte interactive les emplacements des MD, d'envoyer et générer des alertes au cas de non-respect des règles de stockage ci-dessus.**

Le système est capable de générer des rapports récapitulatifs des matières dangereuses, à n'importe quel moment concernant l'existant et périodique concernant le trafic, traitées par terminal conteneurs et globaux dans l'ensemble des terminaux conteneurs avec des graphes

TANGER MED

**TANGER MED**  
PORT COMMUNITY SYSTEM

GMD

Bonjour, ZAID NEBKHOUT (TMPA)

Gestion des matières dangereuses

Situation des matières dangereuses dans les terminaux à conteneurs ALERTES (81)

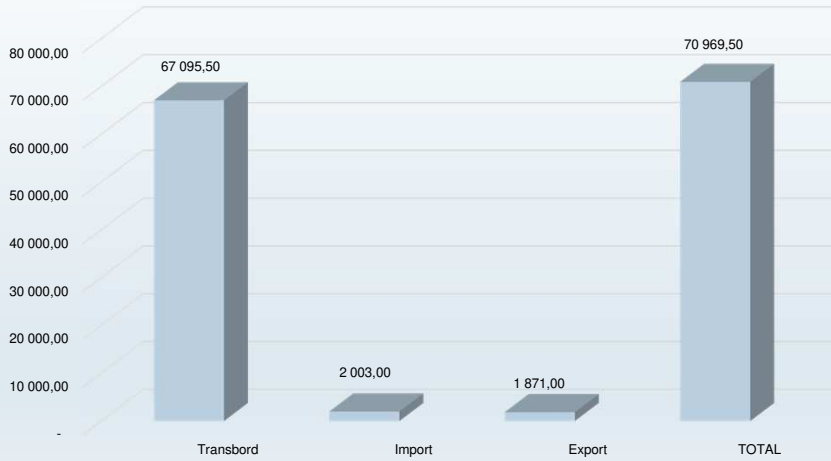
Recherche  FILTRER EXPORTER

Source ↑	Conteneur	Type	Catégorie	IMO Classe	Numéro ONU	Position	Dwell Time	Yard in Time	Weight	Net Weight
APMT2	MSKU7735409	22G1	Transshipment	6.1	3349	2E 79 F 01	2	09/01/2024	4760	2860
APMT2	MSKU4149600	22G1	Transshipment	8.0	3265	3F 03 K 01	2	09/01/2024	28550	26650
APMT2	BGBU4704135	22K2	Transshipment	9.0	3082	3F 03 F 01	2	09/01/2024	23810	21910
APMT2	PONU7989867	45G1	Transshipment	6.1	2588	3E 80 F 03	2	09/01/2024	26270	23186
APMT2	PONU7871051	45G1	Transshipment	8.0	2794	1B 02 G 02	1	09/01/2024	32270	29186

Rows per page: 5 1-5 of 283

## INDICE GÉNÉRAL IMO CARGO EN 2022

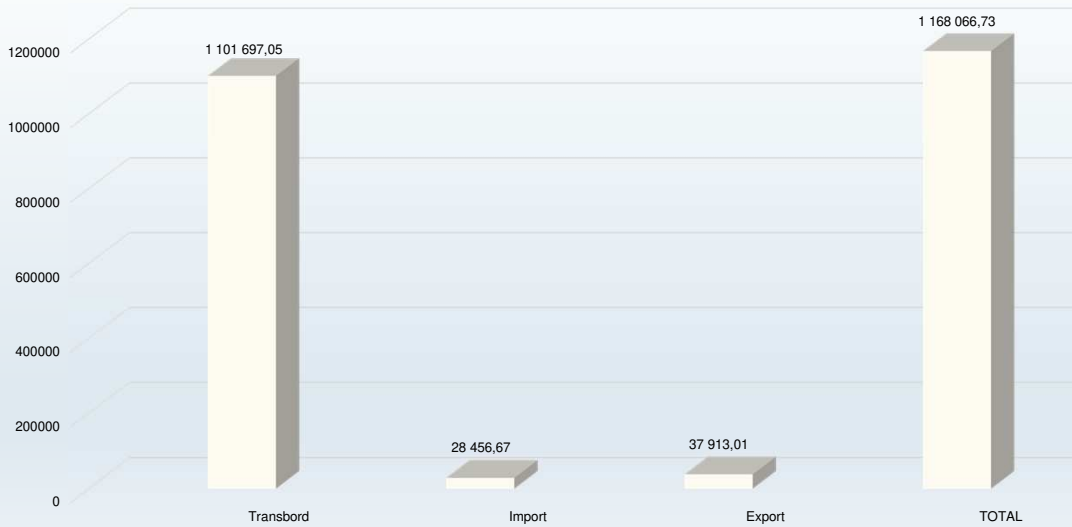
### INDICE IMO 2022 PAR EVP



TANGER MED

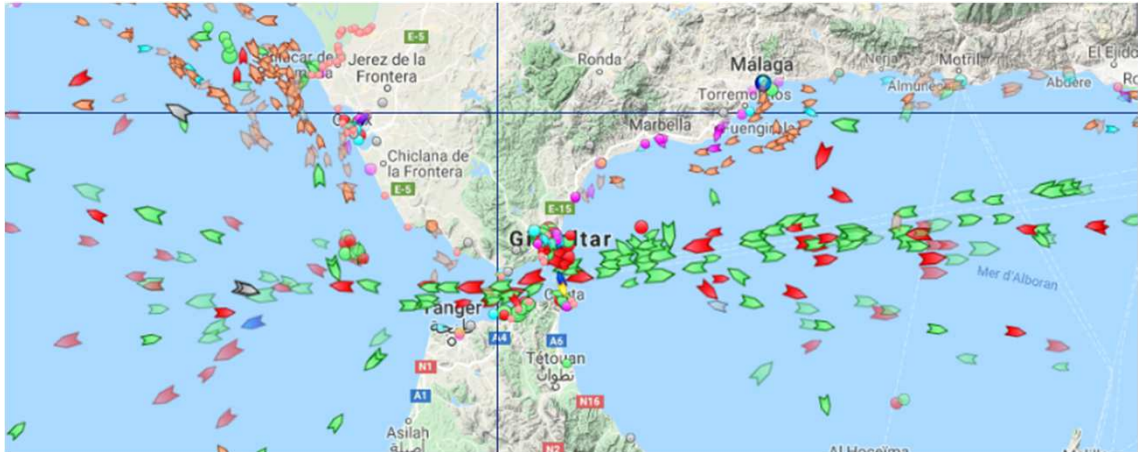
## INDICE GÉNÉRAL IMO CARGO EN 2022

### INDICE IMO 2022 PAR TONNAGE



TANGER MED

## IMAGE ILLUSTRANT LA DENSITÉ DU TRAFIC AU DÉTROIT DE GIBRALTAR



TANGER MED

## L'ENJEU DE LA PRÉPARATION EN MATIÈRE DE LUTTE CONTRE LES POLLUTIONS MARINES

Les Spécificités de la lutte contre la pollution au

Détroit de Gibraltar liées à **la position géographique du Complexe portuaire Tanger**

**Med :**

- Fort trafic maritime (environ 100 000 navires/an) donc risque potentiel de pollution
- Important courant de marée dans le détroit favorisant une dérive rapide des nappes.
- Position en zone spéciale exigeant une protection plus forte



La pollution accidentelle du plan d'eau des bassins portuaires risque de s'étendre

vers les zones maritimes en dehors du port, si l'intervention de lutte contre cette pollution n'est pas rapide et efficace.

**Également,**

Des pollutions au niveau du détroit peuvent facilement dériver vers le Complexe portuaire et impacter l'exploitation et le trafic du Port

EN RÉPONSE À CETTE MENACE, TMPA A MIS EN PLACE LE PLAN DE PRÉVENTION ET DE LUTTE CONTRE LES POLLUTIONS MARINES ACCIDENTELLES.

TANGER MED

## LA FORMATION DANS LES CONVENTIONS INTERNATIONALES

---

TMPA envoie régulièrement ses officiers de port au Cèdre pour recevoir les formations catalogue organisées chaque année en matière de :

- Lutte contre les pollutions accidentelles par hydrocarbures en mer et sur le littoral - Niveau OMI 2
- Principes d'intervention en mer en cas de pollution chimique - OMI Niveau Opérationnel
- Gestion de crise ORSEC maritime - Lutte contre les pollutions – Niveau OMI 3

Plus de **14 officiers** ont déjà fait le déplacement à Brest au Cèdre, et ont bénéficié de ces formations très intéressantes.

Ces formations constituent également de belles opportunités de conforter les échanges et renforcer le réseau professionnel de nos cadres.

TANGER MED

## EXERCICES ET FORMATIONS

---

La formation et l'entraînement des équipes de gestion de crise et de lutte sur le terrain, constituent la meilleure façon pour renforcer la capacité de réponse globale du Port Tanger Med.

A cet effet des exercices sont régulièrement organisés afin d'améliorer le savoir-faire et les compétences des équipes impliquées dans la réponse contre les pollutions marines.

**Un programme annuel** d'exercices et de formation du personnel est établi chaque début d'année, avec l'organisation d'au moins :

- Deux exercices avec formation des équipes d'intervention, en matière de lutte contre les pollutions marines par **hydrocarbures**. Ces exercices sont tenus annuellement en présence des experts du Cèdre qui assurent l'organisation et l'encadrement de ces exercices
- Un exercice avec formation des équipes d'intervention, en matière de lutte contre la pollution par des substances nocives et potentiellement dangereuses (**SNPD**)
- Un exercice majeur de simulation d'une situation d'urgence, avec déclenchement de la **cellule de crise** de l'autorité Portuaire

L'ensemble des Exercices sont tracés par des rapports qui restituent les points forts et les pistes d'amélioration qu'il faudrait mettre en œuvre pour augmenter la maîtrise et corriger les dysfonctionnements.

TANGER MED

# EXERCICES ET FORMATIONS

La formation et l'entraînement des équipes de gestion de crise et de lutte sur le terrain, constituent la meilleure façon pour renforcer la capacité de réponse globale du Port Tanger Med.

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Un programme annuel d'Exercices et de Formation du personnel est établi chaque début d'année,



TANGER MED

# PLANNING ANNUEL DES FORMATIONS ET EXERCICES

FICHE DE SUIVI ANNUEL DES FORMATIONS ET DES EXERCICES DE SIMULATION

BMD\_EN\_13\_02

N°	Thèmes de formation proposés	Année 2022																																					
		Janvier			Février			Mars			Avril			Mai			Juin			Juillet			Août			Septembre			Octobre			Novembre			Décembre				
		01	02	03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02	03	04	01	02
INSTALLATIONS PORTUAIRES: CONCESSIONNAIRE ET OPERATEURS																																							
1	Exercices et manœuvres quotidiens de Formation sur la lutte contre l'incendie, secourisme, sauvetage et lutte contre la pollution avec Test des équipements																																						
2	Exercices conjoints avec les opérateurs (lutte contre l'incendie, évacuation, secourisme, souveraineté des MD et Pollution...)	Gate 2 (groupe électrique)	PPR	TC1	TMPC-01 (Brisquet 000A10)	Sertego	TC3	TVR/TCU-TC3	TC2	TC4	ZSH/TP1/TP2	TMD	AFRIQUA GAZ																										
2.1	Lutte contre l'incendie	19	21		21	9	23	4		30	9	14		25	12																								
2.2	Secourisme et sauvetage en hauteur																																						
2.3	Pollution Marine																																						
2.4	Deversement ou fuite produits polluants ou dangereux avec pollution terrestre																																						
2.6	Homme à la mer																																						
2.7	Evacuation	19	21																																				
3	Exercice majeur niveau 2 avec déclenchement du PCP et Cellule de Crise de TMDA																																						

Exercice Planifié	13
Exercice Planifié et réalisé	13
Exercice Planifié et non réalisé	0
Exercice organisé et non planifié	3

Taux de réalisation du Planning des exercices 2022

100,0%

TANGER MED

## OBJECTIFS DES EXERCICES

Les exercices permettront également de :

- S'assurer que les différentes équipes mobilisées sont formées, familiarisées à l'intervention commune
- Evaluer la mise en œuvre du Plan d'urgence antipollution, Plan d'urgence Portuaire, et POI des concessionnaires et opérateurs portuaires
- Tester les stratégies de lutte et identifier toute défaillance éventuelle qu'il serait nécessaire de corriger
- Tester les communications, la coordination, la disponibilité des ressources, et les capacités d'intervention
- Tester les équipements de lutte et d'intervention et connaître leurs limites d'utilisation



TANGER MED

## EXERCICE NATIONAL DE LUTTE CONTRE LA POLLUTION MARINE ACCIDENTELLE PAR DES HYDROCARBURES

Le Port Tanger Med a abrité en 2014 l'Exercice NATIONAL, prévu par Le PUN, organisé tous les 2ans, concernant la lutte contre les pollutions marines accidentelles par des hydrocarbures "SIMULEX"

- Principaux Intervenants nationaux : Marine Royale, Forces Royales Air, Gendarmerie royale, Pêches Maritimes; Protection Civile, TMPA, la Province Fahs Anjra et enfin le Département de l'environnement.
- Participants étrangers : Les pays de l'initiative défense 5+5 à savoir Tunisie, Algérie, Espagne, France, Italie, Libye, Mauritanie, Portugal, et Malte.



TANGER MED

## CONVENTION D'INTERVENTION ET D'ASSISTANCE TECHNIQUE EN MATIÈRE DE LUTTE CONTRE LES POLLUTIONS MARINES

L'Autorité Portuaire Tanger Med (TMPA) dispose d'une convention d'intervention et d'assistance technique en matière de lutte contre les pollutions marines, avec le Cèdre.

Cette convention couvre les volets suivants :

- Assistance à l'intervention suite à une pollution marine accidentelle avérée, ou menace de pollution marine par hydrocarbures, produits chimiques, ou de tout autre polluant transportés en vrac ou conditionnés, depuis le PC du Cèdre et/ou sur site
- Assistance technique, intégrant le soutien à distance et contrôle annuel avec inspections, visites et essais sur site des équipements de lutte contre les pollutions marines du Complexe Portuaire Tanger Med
- Organisation d'exercices de simulation et formation du personnel d'intervention sur site (Niveau OMI 1)
- Formation du Personnel de TMPA et de ses partenaires au sein des stages catalogues du Cedre, dédiés à la gestion de pollutions par hydrocarbures ou produits chimiques

TANGER MED

## CONVENTION D'INTERVENTION ET D'ASSISTANCE TECHNIQUE EN MATIÈRE DE LUTTE CONTRE LES POLLUTIONS MARINES

### Niveau 1- Mise en alerte :

Pour toute information du Port sur un accident risquant de provoquer ou ayant provoqué une pollution, le Cedre, sur sollicitation téléphonique ou fax aux numéros d'alerte figurant en annexe 1, met en alerte les moyens nécessaires pour faire face à une demande ultérieure d'aide du Port.

### Niveau 2- Assistance opérationnelle à distance :

L'activation de l'assistance opérationnelle du Cedre est faite par l'envoi par TMPA d'une commande verbale qui devra être confirmée par écrit sous 24 heures.

Le P.C. du Cedre est activé alors immédiatement et tous les moyens nécessaires sont mis à la disposition du Port pour fournir dans les meilleurs délais les évaluations et les recommandations sollicitées.

Les données sont fournies à TMPA par fax ou mail, accompagné d'une communication téléphonique, à destination de l'entité demanderesse qui aura fourni les coordonnées nécessaires.

### Niveau 3-Assistance opérationnelle sur zone :

Le Cedre met alors à la disposition de TMPA un ou plusieurs ingénieurs qui se rendront sur les lieux de l'accident pour assister la cellule de management de crise, pourvus de leur équipement et leurs données. Le premier de ces ingénieurs à partir peut si nécessaire quitter Brest dans les 6 heures de réception de la demande.

### Niveau 4- Assistance après pollution :

Cette assistance, activée comme la précédente sur demande écrite de TMPA, peut se réaliser depuis les locaux du Cedre, sur le lieu de l'accident et / ou en tout autre lieu. Elle a pour objet d'apporter au Port l'expertise disponible au Cedre dans le traitement des conséquences de la pollution (suivi à moyen ou long terme), en particulier dans les domaines de :

- la bio restauration des sites pollués
- la quantification des impacts écologiques et économiques de la pollution
- le règlement amiable ou judiciaire des dommages

TANGER MED



## DÉFINITION DES FONCTIONS DES MEMBRES DE LA CELLULE DE CRISE

DIRECTEUR DES OPERATIONS DE LUTTE (DOL)	
<b>Responsabilités</b>	DIRIGE LA CELLULE DE CRISE
<b>Chronologie</b>	<b>Mémento des tâches principales</b>
<b>Phase d'Alerte</b> (après confirmation de l'ampleur de la pollution)	<ul style="list-style-type: none"> <li>✓ S'assure que toutes les mesures de nature à faire stopper le déversement d'hydrocarbures et à réduire les risques d'incendie et d'explosion ont été prises.</li> <li>✓ Informe le Directeur du port Tanger Med.</li> <li>✓ Prépare et fait transmettre les messages d'alerte.</li> </ul>
<b>Actions initiales</b>	<ul style="list-style-type: none"> <li>✓ Réunit la Cellule de crise.</li> <li>✓ Délègue les tâches fonctionnelles au sein de la Cellule de crise.</li> <li>✓ Fait ouvrir un journal de bord / main courante où seront répertoriés chronologiquement tous les événements et actions entreprises.</li> <li>✓ Décide avec le COL de la stratégie de lutte à adopter.</li> </ul>
<b>Actions suivantes</b>	<ul style="list-style-type: none"> <li>✓ Organise des réunions régulières de la Cellule de crise pour faire le point sur l'évolution de la situation (Points fixes).</li> <li>✓ Se charge de l'information les usagers portuaires, les autorités et ministères concernées.</li> </ul>

TANGER MED

## DÉFINITION DES FONCTIONS DES MEMBRES DE LA CELLULE DE CRISE

COMMANDANT DES OPERATIONS DE LUTTE (COL)	
<b>Responsabilités</b>	SUPERVISE LES OPERATIONS DE LUTTE FAIT L'INTERFACE ENTRE LA CELLULE DE CRISE ET L'EQUIPE D'INTERVENTION
<b>Chronologie</b>	<b>Mémento des tâches principales</b>
<b>Actions initiales</b>	<ul style="list-style-type: none"> <li>✓ Evalue le champ de déplacement possible du polluant et fait les premières investigations en coordination avec le Chef du PC Opérationnel.</li> <li>✓ Prépare et définit avec le DOL le plan d'interventions approprié à l'événement ainsi que les méthodes de lutte à mettre en œuvre.</li> <li>✓ Enumère les équipes d'intervention ainsi que les ressources humaines et matérielles nécessaires en coordination avec le Chef du PC Opérationnel et le responsable logistique.</li> <li>✓ S'assure que des échantillons sont prélevés par des OPI ou des agents assermentés (cf. annexe 4)</li> <li>✓ Supervise les opérations d'intervention.</li> <li>✓ Assure la coordination avec les autorités portuaires.</li> </ul>
<b>Actions suivantes</b>	<ul style="list-style-type: none"> <li>✓ Observe et réévalue constamment la situation (reconnaitances régulières).</li> <li>✓ Supervise la logistique ainsi que l'équipe (ou les équipes) d'intervention.</li> <li>✓ Assure l'information du DOL ainsi que celle du responsable des opérations de lutte.</li> </ul>

TANGER MED

## DÉFINITION DES FONCTIONS DES MEMBRES DE LA CELLULE DE CRISE

<b>RESPONSABLE LOGISTIQUE</b>	
<b>Responsabilités</b>	SE CHARGE DE LA MOBILISATION DES MOYENS ET DE LA GESTION DE LA LOGISTIQUE D'INTERVENTION
<b>Chronologie</b>	<b>Mémento des tâches principales</b>
<b>Actions initiales</b>	<ul style="list-style-type: none"> <li>✓ Recense le matériel et les ressources humaines disponibles au sein du port de Tanger Med et tient à jour un registre du suivi de leurs affectations.</li> <li>✓ Mobilise avec le COL le personnel et le matériel nécessaires à la mise en œuvre de la stratégie de lutte définie.</li> <li>✓ Prépare les demandes de ressources matérielles complémentaires en fonction des besoins prévisionnels. Assurer la gestion des moyens de communication.</li> <li>✓ Attribue et oriente le matériel selon la stratégie de lutte adoptée.</li> </ul>
<b>Actions suivantes</b>	<ul style="list-style-type: none"> <li>✓ Organise le ravitaillement (nourriture / carburant / équipements de protection individuelle).</li> <li>✓ Gère la relève du personnel chargé des opérations de lutte.</li> <li>✓ Gère le stockage et l'évacuation des déchets solides et liquides.</li> <li>✓ Recherche si nécessaire des moyens additionnels ou complémentaires.</li> </ul>

TANGER MED

## DÉFINITION DES FONCTIONS DES MEMBRES DE LA CELLULE DE CRISE

<b>RESPONSABLE DES APPROVISIONNEMENTS</b>	
<b>Responsabilités</b>	ASSURE LES APPROVISIONNEMENTS
	<b>Mémento des tâches principales</b>
<b>Actions</b>	<ul style="list-style-type: none"> <li>➤ Satisfait les demandes de ressources matérielles complémentaires établit en fonction des besoins par le responsable logistique .</li> <li>➤ Commande , réceptionne, distribue et stocke les approvisionnement.</li> <li>➤ Obtient et enregistre toutes les données relatives aux couts.</li> <li>➤ Prépare les récapitulatifs des couts cumulés du sinistre.</li> <li>➤ Conservr les justificatifs des dépenses relatives au sinistre.</li> </ul>

TANGER MED

## APPLICATION « GESTION DE CRISE » DE TMPA

- Il s'agit d'une application développée en interne pour faciliter la communication, et permettre les échanges d'informations en temps réel, entre les différentes cellules et entités de gestion de crise.
- Elle peut générer des rapports périodiques consolidés avec traçabilité des actions décidées et mises en œuvre par l'ensemble des cellules et acteurs.
- L'application sert également comme base de données pour accès rapide aux plans, documents, annuaire téléphonique et autres informations utiles pour la gestion de crise.



TANGER MED

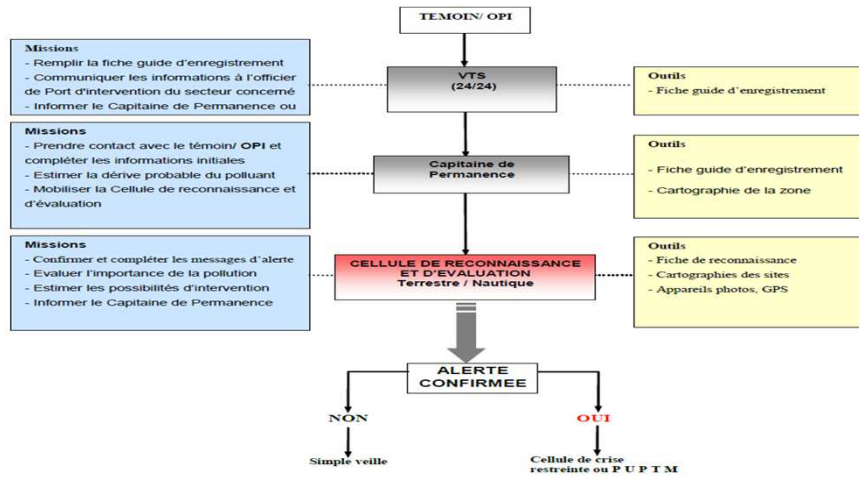


## INTERFACE ENTRE LES DIFFÉRENTS PLANS ANTIPOLLUTION



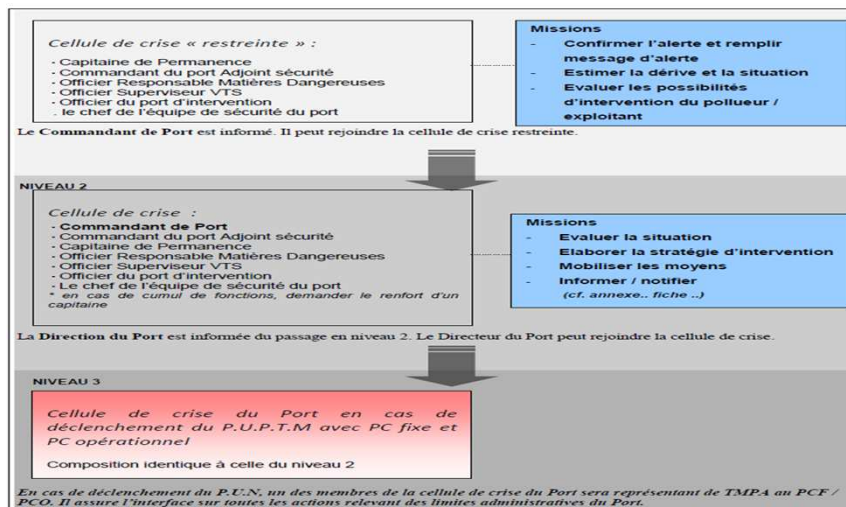
TANGER MED

# PLAN DE PRÉ-ALERTE ET DE CONFIRMATION DE L'ALERTE



TANGER MED

# MOBILISATION DES MOYENS ET MONTÉE EN PUISSANCE



TANGER MED

## BONNES PRATIQUES

Informier et Former pour changer les comportements de l'ensemble des opérateurs, concessionnaires et l'ensemble des entités concernées par la gestion de crise liée à des pollutions

Assurer la veille sur les nouveautés en matière de stratégie de lutte et d'équipements de prévention et d'intervention

Capitaliser sur le retour d'expériences suite aux exercices et événements réels enregistrés

Avoir un Plan d'urgence Antipollution qui répond aux besoins et risques de l'activité et de son environnement

Avoir une application pour faciliter la communication, et permettre les échanges d'informations et actions en temps réel, entre les différentes entités impliquées

Bon Entretien des équipements d'intervention Antipol

Organisation périodique et fréquente des Exercices de simulation avec déploiement des moyens, activation de la cellule de crise et implication de toutes les parties concernées, en respectant les étapes clés suivantes :

- Préparation du scénario de l'exercice
- Briefing
- Déroulement de l'exercice
- Débriefing : Points forts et points à améliorer
- CR de l'exercice
- Suivi des actions correctives et d'amélioration



TANGER MED

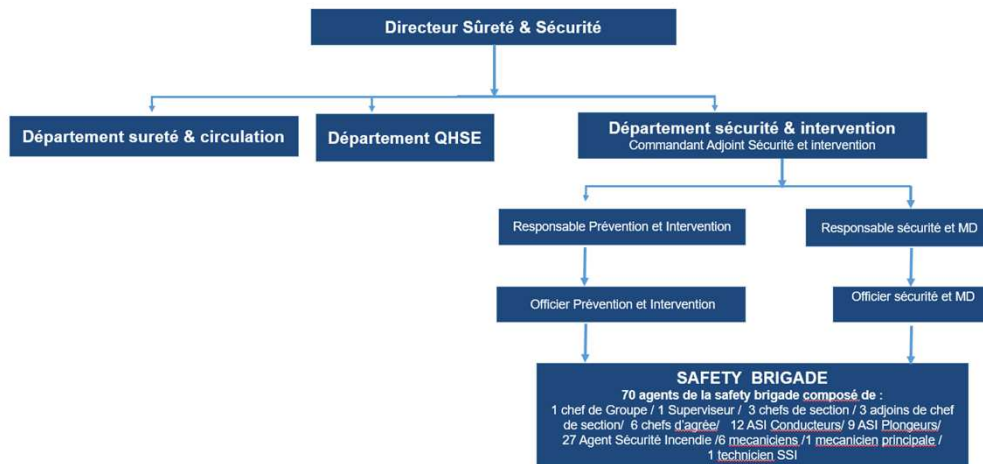
## DISPOSITIFS DE SÉCURITÉ ET LUTTE CONTRE LES SINISTRES : « MOYENS HUMAINS »

- Le Port Tanger Med dispose d'une équipe de sécurité, de prévention et de lutte contre les sinistres (Safety Brigade), qui assure des missions d'intervention, en soutien des capitaines de navires, concessionnaires et opérateurs portuaires.
- Cette équipe compte 70 agents de sécurité, elle fonctionne en régime permanent et est domiciliée dans 2 casernes, mises en place par TMPA dans l'enceinte portuaire, tout proches des terminaux et des zones à risques.
- Cette équipe assure également les actions de prévention et de sensibilisation des opérateurs portuaires aux respects des règles de sécurité et de protection de l'environnement.



TANGER MED

## ORGANIGRAMME DU DÉPARTEMENT SÉCURITÉ ET INTERVENTION DE LA CAPITAINEURIE



TANGER MED

## DISPOSITIFS DE SÉCURITÉ ET LUTTE CONTRE LES SINISTRES : « EQUIPEMENTS »

Le complexe Portuaire Tanger Med dispose d'équipements de lutte contre les pollutions marines qui sont répartis sur les 5 lots suivants :

- Lot 1 : Confinement
- Lot 2 : Récupération – Ecrémage – Pompage
- Lot 3 : Stockage déchets liquides – Protection des sols
- Lot 4 : Moyens de transport – Remorque
- Lot 5 : Nettoyage-Protection-Kit d'équipements de protection individuelle



TANGER MED

## DISPOSITIFS DE SÉCURITÉ ET LUTTE CONTRE LES SINISTRES : « EQUIPEMENTS »

N°	DESIGNATION	EMPLACEMENT	QTE DISPONIBLE
<b>LOT 1 : CONFINEMENT</b>			
01	Barrage lourd 258,4 m	Hangar QSTM1	01
02	Barrage lourde 106,4 m	Hangar QSTM1	01
03	Touret à barrage	Hangar QSTM1	01
04	Roto cassette, sangle de levage et bâche	Hangar QSTM1	01
05	Barrage absorbant à jupe lestée	10 Hangar QSTM1, 01 caserne TM1 ,02 caserne TM2	325m
06	Barrage plat de type barrière	Remorque antipollution	75m
07	Barrage lourd plat de type barrière	Quai de service TM1	450m
08	Barrages gonflables	300m quai de service TM1, 300m digue principale TM2	600m
09	triangles de traction	Remorque antipollution	02
10	Ancrages intermédiaires - Ancre de type HP plate réversible - Ancre de 34kg - Chaîne de mouillage de 14 galvanisé à chaud manillée L 8m - Ligne de mouillage - Ligne de relevage de 20m équipée d'une bouée flotteur - Bouées de mouillage 150l	Hangar QSTM1	08

TANGER MED

## DISPOSITIFS DE SÉCURITÉ ET LUTTE CONTRE LES SINISTRES : « EQUIPEMENTS »

N°	DESIGNATION	EMPLACEMENT	QTE DISPONIBLE
<b>LOT N°2 : RECUPERATION, ECREMAGE, POMPAGE</b>			
17	Récupérateur à pompe intégrée pour produit visqueux	Hangar QSTM1	01
18	Touret de stockage avec tuyau : - Tuyau de refoulement en caoutchouc Nitrite 20m - Tuyau hydraulique en caoutchouc 20m - Tuyau hydraulique raccord TEMA 08m - Tuyau hydraulique raccord TEMA+SNAP UTE, INC 04m	Hangar QSTM1	01 02 02 02 02
19	Bouées de type pare-battage	Hangar QSTM1	10
20	Télécommande RC60	Hangar QSTM1	01
21	Pompe de confinement marque KDP20	01 Hangar QSTM1, 01 caserne TM1	02
22	Pompe de confinement ROBIN TEF DY 23(crépine équipée clapet anti-retour) : - Tuyau de refoulement Ø45 05m - Crépine d'aspiration métallique bronze équipée d'un clapet anti-retour Ø45 - manche de refoulement Ø45 20m - lance incendie en aluminium Ø45	01 Hangar QSTM1 +04 caserne TM1	05
23	Pompe volumétrique à lobes pour récupérateur à seuil auto ajustable - Tuyaux aspiration Ø 3" 05m - Manches de refoulement Ø 3" 20m	Remorque antipollution	01 02 02
24	Récupérateur à seuil auto ajustable Mini Skimmer	Remorque antipollution	01
25	Tête d'aspiration plate	Hangar QSTM1	04

TANGER MED

## DISPOSITIFS DE SÉCURITÉ ET LUTTE CONTRE LES SINISTRES : « EQUIPEMENTS »

N°	DESIGNATION	EMPLACEMENT	QTE DISPONIBLE
<b>LOT N°3 : STOCKAGE DECHETS LIQUIDES PROTECTION SOL</b>			
26	Cuve de stockage et décantation marinisée avec réduction raccord à came Male diam 50 mm	Hangar QSTM1	01
27	Bac de stockage et décantation auto portant	01 Hangar QSTM1 , 01 Rmrq	02
28	Bac de stockage et de décantation à armature	01 Hangar QSTM1 , 01 Rmrq	02
<b>LOT 4 : MOYEN DE TRANSPORT REMORQUE</b>			
29	Remorque de transport matériel antipollution	Caserne TM1	01
<b>LOT 5 : NETTOYAGE, PROTECTION et EPI NETTOYAGE</b>			
30	Nettoyeur eau chaude haute pression	01 Hangar QSTM1 , 02 caserne TM2	03
31	Bâche nettoyeur	01 Hangar QSTM1 , 02 caserne TM2	03

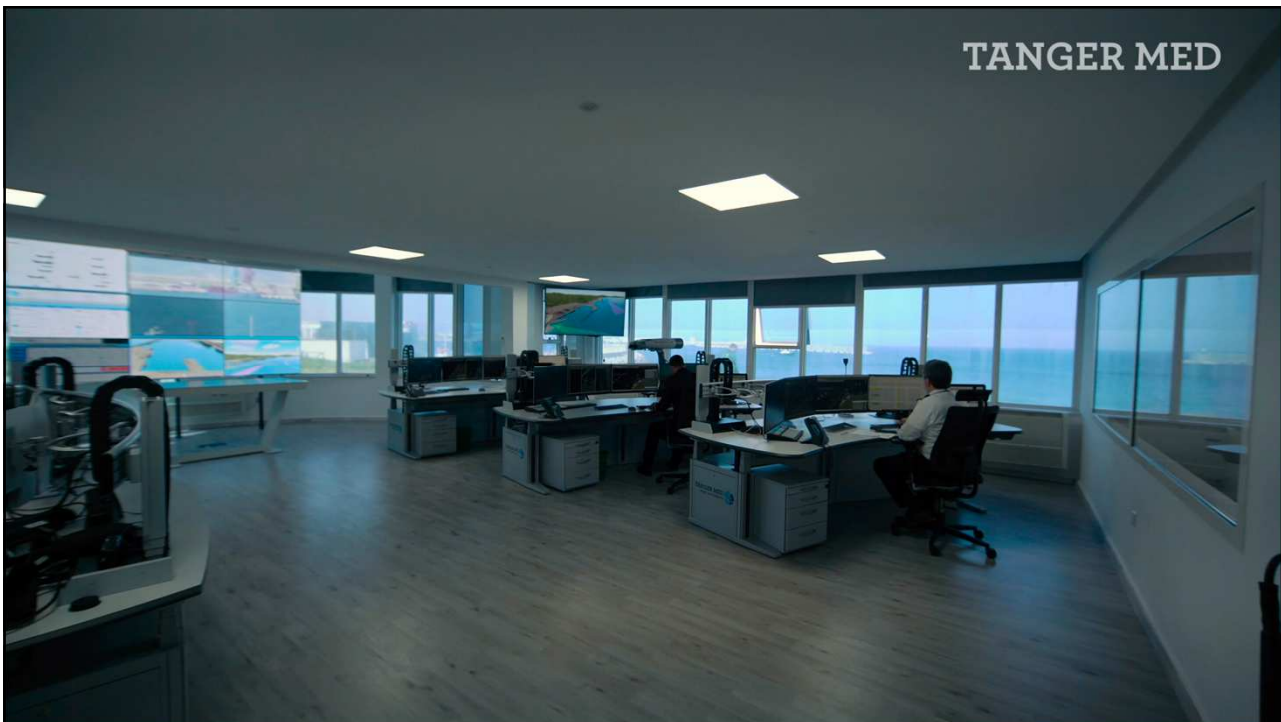
TANGER MED

## FORMATION ET EXERCICES DE SIMULATION AU CPTM



TANGER MED





## EXEMPLES DES EXERCICES DE SIMULATION

**Scénario de l'exercice :** Ceinturer une partie de la barge MARPOL, simulée avoir une fuite d'hydrocarbures dans la zone de mouillage.

Exercice de confinement et de récupération d'une pollution marine par hydrocarbure dans la zone de mouillage A3, avec déploiement du barrage lourd, écrémeur à pompe intégrée, et ancres magnétiques,

Avec la participation :

- D'un Remorqueur pour le transport et déploiement des équipements antipol et simulation d'épandage du dispersant
- D'une Vedette de lamanage et canot de secours de la barge MARPOL pour traction du barrage



## EXEMPLES DES EXERCICES DE SIMULATION

**Scénario de l'exercice :** Ceinturer une partie du mole Car Carrier (poste creux sur pieux), suite à une fuite d'hydrocarbures venant d'un navire car-carrier accosté au poste du TVCU.

Exercice de confinement et récupération d'une pollution marine par hydrocarbures au poste car-carrier avec mise en place d'un chantier antipol, déploiement du barrage gonflable portuaire, écrémeur, ancrs magnétiques, pantoires, ancrages intermédiaires, bacs de récupération, et moto pompes portatifs.

Avec la participation :

- D'un Remorqueur pour transport des équipements antipol
- D'une Vedette de lamanage pour traction du barrage, et mise en place des ancrs magnétiques et intermédiaires



TANGER MED

## EXEMPLES DES EXERCICES DE SIMULATION

**Scénario de l'exercice :** Ceinturer une partie du navire pétrolier, simulée avoir une fuite d'hydrocarbures au Poste Pétrolier N°1 du PTM1.

Exercice de confinement et récupération d'une pollution marine par hydrocarbures au poste pétrolier PP1, avec déploiement du barrage lourd, écrémeur, ancrs magnétiques, pantoires, ancrages intermédiaires.

Avec la participation :

- D'un Remorqueur pour transport et le déploiement des équipements antipol
- D'une Vedette de lamanage pour traction du barrage, et mise en place des ancrs



TANGER MED

## EXEMPLES DES EXERCICES DE SIMULATION



TANGER MED

## EXEMPLES DES EXERCICES DE SIMULATION

**Scénario de l'exercice :** Ceinturer une partie de la barge Marpol, simulée avoir une fuite d'hydrocarbures au quai de service du PTM1.

Exercice de confinement et de récupération d'une pollution marine par hydrocarbures au bassin du quai de service, avec mise en place d'un chantier antipol, et déploiement du barrage rideau , écrémeur, ancres magnétiques, pantoufes, bacs autoportants de récupération, et motopompes portatives.

Avec la participation :

- De la barge Marpol du Port, dédiée à la collecte des déchets liquides hydrocarbonés
- D'une Vedette de lamanage pour traction du barrage, et mise en place des ancres



TANGER MED

## EXEMPLES DES EXERCICES DE SIMULATION

**Scénario de l'exercice :** Simulation d'une récupération dynamique avec utilisation de tangons et barrage absorbant à jupe lestée, montés sur vedette de lamanage.



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**MERCI POUR VOTRE  
ATTENTION**

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[WWW.TANGERMEDPORT.COM](http://WWW.TANGERMEDPORT.COM)

# TANGER MED

# ORGANISATION DE LA LUTTE CONTRE LES POLLUTIONS

24/01/2024

# LA PRÉVENTION CONTRE LES SINISTRES

Le plan POLMAR est un plan de lutte contre la POLLution MARine par hydrocarbures ou tout autre produit (notamment chimique), résultant d'un accident ou d'une avarie maritime, terrestre ou aérienne. C'est un **outil de planification** dans lequel l'organisation de la gestion des opérations de luttés sont décrites , avec les moyens de la zone concernée.

➤ *En mer : Plan ORSEC Maritime dispositions « POLMAR »*

Si la menace de pollution ou la pollution en mer présente un degré élevé de gravité ou de complexité, notamment s'il n'est pas possible d'y faire face avec les seuls moyens ordinaires des administrations, le préfet maritime met en œuvre le plan ORSEC Maritime, dispositions spécifiques « POLMAR ».

➤ *A terre : Plan « POLMAR/Terre »*

Si la menace de pollution ou la pollution s'exerce sur le littoral et présente un degré élevé de gravité ou de complexité, notamment s'il n'est pas possible d'y faire face avec les seuls moyens ordinaires des collectivités locales et de l'État, le préfet de département met en œuvre les dispositions spécifiques «POLMAR/Terre ».

# POLLUTIONS EN MILIEU PORTUAIRE

## Dispositions spécifiques ORSEC

Ces documents précisent l'organisation des secours, contiennent les descriptions des installations ainsi qu'une cartographie des zones et précisent au moyen de différentes fiches l'activation du dispositif ainsi que des procédures.

Les dispositions spécifiques ORSEC BO intègrent des procédures INFRA-POLMAR



Service Interministériel Régional  
des Affaires Civiles et Économiques  
de Défense et de la Protection Civile

**DISPOSITIONS SPÉCIFIQUES  
ORSEC  
« BASSINS OUEST DU GRAND  
PORT MARITIME DE  
MARSEILLE »**

13039DS01



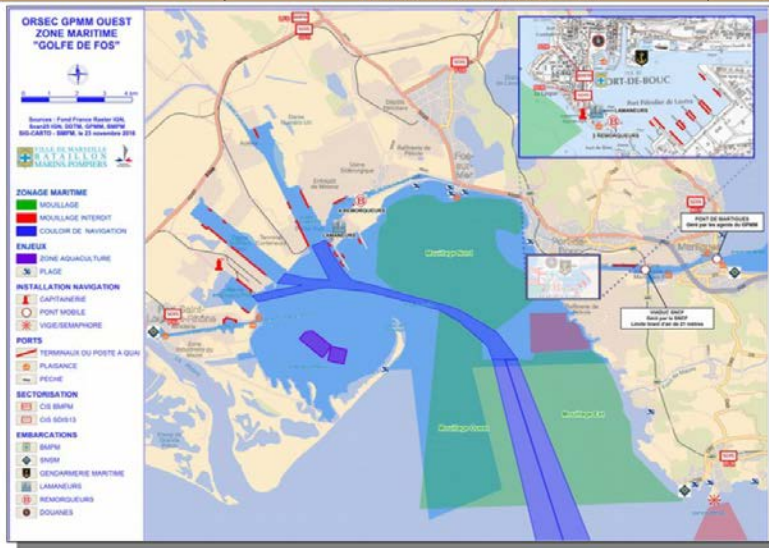
PREFET DES BOUCHES-DU-RHÔNE

Service Interministériel Régional  
des Affaires Civiles et Économiques  
de Défense et de la Protection Civile

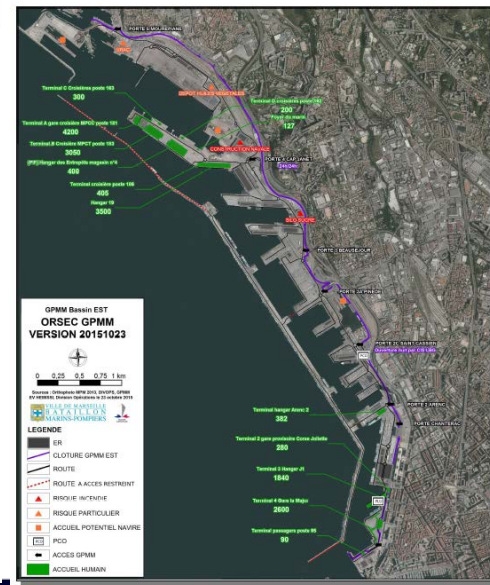
**DISPOSITIONS SPÉCIFIQUES  
ORSEC  
« BASSINS EST DU GRAND  
PORT MARITIME DE  
MARSEILLE »**

Marseille, le 22 décembre 2015

DS ORSEC « BASSINS-OUEST DU GPMM »	CARTOGRAPHIE PARTAGÉE DES PRINCIPAUX ENJEUX DE SÉCURITÉ CIVILE SUR LES BASSINS-OUEST DU GPMM	<b>B2</b>
	B2. Zone maritime « Golfe de Fos »	p.21



ORSEC BASSINS EST DU GPMM	<b>D – DÉPLOIEMENT DU DISPOSITIF</b>	
	D.1 – REPRÉSENTATION CARTOGRAPHIQUE DU DISPOSITIF	p.27





# POLLUTIONS EN MILIEU PORTUAIRE

## Activation du dispositif ORSEC BO : PROCEDURE INFRA-POLMAR

DS ORSEC « BASSINS- OUEST DU GPMM »	ACTIVATION DU DISPOSITIF ORSEC	<b>C1</b>
	C1. Procédure INFRA-POLMAR	p.26

Les retours d'expérience d'événements avec survenue d'**épisodes de pollution** sur les terminaux pétroliers ne relevant pas d'une gestion ORSEC ont conduit à l'élaboration d'une architecture opérationnelle de lutte « INFRA-POLMAR ».

Ainsi, en cas de pollution survenant dans les limites opérationnelles des plans d'eau sous gestion d'un exploitant donné, la procédure consiste en :

- La mise en œuvre de l'ensemble des moyens techniques appartenant en propre à l'exploitant : barrages, matériel antipollution du terminal, système de pompes de la pollution.
- La mise à disposition de ces moyens privés au profit du GPMM, titulaire de l'autorité de police spéciale des matières dangereuses.

### Modalités de mise à disposition des moyens techniques privés :

- Ces moyens techniques privés n'ont pas vocation à être mis à la disposition d'autres exploitants, sauf en cas de mise en œuvre du plan POLMAR.
- Ces moyens techniques sont mis en œuvre dans les cas de pollution infra-polmar se produisant dans les périmètres de gestion de l'exploitant.

### Répartition des missions :

Structure	Fonction	Mission(s)
GPMM, par l'intermédiaire du commandant du port ou de son représentant	Direction des opérations de lutte infra-polmar au titre de la police spéciale des matières dangereuses	Décide de la mise en place et de l'enlèvement des barrages.  Commande les opérations de lamanage : mise en place des barrages sur le plan d'eau (moyens nautiques).  Commande les opérations de remorquage
BMPM	Commandement des opérations au titre de la convention passée avec le GPMM	Assure une mission d'assistance : repérage des nappes, mise en place et enlèvement des barrages anti-pollution
EXPLOITANT	Assistance technique	Fourniture de moyens ainsi que nettoyage et reconditionnement des barrages...

# POLLUTIONS EN MILIEU PORTUAIRE

## *Activation du dispositif ORSEC BO : PROCEDURE INFRA-POLMAR*

La lutte contre une pollution fait intervenir différents acteurs de la place portuaire :

- les propriétaires des dispositifs de lutte dans l'environnement desquels le sinistre a lieu (exploitants)
- les personnels en charge de leur mise en œuvre (les exploitants ne sont pas dimensionnés pour assurer seuls cette opération) : lamanage, remorquage, BMPM...
- les personnels en charge de la direction des opérations et de la coordination : la Capitainerie

Les participations de ces différents acteurs privés ou publics (et les conditions financières qui en découlent) sont régies par des conventions et des protocoles définissant les engagements de chacun



# LA PRÉVENTION CONTRE LES SINISTRES - DGSP

La législation fait obligation aux établissements portuaires, présentant des risques importants, de disposer d'un plan prévoyant l'organisation des secours en cas de sinistre.

Ces procédures sont recensées par le GPMM dans son Dossier Général de Sécurité Portuaire. Le DGSP définit les réactions immédiates à appliquer en cas d'accident pour mettre rapidement les installations du port dans un état de sécurité acceptable.

Il s'appuie sur

- ✓ Une étude préalable de dangers et des scénarios d'accidents.
- ✓ Organisation, lutte contre tout sinistre et atteinte à l'activité portuaire (POI, PPI, Plans ORSEC / POLMAR...)
- ✓ Coordination des secours (conventions et protocoles d'entraide)
- ✓ Recensement des moyens (moyens des industriels, pompiers privés des terminaux, Marins Pompiers...)

Le DGSP se décline en fiches réflexes répertoriées par type d'évènement et conduite à tenir



# MISE EN OEUVRE DU DGSP

**D G S P**  
DOSSIER GÉNÉRAL DE SÉCURITÉ PORTUAIRE



FICHES RÉFLEXE **ACTIONS** BASSIN OUEST

## ALERTE POLLUTION

Menaçant ou venant de : d'un navire, le plan d'eau portuaire, le plan d'eau fluvial , les terrains du GPMM, les communes avoisinantes

### POLLUTION NAVIRE

METTRE LE NAVIRE EN DEMEURE DE FAIRE STOPPER LA POLLUTION

PRENDRE LES PREMIERES MESURES STRICTEMENT NÉCESSAIRES JUSQU'À L'ARRIVÉE DU COS

- Si risque d'extension important (météo, débit, fuite ...) : mise en place barrages.
- Si risques d'extension faible : surveillance du risque d'extension,  
Utilisation des moyens hydrauliques (lance jet diffusé).
- Estimer la quantité / surface de la pollution

DÉROULER INTÉGRALEMENT LA FICHE RÉFLEXE « ALERTE » ET NOTER LES HEURES

Si pollution située à FLUXEL FOS ou FLUXEL LAVERA voir en page 26 des Dispositions spécifiques ORSEC « bassins ouest du GPMM » la procédure INFRAPOLMAR

OBSERVATION DE LA MÉTÉO

ANALYSER LES RISQUES D'EXTENSION AUX NAVIRES À QUAI ET SUR LE PLAN D'EAU

CONCERTATION AVEC LE TERMINAL POUR STOPPER LES OPÉRATIONS COMMERCIALES (si l'origine de la pollution provient de la manutention de la cargaison)

APRES ANALYSE, SUSPENSION DE LA NAVIGATION AUTOUR DE LA ZONE IMPACTÉE :

- CHENAUX
- PONT DE MARTIGUES
- CANAUX
- DARSES

DISPONIBILITE DE :

LAMANAGE pour mise en place de barrages, GENDARMERIE MARITIME pour la police du plan d'eau.

POLICE DES VOIES DE CIRCULATION (Sûreté si nécessaire)

Mise en place d'un périmètre de sécurité. Utiliser le PC Sûreté du GPMM

RASSEMBLER LE MAXIMUM D'INFORMATIONS POUR LE COS ET OFFICIER DE PERMANENCE

- Plan de chargement - Caractéristiques du produit à bord

RISQUES D'EXPLOSION – POLLUTION – ASPHYXIE – INTOXICATION

Pour le dossier administratif voir l'annexe 2 (dossier de police portuaire) à la fin du DGSP

**D G S P**  
DOSSIER GÉNÉRAL DE SÉCURITÉ PORTUAIRE



FICHES RÉFLEXE **ACTIONS** BASSIN OUEST

## ALERTE POLLUTION

Menaçant ou venant de : d'un navire ,le plan d'eau portuaire, le plan d'eau fluvial , les terrains du GPMM, les communes avoisinantes

### POLLUTION TERRESTRE

METTRE L'AUTEUR EN DEMEURE DE FAIRE STOPPER LA POLLUTION

PRENDRE LES PREMIERES MESURES STRICTEMENT NÉCESSAIRES JUSQU'À L'ARRIVÉE DU COS

- Si risque d'extension important (météo, débit, fuite ...) : mise en place barrages.
- Si risques d'extension faible : surveillance du risque d'extension,  
Utilisation des moyens hydrauliques (lance jet diffusé).
- Estimer la quantité / surface de la pollution

A l'arrivée du COS :

- Vérifier immédiatement avec le Codis la dangerosité de la pollution et la sécurisation du site

En concertation avec l'astreinte de l'infrastructure portuaire et le Département valorisation Domaniale et Développement durable (DV3D /AEDD- DEVEZE Magali -département environnement : rôle d'assistance à maîtrise d'ouvrage de la CAP) : voir pour la prise d'échantillon et les analyses ( voir aussi la liste d'experts chimistes).

DÉROULER INTÉGRALEMENT LA FICHE RÉFLEXE « ALERTE » ET NOTER LES HEURES

OBSERVATION DE LA MÉTÉO

ANALYSER LES RISQUES D'EXTENSION / LE PLAN D'EAU peut-il être impacté (déversement à la mer)

CONCERTATION AVEC LE TERMINAL POUR STOPPER LES OPÉRATIONS COMMERCIALES (si l'origine de la pollution provient de la manutention de la cargaison)

DISPONIBILITE DE :

Du CODIS ou des services GPMM pour mise en place de barrages, POLICE ou GENDARMERIE et PC SURETE pour la sécurité du terrain.

POLICE DES VOIES DE CIRCULATION (Sûreté si nécessaire)

Mise en place d'un périmètre de sécurité. Utiliser le PC Sûreté du GPMM

RASSEMBLER LE MAXIMUM D'INFORMATIONS POUR LE COS ET OFFICIER DE PERMANENCE

# MISE EN OEUVRE DU DGSP

L'alerte est transmise à la Capitainerie (Vigie) qui sera en charge de dérouler la fiche réflexe correspondante et diffuser l'alerte. L'officier de permanence assure la prise en charge des opérations pour la Capitainerie.

- Fait établir une évaluation de la situation par un officier de secteur (fiche d'aide au constat de pollution) afin de transmettre une information la plus précise possible de la situation
- Fait prendre les premières mesures pour stopper/éviter la propagation jusqu'à l'arrivée du COS
- Si risque d'extension important (météo, débit, fuite ...) : mise en place barrages.
- Si risques d'extension faible : surveillance du risque d'extension,
- Utilisation des moyens hydrauliques (lance jet diffusé).
- Estimer la quantité / surface de la pollution

## GRAND PORT MARITIME DE MARSEILLE DOSSIER GENERAL DE SECURITE PORTUAIRE

AIDE AU CONSTAT DE POLLUTION (ne remplir que ce qui est utile / possible)	
<b>OFFICIER REALISANT LE CONSTAT</b>	
PRENOM / NOM : .....	TEL : .....
DATE / HEURE ALERTE : ...	
DATE / HEURE CONSTAT : .....	
LIEU D'OBSERVATION DE L'OFFICIER : .....	
<b>CONSTAT SUR ZONE</b>	
NOM DU SITE :	
LOCALISATION (commune / plan d'eau) :	
CONDITION METEO : VENT :	T° C AIR : ... T° C EAU (0000000) :
ETAT DE MER : 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/>	
DIRECTION COURANT (courantomètre) : ..... NIVEAU EAU (marigraphie) : ...	
MAREE : FLOT ↗ <input type="checkbox"/> ETALE ↔ <input type="checkbox"/> JUSANT ↘ <input type="checkbox"/>	
<b>ZONE POLLUEE (Plusieurs cases possibles) :</b>	<b>FORME DU POLLUANT (Plusieurs cases possibles) :</b>
EAU x (préciser) :	IRISATION <input type="checkbox"/> PROJECTION <input type="checkbox"/>
PLAN D'EAU <input type="checkbox"/> ROUBINE <input type="checkbox"/> CANAL <input type="checkbox"/>	NAPPE <input type="checkbox"/> BOULETTES <input type="checkbox"/> DEBRIS <input type="checkbox"/>
NAVIRE <input type="checkbox"/> QUAI <input type="checkbox"/> ESPACE NATUREL <input type="checkbox"/>	MOUSSE <input type="checkbox"/> POUSSIERE MINERAI <input type="checkbox"/>
AUTRE <input type="checkbox"/> (préciser) : .....	ECOULEMENT / FUITE <input type="checkbox"/>
SOL <input type="checkbox"/> (préciser) :	AUTRE (préciser) <input type="checkbox"/> .....
NATUREL <input type="checkbox"/> BATI <input type="checkbox"/> PONT NAVIRE <input type="checkbox"/>	
GATTE <input type="checkbox"/>	
AUTRE (préciser) <input type="checkbox"/> .....	
AIR <input type="checkbox"/> (préciser) :	<b>OBSERVATIONS :</b>
GAZ <input type="checkbox"/> PARTICULES <input type="checkbox"/> VAPEUR <input type="checkbox"/>	ODEUR : .....
FUMÉES <input type="checkbox"/>	COULEUR : .....
AUTRE (préciser) <input type="checkbox"/> .....	RESSENTI PHYSIQUE : .....
	ÉTENDUE ESTIMÉE (en m2) :
	ANIMAUX MORTS (préciser) : .....
	AUTRE (préciser) : .....
<b>NATURE DU POLLUANT (Plusieurs cases possibles) :</b>	
HYDROCARBURE <input type="checkbox"/> EAUX USEES <input type="checkbox"/> AUTRE (préciser) <input type="checkbox"/> .....	
INDETERMINE (décrire) <input type="checkbox"/> .....	
<b>IDENTIFICATION DU POLLUEUR</b>	
NAVIRE : .....	TERMINAL : .....
BAC : .....	PIPELINE : .....
SOUTAGE : .....	VEHICULE : .....
AUTRE (préciser) : .....	NON IDENTIFIEE :
<b>POI DÉCLENCHÉ (si existant) : OUI <input type="checkbox"/> NON <input type="checkbox"/></b>	

# MISE EN OEUVRE DU DGSP

**D G S P**  
DOSSIER GÉNÉRAL DE SÉCURITÉ PORTUAIRE



**D G S P**  
DOSSIER GÉNÉRAL DE SÉCURITÉ PORTUAIRE



FICHES RÉFLEXE **ALERTE** BASSIN OUEST

## ALERTE POLLUTION

Menaçant ou venant de : un navire, le plan d'eau portuaire, le plan d'eau fluvial, les terrains du GPMM, les communes avoisinantes

Coordonnées vérifiées le 21/11/2023

CONTACT	TÉLÉPHONE	FAX
COSSIM (si plan d'eau impacté) ou si problème	04.91.19.48.20 // <a href="mailto:cossim_cpe@bpmmp.gouv.fr">cossim_cpe@bpmmp.gouv.fr</a>	
CODIS 13 (pas pour les pollutions par navires)	04.91.28.47.18 // <a href="mailto:codis@codis13.fr">codis@codis13.fr</a>	04.91.28.47.08
NAVIRES A PROXIMITÉ		
OFFICIER INTERVENTION CONCERNÉS		
OFFICIER DE PERMANENCE	06.86.36.68.39 ou 92.81	
CHEF DE DPT SNO	04.91.39.43.42 // 06.82.22.99.00	
CHEF DE DPT SMEN	04.42.40.60.36 // 06.71.19.72.32	
*COMMANDANT DU PORT	97.52 ou 06.85.68.67.96 04.91.39.41.40	
Bureau port	04.91.39.44.44	
PC SÛRETÉ GPMM		
C.O.R.G (GENDARMERIE) / P.S.M.P	04.22.43.71.65 / 06.07.10.32.23 psmp.port-de-bouc@gendarmerie.defense.gouv.fr	04.86.17.60.14
PILOTAGE	06.51.41.90.69 / fos.pilot@pilotagemarseille.fr	04.42.40.15.95
REMORQUAGE	Thibault Soubrier / 06.30.09.68.52 / thibault.soubrier@boluda.fr Eric Zigler / 06.73.46.56.56 /eric.zigler@boluda.fr	04.42.40.05.05
LAMANAGE	Port de Bouc Fos 04.42.05.07.83 06.73.46.56.56	04.42.05.10.53
N° des 5 manutentionnaires (GÉDICOM)	04.65.18.01.14	
PRÉFECTURE DES BDR	04.84.35.44.00	04.84.35.44.40
(Sur ordre Cdt ou son représentant)		
*SOUS-PRÉFECTURE Istres	04.42.86.57.00 (heures ouvrables) –en dehors	04.84.35.44.40
Sous-préfet R. PASSERIEUX	07.88.83.13.53 / regis.passerieux@bouches-du-rhone.gouv.fr	
(En heures ouvrables ou bien faire le 17)		
MAIRIES CONCERNÉES		
Martigues	04.42.44.33.33 ou 04.42.44.33.40 (Poste sécurité 24h/24)	
Châteauneuf-les-Martigues	04.42.78.89.00 / (élu de garde : 06.77.87.87.37)	
Berre l'Étang	04.42.74.93.00	
Saint-Chamas	04.90.44.52.00 / 06.16.29.75.39 (Astreinte Nuit et week-end)	
Istres	06.23.55.34.16 (Directeur police Municipale)	
06.43.38.24.76 (Responsable sécurité civile)		
Marignane	07.58.62.02.55 (police Municipale)	
Port-de-Bouc	04.42.40.04.04 (astreinte tech :06.77.12.67.25)	
Fos	04.42.47.71.29	
*DIRECTEUR DE PERMANENCE	Voir feuille de service (week-end seulement)	
		04.91.28.42.29
CROSS MED La Garde	04.94.61.16.16 // <a href="mailto:lagarde@mrocrf.eu">lagarde@mrocrf.eu</a>	
Dossier de police portuaire (voir annexe)		

SELON L'IMPORTANCE DU SINISTRÉ, APPLIQUER LA NOTE DE SERVICE BE/BO GESTION DE CRISE EN L'ABSENCE DU CDT DE PORT PAR LE CAPITAINE DE 1ERE CLASSE ASSURANT L'INTERIM OU A DEFAUT L'OFFICIER DE PERMANENCE (ROLE DE L'OFFICIER DE PERMANENCE)

DIFFUSER VHF 16 ET 12 SI NÉCESSAIRE

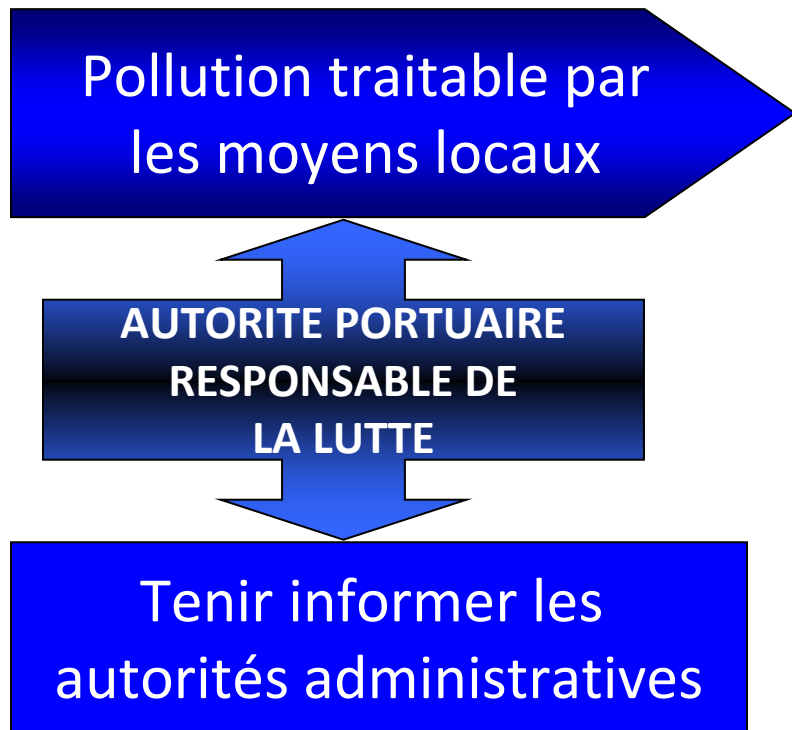
FICHES RÉFLEXE **ALERTE** BASSIN OUEST

## ALERTE POLLUTION

Menaçant ou venant de : d'un navire, le plan d'eau portuaire, le plan d'eau fluvial , les terrains du GPMM, les communes avoisinantes

CONTACT	TÉLÉPHONE	FAX
* DREAL		04.42.13.01.29
Astreinte risque DREAL PACA Mission défense	06.26.57.83.19 <a href="mailto:Msd.dreal-paca@developpement-durable.gouv.fr">Msd.dreal-paca@developpement-durable.gouv.fr</a> 04.42.13.01.10 répond rarement 06.30.03.75.76	
Martigues		04.88.22.61.34
Jean-Philippe PELOUX responsable équipe risque		
INFRASTRUCTURES PORTUAIRES BASSINS OUEST	Pollution : 1- Jérémy CLEMENT : 9129 2- LUCIANI Amandine : 9278 / 9383	
Rôle d'assistance à maîtrise d'ouvrage de la CAP)		
AGENT CONSIGNATAIRE		
*CEDRE (si pollution marine)	02.98.33.10.10 Sur ordre Commandant	
VOIES FERREES GPMM - ASTREINTEGPMM	06.18.45.37.90 06.09.06.19.14	
Dirigeant GDIPM		
PONT DE MARTIGUES (si nécessaire)	04.42.40.60.65 // 06.13.64.10.72 ou 93.78	04.42.47.33.27
Pour pollution navire : // PERMANENCE		04.91.60.14.41
*CSN Marseille (voir message type en annexe)	07.77.73.32.63 <a href="mailto:CSN-Marseille@developpement-durable.gouv.fr">CSN-Marseille@developpement-durable.gouv.fr</a>	
Navire français	<a href="mailto:csn.martigues@developpement-durable.gouv.fr">csn.martigues@developpement-durable.gouv.fr</a> <a href="mailto:psc-marseille@developpement-durable.gouv.fr">psc-marseille@developpement-durable.gouv.fr</a>	
Navire étranger	06.13.66.36.50	
CSN Martigues (voir message type en annexe)		
Astreinte Martigues	06.13.66.36.50	
*CEDRE (si pollution marine importante)	02.98.33.10.10 (sur ordre Cdt ou son représentant)	
*AUTRES NUMEROS UTILES	FLUXEL Fos FLUXEL Lavéra LDLL Fos LDLL Berre Péto service (Permanent maritime LDLL) DPF KEMONE Salle de contrôle Tonkin/ Meth Salle de contrôle Cavaou/ GNL2	
	04.42.40.64.22 04.42.48.69.22 04.42.47.55.99 04.88.88.20.01 / 04.42.74.39.57 04.42.74.51.57 04.42.47.65.18 04.42.47.55.99 04.42.47.78.62 04.42.05.74.00	
N°5 Manutentionnaires (GÉDICOM)	04.65.18.01.14	
EUROFOS / GEMFOS / NICOLAS FRERES / SEAYARD / TEA		
<b>N.B : CAVAUO a une prise d'eau en darse Sud pour le refroidissement/réchauffage de ses installation donc une pollution qui viendrait à pénétrer dans leurs circuits)</b>		
POLLUTION DANS DARSE SUD GNL2 FOS CAVAUO / Salle de Contrôle	04.42.05.74.00	
Chef de Quart	04.42.05.73.60	
Cadre d'astreinte	09.70.83.01.95	

Dossier de police portuaire (voir annexe)



- moyens faisant l'objet d'une convention
- moyens entreprises privées (protocole d'aide mutuelle)
- moyens extérieurs :
  - codis
  - sécurité civile
  - marine nationale
  - stock polmar : avec ou sans activation Plan

# REPERTORIER LES MOYENS – ORGANISER LA LUTTE

Dans le cadre de la procédure Infrapolmar issue du dispositif ORSEC, le GPMM intègre la mission de Direction des Opérations de lutte antipollution.

Afin d'optimiser ses procédures, un état des lieux des ressources matérielles disponibles ainsi que des recueils de fiches d'intervention existantes sur les zones Fos sur Mer et Lavera a été réalisé.

Ces études ont conduit à un référentiel composé des fiches techniques sur les matériels disponibles sur site (ou recommandés) ainsi que des procédures d'intervention en fonction des différents problèmes rencontrés. sur la base de cas types et de tactiques d'interventions.



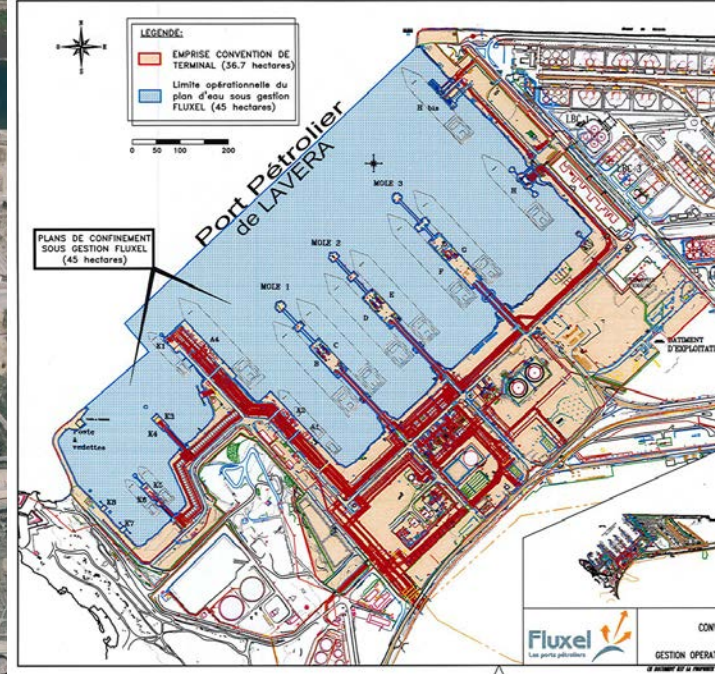
**Marseille Fos**  
Le port euroméditerranéen

**MANUEL DES RESSOURCES TECHNIQUES  
& PLAN D'INTERVENTION ANTIPOLLUTION**

Grand Port Maritime de Marseille  
12 Janvier 2021



# REPERTORIER LES MOYENS – ORGANISER LA LUTTE

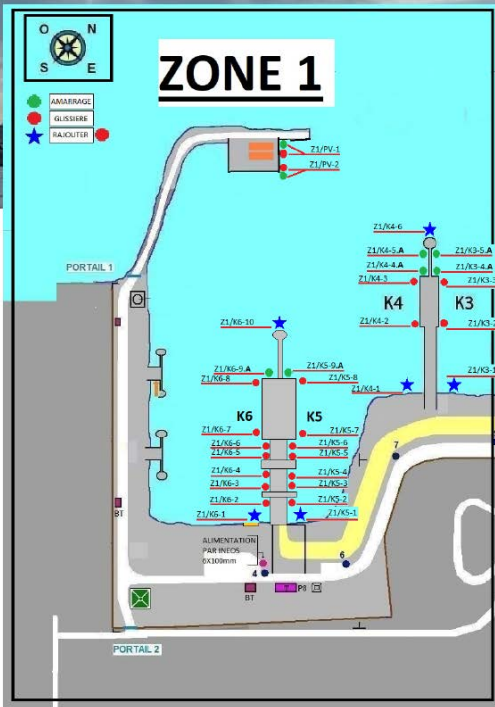
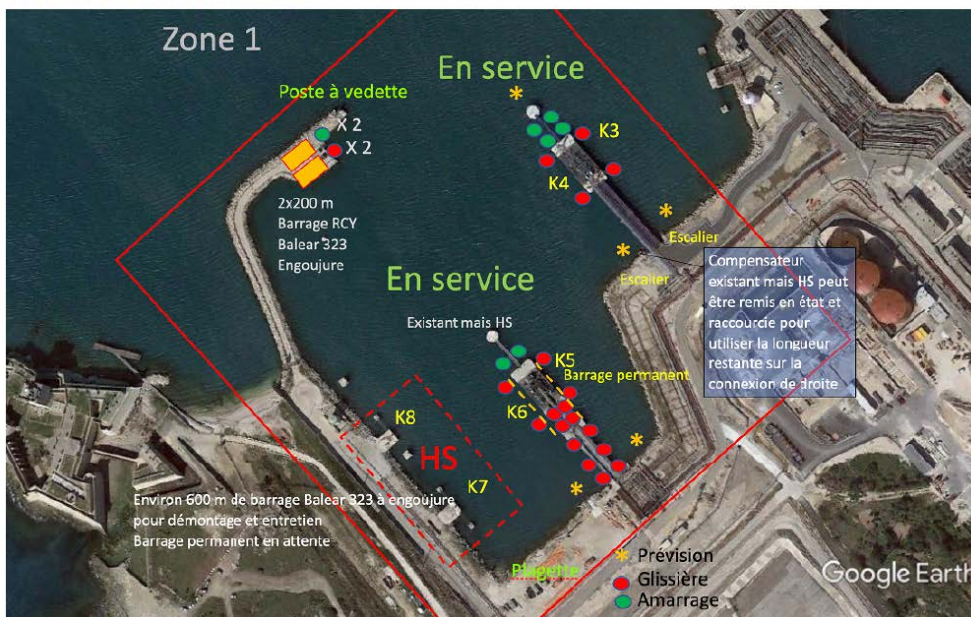


# REPERTORIER LES MOYENS – ORGANISER LA LUTTE

## LAVERA / PLAN ZONE 1



## LAVERA / PLAN ZONE 1



**Vents dominants**  
 Nord  
 Nord Ouest  
 Ouest Nord Ouest  
 Sud Sud Est  
 Sud Est



# REPERTORIER LES MOYENS – ORGANISER LA LUTTE

## LAVERA / ZONE 1 (Suite)



Z1 / PV-1 PV-2

**Z1 / PV-1 & PV-2 Poste à Vedette**  
2x200 m barrage RCY  
Balear 323 / Engoujure



Z1 / K6 K7

**Z1 / K6 K7 La Plagette**  
Sert de stockage aux barrages en entretien ou à déclasser.  
Actuellement environ 600 m de barrage Balear au sol et x longueurs de barrage permanent en attente de mise en place.

Le sol en terre battue doit être bétonné et équipé de récupération en partie pour éviter de polluer le sol lors des sorties de barrages du plan d'eau.



Z1 / K6 K7



Aire de mise à l'eau et de retrait des barrages



Z1 / K6 K7  
Barrages permanent en attente ASTM

## LAVERA / ZONE 1 (Suite)

### Z1 / K6-1

Rail / compensateur trop haut (et tordu) pour mettre en place un barrage dans la glissière, doit être raccourci et redressé.  
La partie coupée peut être récupérée et utilisée pour la fabrication d'une glissière à placer de l'autre coté du ponton (Z1/K5-1)



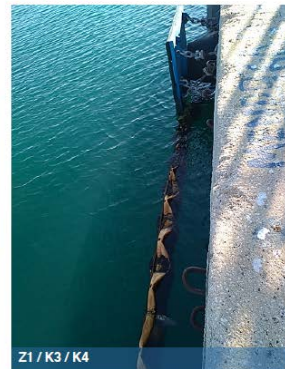
Z1 / K6-1



Z1 / K6-1

### K3 / K4

Les barrages permanents à poste sont chargés de concrétions: ils coulent sous leurs poids.  
(balear 323 ou permanent) remplacés par du permanent RCY



Z1 / K3 / K4



Z1 / K3 / K4

# ORGANISER LA LUTTE



## PLAN D'INTERVENTION ANTIPOLLUTION INFRAPOLMAR TERMINAL PÉTROLIER DE LAVERA

Grand Port Maritime de Marseille  
Mars 2021



## PLAN D'INTERVENTION ANTIPOLLUTION INFRAPOLMAR TERMINAL PÉTROLIER DE FOS

Grand Port Maritime de Marseille  
Mars 2021

# ORGANISER LA LUTTE

## LAVERA / ZONE 3 / POLLUTION EN M2-E

Scénario 6A 6B  
Vent Nord

Scénario 7A 7B  
Vent Nord Ouest

Scénario 8A 8B  
Vent Ouest Nord Ouest

Scénario 9A 9B  
Vent du Sud Sud Est

Scénario 10A 10B  
Vent du Sud Est



ZONE 3 > M2-E > SCÉNARIO 9A > VENT DE SUD SUD EST

POLLUTION EN M2-E > DÉVERSEMENT DE PRODUIT OPÉRATIONS COMMERCIALES

### PHASE 1

Matériel:

- 1 2 flexibelt entre le quai et le navire
- 2 120 m (20x6 m) de barrage absorbant à jupe lestée  
Connexion en Z3/M2E-5 et au navire par ancre magnétique  
1 Embarcation légère

Personnel:

2 personnes équipe d'intervention  
Fluxel

### PHASE 2



# ORGANISER LA LUTTE

## LAVERA / ZONE 3 / POLLUTION EN M2-E

Scénario 6A 6B  
Vent Nord

Scénario 7A 7B  
Vent Nord Ouest

Scénario 8A 8B  
Vent Ouest Nord Ouest

Scénario 9A 9B  
Vent du Sud Sud Est

Scénario 10A 10B  
Vent du Sud Est



ZONE 3 > M2-E > SCÉNARIO 9A > VENT DE SUD SUD EST

POLLUTION EN M2-E > DÉVERSEMENT DE PRODUIT OPÉRATIONS COMMERCIALES

### PHASE 1

### PHASE 2

#### Matériel:

② - 150m de barrage RCY Goeland 300

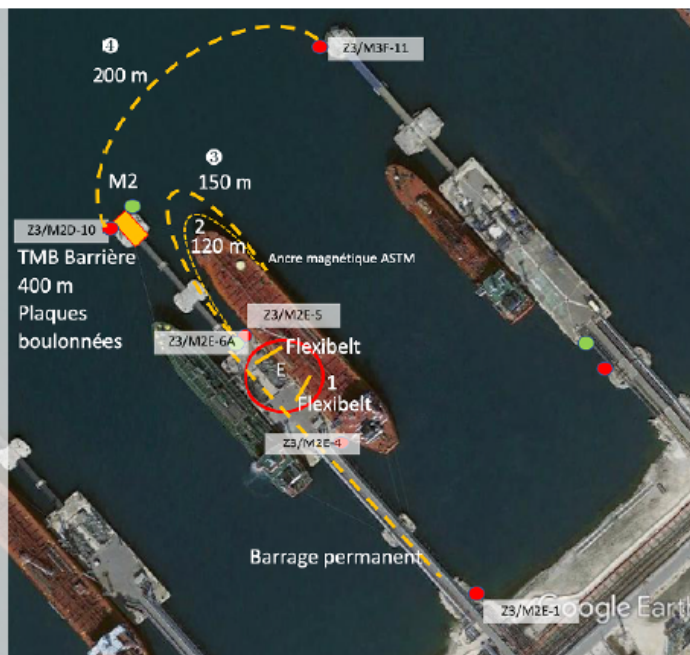
Connexion en Z3/M2E-5 et au navire par ancre magnétique ASTM

① - 200 m de barrage balear 323  
Connexion en Z3/M2D-10 et en Z3/M3F-11

1 Embarcation du lamanage + BMPM

#### Personnel:

2 personnes équipe d'intervention  
Fluxel + lamanage

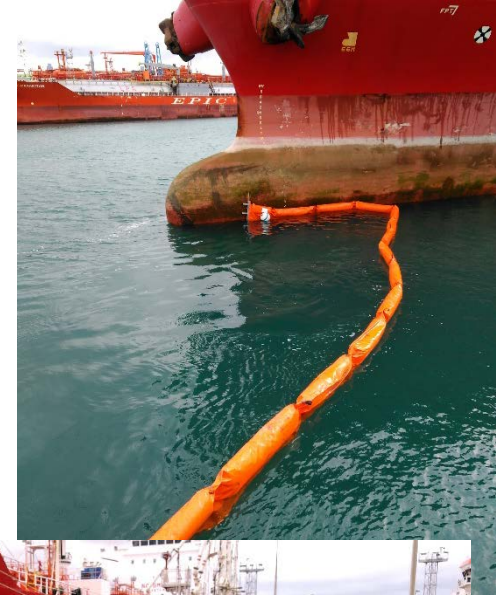


# EXERCICE DE MISE EN ŒUVRE DU PLAN

Un exercice a été organisé en 2022 afin de valider les fiches réalisées pour la mise en application de l'infrapolmar.

Cet exercice a été réalisé avec une mise en place de matériel par les équipes prévues dans ces fiches

*CR vigie déclenchement exercice pollution à LAVERA MTO SE 10nds  
09H35 appel poste de garde lavéra, bras de chargement endommagé sur l'AUTUMN, déversement dans le bac et sur le plan d'eau de graisse animale poste E  
09h36 COSSIM prévenu  
09h39 off permanence prévenu  
09h40 à 09h55 numéros fiche reflexe appelés  
09h45 off intervention sur place, barrage en place par fluxel, pollution du plan d'eau sur environ 100 m2  
10h20 mise en place barrage par lamaneurs - Pompage demandé  
11h15 ronde plan d'eau par marin pompier « Mlot Piery »  
11h20 fin d'exercice  
11h35 barrage démonté et remorqué au K6*



# EXERCICE DE MISE EN ŒUVRE DU PLAN

Retex exercice infrapolmar :

Le PC armé est au bâtiment administratif Fluxel à Lavera.

Dans le cadre de cet exercice, POI, puis Infrapolmar les deux moyens de secours sont déclenchés SDIS puis BMPM

Il ne peut y avoir qu'un un seul COS, qui sera défini par le plus gros risque : COSSIM si grande pollution sur le plan d'eau ou CODIS si impact terrestre

Questions sur le formalisme du déclenchement d'un plan Infrapolmar et besoin de précisions sur la prise en charge si origine non identifiée sur le site (conventions)

Sensibilisation au passage des navires à proximité des barrages pour le remorquage et le pilotage

Mise en place de nouveaux types de barrages qui ne se déplacent pas sous les quais lors des manœuvres

Rappel de l'importance du suivi du flux (courants vents) au fur et à mesure du temps pour adapter la lutte.

Mention des différents outils : météo , courantomètre, hauteur d'eau



**Message d'information sur accident / incident - Fiche G/P**

1 Nom et localisation de l'installation : **FLUXEL, Lavera** Révision de la fiche : 0/3  
2 Date et heure de l'événement : 28/12/2022 11:05 Date découverte : 28/12/2022 11:05 Commune : **Marignac**  
3 Classement de l'accident/incident : 0 / 7 / P2 Indice d'exploitation :  A  B  C

TRANSMISSION DE LA TACHE G/P :  Fax  Mail

4 Destinataires :  Police Nationale (Sign. d'urgence PNI 2)  Maire de Marignac et Poir  DÉPT 31  ALCOON  REMONE  
 URACEDOC  Préfet Municipal de Marignac  Intendance de Marignac  CS/CT  7800  RETROCOSS  
 COSSIM  Préfet Maritime de Marignac  SOUS-PRÉFET  GEOSTOCK  SUDP  GEF PER  
 CODIS 13  Commandement Maritime de Lavera  GEORGAS  SURVE  LYONDELL  BASELL Bore  
 Capitaine du Port de Lavera  SUREAL PACA  SINA  PRIMASAT  ASPHACTEX  
 SINAPTACHME

5 Centre opérationnel de Lavera  
6 Plan d'urgence en vigueur :  P.O.I  P.S.I  P.S.I.P  P.C.A  GESTION NOIRS  INSTALLATION CONCERNÉE : **LAVERA**  
7 Heure déclenchement : 10:05 N° scenario : A RENSEIGNER

ÉVÉNEMENT  
8 • RACLES :  Racle  SEVESO  Explosive  
9 • GRAVITE ANIMALE :  CAS A RENSEIGNER  CAS B  CAS C  10 % de seuil SEVESO  
Quantité (en tonnes) : A RENSEIGNER

10 DÉTAILS, DESCRIPTION DE L'ÉVÉNEMENT  
 Explosion  Fuite  Incendie  
11 ARRACHEMENT DE BRAS/PORTE E  
INTERVENTION EN COURS

12 PREMIÈRES MESURES PRISES  
13 Risques immédiats à l'événement :  Explosion  Pollution  Toxicité  Tauxique  
FERRURE DE CIRCUIT

14 Personnes présentes sur site :  Evacuation  Confinement Nb de personnes concernées : A RENSEIGNER

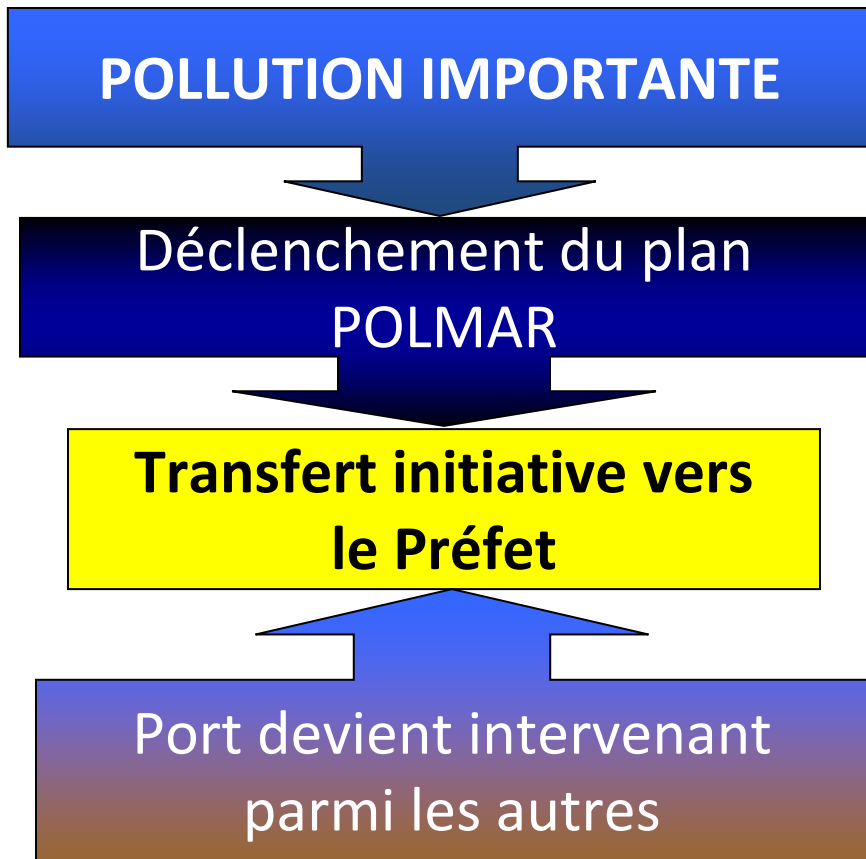
ÉTAT ACTUEL DE LA SITUATION  
15 FIN D'INTERVENTION  
RETOUR A LA NORMALE  
FIN D'EXERCICE POI FLUXEL LAVERA

CONSEQUENCES  
16 Humaines :  Non  Oui  En cours d'évaluation  
Environnementales :  Non  Mine(s) polluée(s) :  Eau  Pluie/Eau  Atmosphère  
 Surface (jusq. 200M)  Atmosphère  
\*voir Indica (N) : A RENSEIGNER

© Document d'information technique strictement réservé aux destinataires Page 1 sur 2





# DGSP - Pollution du domaine portuaire





**MERCI POUR  
VOTRE ATTENTION**




**tm**  
Transport Malta

**Preparedness and  
Response to  
Marine Pollution  
in Ports**


IRA-MAR Closing Event  
Port of Marseille  
24 January 2024

Mevric Zammit  
Head, Marine Operations and Incident Response

## Outline



- Ports and Shipping in Malta
- Risks and Challenges
- Lessons Learnt from past incidents
- Legislative Framework
- Tier 1 Response – Operators
- Tier 2 Response – Ports
- Contractors



## The importance of Ports and Shipping in Malta

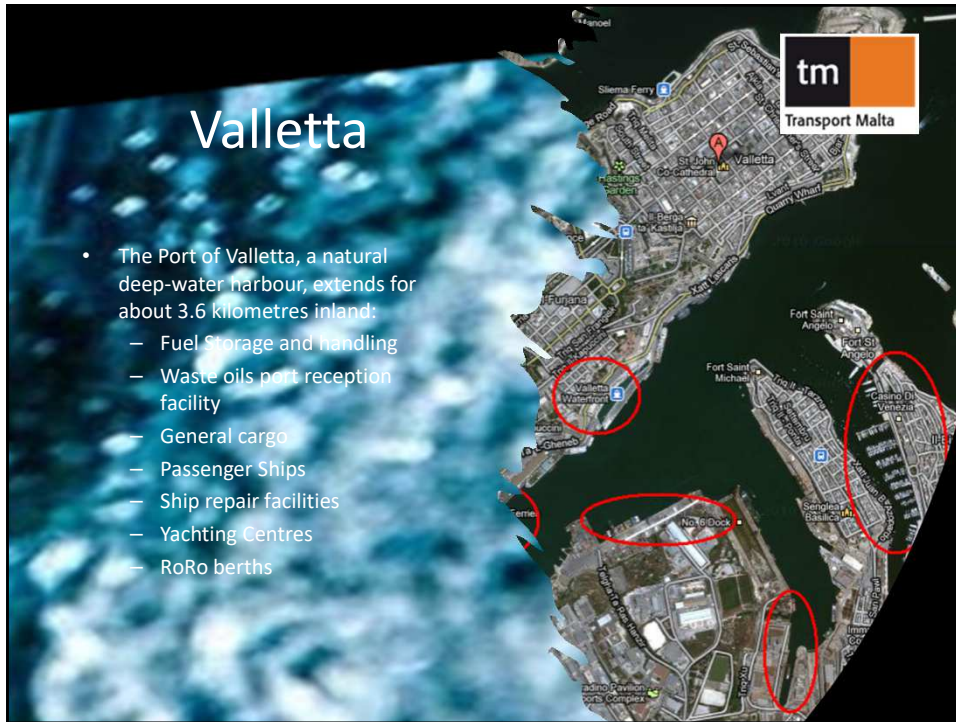


- Shipping and port operations are essential nodes of the transport chain.
- As an island state, our ports are vital for our connectivity with the rest of the world for the importation of commodities, consumer goods and also the importation of fuels used for land transportation, aviation and other industry uses.



### Port of Valletta







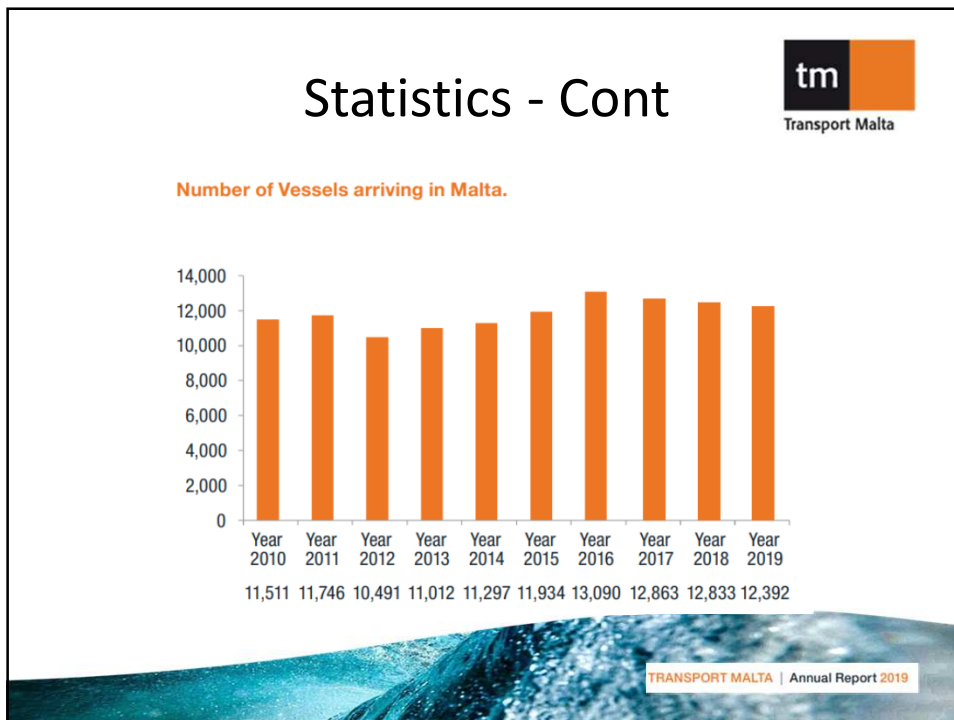
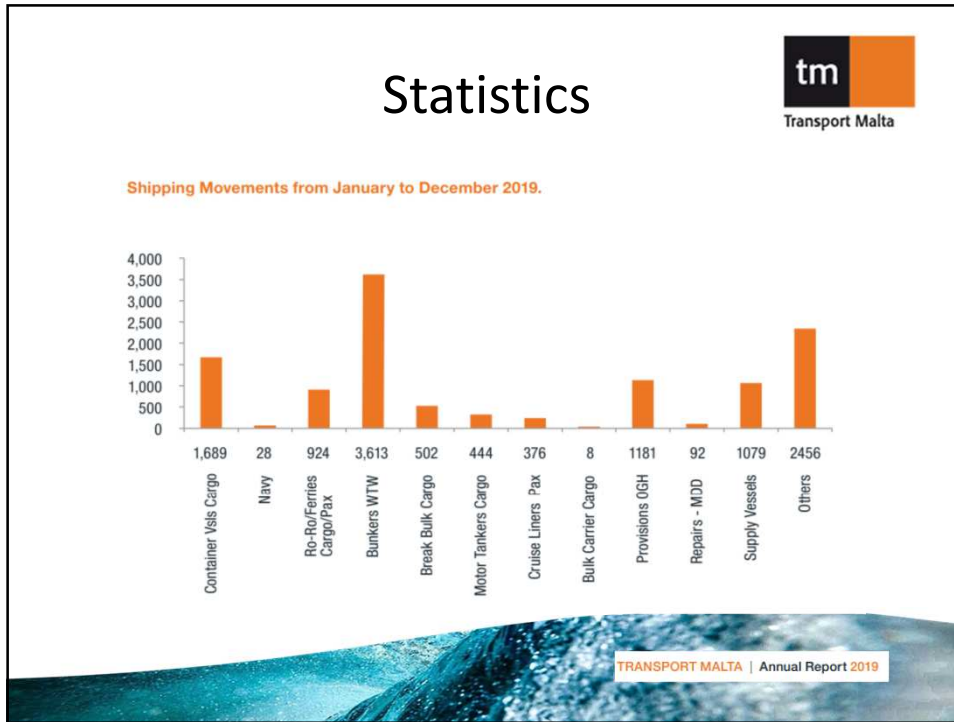
## Marsaxlokk

- The port of Mxlokk lies in the E'ly coast between Delimara and Benghajsa:
  - Fishing port
  - Container Handling Terminal
  - Oil Storage and Transfer
  - Power Station
  - Oil and Gas Logistics base

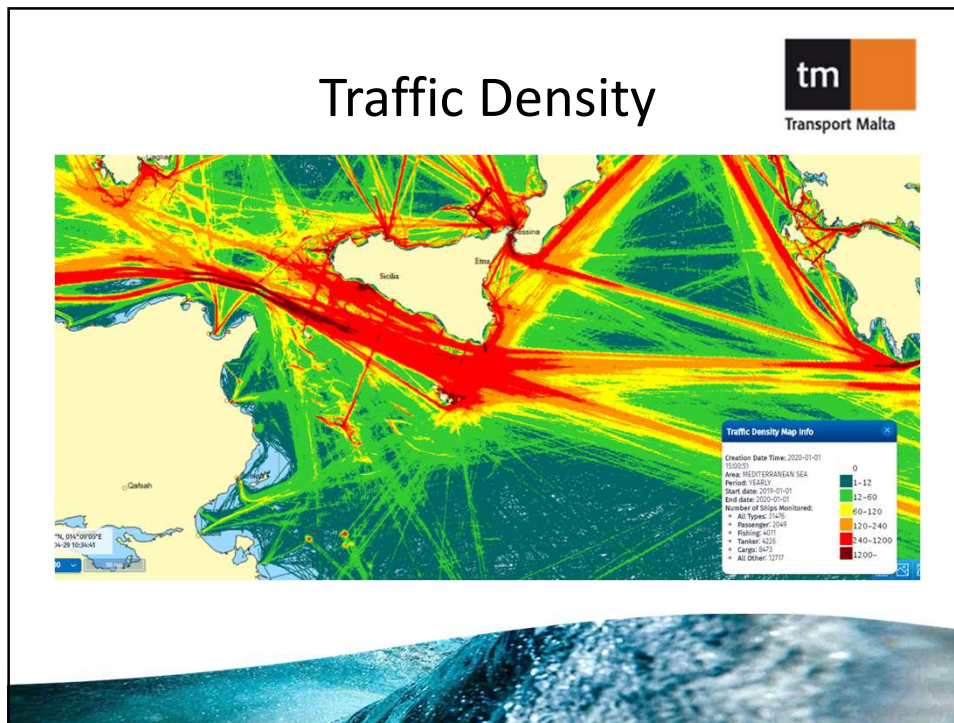


## Additional services – outside ports

- Being strategically located in the centre of the Med between major shipping lanes, Malta offers value added services to the maritime industry:
  - Bunkering
  - Crew changes
  - Supplies
  - Surveying








**tm**  
Transport Malta


### Environmental Risks and Challenges

- The large number of maritime activities within our ports and territorial waters are vital for our economy as the maritime sector contributes to 14% of the country's GDP.
- However, this also brings a number of environmental challenges and risks.
- Risks have to be identified and mitigated.


## How do we manage and mitigate risks?



- Prevention of Pollution
- Control of Pollution
  - Preparedness
  - Response



Responsibility lies within Ports and Territorial Waters



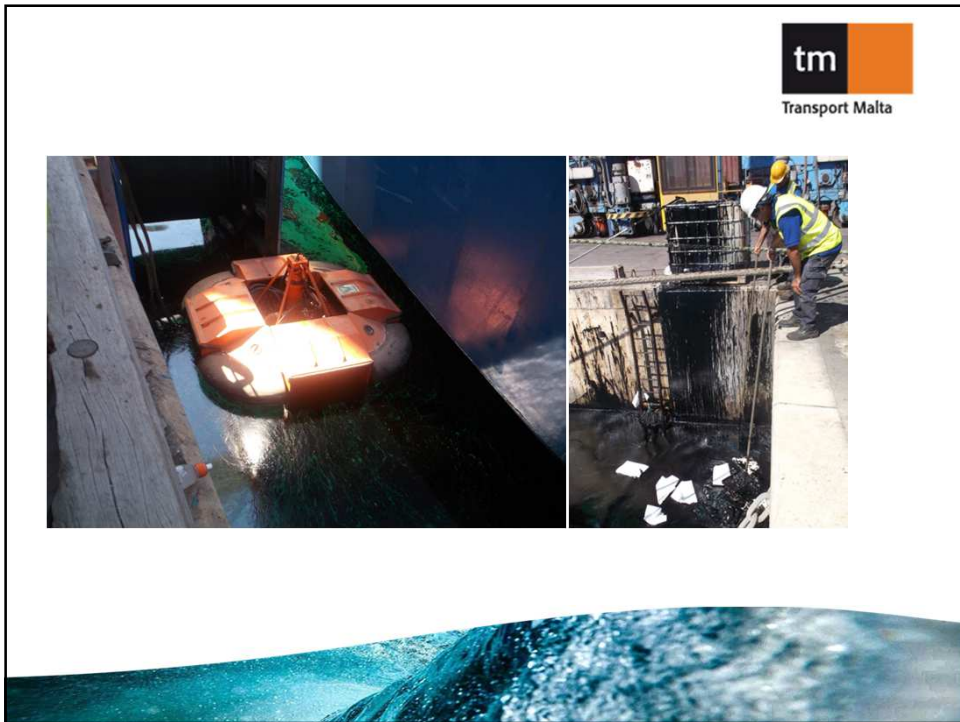
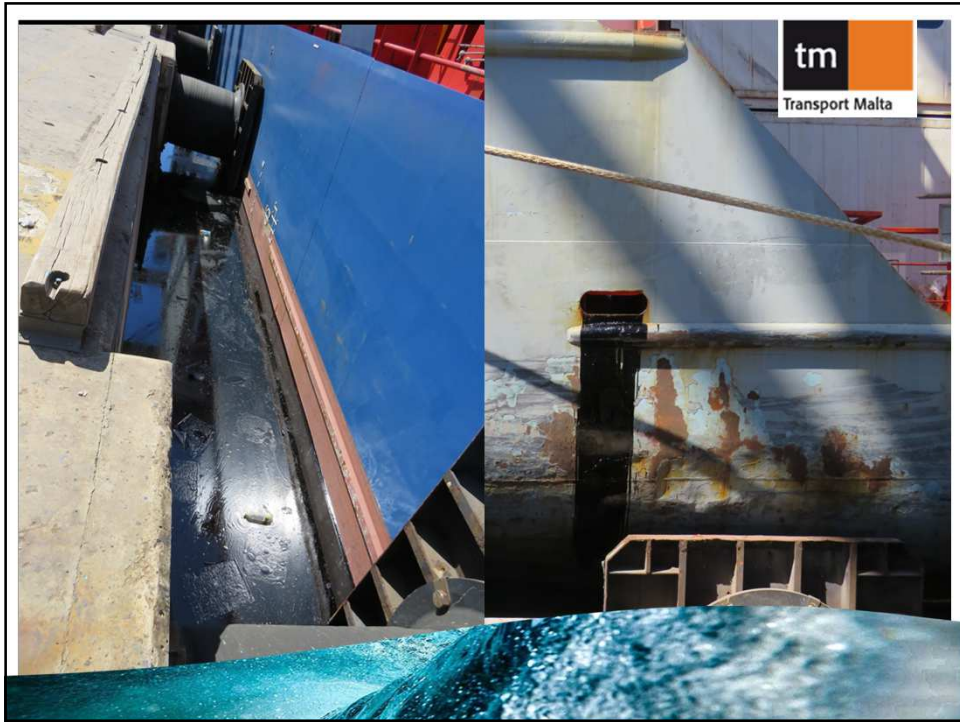
## Background



- July 2017 – Port of Marsaxlokk
- MV LEONIE P – 977 TEU Container vessel
- HFO 380 Spill during bunkering
- Five vessels contaminated
- Cleanup lasted two weeks
- Terminal heavily impacted
- Major delays due to unavailability of berths







## Legislative Framework

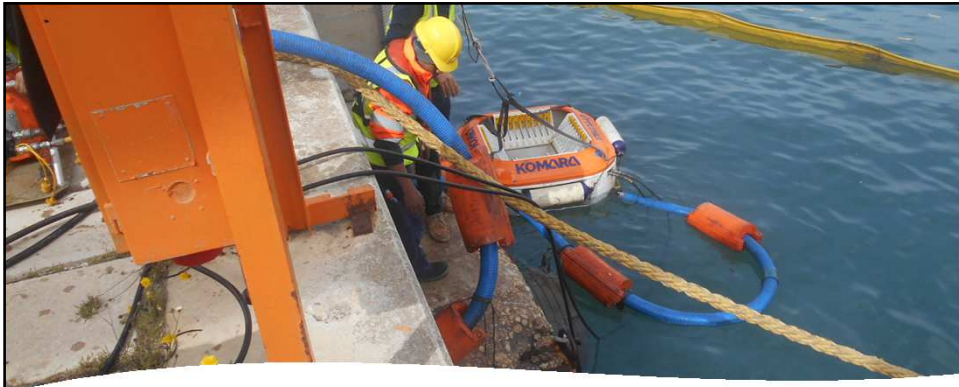
- Based on the OPRC Convention
- Applicable to all Ports and all Operators - Terminals, Facilities and Yachting Centres



## Preparedness and Response

- **Tiered Approach**
  - **Tier 1 spills** are operational in nature, occurring at or near an operator's own facilities, as a consequence of its own activities. The individual operator is expected to respond using its own resources.
  - **Tier 2 spills** are most likely to extend outside the remit of the Tier 1 response area, and are potentially larger in size, where additional resources are required from a variety of potential sources and a broader range of stakeholders may be involved in the response.
  - **Tier 3 spills** are those that, due to their scale and likelihood to cause major impact, require substantial further resources from a range of national and international sources that can be mobilized by the activation of the National Contingency Plans.





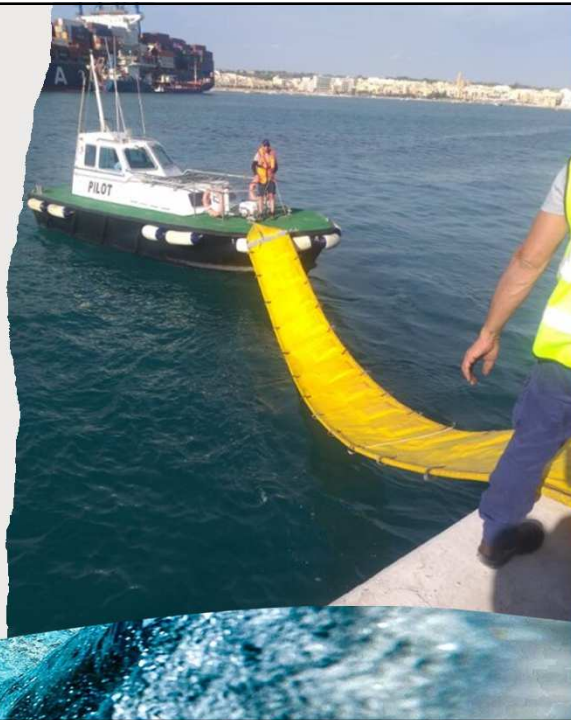
## Tier 1

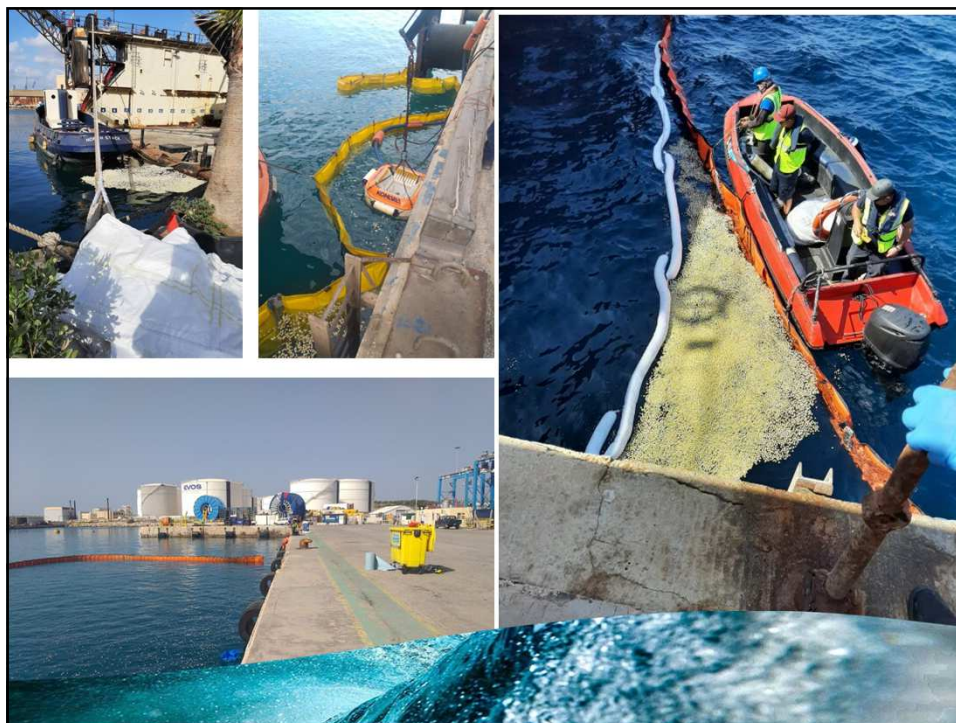
- Private Terminals and Facilities
- Authority managed terminals and facilities
- Yachting Centres



## Obligations of the Operators

- Conduct Risk Assessments
- Develop Emergency Response Plans
- Train personnel up to IMO OPRC Standards
- Conduct exercises and drills on an annual basis





## Tier 2 – Ports

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- Valletta
- Marsaxlokk
- Other Ports as defined by local legislation

## Obligations of the Port Authority

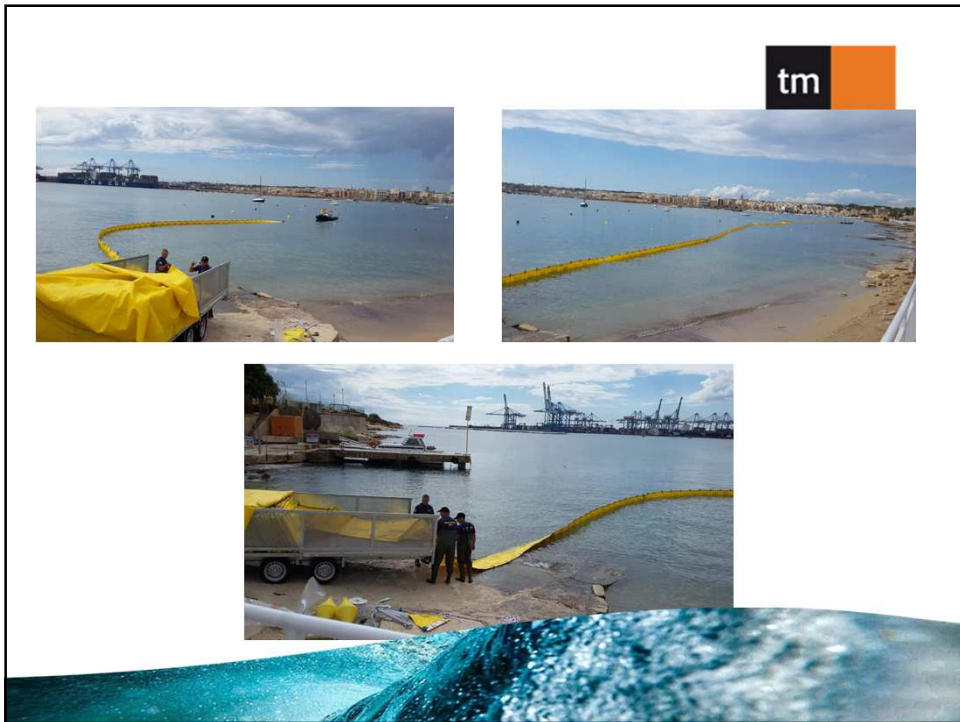
- Conduct RA at regular intervals
- Develop and maintain Emergency Response Plans and Contingency Plans
- Train personnel
- Procure oil spill response equipment
- Organise drills and exercises annually in conjunction with an operator.



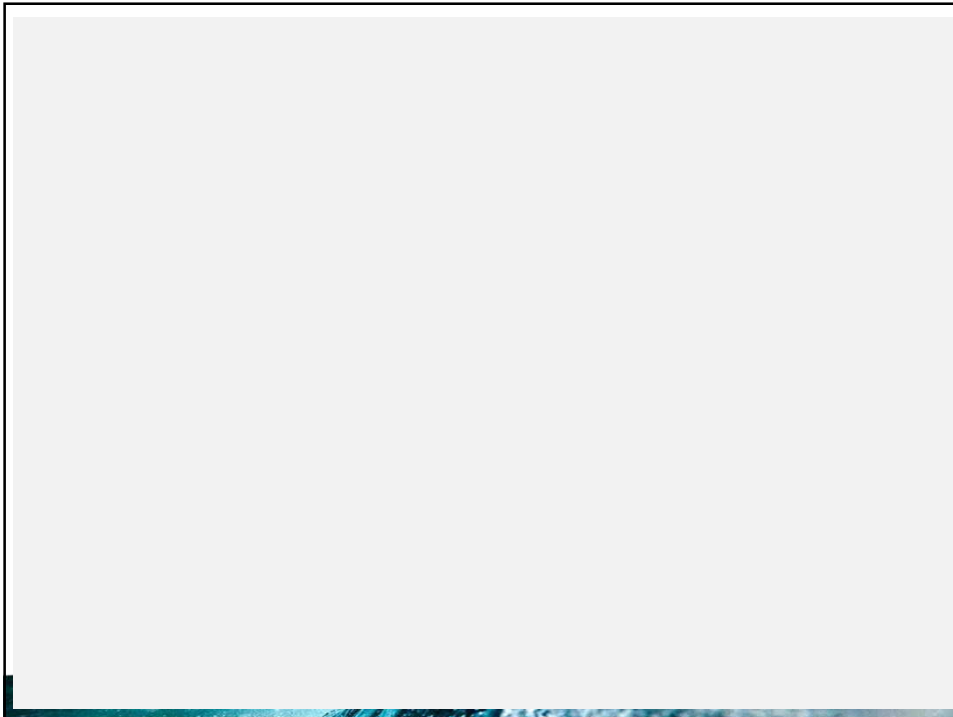
## Preparedness – Port Authority owned equipment



# Port Exercises







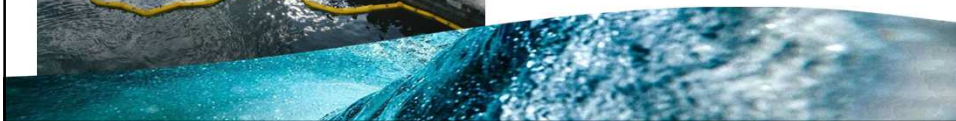
## Training



- International obligation and is developed by the International Maritime Organisation.
- National training was organised in 2017 and 125 participants from Government entities and NGO received training.
- Refresher training every 3 years.



## Training - cont



## Oil Spill Response Contractors




- Minimum number of equipment and personnel on standby
- Compulsory training of personnel
- Exercises
- Authorisation obtained from the Authority



## Annual Audits

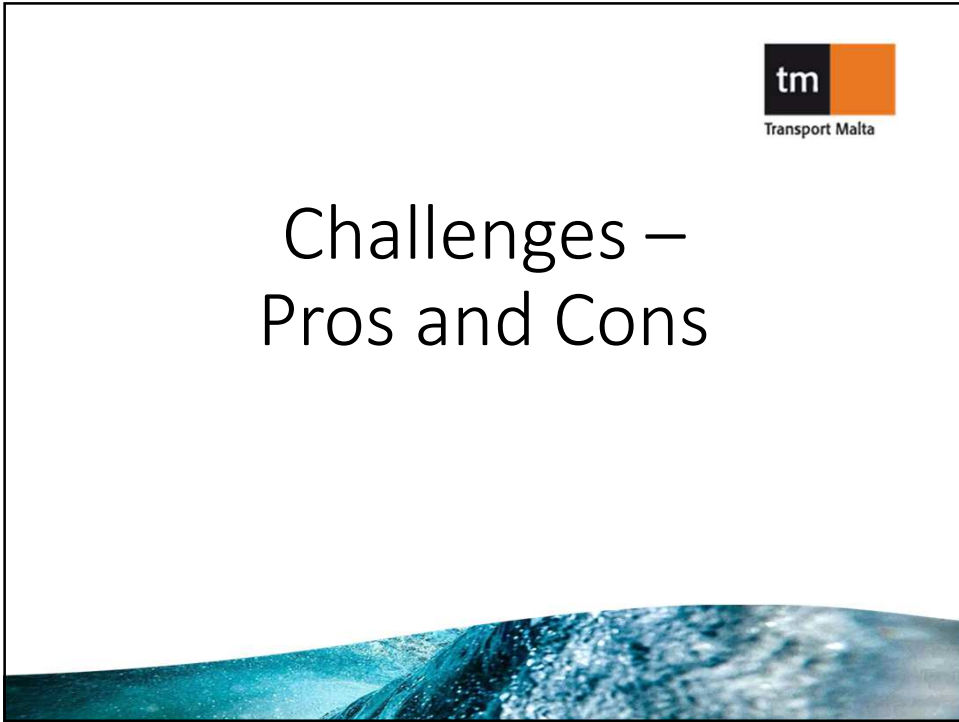


- Interested contractors apply for an authorisation on an annual basis
- Subject to an audit
  - Number of equipment and personnel
  - Training
  - Vessels
  - Maintenance
  - Lead time to respond to incidents
- Continuous monitoring





# Challenges – Pros and Cons



**Thank you**



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